FACULTAD DE FORMACIÓN DEL PROFESORADO Y EDUCACIÓN

Universidad de Oviedo

PROGRAMA DE DOCTORADO EN EDUCACIÓN Y PSICOLOGÍA

The use of Flipped learning and WebQuests to improve language competence in English and decrease language learning anxiety in the COVID-19 pandemic

El uso del aprendizaje invertido (flipped learning) y WebQuests para mejorar la competencia lingüística en inglés y disminuir la ansiedad del aprendizaje de idiomas en la pandemia del COVID-19

PhD Dissertation

Shaimaa Mahmoud Ahmed Abdelghafar

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Línea de Investigación: "Diseño, desarrollo e innovación del currículum"

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RESUMEN (en español)

La pretende tesis doctoral tiene como objetivo contribuir al campo de la didáctica de las lenguas y la educación en general al aportar evidencias empíricas sobre la efectividad de las WebQuests como recurso didáctico en el aula de idiomas.

La tesis explora la interrelación entre las Tecnologías de la Información y la Comunicación (TICs), la educación lingüística, la pedagogía y los factores afectivos. El objetivo principal de la investigación es mejorar el proceso de aprendizaje y enseñanza de lenguas mediante el análisis del impacto del aprendizaje invertido (*flipped classroom*) y las WebQuests en la reducción de la ansiedad por el idioma extranjero en estudiantes de inglés como lengua extranjera (ILE).

La educación en línea ha dejado de ser una alternativa poco utilizada para convertirse en una modalidad habitual en la enseñanza, con enfoques mixtos ganando impulso desde el inicio de la pandemia de COVID-19. La amalgama de recursos en línea con estrategias tradicionales es ampliamente adoptada en la educación en la actualidad. Este cambio ha superado los marcos teóricos y requiere datos empíricos para evaluar la efectividad de nuevas modalidades de enseñanza en la mejora de los logros de los estudiantes. Sin embargo, en el campo de la enseñanza de idiomas, los estudios empíricos sobre estrategias educativas combinadas son escasos.

La tesis tiene como objetivo explorar el impacto del modelo de WebQuest basado en el aprendizaje invertido (FWQ) en estudiantes de ILE. La investigación comprende tres estudios de caso con metodologías distintas y un total de 271 estudiantes participaron en esta investigación.

El primer estudio de caso empleó un diseño cuasi experimental con herramientas cuantitativas, comparando un grupo de control que estudiaba cara a cara de manera tradicional con un grupo experimental que utilizaba FWQ para el aprendizaje de inglés El estudio contó con la participación de 69 estudiantes. Se realizaron pruebas previas para evaluar la competencia en escritura de L2, seguidas de pruebas posteriores para medir la mejora de habilidades. Además, se administraron cuestionarios de ansiedad previos y posteriores para evaluar el efecto de FWQ en la reducción de la ansiedad por escritura de L2.

En el segundo estudio de caso, que involucró a 96 estudiantes de ILE en Egipto, se asignaron aleatoriamente tres grupos: uno que utilizaba FWQ, otro que utilizaba WebQuests en un entorno tradicional y un grupo de control sin WebQuests. Las pruebas previas y posteriores midieron la competencia en escucha de L2, junto con cuestionarios de ansiedad para evaluar el impacto de las WebQuests en la reducción de la ansiedad por escucha. Los resultados indicaron la efectividad de FWQ en mejorar las habilidades de escritura y escucha de inglés L2 mientras se disminuía la ansiedad de los estudiantes.

En el tercer estudio de caso, 106 estudiantes de ILE se dividieron en dos grupos experimentales (FWQ, WQ) y un grupo de control. Las pruebas previas y posteriores, junto con escalas de ansiedad y un cuestionario FWQ, midieron el efecto en la competencia gramatical de ILE. Los resultados revelaron la eficacia tanto de FWQ como de WQ, con una mayor significancia observada en el modelo FWQ debido a su enfoque combinado de aprendizaje invertido y WebQuests.

La culminación de los tres estudios de investigación independientes sobre el modelo FWQ en la enseñanza de idiomas proporcionó conocimientos valiosos sobre su eficacia en mejorar las habilidades lingüísticas, reducir la ansiedad entre los estudiantes y fomentar actitudes positivas hacia el uso de herramientas tecnológicas en el aprendizaje de idiomas. A través de análisis estadísticos, estos estudios demostraron consistentemente resultados prometedores, sugiriendo que el modelo FWQ contribuye

significativamente al aprendizaje de idiomas. Esta revisión integral sintetiza los hallazgos individuales de cada estudio, ofreciendo una visión holística de la efectividad del modelo FWQ, sus ventajas, limitaciones e implicaciones potenciales para los instructores de idiomas y el diseño del currículo educativo. Los resultados de la tesis enfatizan que la integración de los elementos del aula invertida y las WebQuests ha logrado involucrar efectivamente a los estudiantes, lo que ha llevado a mejoras en las habilidades lingüísticas y reducciones en los niveles de ansiedad en diversas áreas de competencia lingüística. Estos hallazgos resaltan el potencial del modelo FWQ como una herramienta pedagógica valiosa en la educación lingüística, proporcionando implicaciones prácticas para los educadores que buscan enfoques innovadores para mejorar las competencias lingüísticas de los estudiantes. En general, la efectividad del modelo FWQ para fomentar el aprendizaje de idiomas y reducir la ansiedad resalta su importancia en la educación lingüística contemporánea. La naturaleza estructurada, interactiva y útil del modelo FWQ no solo aborda los desafíos planteados por la pandemia de COVID-19, sino que también ofrece un marco prometedor para mejorar los resultados del aprendizaje de idiomas en diversos contextos educativos.

Palabras clave: aprendizaje invertido, WebQuests, inglés como lengua extranjera (ILE), habilidades de escritura, habilidades auditivas, gramática, modalidades híbridas, ansiedad en ILE.

Universidad de Oviedo

RESUMEN (en inglés)

This doctoral thesis aims to contribute to the field of language education by providing empirical evidence on the effectiveness of WebQuests as a teaching resource in the foreign language classroom. The thesis explores the interrelation between Information and Communication Technologies (ICTs), language education, pedagogy, and affective factors. The main objective of the research is to improve the learning and teaching process by analysing the impact of flipped learning and WebQuests in lowering foreign language anxiety in students of English as a foreign language (EFL).

Online education has become imperative, with blended approaches gaining momentum since the onset of the COVID-19 pandemic. The amalgamation of online resources with traditional strategies is now widely adopted in education. This shift has outpaced theoretical frameworks and necessitates empirical data to assess the effectiveness of new teaching modalities in enhancing learners' achievements. However, in the field of language teaching, empirical studies on combined educational strategies are scarce.

This thesis aims to explore the impact of the Flipped-Based WebQuest (FWQ) model on EFL students. The research comprises three case studies with distinct methodologies and a total of 271 students participated in this research.

The first case study employed a quasi-experimental design with quantitative tools, comparing a control group studying face-to-face in the traditional manner with an experimental group utilising FWQ for English learning. The study included 69 participants. Pre-tests assessed L2 writing competence, followed by post-tests to gauge skill improvement. Additionally, pre- and post-anxiety questionnaires were administered to evaluate the effect of FWQ on reducing L2 writing anxiety.

The second case study, involving 96 EFL students in Egypt, randomly assigned three groups: one using FWQ, another using WebQuests in a traditional setting, and a control group without WebQuests. Pre- and post-tests measured L2 listening competence, alongside anxiety questionnaires to assess the impact of WebQuests on reducing listening anxiety. Results indicated FWQ's effectiveness in enhancing English L2

writing and listening skills while decreasing students' anxiety.

In the third case study, 106 EFL students were divided into two experimental groups (FWQ, WQ) and one control group. Pre- and post-tests, along with anxiety scales and an FWQ questionnaire, measured the effect on EFL grammar proficiency. Results revealed the efficacy of both FWQ and WQ, with greater significance observed in the FWQ model due to its combined Flipped and WebQuests learning approach.

The culmination of the three independent research studies on the FWQ model in language teaching provided valuable insights into its efficacy in enhancing language skills, reducing anxiety among students, and fostering positive attitudes towards the use of technological tools in language learning. Through statistical analyses, these studies consistently demonstrated promising results, suggesting that the FWQ model significantly contributes to language learning. This comprehensive review synthesizes the individual findings of each study, offering a holistic view of the FWQ model's effectiveness, advantages, limitations, and potential implications for language instructors and educational curriculum design.

The results of the thesis emphasize that the integration of Flipped Classroom and WebQuests elements has effectively engaged students, leading to enhancements in language skills and reductions in anxiety levels across various language proficiency areas. These findings highlight the potential of the FWQ model as a valuable pedagogical tool in language education, providing practical implications for educators who are seeking innovative approaches to improve students' language competencies.

Overall, the FWQ model's effectiveness in fostering language learning and reducing anxiety highlights its significance in contemporary language education. The structured, interactive, and resourceful nature of the FWQ model not only addresses the challenges posed by the COVID-19 pandemic but also offers a promising framework for enhancing language learning outcomes in diverse educational contexts.

Keywords: blended learning (BL), flipped learning (FL), WebQuests (WQs), English as a Foreign Language (EFL), writing skills, listening skills, grammar, EFL anxiety.

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Abstract

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Overall, the findings underscore the effectiveness of the FWQ model in enhancing various language skills and reducing language learning anxiety.

Keywords: blended learning (BL), flipped learning (FL), WebQuests (WQs), English as a Foreign Language (EFL), writing skills, listening skills, grammar, EFL anxiety.

1- Chapter One Research Problem & Significance

In this chapter, we delve into the methodological aspects of our study, beginning with an overview of the research design employed. We then shift focus to the participants, highlighting their pivotal role as primary contributors to our research. Emphasizing their importance, we discuss how their insights enrich the study. The chapter further details the instruments used for data collection, ensuring a transparent and clear research process. As we conclude, we underscore the overarching significance of this thesis, explaining its broader implications and relevance within the academic landscape. To guide our exploration, we articulate clear and specific objectives that pave the way for an in-depth examination in the subsequent chapters. This chapter, therefore, serves as a methodological compass, directing readers through the key elements that shape the trajectory of our research.

1.1 Introduction

The COVID-19 pandemic has affected millions of people around the world. The initial detection of the outbreak took place in December 2019 in Wuhan, China. Countries globally issued warnings to their populations, urging them to adopt precautionary measures. These measures encompass practices like regular handwashing, the usage of face masks, maintaining physical distance, and refraining from participating in large gatherings or events. Additionally, lockdowns and stay-at-home directives have been implemented as necessary steps to mitigate the spread of the disease and flatten the infection curve (Sintema, 2020).

COVID-19 has brought about several effects on economic and social systems. Lockdown measures have led to the temporary and selective closure of businesses and services, compelling employers to make adjustments in their employment practices. This has involved shifts from full-time to part-time or casual employment to align with the fluctuating demands during different phases of COVID-19 lockdown (Fana et al., 2020; Tang, 2021). The uncertainties arising from COVID-19 lockdowns have had a substantial impact on various aspects of our lives, with its impact reverberating through economic, social, and health systems.

Education stands out as a domain profoundly reshaped by the pandemic among many sectors. Major changes have been witnessed in the teaching process since 2020 due to the pandemic. In the Executive Summary posted by the United Nations, it is stated that “the COVID-19 pandemic has created the largest disruption of education systems in history,

affecting nearly 1.6 billion learners in more than 190 countries and all continents (UNICEF 2020, 5). While policies regarding educational institutions' operation have varied by country, many such establishments have faced closures of schools, colleges, and universities, abruptly disrupting the traditional model of in-person learning since the beginning of the pandemic (Darkwa et al., 2021). In March 2020, the first case of COVID-19 was reported in Egypt (Medhat and El Kassas 2020; UNICEF 2020). The number of infected people increased rapidly across the country, leading to the worldwide implementation of school closures as a solution. Consequently, there was an urgent need to redesign teaching and learning processes using alternative approaches during and after the COVID-19 pandemic (Arora & Srinivasan, 2020; Feijóo et al., 2021).

Online learning has emerged as a pivotal educational tool in the COVID-19 era, it has paved the way for the development of online teaching and learning platforms, tools, and courses (Huang, 2020). This transition has demonstrated that certain in-person educational components can successfully migrate to the digital realm, with some courses being delivered entirely online (Dhawan, 2020). Importantly, this shift has accelerated the growth of online learning, which was already advocated as a flexible mode of education for part-time and geographically independent learners (Tørris et al., 2022).

During the COVID-19 era, online learning has risen to become a crucial educational resource, offering a multitude of advantages that have helped bridge the gap between students and their pursuit of knowledge (Topping et al., 2022). One of the most notable advantages of online learning is its accessibility. As the pandemic forced the closure of traditional classrooms and educational institutions, online learning provided a lifeline for students of all ages. Regardless of geographic location or physical abilities, individuals could access educational resources and engage in learning, ensuring that education remained a universal right (Challob, 2021). This inclusivity also extends to people with diverse learning styles and needs, as online platforms often offer customization and flexibility, allowing students to adapt the learning experience to their specific requirements (Siakalli et al., 2022).

Moreover, online learning has demonstrated significant flexibility and adaptability. In a time marked by uncertainty and ever-evolving circumstances, online platforms have proven their capability to quickly respond to changing educational needs (Dhawan, 2020). They have allowed schools and universities to transition seamlessly to remote teaching, providing a sense of continuity in an otherwise disrupted environment (Lockee, 2021).

This adaptability extends to the variety of educational resources available online, from virtual laboratories and simulations to interactive multimedia content (Kanojiya, 2020). These resources enhance the quality of education and make learning more engaging and immersive, enabling students to gain practical skills and knowledge even when in-person experiences are limited.

Another vital advantage of online learning is the ability to accommodate diverse learning paces and schedules (Almahasees et al., 2021). Traditional classroom settings often struggle to cater to individual needs, which can leave some students feeling left behind or unchallenged. Online learning, on the other hand, empowers learners to set their own pace and schedules. This flexibility inherent in a flipped classroom empowers students to tailor their learning experience, catering to individual learning styles and preferences (Huang, 2020). Furthermore, it has democratized education by enabling individuals to access courses and programs that were previously geographically or financially out of reach (Altuwairesh, 2021). Consequently, this democratization not only benefits individual learners but also promotes the exchange of knowledge on a global scale, fostering a more interconnected and informed society.

Online learning also encourages the development of crucial 21st-century skills. Digital literacy, time management, self-discipline, and communication skills are homed in online learning environments (Cramarenco et al., 2023). Students are often required to navigate various online tools and resources, which prepares them for the digital-centric world of work (Hwang et al., 2023). They must also manage their time effectively to meet deadlines and balance their studies with other responsibilities, instilling vital organizational and time management skills (Stewart et al., 2020). Additionally, online learning frequently involves collaborative projects and discussions, which improve students' ability to communicate and work with peers in virtual teams, mirroring the collaborative nature of many contemporary workplaces (Alismaiel et al., 2022).

Additionally, online learning has fostered a new era of personalized education (Xue et al., 2022). Through data analytics and machine learning, platforms can track a student's progress, identifying their strengths and weaknesses (Chakraborty et al., 2021). This data-driven approach allows educators to provide individualized feedback and tailor resources to meet specific learning needs. This level of personalization can significantly enhance the learning experience, ensuring that students receive targeted support and

encouragement, which is often challenging to achieve in traditional classroom settings (Putri et al., 2020).

Furthermore, online learning plays a pivotal role in facilitating the acquisition of the English language for students worldwide (Anwar & Wahid, 2021). Its accessibility and flexibility make it an invaluable resource for learners of all ages and backgrounds (Rifiyanti, 2020). Through online platforms, English language students can access a variety of resources, including interactive lessons, language exercises, and multimedia content, which cater to a variety of learning styles. This allows students to tailor their learning experience to their specific needs and pace (Haider & Al-Salman, 2020; Wafa' Hazaymeh, 2020). Moreover, online learning transcends geographical boundaries, enabling students to connect with native English speakers and educators from around the globe, providing authentic exposure to the language and diverse cultural perspectives (Gonulal, 2019). The asynchronous nature of online learning also allows learners to practice at their own convenience, which is particularly beneficial for those with busy schedules or other commitments. In essence, online learning offers a comprehensive and adaptable approach to English language education, making it an indispensable tool for language learners seeking to improve their language proficiency (Rinekso & Muslim, 2020).

On the other hand, the swift transition to online learning has posed significant challenges in the educational landscape, necessitating the evaluation and support of both students and educators as they adapt to this new paradigm (Doyumğaç et al., 2021). Students' ability to adjust to online learning is influenced by their mindset, with those possessing a growth mindset tending to fare better in the transition compared to those with a fixed mindset. It's essential to recognize that online learning is not a one-size-fits-all approach, as various subjects and age groups have unique and diverse requirements (Taft et al., 2019).

This shift to online learning, particularly in higher education institutions, occurred rapidly, compelling students to swiftly migrate to online platforms and presenting a sudden barrier for educators who were previously accustomed to in-person teaching (Pilu & Nur, 2023). Therefore, this abrupt adjustment often unfolded within a constrained timeframe, challenging the seamless and organized continuation of the educational process. Furthermore, online learning offers physically challenged students greater flexibility to engage in virtual education, given its minimal physical movement

requirements (Müller & Mildenberger, 2021). Navigating these challenges and providing adequate support for students and educators alike are pivotal considerations in the ever-evolving realm of education.

Notably, the covid era has brought to light the significant role of online learning and its challenges in education. It has provided a lifeline to education, offering inclusivity, adaptability, and accessibility. Online learning's flexibility, enabling students to learn at their own pace and on their schedules, is a game-changer, democratizing education and promoting lifelong learning. Additionally, it fosters the development of essential 21st-century skills, preparing students for the digital-centric world of work and encouraging personalized education through data-driven insights. On the other hand, online presents challenges for students and educators, with adaptability linked to one's mindset. Additionally, recognizing the varied requirements of subjects and age groups. Hence, In the face of the pandemic's disruptions, online learning has proven itself as an invaluable tool, reshaping the educational landscape and forcing us towards a more connected, informed, and skillful society.

Blended learning (BL) –i.e., combining traditional learning with online-based learning– has been naturally embraced by educational institutions as a useful tool both in and outside the classroom and has become a prominent approach in teaching foreign languages (Polakova & Klimova, 2022). The unique combination of online strategies and conventional offline teaching methods provides learners with the opportunity to benefit from flexible learning opportunities along with the interaction of in-class experience (Hrastinski, 2019). Online learning delivers individualized, self-paced learning with interactive media, including games, videos, tutorials, quizzes and social media components that are accessible from the learner's home page in the Learning Management System (LMS)—and accessible from learners' smartphones, tablets or computers (Moorhouse & Wong, 2022; Rigo & Mikus, 2021)

One of the primary advantages of BL is its flexibility. Learners can access course materials from anywhere and at any time using a range of devices, including smartphones, tablets, and computers. This flexibility allows learners to schedule their learning according to their convenience, making it easier for them to balance their education with work, family, and other responsibilities. Additionally, BL allows teachers to provide more personalized attention to their students. With the help of learning analytics, teachers can track each student's progress, identify areas of weakness, and provide targeted feedback,

ensuring that each learner receives the support they need (Bardus et al., 2021; Celestino & Back Noronha Viana, 2021; Jost et al., 2021; Wang & Zhang, 2022).

BL has also been found to enhance learner engagement and motivation. The use of interactive media and gamification techniques can help make learning more fun and engaging, thereby boosting learners' motivation to learn. By providing learners with a range of multimedia resources, teachers can cater to various learning styles, making learning more accessible and enjoyable for all. Furthermore, the social media components of BL can facilitate communication and collaboration between learners, leading to a more engaging and dynamic learning environment (Kang & Kim, 2021; Polakova & Klimova, 2022; Wang & Zhang, 2022).

Flipped learning (FL) is an effective strategy which is being widely used in BL-based classrooms. This educational approach has mushroomed as a form of BL (Kang & Kim, 2021). The idea behind FL is to create a reversed learning environment where students independently study the topic before applying and consolidating what they have learned (Tran et al., 2022). The flipped classroom, as a straightforward approach, involves sharing learning materials like articles, pre-recorded videos, and YouTube links prior to in-person or online class sessions. This approach efficiently fosters crucial skills like problem-solving, critical thinking, and self-directed learning by using classroom time for discussions with instructors and peers. To implement this method, virtual classroom tools like videoconferencing (e.g., Google Hangouts Meet, Zoom, Slack, Cisco, WebEx) and customizable cloud-based learning management systems such as Elias, Moodle, BigBlueButton, and Skype are becoming progressively popular. In comparison to the conventional classroom setting and method, FL offers students a newer and more flexible way to interact and engage in the learning process (Qutob, 2022).

One of the most promising tools in web-based learning is WebQuests (WQs), which are organized teaching strategies supported by web resources (Dodge, 1995). WQs give a powerful example of constructivism and scaffolded learning since they offer meaningful and authentic material for learners through the resources provided by the Internet. WQs help students navigate the Internet in a well-structured way, enhancing their understanding by using their previous knowledge to search for, read and synthesize information from different resources in the L2 to assess problems and find an appropriate response to the required task. Students do not receive information from the instructor directly, but they construct it based on their previous experiences. Therefore, learners

have an active role in the learning process, as opposed to traditional instruction (Elgeddawy, 2018; Hadriana & Adanan, 2020).

Quite recently, research has brought to the fore the benefits of combining FL and WQs in diverse contexts and using different approaches (Güvenç, 2018; Samiei & Ebadi, 2021). These studies showed significant results in improving English writing, English academic performance and EFL learners' inferential reading comprehension skills, among others. Thus, in the current study, we analyse a combination of WQs and FL strategies to assess their impact on students' English language skills (writing, listening and grammar) and anxiety.

1.2 Design

This thesis used a quantitative approach to analyse the statistics of the data garnered from three case studies using the pre- and post-writing test, pre- and post-writing anxiety scale, Pre- and post-listening tests, pre- and post- foreign language listening anxiety scale, pre- and post-grammar tests, pre- and post-foreign language grammar anxiety and FWQ questionnaire were used to gather data about students' L2 performance and attitudes.

The researcher adopted a quantitative methodology to analyse data gathered from pre- and post-tests, scales and questionnaire. In this analytical process, inferential statistical tools were employed to tabulate and analyse the collected data. The rationale behind choosing a quantitative design stem from its suitability for investigating the influence of a variable on a specific outcome, as emphasized by Creswell (2009). This approach aimed to yield precise and dependable data that could be generalized to individual learning differences in diverse educational contexts and elucidate psychological traits.

The consistent use of quantitative designs in previous research within the realms of foreign language teaching and applied linguistics, such as studies by Dewaele (2005) and Dörnyei (2007), further supported the appropriateness of this approach. By employing quantitative methodology, the researcher aimed to establish a strong foundation for examining the correlation between the FWQ model and students' language skills, along with their levels of anxiety and attitudes. This approach facilitated the application of statistical analyses to explore the extent of the impact and present objective evidence.

To sum up, Quantitative designs bring several advantages to this research context.

1. Precision and Objectivity:

Quantitative research is characterized by its precision and objectivity in data collection and analysis. By employing statistical methods, we aimed to obtain precise numerical results that could be objectively interpreted. This was crucial in assessing the effectiveness of the intervention and drawing clear conclusions based on quantifiable data.

2. Measurable Outcomes:

The research objectives were centered around measuring the outcomes of the intervention. Quantitative methods provided the means to quantify changes in performance through statistical analysis of the pre- and post-writing tests and tests, allowing for a straightforward comparison of results.

3. Generalizability:

The quantitative approach was chosen to enhance the generalizability of the findings. By employing a statistical sample and analysis, we aimed to draw conclusions that could be applied more broadly to the target population. This is particularly important when considering potential implications for educational practices.

4. Time and Resource Efficiency:

Given the constraints of time and resources, a quantitative design proved to be more efficient. The streamlined nature of data collection and analysis allowed for a more focused and timely investigation, aligning with the project's practical considerations.

5. Focused Scope:

The study primarily sought to answer specific questions related to the intervention's impact on language skills and levels of anxiety. A quantitative design offered a focused and structured approach to addressing these questions, minimizing the risk of data overload and ensuring a targeted analysis.

1.3 Participants

Three groups of students (n=271) were utilized in the case studies featured in the doctoral thesis.

1.4 Instruments

Five websites were developed using Google Docs to provide students with lessons and resources. Additionally, three pre/post-tests (writing, listening, and grammar) were used to assess students' language competence levels. In addition, three foreign language anxiety scales (writing, listening, and grammar) were administered to evaluate students' anxiety levels. Furthermore, an FWQ questionnaire was developed to assess students' attitudes toward the use of the FWQ model.

1.5 Significance of the thesis

The current doctoral thesis constitutes a significant and timely contribution to the expansive field of language education and teaching, aiming to enrich the current body of research on second language (L2) learning. By delving into the multifaceted realm of language acquisition, this study takes a nuanced approach in investigating the impact of utilizing flipped learning (FL) and WebQuests (WQs) as innovative instructional methodologies to enhance L2 English skills.

At its core, the research seeks to expand the existing literature by providing a comprehensive examination of FL and WQs in the context of language education. By investigating the effectiveness of these pedagogical approaches, the thesis not only adds depth to our understanding of alternative teaching methodologies but also offers practical insights into their potential contributions to language proficiency. The inquiry into the impact of FL and WQs is particularly pertinent in the contemporary educational landscape, where technology-enhanced learning environments are becoming increasingly prevalent.

Beyond the pedagogical aspect, the thesis ventures into the realm of learner psychology by investigating the influence of FL and WQs on learners' anxiety levels during the language learning process. Recognizing the emotional dimension of language acquisition, this research addresses a critical aspect often overlooked in traditional educational studies. Anxiety can significantly impact a learner's engagement, motivation, and overall success in acquiring a new language. Therefore, understanding how the utilization of FL and WQs may contribute to reducing anxiety represents a valuable addition to the scholarship in language education.

In terms of practical implications, the findings of this research offer valuable insights for language educators and instructional designers. The study not only contributes

theoretically to the ongoing discourse on effective language teaching methods but also addresses the pragmatic concerns of educators in the field. The exploration of FL and WQs as potential anxiety-alleviating tools not only aligns with current pedagogical trends but also provides concrete strategies that educators can implement to create more supportive and effective learning environments.

In conclusion, this doctoral thesis emerges as a comprehensive and pivotal resource in the domain of language education. By contributing to the theoretical framework surrounding FL and WQs and delving into the emotional dimension of language learning, the research extends our understanding of effective pedagogical practices. The practical implications of the findings position this thesis as a valuable guide for educators, curriculum developers, and policymakers seeking to enhance language education outcomes in an era marked by technological advancements and a growing awareness of learners' emotional well-being in educational settings.

1.6 Objectives

This doctoral thesis is dedicated to investigating the impact of the FWQ (Flipped-Based WebQuest) model within the context of English as a Foreign Language (EFL) education. The primary objective is to evaluate how effectively the FWQ model enhances various aspects of language learning, including students' writing skills, the alleviation of writing anxiety, improvement in listening comprehension, reduction of listening anxiety, proficiency in grammar, and mitigation of grammar-related anxieties. Through a meticulous examination of these critical dimensions of language acquisition, this study aims to provide comprehensive insights into the potential benefits of the FWQ model as a pedagogical approach and makes a meaningful contribution to the existing body of research on effective teaching and learning practices in EFL settings.

The current doctoral thesis aims at:

1. Analysing the impact of the FWQ model on students’ writing skills in English as a Foreign Language (EFL).
2. Analysing the impact of the FWQ model on students’ writing anxiety.
3. Analysing the impact of the FWQ model on students’ listening comprehension in EFL.
4. Analysing the impact of the FWQ model on students’ listening anxiety in EFL.
5. Analysing the impact of FWQ on students' grammar proficiency.

6. Analysing the impact of FWQ on students´ grammar anxiety.
7. Analysing the impact of FWQ on students' attitudes.

- **Objective 1**: Analysing the impact of the FWQ model on students' writing skills in English as a Foreign Language (EFL).

  The first objective is to evaluate how the FWQ model affects students' writing skills in English as a Foreign Language (EFL). Specifically, the study aims to explore how using the FWQ model impacts students' capacity to create well-organized and coherent written content in a non-native language. Through an examination of the writing produced by students exposed to the FWQ model, the objective is to ascertain whether this teaching method improves their writing proficiency.

- **Objective 2**: Analysing the impact of the FWQ model on students' writing anxiety.

  The second goal of this thesis is to explore how the FWQ model affects students' feelings of anxiety when it comes to writing. Writing anxiety can limit students' ability to express themselves comfortably and with confidence in writing. Through a writing anxiety scale, the aim is to find out if the FWQ model helps in reducing this anxiety. This objective seeks to highlight the potential psychological advantages of the FWQ model in lessening students' stress related to writing and encouraging a more positive approach to the writing process.

- **Objective 3**: Analysing the impact of the FWQ model on students' listening comprehension in EFL.

  The third objective of this thesis is to study how the FWQ model influences students' listening skills. Understanding spoken language is crucial in language learning, and this objective aims to explore if using the FWQ model has a positive impact on students' capacity to comprehend and interpret spoken language. Through an examination of the listening abilities of students exposed to the FWQ model, the goal is to find out if this method improves their understanding, accuracy, and overall involvement with auditory content.

- **Objective 4**: Analysing the impact of the FWQ model on students' listening anxiety in EFL.

  The fourth goal of this thesis is to explore how the FWQ model influences students' anxiety levels when it comes to listening. This objective seeks to investigate if the FWQ model can help in reducing students' anxiety about

listening by examining their experiences and perceptions of this instructional model. Understanding how the FWQ model may alleviate stress related to listening can offer valuable insights into fostering a more supportive and conducive learning environment for language learners.

- **Objective 5**: Analysing the impact of FWQ on students' grammar proficiency.

  The fifth objective of this thesis is to evaluate how the FWQ model impacts students' proficiency in grammar. Proficiency in grammar is crucial for effective communication and academic success. FWQ incorporates regular, low stakes writing assessments to facilitate students' practice and improvement in grammar skills. This research will systematically investigate the correlation between FWQ implementation and students' grammar proficiency. Through data collection and analysis, which includes grammar assessment scores and student feedback, we aim to determine whether FWQ has a positive influence on grammar skills. The results of this study can offer valuable insights to educators and curriculum designers regarding the advantages of incorporating FWQ in language instruction, contributing to our understanding of how formative assessments enhance language learning outcomes.

- **Objective 6**: Analysing the impact of FWQ on students´ grammar anxiety.

  The sixth goal of this thesis is to examine how FWQ contributes to decreasing students' anxiety about grammar. Grammar anxiety is the uneasiness and discomfort that students often feel when tasked with using correct grammar in their writing and communication. This anxiety can impede their language learning and affect their overall academic success. FWQ is an instructional method that combines FL with WQs, offering students chances to practice and enhance their grammar skills in a supportive and non-intimidating setting.

- **Objective 7**: Analysing the impact of FWQ on students' attitudes.

  The seventh objective of this thesis is to analyse the impact of (FWQ) model on students' attitudes towards language learning. With the rapid advancement of technology and pedagogical innovations, educators are increasingly exploring alternative approaches to traditional teaching methods. The FWQ model integrates elements of the flipped classroom and WebQuest methodologies, fostering student-centered learning experiences that emphasize active engagement, critical thinking, and collaborative problem-solving. By investigating the effects of FWQ implementation on students' attitudes, this study

aims to contribute to the growing body of research on innovative instructional practices in language education. Understanding how FWQ influences students' perceptions and attitudes towards language learning can provide valuable insights for educators seeking to optimize teaching strategies and enhance learning outcomes in diverse educational contexts.

In conclusion, this chapter has unfolded the methodological framework underpinning our study, unveiling the strategic choices and considerations that pave the way for a rigorous exploration. We began by establishing the foundation with a meticulous overview of the research design, laying the groundwork for the subsequent methodological discussions. The spotlight then shifted to our participants, acknowledging their pivotal role and emphasizing the value of their contributions in enriching our study. A detailed exploration of the instruments used for data collection provided transparency, ensuring a clear path through the research process. As we wrap up this chapter, it is paramount to underscore the broader significance of this thesis within the academic realm. The interpretation of clear and specific objectives not only provides a roadmap for subsequent chapters but also reaffirms the purpose and direction of our research. This chapter, functioning as a methodological compass, not only guides readers through the intricacies of our approach but also sets the stage for the profound analyses and insights that will unfold in the chapters to come. As a seamless continuation, the subsequent chapter aims to contextualize our methodology within the broader theoretical landscape, thereby enriching the depth and breadth of our scholarly inquiry.

Chapter two: Theoretical background and literature review

In this chapter, we embark on a thorough exploration of the theoretical foundations and existing literature that form the basis of our study. The journey begins by unravelling the theoretical background and literature related to both FL and WQs. We delve into essential theories like constructivism, scaffolded learning, and blended learning to set the theoretical context. Our exploration then delves into the intersections of constructivism and blended learning, examining their implications for online and FL environments.

Moving on, we unravel the growth of FL, offering insights into its definition and the tools commonly used in its implementation. A focused examination within the realm of English language teaching explores the relationship between FL and Bloom's Taxonomy. Comparative analysis between traditional and FL within Bloom's Taxonomy sheds light

on the advantages and disadvantages of the flipped approach. Attention is then turned to the roles of teachers and learners in flipped classrooms, establishing a nuanced understanding of the pedagogical dynamics. Shifting focus to the WQs strategy, we introduce its definition, types, structure, and importance in the educational landscape. We dedicate a section to the characteristics and significance of interactive WQs, followed by a discussion on the rules for effective WQs design. We then explore the roles of teachers and learners in the WebQuest strategy, considering its application in language learning. Grounded in the principles of constructivism, we examine the relationship between WQs and language learning, drawing insights from related studies.

As our exploration unfolds, we turn attention to anxiety in language learning, delving into the realms of foreign language anxiety, foreign language writing anxiety, foreign language listening anxiety, and foreign language grammar anxiety. These considerations enrich the theoretical foundation by incorporating insights into the emotional dimensions of language acquisition. The chapter concludes by delving into the FWQ model, a synthesis of FL and WQs, offering a comprehensive view of the theoretical landscape guiding our study.

2.1 Theories behind Flipped and WebQuests

2.1.1 Constructivism

The constructivist perspective is often viewed as one of the primary theoretical stances in the field of education. However, it is important to note that there isn't a single, universally accepted definition of constructivism. To some, it represents a theory of learning, while others consider it a theory of knowledge. Additionally, some view it as a pedagogical theory. There are two primary categories within the constructivist framework: cognitive constructivism, as articulated by (Piaget, 1971), and social constructivism, as discussed by (Vygotsky & Cole, 1978). In the cognitive constructivist perspective, learners are regarded as active participants in the process of constructing knowledge (Piaget, 1971). According to this viewpoint, students engage in the active reconstruction of knowledge in highly individualized ways. They create flexible conceptual structures that are shaped by their prior knowledge, formal educational experiences, and other cues that facilitate comprehension. This approach places a strong emphasis on one's cognitive processes and characterizes fellow students as critical thinkers when they challenge established wisdom (Piaget, 1985).

In contrast, social constructivism, as distinguished from cognitive constructivism, sees knowledge as deeply rooted in people's social contexts (Vygotsky & Cole, 1978). This theory contends that knowledge is shaped through exposure to both local and global cultural contexts and evolves through interaction with various communities of practice (Cole, 1990). Furthermore, Vygotsky's concept of the "zone of proximal development" posits that emerging mental functions must be nurtured and scaffolded through collaborative activities, where students engage in problem-solving tasks with the guidance of more experienced individuals (Vygotsky & Cole, 1978). Through this process, students internalize the language and strategies employed in social interactions, developing the capability to perform these actions independently in the future.

Two fundamental concepts summarize the basic idea of knowledge construction. The first concept involves learners constructing new insights by building upon their existing knowledge. When approaching learning situations, individuals bring with them the knowledge acquired from prior experiences. This prior knowledge exerts an influence on the new knowledge they will either create or modify during these new learning experiences (Hoover, 1996).

The second concept emphasizes that learning is an active process, rather than a passive one. Learners actively engage with and adjust their comprehension in response to what they encounter within the new learning context. If the information learners encounter conflicts with their current understanding, they can adapt and accommodate new experiences, thus remaining active participants throughout this learning journey (Hoover, 1996).

Constructivism is a learning theory that emphasizes active engagement in the learning process and the construction of knowledge by the learner. There are some common key principles associated with this educational philosophy. Here are some of the core principles of constructivism (Bhattacharjee, 2015; Cole, 1990; Dagar & Yadav, 2016; Honebein et al., 1993; Vygotsky & Cole, 1978):

1. Active Learning: Constructivism posits that learners are actively involved in their learning. They are not passive recipients of information but actively engage with the learning materials and experiences.

2. Prior Knowledge: Learners bring their existing knowledge, beliefs, and experiences to the learning process. New knowledge is constructed based on these prior understandings.
3. Social Interaction: Social interaction is seen as a critical element of learning. Interactions with peers, teachers, and the environment contribute to the construction of knowledge. Collaboration and discussion with others are encouraged.
4. Zone of Proximal Development (ZPD): This concept, introduced by Lev Vygotsky, suggests that learners can accomplish more with guidance and support from more knowledgeable individuals. The ZPD represents the difference between what a learner can do independently and what they can do with assistance.
5. Scaffolding: Scaffolding involves providing learners with support and guidance as they work on tasks or problems. The level of support is adjusted based on the learner's needs and abilities, gradually reducing as the learner becomes more proficient.
6. Active Problem-Solving: Constructivist learning often involves learners grappling with real-world problems and challenges. They are encouraged to solve problems, make decisions, and explore solutions independently or collaboratively.
7. Reflection: Reflective thinking is promoted, encouraging learners to think critically about their thought processes and learning experiences. Self-assessment and self-regulation are important aspects of constructivist learning.
8. Constructive Alignment: Learning experiences, activities, and assessments are aligned to ensure that learners have opportunities to construct knowledge and demonstrate their understanding through authentic tasks and assessments.
9. Personalized Learning: Constructivist approaches recognize that learners are individuals with unique needs and interests. Instructions should be adapted to accommodate these individual differences.
10. Ownership of Learning: Learners take ownership of their learning process. They are encouraged to set goals, monitor their progress, and take responsibility for their learning journey.
11. Real-World Relevance: Learning experiences are designed to be meaningful and relevant to the learner's life. This promotes deeper understanding and application of knowledge.

12. Multiple Perspectives: Constructivist learning values diverse viewpoints and encourages learners to consider various perspectives and interpretations of information.

These principles highlight the learner's central role in constructing knowledge and the importance of social interaction, reflection, and active engagement in the learning process. Constructivism is often associated with student-centred, inquiry-based, and experiential learning approaches that align with these principles (Dagar & Yadav, 2016).

In the constructivist approach to education, the role of the teacher is significantly different from traditional teaching methods. Rather than being the sole source of knowledge and information, the teacher in a constructivist classroom becomes a facilitator, guide, and mentor. The teacher's primary task is to create a rich and stimulating learning environment that encourages active engagement, critical thinking, and the construction of knowledge by the students themselves (Dagar & Yadav, 2016).

Teachers in constructivist classrooms design and present open-ended, thought-provoking questions and scenarios that prompt students to think deeply and explore concepts from various angles. They create opportunities for collaborative learning, where students work together to solve problems, discuss ideas, and construct meaning collectively. The teacher also acts as a resource, providing access to a variety of learning materials and sources, both digital and analogue, to support students in their exploration and research (Golder & Bengal, 2018).

One crucial aspect of the teacher's role in constructivism is scaffolding. Teachers offer guidance and support to students as they tackle complex tasks or concepts. This support is gradually reduced as students become more proficient, allowing them to take on increasing responsibility for their learning. It's about finding the balance between offering enough support to foster growth and independence while not overwhelming the learner (Wyatt, 2023). Furthermore, teachers encourage reflection and metacognition, helping students become aware of their thinking processes and strategies for learning. They facilitate opportunities for students to assess their progress and set goals for further learning (Abe, 2020; Honebein et al., 1993). Overall, the teacher in a constructivist classroom is a facilitator of learning, fostering an environment where students actively construct their knowledge, explore their interests, and develop critical thinking skills, ultimately becoming lifelong learners capable of adapting to an ever-changing world.

The learner's role in constructivism is central and transformative. In this educational philosophy, learners are viewed as active participants in their learning journey, rather than passive recipients of information (Mvududu & Thiel-Burgess, 2012). They play a fundamental role in constructing their understanding of the world and acquiring knowledge. Here, we explore the multifaceted role of the learner in constructivist education. First and foremost, learners are encouraged to be curious. They take ownership of their learning by asking questions, seeking answers, and exploring topics of interest. This sense of agency and curiosity drives the entire learning process. Learners actively engage with the learning materials and experiences presented to them, making connections with their prior knowledge and experiences (Bhattacharjee, 2015).

Collaboration is another crucial aspect of the learner's role in constructivism. Learners often work together in groups, sharing ideas, perspectives, and insights. Through these interactions, they engage in social negotiation of meaning, which helps them refine their understanding and consider multiple viewpoints (Bhattacharjee, 2015). Collaboration also promotes communication skills, teamwork, and the ability to articulate one's thoughts effectively (Arslan, 2020). Furthermore, learners are expected to reflect on their learning experiences. They think critically about how they construct knowledge, identifying their thought processes, strategies, and areas of confusion. Consequently, this metacognition allows them to become more self-aware and self-regulated learners. They set goals for themselves, monitor their progress, and adjust their strategies as needed to achieve those goals.

In a constructivist classroom, learners are encouraged to be resourceful. They utilize various resources, such as books, online materials, and expert guidance, to support their learning (Bhattacharjee, 2015). This helps them develop research skills and the ability to gather information independently. Ultimately, the role of the learner in constructivism is to actively construct their knowledge, engage in collaborative learning, reflect on their experiences, and take ownership of their education. By doing so, learners become not only knowledgeable but also critical thinkers, problem solvers, and lifelong learners who are well-equipped to navigate the complexities of the modern world.

Honebein et al., (1993) explained seven goals for the design of constructivist learning environments:

1. Provide experience with the knowledge construction process.

2. Provide experience in and appreciation for multiple perspectives.
3. Embed learning in realistic and relevant contexts.
4. Encourage ownership and voice in the learning process.
5. Embed learning in social experience.
6. Encourage the use of multiple modes of representation.
7. Encourage self-awareness in the knowledge construction process.

Honebein et al., (1993) some learning strategies can be included in the constructivist environment such as the use of a reflection; board in which members could share publicly their representation of the problem; the Use of multimedia/teaching aids; d) Probing questions; Peer collaboration; reflective questioning; scaffolding; Role playing; Group discussions/Group activities; shared ownership; Project-based learning quizzes, feedback, and rewards; daily lessons in the regular classrooms. This combination of strategies facilitates the active construction of knowledge.

The integration of constructivism with Information and Communication Technology (ICT) is another dimension that can be considered) to establish a novel approach to distance education, facilitated by computers. Computers are regarded as instrumental tools that enable experimentation and active engagement in the process of knowledge acquisition (Moreno et al., 2007). This combination encourages students to actively explore and retrieve knowledge using ICT. It frequently underscores the idea that learning is akin to a quest for meaning, achieved by generating experiences, and enables students to gain multifaceted insights into information.

2.1.2 Scaffolded learning

Burner (1978) defines scaffolding as "the steps taken to reduce the degrees of freedom taken in carrying out some tasks so that the child can concentrate on the difficult skill s/he is in the process of acquiring". Scaffolding is a highly effective teaching and learning approach in language education, involving collaborative activities that promote learner engagement. It is essential to recognize that interaction serves as the primary mechanism for the learning process (Walqui, 2006). Through mutual assistance in tasks, learners become proficient participants and enhance their comprehension (Salma, 2020; Tamimy et al., 2023). Teachers play a vital role as facilitators when learners engage with one another to complete tasks. When learners practice language skills in a supportive learning environment with a knowledgeable individual, they gain a significant advantage in

language acquisition (Guo et al., 2023). Thus, Interactive activities with expert guidance have a meaningful impact on both learning and development.

Bradley & Bradley (2004) outlined three effective scaffolding techniques to support second language learners:

a. Language Simplification: Instructors can make language more accessible by reducing text length, using present tense, and avoiding idiomatic expressions.
b. Prompting Completion, Not Creation: Teachers can guide students to select answers from provided options or finish partially completed outlines or paragraphs.
c. Incorporating Visuals: Educators can enhance learning by using visual aids such as graphic organizers, tables, charts, outlines, and graphs to facilitate student responses.

Wood et al. (1976) proposes six key aspects of effective scaffolding:

a. Recruitment: Teachers should capture learners' interest and help them stay focused on task requirements.
b. Reduction in degrees of freedom: Teachers should make tasks more manageable by reducing their complexity.
c. Direction maintenance: Teachers should provide ongoing guidance to keep learners on track and help them achieve task objectives.
d. Marking critical features: Teachers should highlight important aspects of tasks.
e. Frustration control: Teachers should ensure that problem-solving processes are less stressful for learners.
f. Demonstration: Teachers should demonstrate solutions to tasks to enable learners to replicate them.

In conclusion, scaffolding is a valuable approach in language education because it promotes collaborative activities, which are highly effective for learning. Interaction is a key factor in language acquisition as it facilitates the transfer of knowledge. Through interactive activities, teachers can guide learners from their current level of development to their potential level. Teachers provide guidance and hints when learners tackle challenging concepts beyond their current knowledge, helping them achieve higher levels of proficiency. Scaffolding strategies such as modelling, using learners' prior knowledge to teach new concepts, presenting information in a meaningful context, encouraging

connections, and offering opportunities for language experimentation, particularly through communication activities, play a crucial role in language teaching. Therefore, scaffolding is essential in language education to enhance comprehension and proficiency.

BL can be defined as an educational model that combines traditional methods and online education (Sari & Wahyudin, 2019). BL is defined as "a way of meeting the challenges of tailoring learning and development to the needs of individuals by integrating the innovative and technological advances offered by online learning with the interaction and participation offered in the best of traditional learning" (Shantakumari & Sajith, 2015: 323).

BL is a pedagogical approach that combines in-person instruction with online learning activities to create a more flexible and distinctive educational experience, therefore, it is the thoughtful integration of classroom face-to-face learning experiences with online learning experiences (Hrastinski, 2019). Also, it is a method of teaching that blends traditional classroom instruction with online learning activities to maximize student learning and achievement (Alammary, 2019).

BL is a teaching method that mixes in-person education with online learning. It is becoming more popular in education as technology advances and more pupils gain access to digital devices. BL has various benefits that make it successful (Alammary, 2019).

Following on from the definitions given above, BL is an innovative teaching style that integrates many types of learning backed by flexible interactive platforms and resources that offer new approaches to enhancing abilities and upgrading competencies.

BL is becoming an increasingly popular approach to language learning for a variety of reasons, including its importance in English language learning. Firstly, BL provides greater flexibility and convenience. BL gives students access to a diverse set of resources and content. Learners can benefit from the best of both worlds by combining online and face-to-face teaching. They can study grammar, vocabulary, and pronunciation at their own pace using online resources, while also having the option to practice their abilities in a face-to-face situation with a teacher or other learners (Le et al., 2022).

Secondly, BL allows for personalized learning experiences. With online resources and tools, teachers can tailor the learning experience to each student's needs and learning style. This can lead to higher engagement and better academic outcomes, as students feel

more connected to the material and have a greater sense of ownership over their learning (Devi et al., 2021; Wang & Zhang, 2022, Zhang & Yu, 2021).

Thirdly, BL helps to foster a learner-centred approach to language learning. It shifts the focus from the teacher to the learner, encouraging learners to take an active role in their learning. By using online resources, learners can take control of their learning journey and develop their language skills in a way that works best for them (Gayatri et al., 2022).

Moreover, BL can also promote language learning autonomy. As learners gain access to various digital resources, they can learn to manage their learning process, set goals, and evaluate their progress. This can help learners develop the skills and confidence they need to continue learning and using English outside of the classroom (Wang & Zhang, 2022).

Finally, BL can provide opportunities for language learners to interact with others from different parts of the world. Through online communication tools, learners can connect with peers from different countries, cultures, and backgrounds. This can help to create a more diverse and inclusive learning environment and provide learners with a more authentic language learning experience (Assylzhanova et al., 2022; Bardus et al., 2021).

In conclusion, BL is important in English language learning because it provides learners with access to a wide range of resources and materials, allows for personalized learning experiences, fosters a learner-centred approach, promotes autonomy, and provides opportunities for intercultural exchange. By embracing BL, language learners can develop the skills they need to communicate effectively in English and become more confident, autonomous, and engaged learners.

2.2 Blended learning

Blended Learning (BL) can be defined as an educational model that combines traditional methods and online education (Sari & Wahyudin, 2019). BL is defined as "a way of meeting the challenges of tailoring learning and development to the needs of individuals by integrating the innovative and technological advances offered by online learning with the interaction and participation offered in the best of traditional learning" (Shantakumari & Sajith, 2015: 323).

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2.2.1 Constructivism and Blended Learning

Constructivism, which emphasizes the active involvement of students in creating their understanding and knowledge, has drawn a lot of attention in the field of education, particularly in language teaching. Constructivist teaching methods can be implemented in English language instruction through BL, which mixes traditional face-to-face instruction with online learning (Wang & Zhang, 2022).

Constructivism is a learning philosophy that encourages learners to actively develop their knowledge and understanding based on their prior knowledge, experiences, and interactions with the environment. constructivist principles suggest that learners must engage with the language in meaningful and authentic contexts to develop their language proficiency therefore, they can construct their understanding to develop their language skills that are applicable in real-world situations (Aljohani, 2017).

BL offers several advantages for implementing constructivist principles in English language teaching. One of the primary advantages of BL is the availability of a diverse range of authentic language materials, such as audio and video recordings, web publications, and real-time communication tools. These resources can be used to build authentic language learning environments in which learners are exposed to the language in a meaningful and engaging way, allowing them to form their knowledge of it (Rivera, 2019).

Another benefit of BL is the ability to customize the learning experience. Learners can access and interact with language materials at their own pace and according to their own interests and requirements by using online platforms. Teachers can also employ online resources to provide learners with individualized feedback and guidance, assisting them in developing their own understanding of the language (Wang & Zhang, 2022). Consequently, constructivist principles not only enhance customization but also empower both learners and teachers to foster a deeper and more personalized understanding of the language acquisition process.

In a BL environment, learners collaborate and participate in social learning events. Learners can exchange their thoughts, information, and experiences with one another through online discussion forums and group projects, developing their grasp of the language in a social setting. This not only improves language learning but also encourages the development of important interpersonal and communication skills (Bardus et al., 2021). Thus, incorporating constructivist principles into BL not only enriches language acquisition through collaborative social learning but also nurtures essential interpersonal and communication skills, fostering a holistic and immersive educational experience.

However, adopting constructivist concepts in BL requires careful planning and design. Teachers must design well-structured and engaging learning activities that are linked with learning objectives and promote active knowledge construction. They must also provide learners with timely and meaningful feedback to help them strengthen their language skills (Mojtahedi et al., 2020).

In conclusion, constructivism is an effective approach to teaching the English language in BL environments. By emphasizing active engagement and interaction with authentic language materials, BL can create meaningful and authentic language learning environments that enable learners to construct their understanding of the language.

Teachers must carefully design and implement BL activities that promote the active construction of knowledge and provide learners with the feedback and support they need to develop their language skills.

2.3 Online learning

In light of the COVID-19 pandemic, online learning has become increasingly crucial for ensuring educational continuity. Online learning, often known as e-learning or distant learning, is the practice of giving instruction using the internet and digital technology. This style of learning has grown in prominence in recent years, owing in large part to the COVID-19 pandemic, which has prompted the global adoption of remote learning models (Dos Santos, 2022; Moorhouse, 2023; Xu & Zou, 2023).

Online learning is described as the delivery of educational content via digital devices to facilitate learning (Clark & Mayer, 2016). This definition encompasses three key aspects of online learning: (a) in terms of content, it involves the presentation of information in the form of written or spoken words, as well as visual elements like illustrations, diagrams, photos, animations, or videos; (b) regarding the medium, it relies on computer-based devices such as desktop computers, laptops, tablets, smartphones, or virtual reality systems; and (c) concerning its purpose, online learning aims to bring about specific enhancements in the learner's knowledge (Mayer, 2018). Additionally, others see online learning as the utilization of technology to facilitate access to educational experiences as a form of distance education, emphasizing its capacity to enhance educational access (García-Morales et al., 2021, Wen & Li,2021).

In comparison to traditional classroom-based training, online learning offers greater accessibility, especially during times of social distancing and remote work. Online learning platforms can provide students who reside in rural areas or have disabilities that make it challenging to attend regular classes with access to high-quality English language education. This can help mitigate the impact of the pandemic on students' education and reduce educational inequities by ensuring that all students have equal access to educational resources (Maican & Cocoradă, 2021).

In recent years, online learning has gained popularity as a form of instruction due to its benefits. The main benefit of online learning is that students may access it at any time and from any location as long as they have a device that can connect to the internet, like a

computer, tablet, or smartphone (Ahmed et al., 2022). Online courses, virtual classrooms, webinars, and massive open online courses are just a few of the different formats that can be used for learning. Students can be engaged and given a pleasant approach to improving their language abilities by using interactive films, tests, games, and other multimedia tools (Moorhouse, 2023). Additionally, online learning provides ease and flexibility, which is crucial for elementary school pupils who might have other obligations or need to fit their studies around their parents' schedules. Because they may set their own pace and schedules, students can manage their time more effectively and experience less stress and anxiety (Almahasees et al., 2021; Tørris et al., 2022; Lohmander et al., 2021).

Online education also has the benefit of allowing for customized instruction. Online learning platforms can monitor students' progress and deliver individualized feedback and guidance by leveraging data and analytics. This can assist teachers in identifying areas where students might need more assistance and in modifying their education to match the specific needs of each student. Because they can track their development and assume responsibility, students who receive personalized instruction tend to be more interested and motivated (Nandagopal & Philip, 2023; Shadiev & Feng, 2023).

Online education has the potential to be more participatory and engaging than traditional classroom instruction. Students can collaborate on group projects, take part in online conversations, and get rapid feedback on their work. Students may benefit from this by staying motivated and interested in their studies, which may result in better academic performance and greater success in both their personal and professional lives (Wang & Zhang, 2022, Baş et al., 2016).

Online learning has become an increasingly popular approach to teaching the English language. The flexibility and accessibility of online learning platforms allow students to access language courses from anywhere and at any time, enabling them to learn at their own pace. Additionally, the use of technology in language teaching offers a range of multimedia resources and interactive tools that can enhance the learning experience and provide opportunities for collaborative learning. Overall online learning has the potential to revolutionize the way we teach and learn languages, but it must be approached with care and consideration to ensure the best possible outcomes for learners.

However, while online learning can offer many benefits, it also has its challenges, such as the need for the right technological tools, like computers or tablets, and a reliable

Internet connection. Not everyone has access to these resources, which can make it difficult for some students to participate in online classes (Abuhammad, 2020). Another challenge is that some teachers may not feel comfortable using technology. They might not know how to use online platforms effectively or incorporate digital tools into their lessons (Aljedaani et al., 2023). To overcome this challenge, teachers may require training and clear guidelines on how to use technology for teaching. Similarly, students may also need guidance on how to navigate online learning platforms and make the most of their digital learning experience (Aljedaani et al., 2023).

Also, In online learning, having engaging teaching materials is crucial to keep students motivated and interested in their studies. Interactive multimedia elements like images, animations, and educational games can make learning more enjoyable (Fatima, 2020). However, creating such materials can be time-consuming and may require additional resources. Additionally, the lack of a proper feedback and evaluation system in online classes is another challenge (Jensen et al., 2021). Unlike in traditional classrooms, it can be challenging for teachers to monitor students' progress and provide timely feedback. Developing effective evaluation methods is essential for ensuring that students are learning and making progress.

Moreover, not all students have a suitable home environment for studying, and not all parents can provide the necessary support for online learning. Some students may face distractions at home, making it difficult to focus on their studies (Jie & Mat Ali, 2021). Ensuring that students have a conducive learning environment and support from their families is essential to their success in online learning, see table.

Online learning presents various challenges, including access to technology, teacher and student training, engaging teaching materials, effective feedback mechanisms, and suitable learning environments. Addressing these challenges is crucial to ensuring that online learning is accessible and effective for all students.

In conclusion, online learning presents both advantages and challenges. While it offers flexibility, accessibility, and the potential for personalized education, it also comes with obstacles such as the need for proper technology and training for teachers and students, the creation of engaging learning materials, establishing effective feedback systems, and ensuring conducive learning environments. To fully harness the benefits of online learning, it is crucial to actively address and overcome these challenges. This requires

providing equitable access to technology and resources, investing in teacher development and support, fostering an interactive online learning environment, and promoting parental involvement. By doing so, we can facilitate a successful and inclusive online learning experience that benefits learners from diverse backgrounds, enhancing the adaptability and resilience of education in our increasingly digital era.

2.4 Flipped learning

2.4.1 Flipped learning overview

Flipped learning (FL), as we know it today, is a pedagogical approach that involves reversing the traditional model of in-class lectures and homework assignments. In this intriguing journey through its history, we will explore the key milestones, influential figures, and the evolution of technology that have shaped FL into a prominent and dynamic teaching strategy. From its early origins to its widespread adoption in contemporary education, this exploration will shed light on the continuous evolution of pedagogical practices in response to the changing needs of students and the educational landscape.

1. Early Beginnings (2000s): The idea of FL is not a recent innovation, as indicated by previous research (Baker, 2000). This concept has evolved gradually over time. Prior to the advent of FLs, distance education relied on educational videos to deliver instructional material. In 1995, with the introduction of online content management systems, Baker was able to upload lecture notes online, extend classroom discussions, and administer online quizzes (Strayer, 2007). This approach allowed for the expansion of in-class time, enabling students to apply the content and complete quizzes. Baker introduced this concept in conferences between 1996 and 1998, eventually referring to it as "The Classroom Flip" (Baker, 2000). Around the same period, Lage et al (2000) developed and implemented a similar approach, which they called "The Inverted Classroom". They expected that students would watch lectures before class, and then use class time to discuss challenging concepts and engage in collaborative group work. They equipped their students with a range of resources to introduce them to course content before class, including textbook readings, lecture videos, and printable educational slides (Johnson & Renner, 2012).
2. Formalization of the model (2007): The FL model was formally introduced and popularized by Jonathan Bergmann and Aaron Sams, two high school chemistry teachers, in 2007. Their quest began when they sought a solution to provide lectures

to students who had missed classes for various legitimate reasons. They recorded their lectures and made them available online for students to access before coming to class. This formalization marked a significant milestone in the development of a groundbreaking educational approach known as the FL method (Bergman & Sams, 2013).

3. Expansion of Technology (2010s): In 2010, Pink (2010) introduced Bergmann and Sams' method as the "FL," a term that has since become widely recognized. In March 2011, Salman Khan popularized the term "flipping the classroom" during his TED talk (Khan, 2011). Since then, there has been an exponential surge in interest in the flipped model, with new articles, press coverage, and blogs about it emerging almost daily. This has given rise to a fresh perspective in the field of education.
4. In early 2010, a professional learning network was established to connect educators interested in the flipped education approach. By May 2013, this network had grown to include over 16,000 members from around the world (Overmyer, 2013; Overmyer,2014) This network provides valuable pedagogical insights, best-practice discussions, as well as practical and hands-on support related to technology and implementation (FLN, 2014).
5. Technology Integration (2010s), researchers started to study the effectiveness of the FL model. Numerous studies emerged, highlighting the positive impact of FL on student engagement, academic performance, and critical thinking skills (Taylor, 2015). In addition, the integration of technology continued to evolve, allowing educators to use various digital tools and platforms to facilitate FL. Learning management systems, video-sharing platforms, and interactive online resources became common tools for creating and delivering pre-class materials (Romero-García et al., 2019). Moreover, it became synonymous with student-centered learning. Educators embraced the idea of putting students at the center of their learning journey, promoting personalized learning pathways, and empowering students to take ownership of their education. These research findings further encouraged educators to adopt the flipped model (Hung, 2014).
6. Flexibility and Adaptability (2020s): In the 2020s, the FL design showed its adaptability, particularly during the COVID-19 pandemic when many educational institutions shifted to remote learning. FL allowed educators to maintain student engagement and interaction despite the challenges posed by distance learning (Dhawan, 2020).

7. Ongoing Research and Refinement (2020s): As the FL continues to develop, researchers and educators are conducting ongoing studies to refine and improve its implementation. They are exploring best practices, addressing challenges, and seeking ways to enhance student learning experiences (Chen & Wang, 2023).

In conclusion, the FL design and implementation has come a long way since its early beginnings. From its inception by innovative educators to its formalization, popularization, and technological integration, the FL has transformed the educational landscape. As the model continues to evolve in the 2020s and beyond, its flexibility and adaptability remain essential features, ensuring that the FL remains a dynamic and student-centered approach to learning.

2.4.2 Flipped learning growth

Due to the popularity of FL practice, FL research has experienced exponential growth. A systematic search was conducted in 2022, using various keywords such as "FL", "FL", language teaching, language learning in the titles of peer-reviewed journal articles across the Web of Science database (WOS) and SCOPUS. The results showed that the majority of the research articles published are between 2021 and 2022, aimed at L2 teaching, specifically English, and also reveal that FL enhances students' motivation and improves results in the development of language teaching, see Figure 1 (Heredia Ponce et al., 2022).

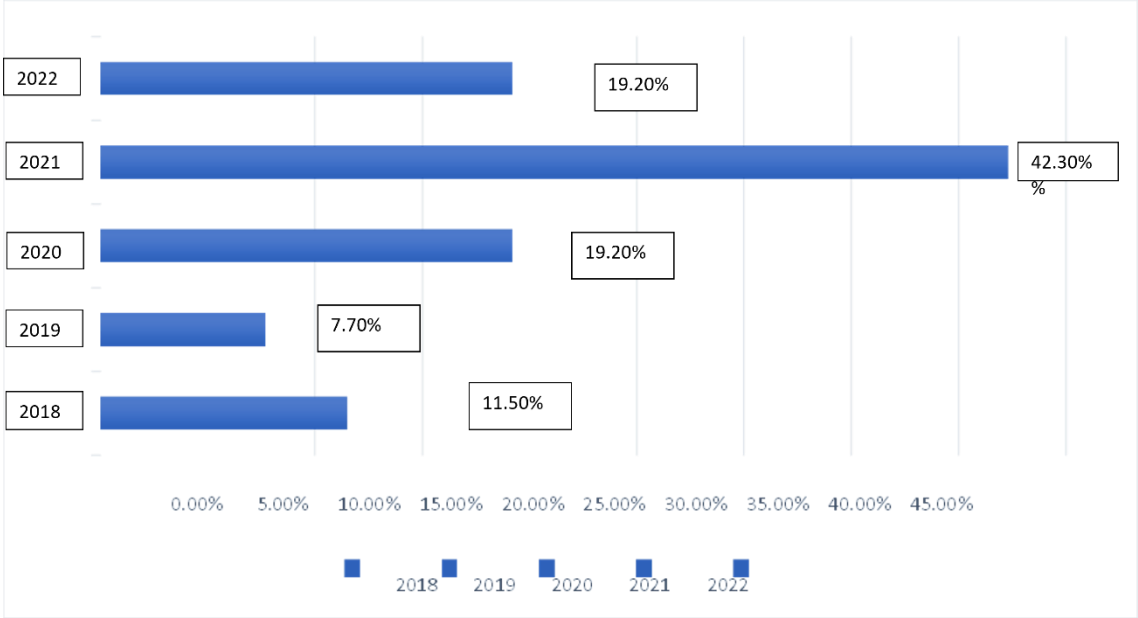

Figure 1. Number of FL publications by year (Heredia Ponce et al., 2022)

Based on the above data, The utilization of the FL approach in language teaching has attracted significant scholarly attention, as evidenced by the distribution of publications across the examined years. An analysis of publication trends reveals a distinct pattern in the prioritization of certain years. Notably, the year 2021 emerges as the most prolific period in terms of scholarly output, constituting a substantial 42.3% of the total publications within the specified domain. This robust representation suggests an intensified scholarly focus on the intersection of the FL model and language pedagogy during this period. The subsequent years, 2022 and 2020, also demonstrate considerable attention, accounting for 19.20 of the publications. These findings reflect the sustained interest and exploration of the potential benefits and challenges associated with the integration of FC in language education (Heredia Ponce et al., 2022).

However, the earlier years exhibit varying levels of scholarly engagement. The year 2018 contributed 11.5% of the publications, followed by a modest 7.70% in 2019(Heredia Ponce et al., 2022). These proportions indicate a comparatively lower emphasis on FC within language teaching during these years. The observed distribution underscores the evolving trajectory of research interests, with heightened attention in recent years and a gradual increase in exploration in the preceding ones. Collectively, these trends illuminate the dynamic nature of the relationship between FC and language education, illustrating both its growing prominence and the nuanced shifts in scholarly priorities over the examined period. Further exploration of the reasons underlying these trends can provide valuable insights into the factors driving the fluctuating research landscape in this domain.

2.4.3 Flipped learning definition

FL is a blended learning format in which students learn content online before class and do more practice-oriented work in class (Bergmann & Sams, 2012). The main idea is the shifting, which happens when students are delivered the content before class time in the form of instructional videos or any remotely accessed instructional items and then spend the class time applying this material through active learning strategies (Thai et al., 2020; Voigt et al., 2020; Yoon et al., 2018).

The term “FL” was first coined by Jonathan Bergmann and Aaron Sams in 2007, who were high school science teachers looking for a way to make better use of class time and personalize instruction for their students. They started by recording their lectures and posting them online for students to watch before class. This allowed students to learn at

their own pace and come to class prepared to engage in hands-on activities, and group projects, and ask questions. They explained that what is done at school is done at home, and homework finished at home is completed in class (Bergmann & Sams, 2012).

FL Network (2014) pointed out the definition of the flipped classroom as a pedagogical approach in which direct instruction moves from the group learning space to the individual learning space, and the resulting group space is transformed into a dynamic, interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject matter.

In other words, the instructional approach can be categorized into two modes: passive and active. Passive learning mainly occurs beyond the classroom, typically at home, for the purpose of attaining fundamental cognitive knowledge. In contrast, within the classroom setting, active learning techniques are employed to facilitate the acquisition of advanced cognitive abilities by students (Cheng et al., 2019; Derakhshan et al., 2020; Kernagaran & Abdullah, 2022).

FL provides students with good learning opportunities since it creates more time for engaging in practice, collaborative problem-solving projects, higher-order thinking tasks, application of new knowledge, and communicative active learning under the teacher's guidance and facilitation. Therefore, the teacher's role is as an organiser, guide, facilitator, and manager (Bergman & Sams, 2013; Hung, 2014, 2016; Lin & Hwang, 2018).

According to Kang and Kim (2021), a mixed educational technique that directs active learning both inside and outside of the classroom is the FL with team-based learning. (Turan & Akdag-Cimen, 2020) see it as a teaching strategy that substitutes homework for instruction and extends learning outside of the classroom. Additionally, it is defined as a teaching method that inverts the traditional classroom model by delivering instruction outside of the classroom, typically through online videos or readings, and using class time for interactive, collaborative activities and personalized instruction (Zou et al., 2020).

As an instructional strategy, FL involves reversing the traditional roles of homework and classwork. Instead of traditional lectures in class, students watch pre-recorded video lectures and complete related activities at home as homework. In-class time is then devoted to interactive activities, discussion, and problem-solving (Adnan, 2017).

In this sense, FL combines the lecture method with active learning. Students access the internet at home before class, which helps them learn at their own pace, expand the class time for more activities and clarification, support different active learning strategies such as cooperative learning and peer interaction, provide students with guidance and feedback, enhance motivation, develop higher-order thinking skills, and improve problem-solving and learning results (Lin & Hwang, 2018; Yoon et al., 2018).

The flipped classroom approach, initially summarized as the inversion of traditional classroom activities, is described by Asiksoy & Özdamli (2016) as a paradigm where everything traditionally conducted in the classroom is now moved outside the classroom, and vice versa. However, merely altering the sequence of teaching and learning activities falls short of a comprehensive portrayal of this educational method. According to Bergman and Sams definition, the flipped classroom constitutes a technology-supported educational strategy comprising two fundamental elements: (1) Individualized, computer-based learning conducted outside the classroom through video lectures, and (2) Collaborative group activities conducted within the classroom (Arslan, 2020; Turan & Akdag-Cimen, 2020, Giannakos, 2019). Notably, this definition underscores the use of educational videos as a crucial component of out-of-classroom learning. However, it's worth mentioning that there have been instances of employing various media types, aside from video, within the flipped classroom approach. These include the utilization of presentation files, electronic books, social media platforms, and even traditional paper-based textbooks (Aydin, 2016; Loizou, 2022).

In conclusion, FL is a teaching method that inverts the traditional classroom model by delivering instruction outside of the classroom, typically through online videos or readings, and using class time for interactive, collaborative activities and personalized instruction. It is effective in a variety of settings and has several advantages, such as personalised instruction and effective use of class time.

2.4.4 Flipped learning tools

FL represents a fundamental departure from traditional teaching methods. In this approach, the traditional classroom model is inverted, with students engaging in independent learning before class and using valuable in-class time for active discussions, problem-solving, and collaboration. A key element of this pedagogical shift is the wide array of digital tools and technologies available to both educators and learners. These tools empower teachers to create, curate, and deliver content effectively, while also

providing students with interactive resources to enhance their learning experience (Ekici, 2021; Liu et al., 2016; Mehring, 2016; Palazón-Herrera & Soria-Vílchez, 2021).

1. Tools for Content Creation and Delivery
    - Video Creation Tools: One of the central components of FL is the creation of instructional videos. Educators can use a range of tools such as Screencast-O-Matic, Camtasia, or even basic tools like PowerPoint to create engaging video content. These tools enable teachers to record lessons, annotate content, and provide explanations, fostering active engagement and comprehension.
    - Learning Management Systems (LMS): Learning management systems like Moodle, Canvas, or Blackboard serve as digital platforms for organizing and delivering content. They allow teachers to upload video lectures, readings, quizzes, and assignments, making it convenient for students to access resources and track their progress.
2. Tools for Interaction and Engagement
    - • Discussion Forums and Collaboration Tools: To facilitate student interaction outside of the classroom, tools like discussion forums, chat applications (e.g., Google Chat, WhatsApp), and collaboration platforms (e.g., zoom, Google Workspace) promote meaningful discourse, knowledge sharing, and teamwork. These platforms empower students to ask questions, seek clarification, and collaborate on projects, enriching their learning experience.
    - • Interactive Quizzes and Assessments: Tools like Kahoot, Quizlet, and Edpuzzle allow teachers to create interactive quizzes and assessments. These not only help in reinforcing learning but also provide instant feedback to students, enabling them to gauge their understanding and identify areas of improvement.

In conclusion, FL tools offer several advantages. Firstly, they foster a self-paced learning environment, accommodating diverse learning styles and paces. Secondly, they promote active engagement, as students interact with content and peers both before and during class. Thirdly, they enable educators to monitor student progress and adapt their teaching strategies accordingly. Lastly, these tools encourage critical thinking and problem-solving by shifting the focus from content delivery to application and analysis, see Figure 2.

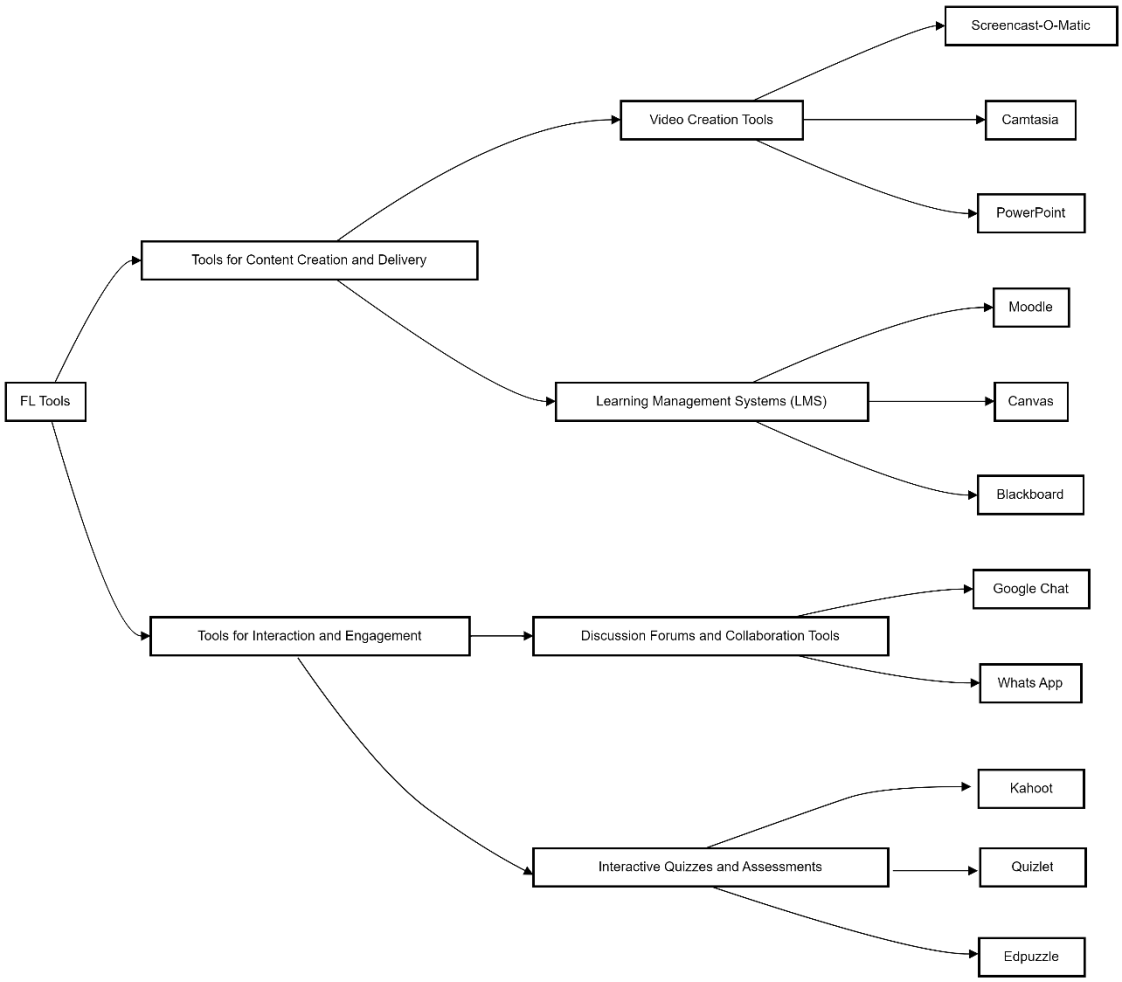

Figure 2. FL Tools

2.4.5 Flipped and English language teaching

2.4.5.1 EFL Flipped learning paradigms

The field of English Language Teaching (ELT) has gained immense significance and is globally regarded as a top priority (Cheng et al., 2019; Mo, 2023; Turan & Akdag-Cimen, 2020). Technological advancements have brought about transformations in both student demographics and teaching staff, prompting researchers to explore novel educational methods tailored to the evolving student profile (Pilu & Nur, 2023; Vitta & Al-Hoorie, 2023).

EFL Flipped learning can be a valuable addition to modern language teaching methodologies, as it aligns with several educational paradigms and addresses the evolving needs of students and teachers. Here's how FL fits into today's language teaching methodologies and the paradigms it approaches (Arslan, 2020; Gok et al., 2021; Heredia Ponce et al., 2022; Jiang et al., 2020; Loizou, 2022; Turan & Akdag-Cimen, 2020).

Active Learning Paradigm:

The active learning paradigm inherent in FL is a transformative shift in contemporary education, prioritizing students' active participation and cognitive engagement in the learning process. FL redefines the traditional classroom by delivering students with the responsibility of acquiring foundational knowledge independently, prompting them to assume an active role in their educational journey. During the pre-class phase, learners engage with instructional materials, including video lectures, readings, and interactive digital resources, fostering not only a sense of autonomy but also valuable time management and study skills. The true essence of active learning unfolds in the in-class phase, where educators orchestrate dynamic, hands-on activities, in-depth discussions, and immersive language practice, all aligned with higher-order thinking levels from Bloom's Taxonomy, nurturing critical thinking, analysis, evaluation, and creativity.

Project-Based Learning paradigm:

The Project-Based Learning (PBL) paradigm stands as an innovative approach in education, emphasizing practical application and the development of critical thinking and communication abilities. By assigning projects that necessitate the application of language skills in real-world contexts, educators empower students to go beyond rote learning and engage deeply with the subject matter. PBL encourages learners to analyze, synthesize, and communicate effectively, as they grapple with authentic challenges and scenarios. Through this experiential learning process, students not only enhance their language proficiency but also cultivate problem-solving skills and the capacity to collaborate effectively, preparing them for success in the dynamic and interconnected world beyond the classroom.

Constructivist Paradigm:

FL supports constructivist principles by allowing students to construct their own understanding of language concepts. They engage with pre-class materials, collaborate with peers, and apply knowledge in meaningful ways during in-class activities. Additionally, teachers become facilitators and guides rather than primary content deliverers. They can provide individualized support, answer questions, and address specific needs.

Teachers can create video lessons covering foundational concepts or grammar rules and assign them as homework. This allows students to learn basic content at their own pace before coming to class. Classroom time can be dedicated to interactive activities, discussions, and practical exercises that apply the knowledge gained from the pre-class videos. This promotes active learning and engagement. In addition to the Flexible Learning Paths since students may progress at different Paths, they offer flexibility in pacing to accommodate various learning styles and levels of language proficiency.

Social Learning Paradigm:

The Social Learning Paradigm, deeply integrated into the pedagogical framework of flipped classrooms, underscores the significant role of peer interaction and collaborative learning in the context of language acquisition. Within this educational approach, students actively engage in collective language tasks, participate in substantive discussions, and provide constructive peer feedback. Such dynamic and interactive learning experiences authentically replicate the inherently social nature of language acquisition, leading to significant enhancements in their oral communication and listening proficiencies. Through collaborative endeavours, students not only consolidate their grasp of linguistic subtleties but also cultivate critical interpersonal competencies, including effective communication and teamwork. The Social Learning Paradigm thus contributes substantially to the educational landscape, equipping learners with the communicative acumen necessary for success in diverse linguistic and cross-cultural contexts.

Technology-Enhanced Learning Paradigm:

Flipped Learning Connection: FL relies on digital technology to deliver pre-class materials, such as videos, online quizzes, and discussion forums. Teachers Utilize discussion forums or online platforms for students to ask questions, share resources, and engage in meaningful discussions related to the course content outside of class. Additionally, they Incorporate a variety of multimedia resources, such as podcasts, interactive websites, and online language-learning apps, to diversify the learning experience. Moreover, they Use online quizzes and assessments to gauge students' understanding of the pre-class material. This provides immediate feedback to both students and teachers. This aligns with the use of technology in modern education and provides opportunities for BL experiences.

Personalized Learning Paradigm:

The implementation of the Personalized Learning Paradigm within flipped classrooms is a testament to the educational commitment to individualized instruction. Within this framework, students are provided the opportunity to progress through the curriculum at a pace that aligns with their unique learning needs. This flexibility empowers learners to revisit instructional content as required and engage with educational materials in a manner that resonates with their particular learning styles. This personalized approach underscores the concept of tailored learning pathways, while students are encouraged to assume ownership of their educational journey. This approach cultivates self-directed learning, autonomy, and heightened engagement with the subject matter. Consequently, the Personalized Learning Paradigm not only acknowledges the diverse nature of learners but also fosters a dynamic and responsive educational environment that is conducive to the realization of individual learning objectives.

Communication-Based Language Teaching Paradigm:

The Communication-Based Language Teaching Paradigm, an integral component of language pedagogy, finds significant interaction with the FL model. Flipped learning's capacity to optimize classroom time amplifies the efficacy of communication-based language instruction. By shifting the responsibility for grammar and vocabulary acquisition to independent pre-class study, students arrive prepared to immerse themselves in substantive speaking and listening activities during class. This reconfiguration of priorities mirrors the communicative essence of language acquisition, creating a classroom environment beneficial to practical language application. Consequently, FL not only fortifies linguistic competence but also nurtures the communicative proficiency essential for language learners to engage effectively in real-world language contexts, thus aligning with the tenets of the Communication-Based Language Teaching Paradigm.

Cultural and Intercultural Competence Paradigm:

flipped classrooms offer a unique opportunity to enrich the curriculum with cultural and intercultural content. By embedding cultural exploration into pre-class materials, students are equipped with the foundational knowledge needed to engage in substantive intercultural discussions during class. This approach not only fosters cultural awareness but also promotes the development of intercultural competencies, such as empathy, open-

mindedness, and effective cross-cultural communication. It encourages students to critically examine cultural nuances, challenging their assumptions and broadening their perspectives. Consequently, FL not only enhances linguistic proficiency but also cultivates the cultural and intercultural competence necessary for effective and respectful engagement in diverse global contexts, aligning harmoniously with the principles of the Cultural and Intercultural Competence Paradigm.

Assessment for Learning Paradigm:

FL represents an ideal platform for the integration of formative assessment strategies that are inherently aligned with the learning objectives of the flipped classroom model. These assessment approaches, which encompass online quizzes, peer assessments, and in-class discussions, serve as pivotal tools in gauging and guiding students' language development. Timely and constructive feedback, facilitated by educators, plays a central role in this process by enabling students to critically reflect on their learning experiences and make continuous improvements in their language acquisition journey. Moreover, the incorporation of peer assessment, particularly for activities like presentations or group projects, fosters a sense of self-awareness and promotes collaborative learning, thereby simultaneously enhancing language skills and metacognitive abilities. This synergy between FL and formative assessment strategies underscores the model's pedagogical versatility and its capacity to effectively advance language education in diverse and multifaceted ways.

Lifelong Learning Paradigm:

FL serves as a catalyst in nurturing self-directed learning skills, a significant aspect for students embarking on their language learning journey. The cultivation of these skills is not only beneficial in the immediate context of language acquisition but also carries enduring significance for lifelong learning and adaptability. The incorporation of FL within language teaching methodologies signifies a transformative shift toward more dynamic, learner-centered, and technology-integrated language learning environments. This pedagogical approach harmoniously aligns with various contemporary educational paradigms that underscore student agency and engagement. Moreover, it provides fertile ground for the enhancement of language acquisition and communication skills, equipping learners with the competencies needed to succeed in today's interconnected and multilingual world, see Figure 3.

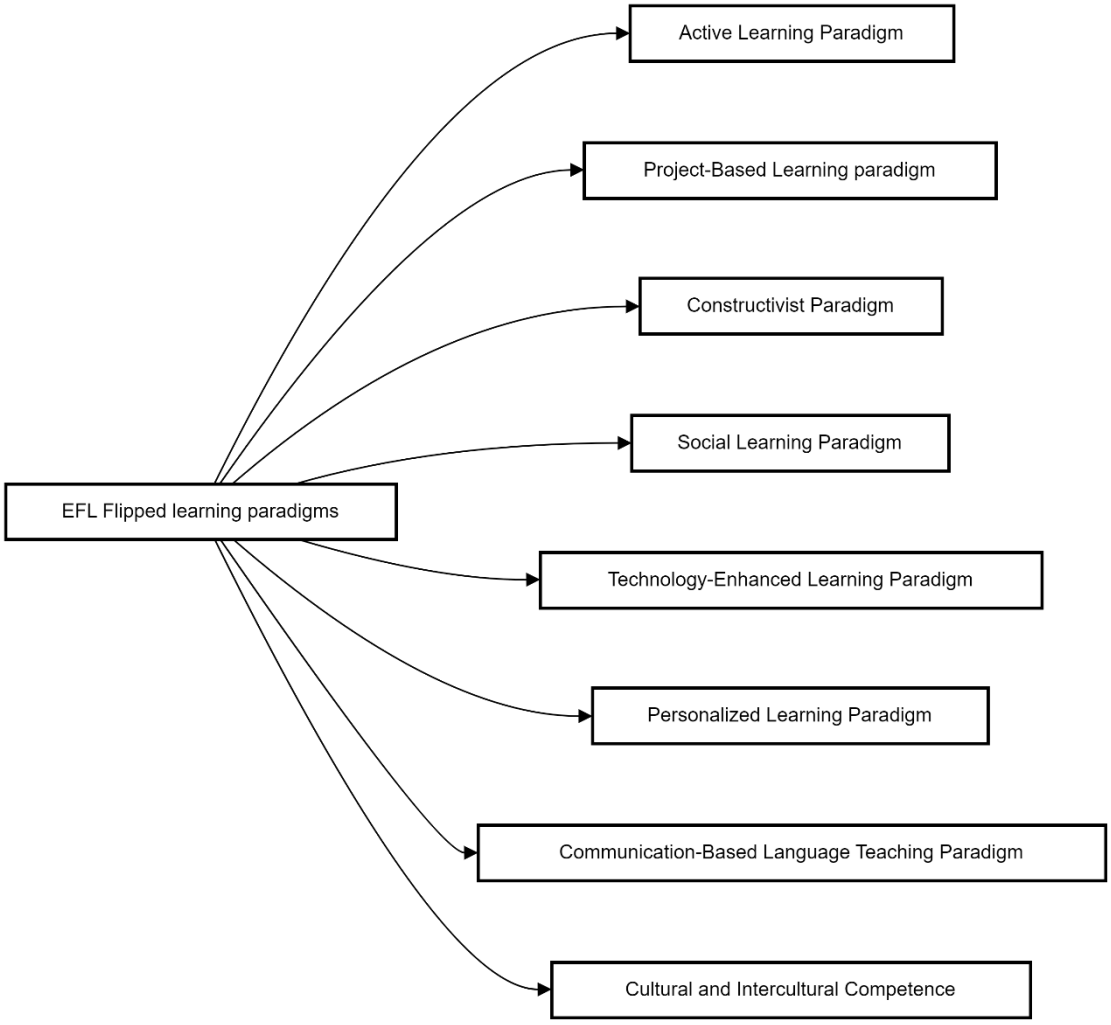

Figure 3. EFL Flipped learning paradigms

2.4.5.2 The Importance of EFL Flipped Learning

In the realm of teaching English as a foreign language (EFL), active learning approaches have gained prominence as being more effective compared to traditional teacher-centered methods. Among these active learning approaches, the flipped classroom has emerged as a response to the changing educational landscape of the modern era, particularly after COVID-19. It has been warmly embraced by educators and researchers seeking methods that align with the evolving needs of students.

It is widely known that acquiring a new language demands a substantial investment of time, patience, and dedicated practice. To achieve effective learning outcomes in foreign language classrooms, students should have the opportunity to engage in a variety of

activities to develop a deeper understanding of the target language. Unfortunately, due to the constraints of limited classroom time, teachers may find themselves compelled to omit crucial elements of effective foreign language instruction. The flipped classroom method offers a solution by shifting instruction outside of the classroom, thereby creating space for supplementary practice and activities within the classroom setting that based on autonomous and student centered learning and (Ağırman & Ercoşkun, 2022; Amiryousefi, 2019; Pilu & Nur, 2023).

Various studies in academic literature have demonstrated the positive impact of the flipped classroom model on students' language acquisition. Shorman (2015) highlighted how the flipped classroom model empowers students to pre-learn course materials at home using technology tools and educational websites, which enhances their comprehension of specific subjects. Similarly, (Asiksoy & Ozdamli, 2016) reported similar findings, emphasizing that the flipped classroom approach prioritizes student-centered learning. With the assistance of technological devices such as smartphones, iPads, or computers, students can actively engage with new lessons at their convenience. This approach allows students to take effective notes, revisit challenging segments, or skip sections they have already mastered, ultimately increasing their enthusiasm and enjoyment of the learning process.

Strohmyer (2016) asserted that implementing the flipped classroom strategy offers several advantages for both educators and learners. For teachers, the flipped classroom model offers valuable opportunities to utilize class time for guiding and assisting students. Additionally, it provides a means to assess students' strengths and weaknesses in understanding course content through in-class activities. On the students' side, the flipped classroom can enhance critical thinking, higher-order thinking skills, and self-directed learning abilities tailored to individual differences. It also fosters the development of practical experiences and communication skills.

Alzain (2015) further underscored that the flipped classroom represents a modern technological solution for addressing academic deficiencies among students and elevating their cognitive abilities. This pedagogical approach helps learners develop their knowledge across scientific, practical, and behavioural dimensions. Dickenson (2016) added that the flipped classroom is regarded as an active practice that enables learners to bridge the gap between what they learn and their personal lives and experiences. This

process allows learners to connect their academic knowledge with their intellectual behaviors until it becomes an integral part of their identity.

Numerous studies have been conducted to investigate the efficacy of FL in the realm of teaching English as a foreign or second language (EFL/ESL). Researchers, such as (Al-Harbi & Alshumaimeri, 2016; Thaichay & Sitthitikul, 2016; Webb & Doman, 2016) who have investigated the effectiveness of flipped English grammar courses, have reached a consensus that FL plays a vital role in augmenting students' grammar proficiency. It fosters a sense of comfort and confidence in using English grammar. Similarly, when applied to writing courses, the flipped approach has been associated with improved academic achievements in writing and heightened student engagement in the writing process, as noted by (Afrilyasanti et al., 2017; Gasmi, 2016; Yu & Wang, 2016).

Webb & Doman (2016) conducted an investigation into the impact of FL on students' learning outcomes in English grammar and their perceptions of it. The course under examination primarily emphasizes higher-order thinking skills and typically lacks comprehensive explicit grammar instruction. In the research group, students watched instructional videos, followed by a brief quiz, and were tasked with constructing example sentences to demonstrate their comprehension. Both the quiz and sentence creation were subject to evaluation. Additionally, students completed a survey that focused on their comfort and confidence levels during the experiment. The findings from the study on grammar usage yielded statistically significant results in favour of the innovative teaching approach.

Kang (2015) study conducted to evaluating the learning outcomes of students in grammar and vocabulary through a comparison between traditional classroom teaching and the Flipped Classroom approach. The research yielded statistically significant findings in favor of the Flipped strategy and also demonstrated students' endorsement of this teaching method. The authors acknowledged that the primary challenge and drawback of the strategy was students failing to complete assignments.

A study conducted in a Saudi high school by Al-Harbi & Alshumaimeri (2016) focused on the application of the Flipped Classroom strategy for teaching English Grammar. The researchers divided students into two groups: a research group and a control group. The study shed light on the specific challenges of the English language learning context in Saudi Arabia, highlighting the limited practice opportunities for students and the

prevailing instructional approach, which primarily involved lectures, textbook exercises, and instructors as the sole source of knowledge. This traditional approach had led to low student motivation.

The authors acknowledged that their findings were not entirely straightforward. The differences in scores between the pre-experiment and post-experiment tests in the two groups were not significant from a statistical perspective. However, when surveying students about their experiences, there was a notably positive response. Students reported increased motivation and more practice opportunities resulting from the use of the Flipped strategy. These factors are known to significantly impact language learning and acquisition. Some students mentioned that the video lengths, which could be as long as 15 minutes, had a negative impact on their engagement. Nonetheless, all students interviewed found the videos beneficial to their learning, and some even suggested applying the strategy to other subjects as well.

In the context of flipped speaking courses, this approach not only facilitates the enhancement of students' oral English skills but also empowers them as autonomous learners, allowing for a deeper grasp of the course content, as evidenced by (Choe & Seong, 2016; Li & Zhang, 2016; Li, 2016; Xie & Fang, 2016). Additionally, (Abdullah et al., 2019) conducted research to investigate the use of the Flipped Classroom Method (FCM) in the context of English as a Foreign Language (EFL) speaking instruction. His study showed that FCM proved to be an efficacious approach, highlighting a notable disparity in the results of oral proficiency assessments conducted before and after the implementation of the method. Additionally, the research revealed a progressive enhancement in students' active participation and enthusiasm when it came to participating in English conversational exercises, ultimately leading to improved levels of engagement and proficiency in English speaking.

Several inquiries have explored the impact of FL on language students, consistently concluding that it motivates students to utilize English idioms and vocabulary more effectively in communication interactions. The findings from these studies underscore that FL encourages students to assume control of their own learning, enabling them to study at their preferred pace and take responsibility for their educational journey, as demonstrated by (Çelebi et al., 2016; Chen Hsieh et al., 2016; Hung, 2015).

In accordance with a qualitative investigation conducted by Basal (2015), which drew upon the perceptions of 47 pre-service English teachers, the flipped classroom approach in foreign language education is perceived as affording individuals the opportunity to learn at their individualized pace. Moreover, it is believed to bolster student readiness, mitigating time-related constraints within the classroom, and fostering heightened student engagement.

A study focusing on students' views Butt (2014) highlighted those participants generally favoured the innovative teaching method, especially in larger classroom settings. The author also noted that the Flipped Classroom approach could be seen as a positive addition to the university classroom due to its combination of active learning and demonstration. Some students appreciated the home-based learning environment as it allowed them to ask questions without feeling embarrassed. In the same study, it was found that 25% of students did not perceive the Flipped strategy as beneficial for their language learning.

The adaptable nature of the flipped classroom method facilitates the meeting of diverse classroom needs, as it grants students additional learning time outside of class and enables educators to identify areas requiring further reinforcement among their students (Pilu & Nur, 2023). Consequently, the positive outcomes associated with flipped classrooms are not unexpected. The selected published studies validate that the implementation of the FL in EFL (English as a Foreign Language) classrooms, enhancing various aspects of courses, with primary findings indicating that this method contributes to the enhancement of students' language skills, peer interactions, engagement, and overall learning achievements.

2.4.6 Flipped learning and Bloom's taxonomy

Bloom's Taxonomy, developed by Benjamin Bloom and his colleagues in the 1950s, offers a systematic categorization of cognitive skills, providing educators with a framework to assess and develop students' thinking abilities (Bloom, 1956). The taxonomy comprises six levels:

3.1. Remembering: The lowest level involves recalling facts, definitions, and basic knowledge.

3.2. Understanding: At this level, students demonstrate comprehension by interpreting and explaining concepts in their own words.

3.3. Applying: Application involves using knowledge and understanding to solve problems, perform tasks, or apply concepts in new contexts.

3.4. Analyzing: Analytical thinking requires students to break down complex information, identify patterns, and make connections.

3.5. Evaluating: At the evaluation level, students assess the value, quality, and validity of information, arguments, or solutions, employing critical judgment.

3.6. Creating: The pinnacle of Bloom's Taxonomy involves synthesizing information, generating original ideas, and designing novel solutions or products.

The integration of FL and Bloom's Taxonomy offers substantial potential for improving educational experiences and nurturing higher-order cognitive skills. This synergy becomes evident when we delve into the ways in which FL corresponds with each tier of the taxonomy, demonstrating its capacity to facilitate deeper learning and critical thinking (Ahmed, 2016; Carmona-Garcia et al., 2020; Eppard & Rochdi, 2017).

Remembering and Understanding: In the realm of cognitive development, the initial stages often entail the acquisition of foundational knowledge, representing the remembering and understanding levels of Bloom's Taxonomy. In the context of FL, this cognitive groundwork is thoughtfully laid during the pre-class phase. Here, students thoroughly engage with instructional resources such as video lectures and readings, particularly absorbing essential concepts. This phase serves as the foundation upon which deeper exploration is built, preparing learners to examine subject matter during the subsequent in-class phase. Thus, the remembering and understanding facets align harmoniously with the preparatory essence of FL, equipping students with the basic knowledge for further cognitive ascent.

Applying: The transition from comprehension to application represents a fundamental base in cognitive development, mirroring the "applying" level within Bloom's Taxonomy. Flipped learning's in-class phase serves as an ideal arena for this transformation. Here, students are encouraged to translate their knowledge into practical contexts through collaborative activities, group discussions, and problem-solving tasks. This experiential approach bridges the gap between passive understanding and active utilization, fostering a seamless alignment with the "applying" tier of the taxonomy. Consequently, students

not only grasp theoretical concepts but also harness the ability to wield their knowledge effectively in real-world scenarios.

Analysing and Evaluating: The realms of analytical thinking and critical evaluation, intrinsic to the "analysing" and "evaluating" levels of Bloom's Taxonomy, are vividly illuminated within the landscape of FL. During the in-class phase, students engage in thought-provoking discussions and interactive activities that help them to analyse information critically. These pedagogical encounters encourage the examination of diverse perspectives, the assessment of argument validity, and the development of judgment. This increased cognitive engagement augments students' capacity to think critically, placing them securely within the analytical and evaluative domains of the taxonomy.

Creating: At the highest level of thinking in Bloom's Taxonomy, we find the concept of "creating." In this realm, students are encouraged to use their knowledge in innovative ways, a concept that aligns with the potential of FL. Flipped Learning’s innovative approach allows more class time for interactive and creative activities, fostering the synthesis of information, the generation of fresh ideas, and the development of innovative solutions. This dynamic learning environment propels students towards the "creating" level in the taxonomy. Here, they don't just passively consume knowledge; they actively construct new insights, showcasing the highest form of cognitive engagement. Flipped learning's exceptional ability to inspire creativity and innovation perfectly aligns with this "creating" level, representing the pinnacle of cognitive development, see Figure 4.

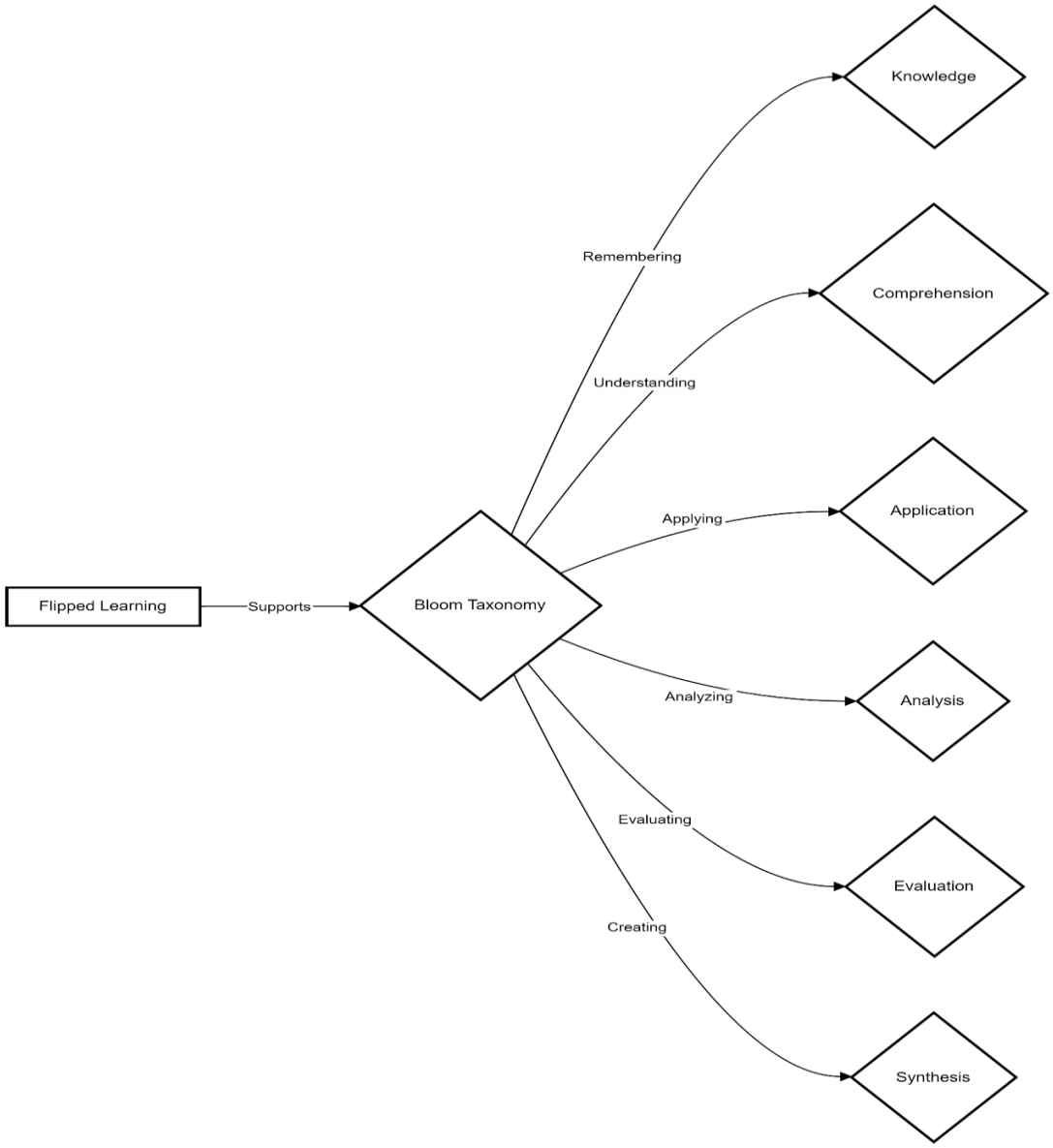

Figure 4. Flipped learning and bloom taxonomy

2.4.7 Traditional and flipped learning in Bloom's taxonomy

The utilization of Bloom's Taxonomy in both flipped and traditional learning environments presents distinct approaches to instructional design and cognitive development. In traditional learning settings, instruction often follows a linear sequence, where educators typically commence with lower-order cognitive skills, such as remembering and understanding, before advancing to higher-order thinking skills, including analysis, evaluation, and creation. In contrast, FL reconfigures this order by delivering content outside of class, primarily focusing on lower-order cognitive skills as pre-class activities and then dedicating in-class time to fostering higher-order thinking

through discussions, problem-solving, and collaborative activities (Gilboy et al., 2015). This inversion enables students to grapple with complex concepts, apply knowledge, and engage in critical thinking during face-to-face interactions, which is often more challenging to achieve in traditional lectures. While both approaches can effectively incorporate Bloom's Taxonomy, the fundamental distinction lies in the timing and emphasis on different cognitive levels, with FL capitalizing on in-class engagement for higher-order skill development, while traditional learning tends to emphasize sequential progression through all cognitive levels within class time, see Figure 5.

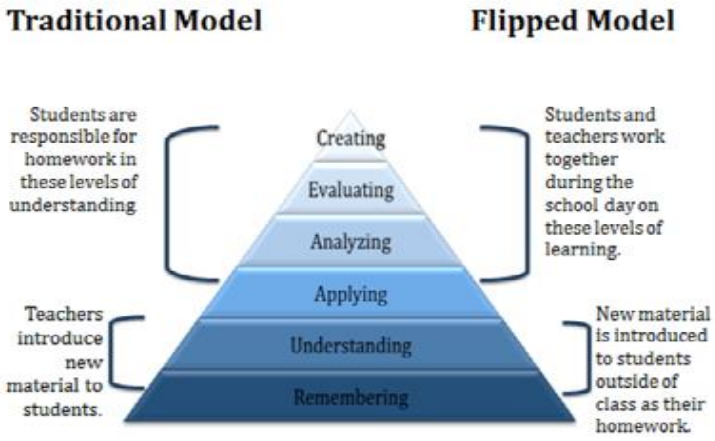

Figure 5. Bloom's Taxonomy related to traditional and flipped learning (Ahmed, 2016)

2.4.8 Flipped learning advantages

FL is a teaching approach that has gained popularity in recent years and involves reversing the traditional classroom model. In this model, students are given access to learning materials such as videos, readings, and other resources outside the classroom. The time in class is then dedicated to discussions, collaborative work, and problem-solving activities. In teaching the English language, FL has several advantages.

One advantage of FL is its flexibility, which allows students to learn at their own pace. English language learners have different abilities and learning styles, and some may need more time to grasp concepts than others. Additionally, some may prefer visual or auditory methods, while others may prefer hands-on activities. FL provides students with a variety of learning materials, such as videos, podcasts, and interactive games, which cater to

different learning styles. This ensures that students are engaged and motivated to learn, regardless of their preferred learning style (Divjak et al., 2022; Senali et al., 2022; Tambunan et al., 2022; Li, 2016).

Flexibility is another key advantage of FL in teaching and learning the English language. FL provides flexibility in terms of time and location. Students can access learning materials and complete assignments at any time and from any location, as long as they have access to the Internet (Li, 2021). This means that students can review and understand the material in their own time and engage in learning the English language without being constrained by traditional classroom schedules.

Another advantage of FL in teaching English is that it promotes active learning. In traditional classrooms, students often sit passively as the teacher lectures. However, FL encourages students to take an active role in their learning by engaging in discussions and collaborative work during class time. This promotes critical thinking and problem-solving skills, which are essential for language acquisition (Lin & Hwang, 2018).

FL also promotes the use of technology in teaching English. Language learning apps, videos, and other digital resources are becoming more prevalent, and FL provides an opportunity for teachers to integrate technology into their teaching. This can make learning more engaging and interactive, as students can access a variety of multimedia resources outside the classroom (Divjak et al., 2022; Jiang et al., 2020; Zou et al., 2020).

In addition, FL can help address the issue of limited classroom time. English language teachers often have limited time to cover all the necessary language concepts and skills. FL allows teachers to focus on applying those concepts and skills in class rather than spending valuable time lecturing. This means that teachers can cover more material in less time, and students have more opportunities to practice and apply what they have learned (Li et al., 2022).

FL can improve student motivation and engagement in learning English. The FL model often includes a variety of multimedia resources, such as videos, interactive activities, and online discussion forums, which can increase student engagement and motivation (Kırmızı & Kömeç, 2019). By allowing students to take responsibility for their learning outside of the classroom, they become more invested in their progress (Girmen & Kaya, 2019; Zou, 2020). In addition, in class, they have the opportunity to collaborate with their

peers and receive feedback from their teacher. This can help to increase their confidence in using English and motivate them to continue learning (Ruiz-Robles, 2017).

Immediate feedback is another advantage. In a traditional classroom setting, students often have to wait until the end of a lesson or assignment to receive feedback from their teacher. In contrast, the FL allows students to receive instant feedback on their work as they engage in activities and exercises at home or in class (Wang, 2017). This immediate feedback enables students to correct their mistakes and reinforce their learning, leading to a deeper understanding of the English language (Lin & Hwang, 2018; Prilipko, 2018). Moreover, the FL model empowers students to take ownership of their learning, as they are encouraged to identify areas where they need improvement and work towards mastering those skills (Bārdule, 2021). Overall, the feedback advantage of the FL is a valuable tool for both teachers and students to achieve academic success in English language learning.

Collaboration and cooperative learning are key advantages of the FL model for teaching and learning. In a traditional classroom, students often work independently on assignments, with limited opportunities for collaboration and discussion with their peers. In contrast, the FL emphasizes collaboration and teamwork, as students work together to complete assignments and engage in group activities (Karabulut et al., 2018). This collaborative approach allows students to learn from each other and share their knowledge and ideas, leading to a deeper understanding of the English language (Mojtahedi et al., 2020). Moreover, cooperative learning in the FL helps to develop important social and interpersonal skills, such as communication, problem-solving, and leadership. Students learn to work together effectively, share responsibility, and support each other's learning, which can enhance their overall academic performance (Mojtahedi et al., 2020; Wu et al., 2017, Beason-Abmayr et al., 2021). In summary, the collaboration advantage and cooperative learning in the FL provide students with valuable opportunities to work together, learn from each other, and develop essential skills that will serve them well in their academic and professional lives.

In conclusion, FL has several advantages for teaching the English language. It allows students to learn at their own pace, promotes active learning, integrates technology into teaching, maximizes limited classroom time, and improves student motivation, collaboration, and engagement by giving instant feedback. With the increasing use of technology in education, FL is a valuable approach that can help teachers create a

dynamic and engaging learning environment for their students. In conclusion, FL has many advantages in teaching the English language, including catering to different learning styles, promoting active learning, individualized instruction, inclusivity, and the development of essential skills.

2.4.9 Flipped learning disadvantages

FL also has a chance of having the following drawbacks: First and foremost, the FL can be challenging for students who have limited access to technology or who are not comfortable using digital tools. Many FLs rely on online videos, interactive activities, and other multimedia resources that require a reliable internet connection and some degree of technical proficiency. However, not all students have access to high-speed internet, smartphones, or laptops, which can put them at a disadvantage when it comes to learning new English language concepts. In addition, students who are not comfortable using digital tools may struggle to keep up with the pace of the class and may feel left behind (Jiang et al., 2020; Taylor, 2015).

Another disadvantage of the FL is the lack of teacher guidance during the at-home learning portion of the model. In a traditional classroom, the teacher is present during the lecture or presentation, providing guidance and answering questions as needed. However, in FL, students are expected to learn new concepts independently, without the immediate support of their teacher. This can be challenging for students who have questions or who need additional clarification and can lead to frustration and disengagement (Roehling et al., 2017; Taylor, 2015).

FL can be difficult to implement effectively, particularly for teachers who are new to the model or who are not comfortable using technology. Creating engaging, informative videos and interactive activities can be time-consuming and challenging and requires a certain level of technical proficiency. In addition, teachers must be able to design effective collaborative activities and discussions that build on the knowledge students have acquired through the at-home learning portion of the model. Without the proper support and training, teachers may struggle to implement the FL effectively, which can lead to lower student engagement and poor learning outcomes (Salleh et al., 2017).

Isolation can also be a disadvantage of the FL approach to teaching English. In a traditional classroom setting, students have the opportunity to interact regularly with their peers and their teacher, which can help build a sense of community and support. However,

in FL, students may spend more time working independently at home, which can lead to feelings of isolation, frustration, and disconnection (Chang et al., 2022). When students work at home, they may miss out on the social and emotional benefits of interacting with their peers and their teacher. For example, they may not have the opportunity to ask questions in real time or to receive immediate feedback on their work. They may also feel less motivated to participate in collaborative activities and discussions during class time, which can further exacerbate feelings of isolation and disconnection (Cabı, 2018; Taşpolat & Özdamli, 2021).

More practice time is a significant disadvantage since, in a traditional classroom setting, students typically have the opportunity to practice new concepts and skills in real time with the guidance and support of their teacher. However, in FL, students may spend more time working independently at home, which can limit their opportunities for practice and reinforcement. Without regular opportunities to practice and receive feedback on their work, students may struggle to develop their language skills and retain what they have learned (Hendrik & Hamzah, 2020; Liu & Wang, 2020; Taşpolat & Özdamli, 2021).

Instant feedback that students may experience. In a traditional classroom setting, students can ask their teacher questions and receive immediate feedback on their work, which can help reinforce their understanding of the material and correct any misunderstandings. However, in FL, students may need to wait until the next class session to receive feedback on their work. This delay in feedback can be particularly challenging for students who are learning a new language, as they may need more immediate guidance and feedback to help them develop their language skills effectively. Without immediate feedback, students may be more likely to develop misconceptions or make mistakes that could have been corrected earlier (Ramirez et al., 2014).

In conclusion, while the FL model has several benefits when it comes to teaching the English language, there are also some significant disadvantages to consider. From limited technology access to less effective grammar instruction, lack of teacher guidance, and difficulty in implementation, teachers must carefully consider the pros and cons of the FL approach before adopting it in their classrooms.

2.4.10 Teacher´s role in FL

In recent years, the realm of education has witnessed a paradigm shift FL, a pedagogical approach that has gained substantial recognition, particularly in the context of English as

a Foreign Language (EFL) education. FL inverts the traditional classroom dynamics by requiring students to independently engage with instructional content outside of class, thereby allowing in-class time to be dedicated to active learning activities, collaborative tasks, and discussions. In this transformative educational model, the role of the teacher becomes significant and multifaceted such as material designer, facilitator, guide, support provider, feedback facilitator, and learning designer (Estrada et al., 2019; Gavilán, 2020; Turan & Akdag-Cimen, 2020; Wagner et al., 2020).

Role 1: Design and Prepare Materials:

One of the foundational responsibilities of teachers in EFL FL is to serve as content creators and curriculum designers. These educators must thoroughly design and prepare appropriate materials for learners, fostering engagement during the pre-class phase. These materials may encompass video lectures, reading assignments, quizzes, and interactive online resources. The teacher's role in this capacity is twofold. Firstly, they must create relevant content that aligns with the learning objectives and caters to the diverse needs of their students. Secondly, teachers are charged with the task of creating engaging resources that are visually appealing and interactive, thus ensuring that students remain motivated and attentive during their independent study. Additionally, teachers must ensure that materials are readily accessible to all learners, including those with diverse learning needs, to guarantee equitable access to the content.

Role 2: Facilitator:

During in-class sessions in the FL model, teachers undergo a transformation from being mere instructors to becoming skilled facilitators of active learning experiences. The classroom becomes a dynamic space where students actively apply the knowledge acquired during their self-directed study. The role of the teacher as a facilitator includes various crucial aspects. They must actively encourage collaboration among students, fostering peer-to-peer interactions and group work to create a collaborative learning environment. Simultaneously, teachers must monitor students' progress, gauging their comprehension and engagement levels, and adapt the lesson plan accordingly to meet the specific needs of the class. Furthermore, teachers should be readily available to answer questions, clarify doubts, and guide students through challenging concepts, thus ensuring that the classroom experience is productive and conducive to meaningful learning.

Role 3: Guide:

In the realm of EFL flipped learning, teachers assume the role of guides who provide direction and support to students navigating their individual learning journeys. This entails setting clear expectations by communicating learning objectives, goals, and the overall structure of the curriculum. By providing students with a well-organized study schedule that guides them through the content, teachers empower learners to manage their time effectively. Importantly, teachers must recognize and cater to individual learning needs, pacing, and preferences, ensuring that each student receives the personalized guidance necessary to succeed in their language learning endeavours.

Role 4: Support Provider:

Teachers serve as essential sources of support in EFL flipped learning, not only in terms of academic assistance but also by addressing emotional and technical needs. On the emotional front, teachers must be attuned to students' feelings of frustration or confusion, providing encouragement, motivation, and reassurance when necessary. Technically, they should be well-equipped to assist students with any technical issues they may encounter while accessing online resources or engaging with digital platforms. Moreover, teachers play a crucial role in imparting effective study strategies that empower students to become independent and self-directed learners.

Role 5: Feedback Facilitator:

Constructive feedback is a foundation of effective learning, and teachers in EFL flipped learning act as facilitators of this feedback. They must regularly assess student progress through quizzes, assignments, and assessments, providing timely and constructive feedback that empowers students to make improvements and refine their language skills. Encouraging self-reflection is another face of this role, as teachers motivate students to reflect on their progress and set goals for ongoing improvement in their language proficiency.

Role 6: Learning Designer:

In the realm of EFL flipped learning, teachers are not only instructors but also skilled learning designers. They must craft diverse learning experiences that cater to the unique needs and preferences of their students. This entails differentiating instruction to accommodate diverse learning styles and abilities, incorporating active learning strategies

that promote critical thinking and problem-solving, and weaving real-world applications into the curriculum. By serving as learning designers, teachers ensure that the EFL flipped learning experience is not only effective but also engaging and relevant to the practical contexts in which language proficiency is vital.

In conclusion, EFL flipped learning represents a transformative shift in education that demands a multifaceted role from educators. In this model, teachers take on the responsibilities of content creators, facilitators, guides, support providers, feedback facilitators, and learning designers. These varied roles are essential for creating a dynamic and effective learning environment where students can thrive. As technology continues to reshape the educational landscape, teachers must embrace and adapt to these evolving roles to provide high-quality EFL instruction within a FL framework. Ultimately, it is through the diligent and versatile efforts of teachers that the potential of EFL FL can be fully realized, enabling students to achieve language proficiency and thrive in a globalized world, see Figure.

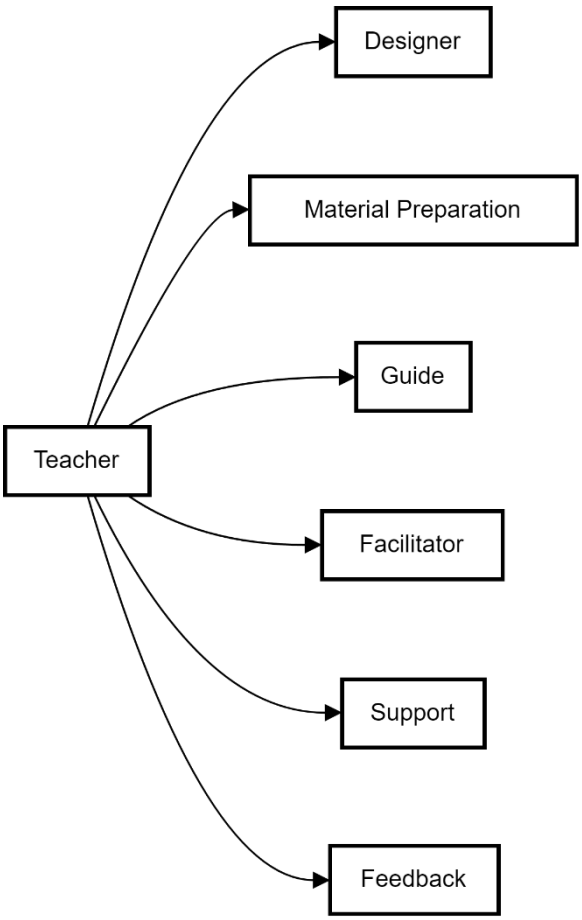

Figure 6. Teacher´s role in flipped learning

2.4.11 Learner´s role in flipped learning

In the realm of EFL (English as a Foreign Language) flipped learning, learners play a central and active role that complements the transformed teaching methods. There are multifaceted responsibilities of students in EFL flipped learning such as watching videos, constructing knowledge, analysing content, collaborating in groups, participating in discussions, engaging in individual and peer work, and critically evaluating their progress. A comprehensive understanding of the learner's role is vital in employing the full potential of this innovative educational approach (M. Y. Abdullah et al., 2019; Arslan, 2020; D. Y.-S. Chang, 2023; Heredia Ponce et al., 2022; Kernagaran & Abdullah, 2022; Rad et al., 2021; Wagner et al., 2020).

Role 1: Watching Videos

One of the foundational responsibilities of EFL learners in the flipped classroom is to engage actively with the pre-recorded video content provided by their teachers. Watching videos is not a passive activity; it requires a proactive approach to learning. Students are expected to take the initiative to manage their own learning time, ensuring that they access and absorb the presented information. To maximize the benefits of this role, students should adopt effective strategies such as taking detailed notes, pausing and rewinding videos to review difficult sections, and actively engaging with the material. The ability to watch videos attentively and extract key information is a critical skill that prepares students for the subsequent in-class activities and discussions.

Role 2: Constructing Knowledge

Beyond the mere consumption of information, EFL learners are tasked with the active process of knowledge construction. This role involves transforming the raw data presented in the video lectures or readings into meaningful understanding. Constructing knowledge necessitates that students engage in higher-order thinking processes such as synthesis, analysis, and application. It requires them to connect new knowledge to their existing schema, drawing on prior learning experiences to make sense of the material. This role fosters deep learning and encourages students to become architects of their own cognitive growth, as they construct a solid foundation of language proficiency.

Role 3: Analysing Content

EFL learners are encouraged to go deeper into the content by analyzing and dissecting linguistic elements presented in the video lectures or readings. Analyzing content goes beyond surface-level understanding; it involves breaking down sentences, studying grammatical structures, and identifying vocabulary notes. This analytical role enhances language comprehension and empowers students to gain insight into the details of the English language. By examining sentences, phrases, and paragraphs critically, learners develop a heightened sensitivity to language use, which is invaluable for effective communication and language proficiency.

Role 4: Working in Groups

Collaboration and peer interaction are integral aspects of the FL experience. EFL learners are expected to actively engage in group work, where they work collectively to apply and reinforce the knowledge they have acquired through independent study. This collaborative role serves multiple purposes. Firstly, it encourages students to share their insights, questions, and interpretations with their peers, promoting a sense of shared learning responsibility. Secondly, working in groups provides an opportunity for students to learn from one another, as they exchange ideas, perspectives, and language skills. This collaborative approach to learning enriches the educational experience and offers diverse viewpoints, enhancing language development.

Role 5: Discussion Participation

Participation in classroom discussions is a significant role for EFL learners in the flipped classroom. During in-class sessions, students engage in discussions that require them to articulate their thoughts, opinions, and analysis of the material they have studied independently. This role not only improves their speaking and communication skills but also fosters critical thinking and the ability to express oneself fluently in English. Active participation in discussions allows learners to interact with their peers, providing opportunities to apply their knowledge, refine their language skills, and engage in meaningful dialogue. These discussions may revolve around various topics, including literature, culture, current events, or specific language-related issues, offering a well-rounded language learning experience.

Role 6: Individual and Peer Work

In the FL environment, EFL learners take on dual roles of engaging in individual work and participating in peer-driven activities. These roles encompass a wide range of tasks and responsibilities that contribute to a holistic language learning experience. Individual work includes completing assignments, conducting research, and preparing presentations. These activities foster self-reliance and self-discipline, as students are required to manage their time effectively and meet deadlines independently. On the other hand, peer work entails collaborating with classmates on projects, peer editing, and providing constructive feedback. Engaging in such activities not only reinforces language skills but also develops essential teamwork and communication skills, which are valuable in both academic and professional contexts.

Role 7: Evaluation

Self-assessment and reflection are crucial aspects of the learner's role in EFL FL. Students must actively engage in ongoing self-evaluation, critically assessing their own progress and language proficiency. This role requires students to identify areas of strength and weakness, allowing them to set personalized goals for improvement. In addition to self-assessment, learners can engage in peer evaluation, where they provide constructive feedback to their fellow students. Peer evaluation encourages students to develop a keen eye for language accuracy, coherence, and fluency, as they review and comment on their peers' work. This collaborative evaluation process not only enhances language skills but also fosters a supportive learning community where students actively assist one another in their language development journey.

In conclusion, In EFL flipped learning, learners are not passive recipients of knowledge but active participants in their educational journey. Their roles in watching videos, constructing knowledge, analyzing content, collaborating in groups, participating in discussions, engaging in individual and peer work, and critically evaluating their progress are pivotal to the success of this innovative educational approach. By embracing these multifaceted roles, EFL learners become creators of their own language proficiency, equipped with the skills and knowledge needed to navigate the complexities of English language and communication. The active engagement of students in their learning journey not only enhances language skills but also cultivates valuable 21st-century skills that empower them to succeed in an increasingly globalized world, see Figure 7.

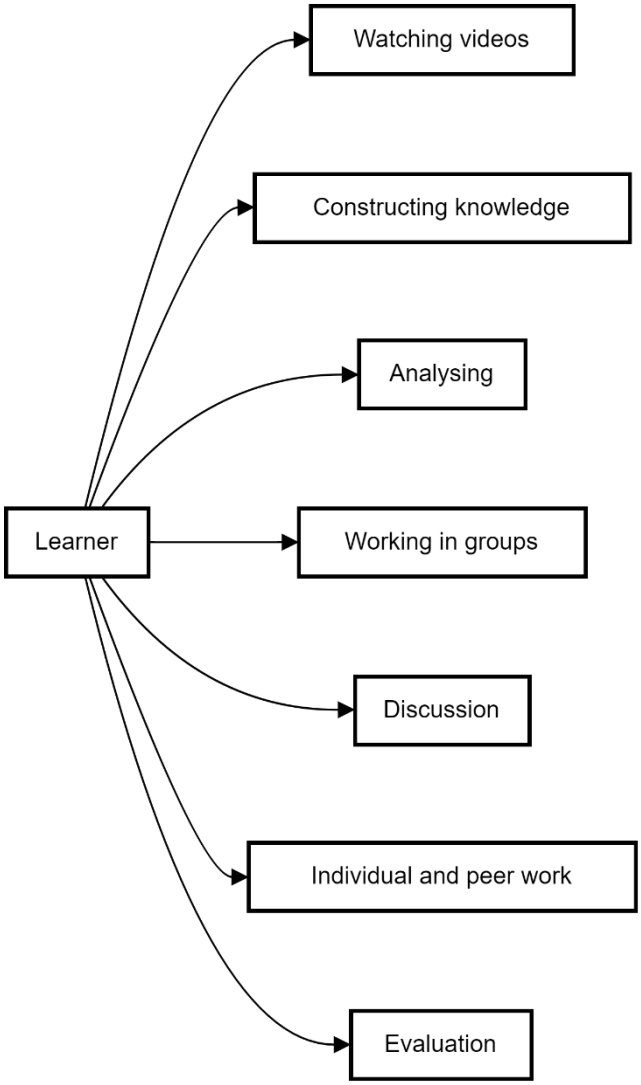

Figure 7 . Learner's role in Flipped learning

2.4.12 Related studies

Huang et al. (2021) aimed to address the lack of student interest in Chinese-language learning at certain universities of science and technology. The researchers employed FL as an intervention in the Chinese-language curriculum at their university. Over the course of one academic year, 36 weeks of teaching were provided to freshman students. The study evaluated the teaching effectiveness by conducting pre-and post-tests to assess students' language proficiency, collecting feedback from students through school-wide teaching evaluation questions, and reviewing the overall teaching effectiveness of the Chinese-language curriculum for the academic year. The outcomes revealed significant improvements in students' reading skills in language learning. This study contributes to understanding how FL can enhance student engagement and proficiency in Chinese-language education at universities of science and technology.

Onieva López and Cremades (2021) aimed to analyse the perceptions of students enrolled in a master's degree in education, who were prospective Spanish language and literature teachers for native speakers, regarding the future use of the FL. The study employed a mixed qualitative and quantitative approach, conducted under an interpretive paradigm with characteristics of participatory action research. The sample consisted of 38 students enrolled in a compulsory module of the program, selected through non-probabilistic sampling. The validated questionnaire included 5 items and 24 sub-items, incorporating both open and closed questions. The findings indicate that the majority of participants (81.58%) believe that they will utilize the FL methodology in their future teaching practice. However, some participants who expressed reluctance towards using this approach cited reasons such as lack of training in audio-visual production and limited experience during their early years of teaching. The proposal of FLs stimulated a stronger conviction among the participants regarding the suitability of this method and increased their awareness of their limitations in implementing it. This study sheds light on the perceptions and considerations of prospective teachers regarding the integration of the FL approach in Spanish language and literature instruction.

Romero-García et al. (2019) explored the implementation of the FL model in the Curricular Design course within the master's degree program in Teacher Training, offered online by the International University of La Rioja (UNIR). The study aimed to analyse the impact of the FL model on student performance and satisfaction. The research design is descriptive and poll-based, collecting data on student grades and conducting surveys to

assess student satisfaction, perceived usefulness of the training received, evaluation of the training process, and overall performance. The study compared the control group with the group participating in the designing experience, where students individually designed a didactic unit to demonstrate their learning. The results indicated that the FL model enhances student satisfaction, improves academic performance, and enhances positive attitudes among students. The findings highlighted the benefits of the FL model in promoting active and autonomous learning, transforming student-teacher relationships, and fostering innovation within the learning process.

Phoeun and Sengsri (2021) explored the impact of FL with a Communicative Language Teaching (CLT) approach on students' speaking skills in an undergraduate English class at the Royal University of Phnom Penh, Cambodia. The study aimed to determine whether the use of pre-class online videos and various CLT activities during class time could lead to increased gains in speaking proficiency. A mixed-method design was employed to analyse the data, which included pre- and post-tests on speaking, a written assessment of grammar and vocabulary, and classroom observations. The sample consisted of 21 freshmen from the academic year 2017-2018. The findings from the observations and the pre-and post-tests demonstrated that the participants not only improved their speaking ability but also exhibited a positive change in their attitude towards learning English. These results indicated that the combination of a flipped instruction model with CLT activities effectively enhanced the participants' speaking skills and contributed to better learning outcomes. Consequently, it is recommended that English language teachers in Cambodia consider implementing FL and CLT in their instructional practices.

The study by Sengul and Bensen (2021) aimed to investigate EFL students' attitudes towards in-class and out-of-class writing models within a FL setting. A quantitative research design was adopted, employing a questionnaire as the data collection instrument. The questionnaire was administered to a sample of 30 EFL students enrolled in the English language teaching department of a private university. The results of the study revealed that the EFL students exhibited positive attitudes towards both in-class and out-of-class writing models in the FL. However, a clear preference was observed for the out-of-class model, with the majority of participants expressing a desire to produce their written work outside the traditional classroom setting. These findings highlighted the importance of considering EFL students' preferences when designing an effective writing

course. Thus, EFL educators are advised to prioritize the preferences of their students and utilize an out-of-class FL model for writing to foster an effective writing course.

Singay (2020) investigated the attitudes and perceptions of Bhutanese students towards the implementation of the FL approach. The study involved a sample of forty students, comprising an equal distribution of twenty females and twenty males. Data were collected through the utilization of a questionnaire and semi-structured interviews. The findings derived from the questionnaire indicated that the implementation of the FL approach facilitated the students' acquisition of grammar knowledge, in addition to eliciting positive attitudes and perceptions towards the FL model. Similarly, the semi-structured interviews uncovered four significant themes associated with the FL approach: the creation of a conducive learning atmosphere, increased utilization of technology, the establishment of better teacher-student relationships, and enhanced collaboration among students. These findings shed light on the effectiveness of the FL approach in a second language context and emphasize the benefits it offers in terms of promoting a positive learning environment, technological integration, improved teacher-student interactions, and enhanced peer collaboration.

Soltanabadi et al. (2021) utilized a quasi-experimental research design to investigate the impact of the FL approach on Iranian adolescent elementary students' vocabulary recall and retention. A total of 48 female learners, aged 13 to 17, were selected based on their performance in the Oxford Quick Placement Test from a larger pool of 70 students. The participants were randomly divided into an experimental group (n=24) and a control group (n=24). The experimental group received instruction using the FL approach, while the control group experienced conventional teaching methods. Various research instruments, including an English language placement test, vocabulary pretest, immediate post-test, and delayed test, were employed over nine weeks. The results, analyzed using ANCOVA, revealed significant positive effects of the FL on vocabulary recall and retention. This study highlights the applicability of the FL approach and its implications for teachers, syllabus designers, and curriculum planners in the context of foreign language education.

Soltanpour and Valizadeh (2018) investigated the impact of flipped instruction on the quality of argumentative essays among Iranian EFL learners. The study employed a pre-test-treatment-post-test-delayed post-test design and involved 55 participants who were assigned to two groups: the FL (FC) and the traditional classroom (TC). The FC group

received three sessions of treatment, and a significant difference was found in the overall quality of essays between the FC and TC groups, with the FC group outperforming the TC group. The study also examined the variation in the difference between the groups over time and found that the FC group remained significantly superior. Long-term effects were explored, but no significant change was observed in the FC group. The positive outcomes observed in the FC group were attributed to various factors, including active learner engagement, the use of different techniques (e.g., video screen casting, collaborative writing), and effective teacher-learner interaction during in-class activities.

Soto-Molina and Méndez-Rivera (2021) implemented the FL methodology in an experimental intercultural English class (IEC). Thematic units were developed using the 5 E's instructional model, which follows the constructivist approach to learning (Engage, Explore, Explain, Elaborate, and Evaluate). The study employed a mixed-method research approach and collected data from 20 students at Atlántico University. Questionnaires were used to analyze the students' responses in two survey rounds, focusing on their perceptions of content learning, class methodology, and autonomy. The results obtained from the second round led to four main conclusions. First, students expressed satisfaction with the use of the FL strategy, particularly in terms of time management and the freedom to prepare for classes. Second, practical activities that fostered collaborative work were found to be more engaging. Third, the teachers' subtle presence allowed for increased opportunities for student control and participation. Finally, while autonomous learning was possible, teacher support was deemed crucial for enhancing it. These findings were discussed within the context of the didactical component of teaching and their implications for the specific public university setting.

Yulian (2021) conducted a study to improve critical thinking skills in reading EFL learners in higher education using the FL teaching model. A quasi-experimental design was employed, focusing on enhancing reading skills based on the critical thinking framework for critical reading. The study utilized a paired t-test to compare pre-test and post-test scores. The participants consisted of 37 second-semester students enrolled in English for Academic Purposes. The findings indicated that the implementation of the FL teaching model significantly enhanced students' critical thinking abilities in critical reading, as evidenced by improvements in accuracy, clarity, precision, depth, relevance, and logic. The mean score increased from the pre-tests (12.4865) to the post-tests (18.3243). Moreover, the students expressed a positive perception of the model,

particularly in terms of self-directed learning. This study emphasized the importance of providing a supportive teaching and learning environment for developing critical thinking skills in reading, highlighting the effectiveness of online learning and the synergistic application of the FL model.

Zakaria and Yunus (2020) explored the perceptions of primary 3 students in an English as a Second Language (ESL) setting regarding the learning of tenses using the FL approach. The study recognized the importance of creating a fun and interesting learning environment to attract and retain students' attention, particularly in younger primary classrooms. The research involved 36 students from a rural school in Negeri Sembilan, Malaysia. The students' perceptions were assessed through a questionnaire consisting of a survey and open-ended questions. The findings indicated that the majority of students had a positive perception of learning grammar through the FL approach, in contrast to traditional learning methods. Even those who initially expressed negative perceptions eventually recognized the potential of the FL to improve their understanding. The study provided valuable insights for educators, not only in the context of tense learning but also for other subjects, by highlighting students' preferences and the benefits of implementing the FL model.

Afzali and Izadpanah (2021) investigated the impact of FL on the engagement and motivation of intermediate and upper-intermediate English learners in learning grammar. The research utilized a quasi-experimental design and was conducted over six weeks during the summer term of 2019. A total of 360 English learners from four different institutes were selected using multi-stage cluster sampling and randomly assigned to control and experimental groups. Pre-test and post-test data were collected, and eight grammar contents were selected based on the content validity index (CVI) and content validity ratio (CVR). The questionnaires used to measure motivation (Hermense, $\alpha = 0.97$) and engagement (SEI, $\alpha = 0.93$) were validated by experts, and their reliability was assessed through Cronbach's Alpha test. Descriptive statistics and ANCOVA tests were employed for data analysis. The results indicated that learners in the FL outperformed those in the traditional class, with a significant difference observed in the post-test scores of the experimental group compared to the control group. These findings had significant implications for syllabus designers and language instructors, highlighting the potential benefits of the FL model in enhancing engagement and motivation in language learning.

Al-Assaf et al. (2022) investigated the effectiveness of FL in teaching Arabic as a second language to foreign students at Jordan University. The sample consisted of 120 students, including those in the first and second levels of the university's language centre as well as participants in the American Middlebury program. The study employed a quasi-experimental design, spanning five semesters, with pre-tests and post-tests administered to both the experimental group, which received instruction using the flipped class strategy, and the control group, which followed a traditional instructional method. The findings demonstrated that the experimental group outperformed the control group in terms of Arabic language learning, indicating that the implementation of the flipped class strategy positively influenced students' language abilities. These results supported the notion that utilizing the FL approach can enhance the learning of Arabic as a second language.

Birová (2019) conducted a study at the University of Granada (Spain), where the effectiveness of the FL teaching strategy was investigated in an English language classroom. The study focused on three main variables: The development of students' communicative ability in the foreign language, the participant's perceptions of the FL experience, and strategies to address the issue of low homework completion. The sample consisted of approximately 55 undergraduate students enrolled in a compulsory foreign language course, with around 30 students in the research group and 25 students in the control group. Data collection involved a standardized exam to assess language proficiency, an observation diary to evaluate communicative ability development, a questionnaire to gather participants' feedback, and web-based statistical tools for analysis. The findings revealed that the implementation of the FL strategy had a positive impact on students' foreign language abilities, indicating its effectiveness as an instructional approach.

Fischer & Yang (2022) assessed the drawbacks and challenges associated with the out-of-class component of the FL approach (FCA). Specifically, the study aimed to investigate the impact of creating a more synchronous and collaborative online environment for the out-of-class flipped-class component. The research design involved comparing a newly proposed flipped group (PFG) with a regular flipped group (RFG) and a traditional class (TC) over 14 weeks. The participants consisted of 54 undergraduate business students from a university in Taiwan. The effectiveness of the teaching approaches was evaluated through mock International English Language Testing System (IELTS) oral pre/post-tests.

The results indicated that the PFG showed significant overall improvement and outperformed the RFG. Surprisingly, the TC demonstrated better performance than the RFG. Furthermore, significant differences and correlations were observed between the PFG and RFG students' online learning behaviours and their objective performances, including the time spent viewing the assigned video lessons online and its effects on the quiz and final grade scores. These findings highlighted the importance of creating a more synchronous and collaborative online learning environment to enhance the out-of-class component of the FCA, ultimately leading to improved oral/aural English as a Foreign Language (EFL) learning outcomes for students.

Ginting (2018) aimed to investigate the impact of FL on higher education students' achievements in academic writing skills. To determine the significant effect, an experimental research design was employed. Quantitative data were collected through an academic writing test. The collected data were analysed using the General Linear Model (GLM) univariate in Statistical Package for Social Science (SPSS) version 21. The results revealed a significant effect of the FL approach on college students' study results in learning academic writing skills. Based on these findings, the researchers highly recommended the implementation of the FL approach in EFL classrooms, particularly in the context of teaching writing. Additionally, they suggested further exploration and application of the FL approach in teaching and researching other language skills, including speaking, listening, and reading.

Hasan et al. (2022) explored the perceptions and attitudes of undergraduate Bangladeshi learners towards the FL. The research utilized an explanatory sequential design with a mixed-methods approach, involving a sample of two hundred students. Data collection was done using a questionnaire and semi-structured interviews. The findings from the questionnaire indicated that the FL strategy was beneficial for students' grammar learning. Additionally, learners held positive conceptions and viewpoints about the FL instruction method. The semi-structured interviews highlighted four key characteristics of the FL instruction method: collaboration, improvement of relationships, increased use of technology, and a favourable learning environment. This research is relevant to English teachers, students, researchers, and other stakeholders who are interested in the FL approach.

Ivanytska et al. (2021) aimed to assess the effectiveness of FL in EFL students in Ukraine. The study recognizes the importance of implementing advanced teaching practices during

the COVID-19 pandemic, as online learning necessitates changes in the traditional education system. FL is described as a method that promotes flexibility, individualization, differentiation, and the ability for students to learn anytime and anywhere. The research investigates the experiences of university students through the implementation of FL. Data was collected through a survey-based questionnaire administered to 48 learners and 23 teachers from the Department of Foreign Philology and Translation at Vinnytsia Institute of Trade and Economics of Kyiv National University of Trade and Economics. Students' performance, attendance, and attitudes toward the study were evaluated, and descriptive statistical and analytical methods were used to analyze the results. The findings indicated that the implementation of FL led to a more effective and innovative educational process, improving students' language learning performance, motivation, involvement, and overall interest in learning English.

Karapetian (2020) evaluated the impact of FL in delivering Business English to Economics students in tertiary schools in Ukraine. The research focuses on examining how this model enhances students' critical thinking skills, improves their academic performance, and explores their perceptions of the approach. The study utilized a multimedia-based textbook titled "Business Skills through English" as the learning environment and employed a mixed-methods approach. The variables investigated in this study were students' critical thinking skills and academic performance. Statistical data were collected through placement tests, needs analysis questionnaires, a Course Satisfaction Questionnaire, and a test to assess students' critical thinking skills. The findings indicate that the "FL" model has the potential to provide a more engaging learning experience for students and a more fulfilling teaching experience for teachers. It promoted critical thinking skills by incorporating problem-solving-based learning and enhances academic performance by fostering students' responsibility for their learning outcomes and encouraging the use of various learning styles. Overall, this model shifted from a teacher-cantered to a student-cantered approach, immersing learners in a business-oriented language environment that reflects real-world contexts. Consequently, the study suggested that learning Business English and ESP in higher educational institutions in Ukraine should move beyond mere memorization of vocabulary and grammar drills to effectively apply language as a medium of learning within vocational contexts.

Kömeç (2019) assessed the impact of the FL model on vocabulary learning, focusing on both receptive and productive vocabulary. A post-test experimental research design was

employed, with a sample of 58 high school students. The experimental group underwent a four-week flipped instruction, engaging with pre-prepared videos designed by the teacher and participating in collaborative practice within the classroom. On the other hand, the control group received traditional instruction, with vocabulary presentation in the classroom and homework-based practice. After instruction for each group of words, a vocabulary quiz was administered to both groups, and the results were analyzed using the SPSS package program. Additionally, the experimental group's perceptions of the FL were evaluated through an open-ended questionnaire. The findings suggested that the FL shows promise in enhancing the language learning process, specifically in terms of vocabulary acquisition.

Li and Li (2022) investigated the impact of the FL approach on learner engagement, specifically in the context of College English Listening and Speaking classes in mainland China. The study addressed the gap in empirical evidence regarding the effect of the FL on learners' behavioural, emotional, cognitive, and social engagement in EFL. The research utilized a mixed-methods approach and compared the experimental group (the flipped class) consisting of 34 students with the control group (the non-flipped class) consisting of 35 students over an eight-week intervention period. The findings indicated that the students in the flipped class showed higher mean scores on post-test engagement questionnaires in all four dimensions of engagement. However, the difference in emotional engagement between the flipped and non-flipped classes was not statistically significant. Semi-structured interviews provided insights into various factors influencing learner engagement in the flipped EFL classroom, including the learning environment, instructor presence, learning content, and learner presence. Negative aspects identified included excessive workload, lack of preparedness, lengthy videos, and technical challenges. The study highlights the importance of providing support to enhance learners' emotional engagement and address challenges faced during the FL process. The findings can aid teaching professionals and researchers in better understanding the implementation of flipped instruction in the EFL context, considering both positive and negative elements that impact learner engagement.

Makruf et al. (2021) examined the impact of FL on the development of communicative competence among Indonesian English learners with a sample of 40 English learners from a university in Indonesia, divided into flipped and non-FLs. In the FL setting, course materials were delivered via the Google Classroom platform before class, with classroom

activities mainly focused on communicative practice. Data were collected through a Discourse Completion Task (DCT) and a Technology Acceptance Model (TAM) questionnaire. Paired sample t-tests and descriptive statistics were used for data analysis. The results revealed a significant difference between the pre-test and post-test scores of the DCTs in the flipped group, which performed significantly better than the non-flipped group. The TAM questionnaire indicated that learners appreciated the learning activities in the FL environment and had a positive perception of Google Classroom as an online platform for language learning. In conclusion, the study suggested that FL, using Google Classroom, is an effective method for developing English learners' pragmatic competence.

Moreno and Malovrh (2020) explored the effects of a flipped and blended course design on the four language skills (reading, writing, speaking, and listening) for beginning-level Spanish learners. The study compares two experimental groups, which followed a three-day per week in-class schedule combined with flipped-blended course work, to a control group that followed a traditional present-practice-produce instructional format and met four days per week only in the classroom. The research design employed a pre/post-test design to measure the progress in both receptive and productive language skills. The study incorporated a cognitive model of learning processes, controls for depth of language processing, and a reconceptualization of instructional context. The results revealed that the experimental groups developed at a similar pace in receptive skills and demonstrated even greater progress in productive skills compared to the control group. This study provided empirical evidence supporting the successful restructuring of language programs through the incorporation of flipped and BL approaches, emphasizing the importance of instructional context and depth of language processing in language skill development.

Phoeun and Sengsri (2021) examined the impact of a FL approach with a Communicative Language Teaching (CLT) approach on students' speaking skills within an undergraduate English class at the Royal University of Phnom Penh, Cambodia. The study utilized pre-class online videos to replace traditional lectures and incorporated various CLT activities during class time, such as discussions, pair and group work, role play, and games. A mixed-method design is employed, analysing data from pre- and post-tests on speaking, a written test on grammar and vocabulary, and classroom observations. The study includes 21 freshmen from the academic year 2017-2018 as participants, aiming to

identify any differences in their speaking achievements associated with the FL and CLT. The results, derived from observations and pre-and post-tests, demonstrate that the participants not only improved their speaking abilities but also exhibited a positive change in their attitudes toward learning English. These findings highlighted the effectiveness of flipped instruction with CLT activities in enhancing students' speaking skills and overall learning outcomes. Based on these results, it is recommended that English language teachers in Cambodia consider implementing a FL and CLT approach in their classrooms.

Yaroslavova et al. (2020) conducted a study to develop an efficient FL blended learning model for university students studying EFL. The focus of the research was on the process of enhancing students' language competence through BL, specifically within the framework of a FL model. The experiment involved 400 students (211 in the test groups and 189 in the control groups) and 20 instructors from South Ural State University in Chelyabinsk, Russia. The outcomes of the experiment were evaluated using multiple measures, including an IELTS-type test, Moodle statistics, students' in-class participation, overall instructors' feedback, and a survey capturing students' feedback. The results indicated that the test groups performed better than the control groups, with higher average scores in the listening and reading sections of the IELTS test, increased student interest in taking the online course, and a 10% improvement in passing topical vocabulary checkpoints. The implementation of the FL model optimized classroom practice, reduced teacher preparation time, and provided a comfortable digital learning environment for students, allowing for more effective development of foreign language competence. The successful implementation of the designed online course served as a prototype for the development of similar courses in related disciplines.

Yulian (2021) proposed an improvement in critical thinking in reading among EFL learners in higher education through the implementation of the FL teaching model. The study utilized a quasi-experimental design and employed a paired t-test for pre-test and post-test assessment of reading skills. The sample consisted of 37 second-semester students enrolled in English for Academic Purposes. The findings revealed that the FL teaching model significantly enhanced students' critical thinking abilities in critical reading, specifically in terms of accuracy, clarity, precision, depth, relevance, and logic. The mean score of the pre-tests (12.4865) increased to the post-test mean score (18.3243). Additionally, students expressed a positive perception of the implementation of this teaching model, particularly in terms of self-directed learning. This study suggested that

fostering critical thinking skills in critical reading requires a supportive teaching and learning environment that encourages students to engage in self-study before class, thus allowing online learning to effectively complement the application of FLs.

2.4.13 Conclusions

In our comprehensive review of the scientific literature on FL, we have identified some noteworthy research gaps and potential weaknesses in some studies under consideration. Therefore, it is essential to shed light on these limitations to provide a more critical assessment of the existing research landscape.

Neglect of the Third Stage of FL: One conspicuous gap that emerged from the reviewed literature is the tendency of some studies to focus solely on the initial two stages of FL pre-class and in-class activities. It is evident that the third stage, which involves post-class engagement and reflection, is equally vital but often overlooked. Future research should address this gap to provide a more holistic understanding of the effectiveness and long-term impact of FL.

Lack of Structured Design Suitable for Diverse Ages: Another significant concern within the literature is the design and implementation of FL across different educational levels. Many studies tended to use flipped in the form of sending videos earlier than the in-class session. It is essential for future research to explore how FL can be adapted and structured to accommodate diverse age groups, from primary to higher education.

Expanding the Scope of FL Research: The majority of the studies reviewed in the existing literature on FL have predominantly focused on the university or higher education level. While these studies have undoubtedly contributed valuable insights into the effectiveness of FL in higher education, there is a noticeable gap when it comes to exploring its application and impact in secondary, preparatory, and primary education settings. To comprehensively evaluate the potential of FL across the educational spectrum, future research must expand its scope to encompass these earlier educational stages. Doing so will not only broaden our understanding of how FL can be tailored to suit the developmental needs of younger learners but also provide educators and policymakers with evidence-based strategies for its implementation in a diverse range of educational contexts. its effectiveness as an educational approach.

Verifying Pre-Class Video Engagement: An aspect of concern within certain studies in the reviewed literature pertains to the lack of robust confirmation mechanisms regarding

whether students indeed engaged with the pre-class video materials before scheduled class sessions. This issue raises a significant methodological concern as it potentially undermines the core premise of FL, where students are expected to review instructional content independently before in-person or virtual class discussions. Without verifiable evidence of pre-class video engagement, it becomes challenging to attribute observed learning outcomes solely to the flipped model itself. Future research in FL should consider implementing more reliable methods to track and confirm students' compliance with pre-class video-watching, such as analytics from Learning Management Systems, self-reporting, or quizzes to assess comprehension of the pre-class materials. Addressing this weakness will ensure that the observed benefits and drawbacks of FL are grounded in a more accurate assessment of student engagement and preparation.

Based on the data presented in the review by (Heredia Ponce et al., 2022), which highlights the prevalence of FL across different educational stages, our explanation is corroborated. The study underscores that FL is indeed commonly utilized in higher education, with universities leading the way at a substantial 69.2% adoption rate. In contrast, secondary education, despite its significance, only accounts for 19.2% of usage. Further analysis reveals that FL is even less prevalent in bachelor's degree programs (7.7%) and primary education (3.8%), with an absence of its adoption in preschool education altogether.

This data-driven evidence strongly supports the assertion that there is a notable gap in the existing FL literature, particularly in the context of secondary and primary education. This gap is further emphasized by the significant variance in FL adoption rates across different educational stages. Consequently, the current thesis's objective is to address this research gap, focusing on conducting research within the primary education context. We aim to provide valuable insights that not only bridge this gap but also contribute to a more comprehensive understanding of FL's applicability in various educational settings, see Figure 8.

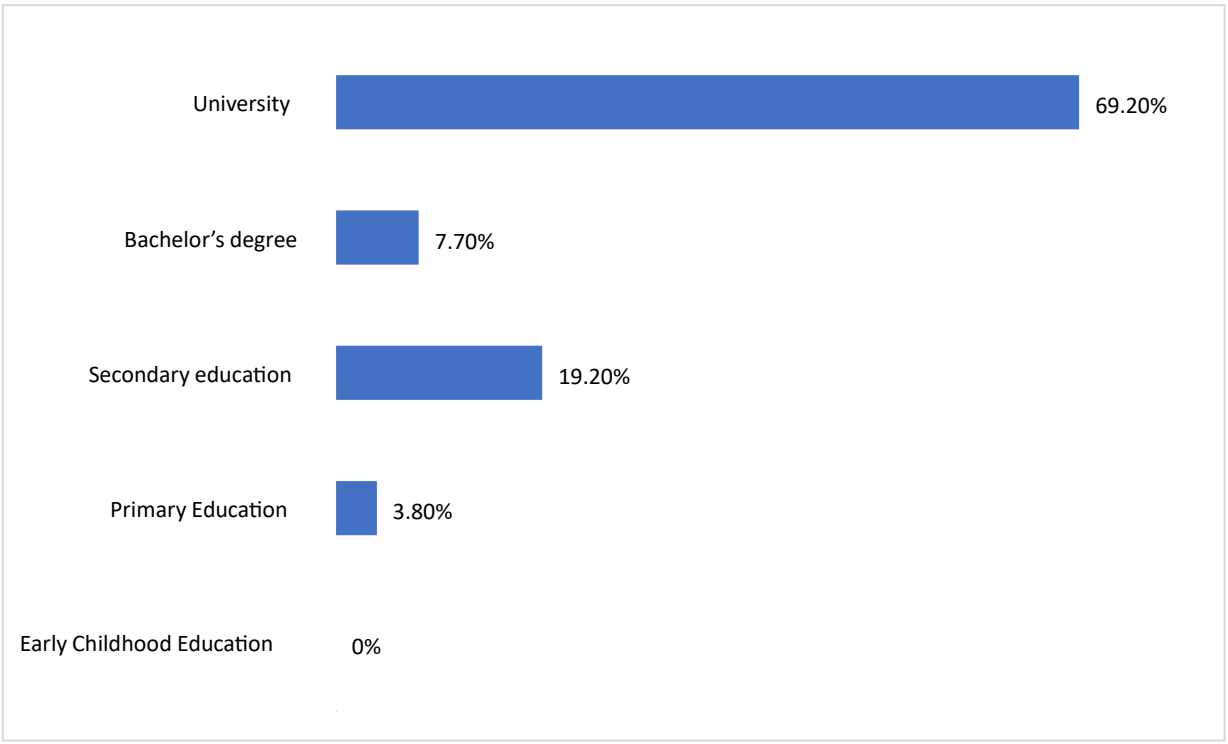

Figure 8. FL research context (Heredia Ponce et al., 2022)

2.5 WebQuests

2.5.1 WebQuests strategy overview

In 1995, Dodge, a professor of education at San Diego University presented a new strategy to support the best use of the Internet in education. This new proposal was called Web1995 and helped learners save time and use information rather than search for it. It developed learner's thinking skills, achieved deeper thinking, and encouraged collaboration. In addition, it played a significant role in enhancing motivation that leads to success in the learning process (Dodge, 1995; Ebadi & Rahimi, 2018; Halat, 2008).

WQs is an organized and structured strategy based on an inquiry-based activity model. Students have access to a large amount of information through prepared links that support inquiry-based learning, which supports the effective use of the course time (Dodge, 1995; Ebadi & Rahimi, 2018; Halat, 2008). Consequently, teachers can use internet resources in classrooms efficiently by organizing some of these resources for students to solve some problems and achieve certain tasks in an effective environment.

WQs strategy is based on constructivism. Students construct knowledge on their own. It encourages cooperative learning and the scaffolding of instruction. It presents knowledge to learners through an interactive environment and attractive activities. It helps learners be independent as they construct new knowledge by building on their previous experiences through some organized links by themselves. As a result, learners will be more motivated to learn by themselves (Awada et al., 2020; BinTaleb, 2021; Hadriana & Adanan, 2020).

To sum up, a WQs strategy supports two principles: Social interaction in the form of collaboration and instructional objectives through scaffolding learning. The relationship between a student and the computer is not passive. Students do not just sit in front of a computer, but they construct the knowledge by themselves through some provided resources to solve certain problems. In this case, students do not receive information passively but rather use it actively which helps in improving critical thinking. In addition, WQs contributes to improving students' ability to evaluate their work through some rubrics. This way of assessment helps students to check and improve their competence rather than to catalogue their mistakes.

2.5.2 WebQuests definition

Terminology definition

Webster defines the Web as a part of the Internet accessed through a graphical user interface and containing documents often connected by hyperlinks. Quest: obsolete: a person or group of persons who search or make inquiries. Pelliccione and Graggs (2007) explain that the name 'WQs' can be divided into two main parts: Web indicates that the World Wide Web is used as the primary resource in applying, analysing, synthesizing and evaluating information. Quest indicates that a question is presented within WQs, which encourages students to search for new meaning and deeper understanding.

Educational definition

WQs are an inquiry-oriented activity in which some or all of the information that the learners interact with comes from resources on the Internet (Dodge, 1995). A co-creator of WQs expands their definition: A WQs is a scaffolded learning structure that uses links to essential resources on the World Wide Web and an authentic task to motivate students' investigation of a central, open-ended question, development of individual expertise, and participation in a final group process that attempts to transform newly acquired information into a more sophisticated understanding. The best WQs do this in a way that inspires students to see richer thematic relationships, facilitate a contribution to the real world of learning, and reflect on their metacognitive processes (March, 2004).

In other words, WQs is computer-based teaching and learning model in which learners are actively involved in an activity or situation and use the Internet as a resource (Halat, 2008: 109). BinTaleb, (2021: 3) explains it as "a contextual unit of study in which most, or all, of the information for the given context that pupils are exploring and evaluating comes from the Internet". Vidoni and Maddux (2008) describe it as a design activity that provides learners with some resources to help them search for information to achieve some tasks that challenge their academic and intellectual abilities.

In addition, Murray & MacPherson (2004) states that WQs is the name given to an instructional model for Web-based learning projects that draw on information and communication resources on the Internet". Halat (2008: 109) defines it as "a computer-

based teaching and learning model in which learners are actively involved in an activity or situation and use the Internet as a resource".

Sox and Rubinstein-Ávila (2009: 39) state that "WQs are Web-based interdisciplinary learning units that foster collaborative problem solving as students work on a task, resulting in a cumulative project". Also, Shan (2011) indicated that the WQs strategy is "a process involving students using the Web to learn about a topic or solve a problem".

WQs can also be regarded as a teacher-created lesson plan in the form of a simple World Wide Web page with active, preselected Internet links and a specific purpose for students. It is designed to provide students with an independent or small-group activity that incorporates research, problem-solving, and the application of basic skills (Kelly, 2000).

Halat (2008) defines WQs as "a computer-based teaching and learning model in which learners are actively involved in an activity or situation and use the internet as a resource". Ebadi and Rahimi (2018) see WQs as an inquiry model using technology to achieve its activities. Thus, the organized way that characterizes WQs helps students cooperate to acquire the information effectively without losing among the tons of learning resources, which saves students time and effort.

In conclusion, WQs is a strategy for designing and implementing online learning activities that involve students in the process of inquiry. It is an inquiry-oriented lesson format in which most or all the information that students work with comes from the web. The activities are designed to guide students through using online resources to explore a particular topic or issue and typically include tasks such as online research, collaboration with peers, and the creation of a final product or presentation. The goal of WQs is to engage students in the process of inquiry and to help them develop the skills they need to locate, evaluate, and use information effectively.

2.5.3 WebQuests Types

The authors of WQs distinguish between two levels of WQs: Short-term and long-term WQs. A short-term WQ focuses on learners' knowledge acquisition and integration. It can be completed in one to three class periods; a learner will have grappled with a significant amount of new information and made sense of it. Whereas a long-term WQs emphasizes learners' ability to extend and refine knowledge. Long-term WQs may take more than three class periods, depending on the defined work. In a classroom setting, a learner would have analysed a body of knowledge deeply, transformed it in some way, and demonstrated

an understanding of the material by elaborating or synthesizing their ideas or creating something that others could respond to, online or offline. Generally, a short-term WQ is achieved in the classroom, or learners can complete it as homework. Some of the long-term WQs that take the form of assignments can be done outside of the classroom. The following figure shows the two kinds of WQs (Dodge, 1995; March 2004), see Figure 9.

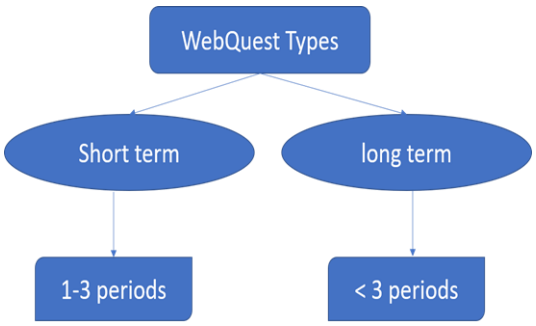

Figure 9. WebQuests Types

2.5.4 WebQuests structure

WQs are comprised of five components, commonly referred to as building blocks (Dodge, 1995; Hadriana & Adanan, 2020; March 2003).

Introduction

This component is normally used to introduce the overall theme of WQs. It builds on the learner's previous knowledge and experience. It should be attractive to create curiosity in learners to do the given task. In this section, the teacher provides background information and can explicitly mention specific new concepts or principles to prepare the learner for the lesson and complete the task.

Task

The task is the most important component of a WQs because it provides focus on the learners' activities. The task should support collaboration and meaningful communication. It should have a clear statement of the purpose of the task to better guide the learners and help them stay on track. This section should be doable and related to real-life situations to pique the interest of students. The task is the most important part of a WQs. A well-designed task should be doable and engaging and elicit thinking that goes beyond rote comprehension.

Also, the task should be highly motivating and interesting for the learners; it should focus on what the learners will do and what they are expected to create as a final product once

they finish all the activities. To achieve a WQs task, learners use the provided links or resources that are suitable for the topic, as they are preselected by the teacher to prevent learners from accessing inappropriate materials. According to Dodge (1999), there are 12 common task formats: (1) retelling, (2) compilation, (3) mystery, (4) journalistic, (5) design, (6) creative product, (7) consensus building, (8) persuasion, (9) self-knowledge, (10) analytical, (11) judgment, and (12) scientific tasks. Tasks are often the creation of a product, such as an exhibit, artefact, or presentation. Tasks may also be of a verbal form such as a debate, play or other kind of competence.

Process and information resources

This component provides a step-by-step guide for finishing the task; and should give a full description of what learners should do to achieve the required objective. In this section the teacher needs to provide most of the scaffolding steps for learners to accomplish the tasks, students are divided into groups, and everyone has a certain role in achieving the required task. Regarding the information resources, it should be from the World Wide Web, this information should be selected carefully by the instructor to allow learners to focus on the topic and avoid aimless surfing. The information sources can include web documents or experts available via e-mail or real-time conferences, searchable databases on the net, and books and other documents available to the learners in hard copies. These web resources are provided with video conferencing to support understanding. The materials of web resources should be authentic and related to real life.

Evaluation

It describes the evaluation criteria required to assess competence standards. These criteria may take the form of rubrics which are designed by the teacher for authentic assessment. Usually, there are clear steps that direct learners to how they can present the required knowledge. From the beginning, the teacher tells his students about the rubrics they will assess according to them to achieve success. It is not uncommon for students to be evaluated individually or as part of a group. This section should make any grading schemes clear.

Conclusion

This component brings closure and a summary of what has been done. Through different stages of WQs learners learn new things so in this stage they reflect on what they acquire. It gives a summary of what the teacher wants his students to learn because of achieving the task. Learners remember what they have learned and try to apply these new experiences to other contexts. It can also encourage students to go beyond what they have learned, see Figure 10.

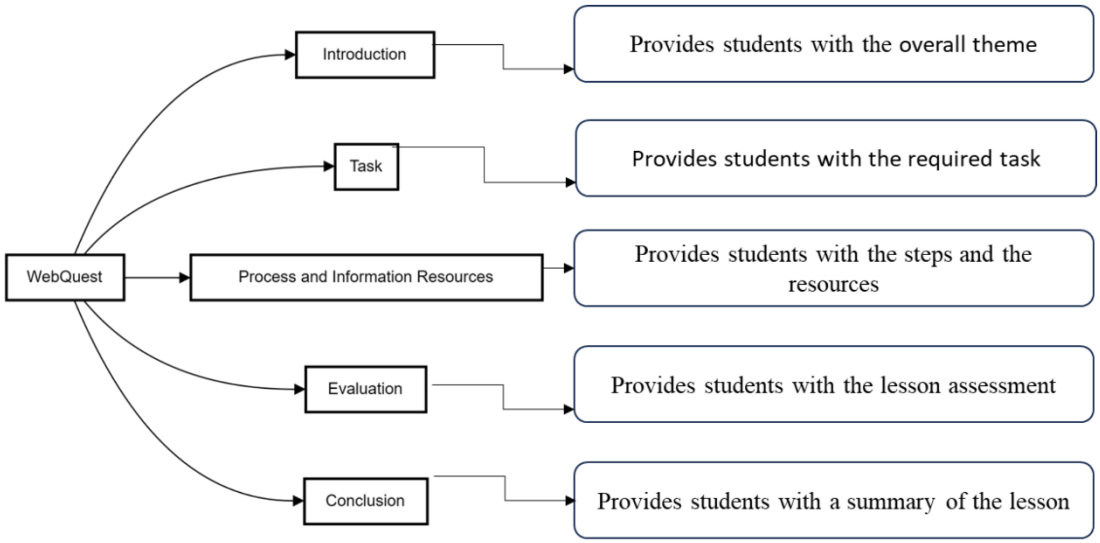

Figure 10. WebQuests structure

2.5.5 Rules for effective WebQuests design

Dodge (2001) states five specific rules for the success of WQs:

1. **Find great sites**: Websites are selected carefully and scanned to prevent learners from doing useless searches. Therefore, the teacher has an immense role in identifying the topics that fit into the student's curriculum and being familiar with resources available online in their content area. The web resources are structured into categories with short details for each one, like a searchable database, reference materials, and project ideas.
2. **Orchestrate your learners and resources:** Students are divided into groups and required to work collaboratively to complete tasks. A successful WQs involves the best use of computers and meaningful learning.

3. **Challenge your learners to think**: Tasks should be designed to challenge students to think and use the language in real-life situations. Therefore, students can think, analyse, and synthesize the information.
4. **Use the medium**: The Web is not the only resource through which a WQs can be achieved. The teacher can achieve the WQs through different means, like a book quest, which presents a problem, and the teacher divides and processes the information in a variety of books around the classroom. Also, the teacher can complete WQs on one computer. He can print some web pages and hand them to students to complete the required tasks.
5. **Scaffold grand expectations:** WQs support three types of scaffolding: reception, transformation, and production. A reception scaffold gives guidance in learning from the provided resources and presents retention of what is learned. Reception scaffolds are like observation guides, tips on conducting interviews, and online dictionaries. Transformation scaffold: students are asked to transform what they have learned into other forms. Students can do some processes like comparison, brainstorming, or decision-making. Finally, in production, students are required to create new things. By providing students with some template writing guides or multimedia elements and structures. The production aspect of the task can be scaffolded. Also, by helping students do part of the task, they can continue until they can do it alone after that.

Considering the previous points, a well-designed WQs helps both teachers and students. Teachers can achieve their lesson objectives in an organized way. They can take a chance to evaluate their students effectively. In addition, WQs help students learn in an interactive environment based on scaffolding. It also supports students' motivation towards learning. Therefore, teachers should consider these rules, see Figure 11.

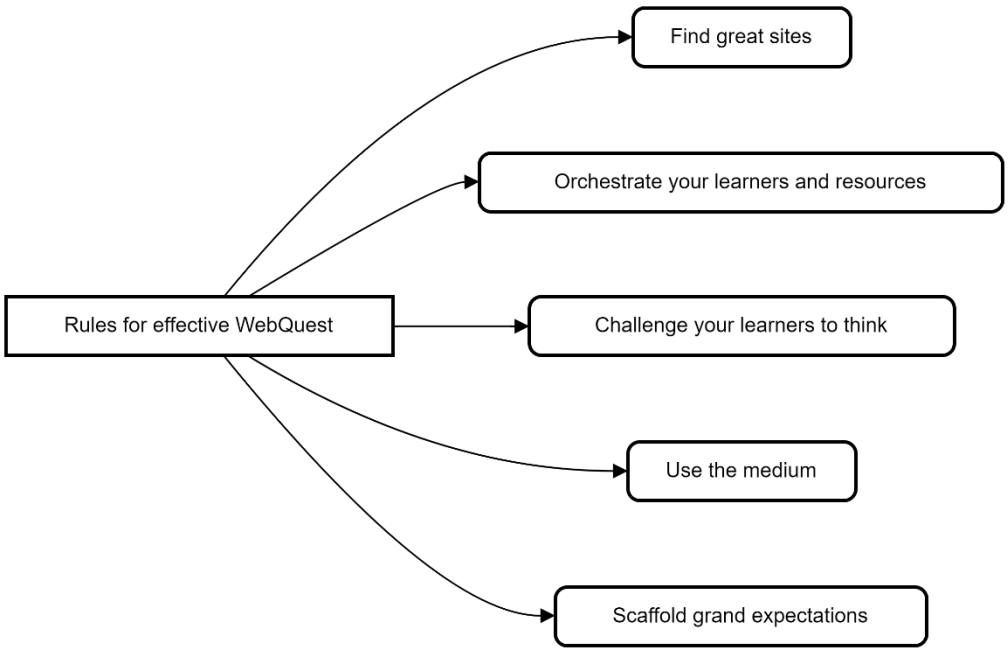

Figure 11. Rules of effective WQs

2.5.6 WebQuests importance

The integration of ICT and technological tools allows learners to develop their skills and understand new concepts through collaborative work, which helps them translate theory into practice (Samiei & Ebadi, 2021). WQs can be used as an integral part of a course intended to help students develop skills for autonomous lifelong learning and electronic competence (Dodge, 1995). It particularly gives learners a respectable amount of liberty and allows them to actively participate in the learning process. Consequently, online information seekers are expected to oversee their learning.

Lewis (2009) contends that WQs serves as a structured approach to conducting online searches within the World Wide Web. This methodology revolves around clearly defined tasks that control web-based information for specific educational objectives. These objectives are linked to the cultivation of advanced cognitive abilities such as comparison, analysis, and evaluation, fostering an environment conducive to active and imaginative learning among students. Additionally, Hassanien (2006) underscores the stimulating and advantageous aspects of WQs for students, as it offers motivational and authentic learning

materials, ultimately enhancing knowledge retention compared to conventional teaching methods. Thus, WQs represents a web-based educational tool that employs a wealth of valid internet-derived content, featuring tasks that engage learners in critical thinking, problem-solving, judgment, analysis, and synthesis.

The incorporation of WQs into educational practices fosters a shift in the role dynamics between students and teachers. In this context, students assume a more active role, guided by a structured set of procedures and tasks outlined within the WQs framework, while the teacher assumes the role of a facilitator (Ebadi & Rahimi, 2018). This facilitative role entails assisting students in overcoming challenges, activating their prior knowledge, and stimulating their critical thinking. This critical thinking happens by accomplishing WQs tasks because learners search, read, analyse and synthesize information. As a result, they can contextualize information on their own about materials and pursue individual interests in line with some specific standards. Polly and Ausband (2009) indicate that WQs support higher-order thinking skills as it encourages meaningful concepts so that learners can apply these skills in their real-life situations. Given that the core of WQs lies in task completion through the utilization of higher-order thinking skills, educators must curate tasks that align with the specific needs and interests of their students. Furthermore, educators are entrusted with the responsibility of conceiving, designing, implementing, and assessing WQs activities integrated into the teaching and learning process, as emphasized by (Sen & Neufeld, 2006).

Collaboration is important for a successful learning process. When students are divided into groups and collaborate to find knowledge, meaning, or a solution to produce an artefact of their learning, it can improve student engagement in learning activities, self-directed learning, and communication skills (March 1998). Additionally, they have the opportunity to interact with their classmates and have the chance to develop positive independence, social skills, strong interpersonal relationships, open communication, strong collaboration, and collaborative skills (Awada et al., 2020). Thus, WQs support collaboration among students by enabling them to collaborate, exchange experiences, and achieve more benefits by learning and communicating new information.

Using WQs as an alternate teaching method and learning assessment tool develops teachers' higher-order thinking abilities, such as locating websites relevant to their lessons and evaluating and choosing reputable, expert, and well-written websites (Iskeceli-Tunc & Oner, 2016). In addition, WQs offers a valuable tool for teachers to evaluate their

students' language skills in a more authentic and meaningful way. By designing WQs that require students to research and analyse authentic English language materials, teachers can assess their students' ability to comprehend, interpret, and apply English language concepts in a real-world context. Moreover, WQs can be tailored to assess specific language skills such as reading, writing, listening, or speaking, making them a versatile assessment tool. In sum, WQs are a valuable strategy for English language assessment as they provide students with an opportunity to demonstrate their language proficiency in a meaningful, authentic context, use the Internet as a valuable tool, and allow teachers to assess their students' language skills in a more comprehensive and accurate (Halat, 2008; Kocoglu, 2010; Salem, 2022).

According to Halat (2008: 110), the following points are the strengths of WQs: (1) is "an alternative teaching strategy that enhances students' motivation in class; (2) serves as an alternative assessment tool of student's learning; gives teachers an idea of the student's knowledge acquisition degree of and implementation of the knowledge; (3) provides teachers with an opportunity to see and assess students' ability in using technology for learning; (4) enhances teachers' creativity in thinking and writing, such as finding interesting and funny stories or scenarios and combining these with math or other subjects; (5) enhances teachers' higher-order thinking skills, such as finding a topic-related websites and examining and selecting professional, well-prepared, and reliable websites; (6) requires students to be active learners; and allows students to use the Internet as an important tool".

WQs are a flexible teaching strategy that can be adapted to suit a range of English language teaching and learning contexts. They can be designed to cater to students' diverse learning styles, abilities, and interests and can be easily customized to align with specific learning objectives and curriculum requirements (Alias et al., 2013). Furthermore, WQs can be used to enhance various language skills such as reading, writing, listening, and speaking and can be designed to target different levels of language proficiency (Hadriana & Adanan, 2020). The flexibility of WQs allows teachers to incorporate various forms of media, such as audio, video, images, and interactive tools, to create an engaging and interactive learning experience for students (Renau & Pesudo, 2016). Additionally, WQs can be easily accessed and completed remotely by students, making them an ideal strategy for online and distance learning (Kozlovskii et al., 2021).

Overall, the flexibility of WQs makes them a versatile teaching and learning tool that can be used to enhance students' English language skills in a variety of contexts.

The WQs methodology joins Internet-based resources with thoroughly structured tasks, engendering immersive and purposeful learning. By using the expanse of digital information available online, WQs furnish learners with opportunities to actively engage in authentic and contextually rich learning experiences. This, in turn, fosters not only a deeper comprehension of the subject matter but also instils a heightened motivation and sense of autonomy in the learning process (Halat & Peker, 2011; Sox & Rubinstein-Ávila, 2009). This heightened motivation catalyses success, especially in the context of language learning. Students, when adequately engaged through WQs, exhibit increased perseverance, heightened effort, and a greater propensity to realize their language acquisition goals. March (1998) explains that WQs helps increase student motivation through an interactive environment based on collaboration which provides students with real (authentic) tasks which lead to success in language learning. Moreover, it encourages learners to apply what they have learned. Consequently, motivation constitutes a crucial factor that significantly influences the academic journey of students. Within the context of language learning, it is imperative to identify effective tools that augment student motivation, ultimately contributing to their success (Munoz-Restrepo et al., 2020) Thus, it becomes evident that WQs, through their capacity to kindle and sustain motivation, represent a valuable strength, empowering educators to facilitate the academic triumph of their learners.

Cooperative learning is important for a successful learning process (Raffone et al., 2019). March (1998) illustrated that WQs foster interaction and cooperative learning as learners work together to achieve the task or they cooperate to solve a specific problem. Likewise, Awada et al. (2020) confirm that WQs supports collaboration among students. This helps them to exchange experiences and achieve more benefits. Lacina, (2007: 251) adds that "WQs allows students to work cooperatively to learn and exchange new information while using technology that provides the multiple forms of information needed to understand a new topic".

WQs is an effective self-directed learning strategy for English language teaching and learning. They are designed to encourage students to take ownership of their learning by providing them with a clear set of tasks and goals to achieve. Students are required to search and analyse authentic English language materials and apply critical thinking skills

to solve problems, make decisions, and produce an output that demonstrates their learning. The self-directed nature of WQs allows students to work at their own pace, level of proficiency, and learning style, thus promoting more personalized learning (Hung, 2014; Jwaifell et al., 2015; Wang, 2021). By engaging in self-directed learning, students can develop essential skills such as self-motivation, time management, and self-evaluation, which are essential for successful language learning. WQs can also provide opportunities for collaborative learning, where students work in groups to solve problems and share their knowledge and ideas, thus enhancing their communication and teamwork skills (Samiei & Ebadi, 2021). In summary, WQs are a valuable self-directed learning strategy for English language teaching and learning, as they encourage students to take ownership of their learning, develop essential skills, and promote collaboration and communication, see Figure 12.

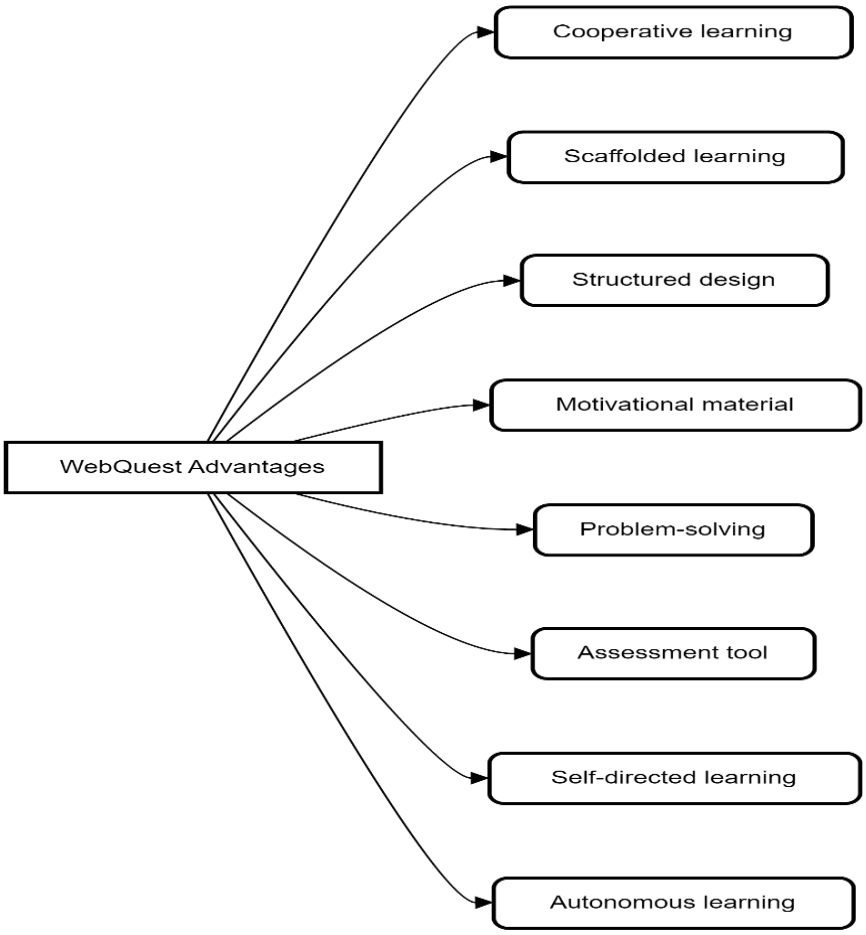

Figure 12. WebQuests Advantages

2.5.7 Interactive WQs

To enhance the effective utilization of WQs in educational settings, it is essential to invest in the design, development, and implementation of interactive WQs, as emphasized by Gülbahar et al., (2010). This interactive environment offers valuable tools for both teachers and students. Teachers, in particular, benefit from the capability to create customized WQs tailored to their instructional goals, update existing ones to align with evolving content or pedagogical needs, and assess the performance of students engaged in these WQs. Additionally, teachers can tap into a repository of previously published WQs, fostering a collaborative and resource-sharing community that extends the benefits of WQs-based learning beyond individual classrooms (Gülbahar et al., 2010). Consequently, educators can harness the full potential of WQs as a dynamic and versatile educational tool, enhancing their effectiveness in promoting active, inquiry-driven learning experiences for students ,see Figure 13:

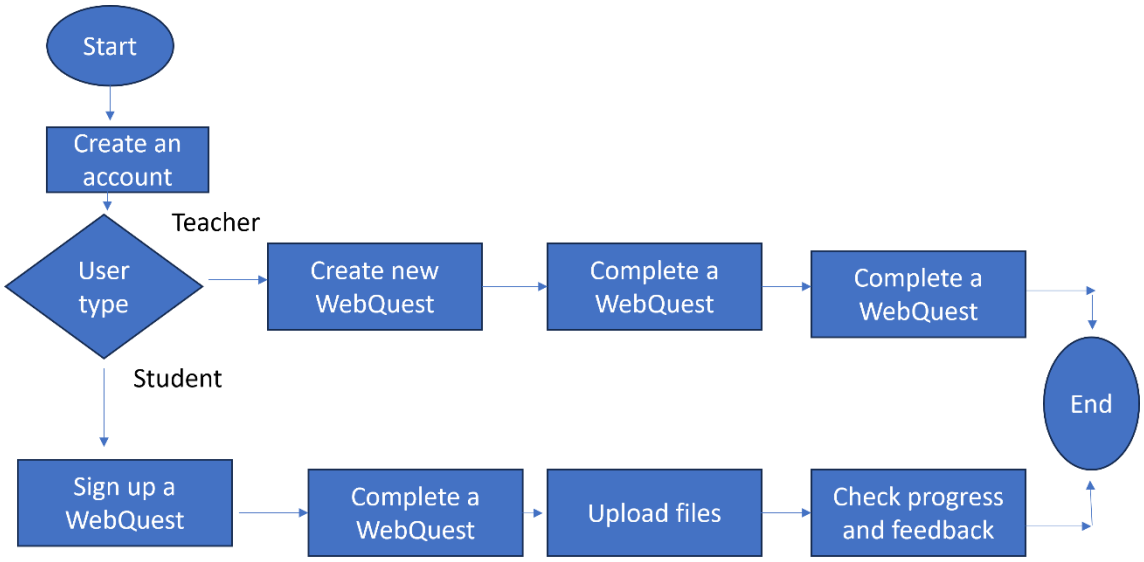

Figure 13. Flowchart of interactive WebQuests (Gülbahar et al., 2010)

2.5.8 WebQuests and language learning

WebQuests have emerged as a valuable instructional tool for enhancing English language proficiency among learners. These web-based, inquiry-driven activities provide students with exposure to authentic materials, meaningful content, and opportunities for real communication in the target language (Awada et al., 2019). By engaging with authentic resources such as websites, articles, videos, and interactive content, learners are exposed

to genuine language usage, colloquialisms, and cultural nuances that are often absent in traditional language textbooks (Aydin, 2016). March (2004), Godwin-Jones (2004), Laborda (2009) indicated that to achieve the required task of WQs students read, search and synthesize information from different resources then they express their own. These activities help students to use the target language correctly and lead to an interactive environment that creates meaningful learning. Thus, this exposure helps bridge the gap between classroom learning and real-world language applications, making the language learning experience more relevant and practical.

Using WQs as a constructivist strategy enhances language acquisition. Sole and Mardomingo (2004) demonstrated the potential utility of WQs within the context of foreign language acquisition, particularly within the framework of task-based learning and a constructivist pedagogical approach. Their research centered on the concept of "trayectorias," which encompassed problem-solving WQs equipped with scaffolding elements, aimed at assessing the extent to which a writing task aligned with the researchers' objectives and gathering insights into students' perceptions of this task. The study enlisted 23 Spanish foreign language learners enrolled in two higher education institutions in the United Kingdom. Through the analysis of student work and questionnaire responses, Solé and Mardomingo (2004) ultimately determined that the integration of task-based learning and the constructivist approach facilitated learner engagement and enhanced their comprehension of the subject matter. Additionally, they asserted that online tasks promoted learner autonomy and self-awareness.

WQs strategy is an effective strategy in terms of language output (Kanuka et al., 2007) conducted a study that revealed the positive impact of WQs on the language production skills of native speakers. Their case study focused on exploring how various communicative activities influenced the quality of learners' contributions to online discussions. These activities encompassed nominal group techniques, debates, interactions with invited experts, WQs, and reflective deliberation. Following a quantitative content analysis involving 19 university students who were native speakers, the researchers concluded that WQs and debate activities resulted in the highest proportion and quantity of contributions. In essence, students who participated in WQs and debate activities demonstrated the highest levels of cognitive engagement.

Moreover, WQs encourages students to actively use the language in context as they complete tasks, collaborate with peers, and present their findings. Luzón (2007) sees that

WQs are an effective strategy in teaching a second language as it helps students construct knowledge by using their previous knowledge to search, read and synthesize information from different resources in the second language to assess the problem and find an appropriate response to the required task of WQs. They do not receive information from the instructor directly, but they construct it depending on their previous experiences, therefore, their thinking skills are improved. This active participation fosters the development of listening, speaking, reading, and writing skills, as well as critical thinking and problem-solving abilities, all of which are essential components of English language proficiency (Blachowicz et al., 2013). Additionally, the motivation and engagement generated by WQs can lead to increased autonomous learning as students are encouraged to explore topics of personal interest within the target language, further contributing to their language development. As such, WQs represent a promising pedagogical approach for promoting comprehensive English language acquisition.

Regarding the advantages derived from the incorporation of WQs in English language learning, researchers worldwide have been motivated to undertake investigations aimed at assessing the effectiveness of WQs utilization in enhancing various facets of students' English language skills and related components. Numerous studies have demonstrated that the integration of WQs into English language learning has resulted in noticeable enhancements in students' listening, reading, speaking, and writing proficiencies (AL-Khataybeh & AL-Awasa, 2016; Al-Shamisi, 2016; Alshumaimeri & Alfadda, 2011; Awada et al., 2019; Awada & Ghaith, 2014a; Fitrianto et al., 2016; Ginaya, 2018; Hadriana, 2015; Salem et al., 2017; Stetter & Hughes, 2017). Additionally, various studies have highlighted that the incorporation of WQs in English language learning has facilitated the development of other critical skills, competencies, and aspects, including critical thinking skills, communication skills, motivation, autonomous learning abilities, grammar proficiency, and vocabulary mastery (Akhand, 2015; Chen, 2021; Halat & Peker, 2011; Irzawati & Asiah, 2013; Renau & Pesudo, 2016; Sadikin, 2016; Saekhow & Kittisunthonphisarn, 2015).

In conclusion, WQs supports language learning. For example, it gives students a chance to be exposed to the target language by surfing the Web. Also, it gives learners a great opportunity to increase their comprehension as they search for information through skimming and scanning links provided. Moreover, the problem-solving approach of WQs helps to acquire the target language. It creates an interactive environment which presents

meaningful learning through preselected resources. Subsequently, the opportunities for communication and participation increase, leading to an improvement of language ability. To sum up, WQs is considered an effective tool to acquire a foreign language that helps integrating the different language skills.

2.5.9 WebQuests and Constructivism

Constructivism, a prominent theoretical framework in education, posits that knowledge is actively constructed by learners through their interactions with the environment and social interactions (Wyatt, 2023). It emphasizes the importance of learners' active engagement in the learning process and the role of social interaction in shaping their understanding (Foushee et al., 2023).

Constructivism asserts that learners are not passive recipients of knowledge but active constructors of their understanding (Wyatt, 2023). This perspective is rooted in the works of Jean Piaget, Lev Vygotsky, and other educational theorists who have underscored the significance of cognitive development and social interaction in learning. In a constructivist classroom, learning is viewed as a dynamic process in which learners build upon their existing knowledge and experiences to construct new understandings (Kirginas, 2023). WQs, as an instructional strategy, embodies many of the key principles of constructivism. Here are some ways in which WQs aligns with constructivist principles (Awada et al., 2019; Aydin, 2016; Ebadi & Rahimi, 2018):

1. Active Engagement: WQs require students to actively engage with the content, often through inquiry-based activities. They are encouraged to explore, analyze, and synthesize information from various online sources. This active involvement mirrors the constructivist notion of learning as an active process.
2. Social Interaction: Collaborative learning is a central feature of many WQs. Students often work in teams, sharing ideas, perspectives, and knowledge. This social interaction is consistent with Vygotsky's idea of the Zone of Proximal Development (ZPD), where learning is most effective when students interact with peers and more knowledgeable individuals.
3. Authentic Context: WQs often present students with real-world problems or scenarios, grounding learning in authentic contexts. This authenticity resonates with the constructivist emphasis on situating learning within meaningful, real-life contexts.

4. Construction of Knowledge: WQs typically require students to synthesize information, make connections, and construct new knowledge. This process of actively building understanding aligns with constructivism's view of knowledge as actively constructed by the learner.
5. Ownership of Learning: WQs often empower students to take ownership of their learning. They make choices, set goals, and take responsibility for their progress, reinforcing the constructivist idea that learners are active agents in their education.

Based on the above, WQs represent a practical application of constructivist principles in the modern classroom. By promoting active engagement, social interaction, authentic context, and the construction of knowledge, WQs provide a pedagogical framework that aligns with the core tenets of constructivism. As educators continue to seek innovative ways to foster meaningful learning experiences, WQs offer a valuable tool that embodies the principles of constructivism and supports the development of critical thinking, problem-solving, and collaborative skills, communication skills, and vocabulary acquisition among learners. Therefore, it is evident that WQs can be regarded as a powerful pedagogical approach that embodies and operationalizes constructivist theory in the context of contemporary education, see Figure 14.

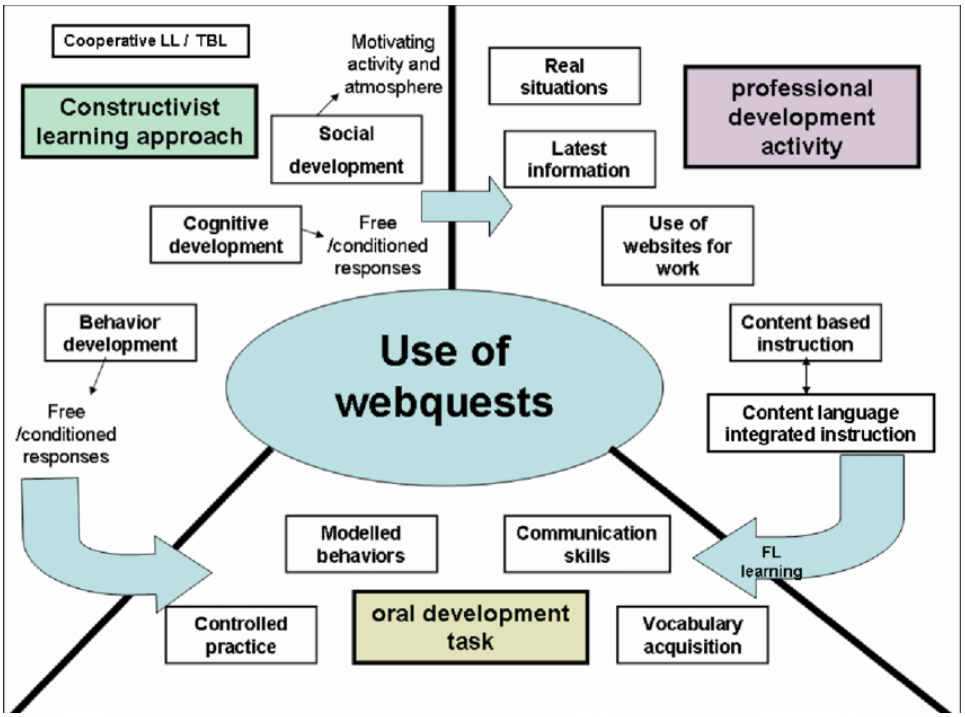

Figure 14. A theoretical diagram of the use of WebQuests (Laborda, 2009)

In conclusion, it is worth noting that using the WQs strategy has a significant role in the educational process. In this sense, it has many different advantages, such as creating the distinguished teacher of the current digital era, preparing students for digital age challenges, improving students' motivation, developing thinking skills and problem-solving, enhancing higher order thinking skills, encouraging cooperative learning, and supporting language learning for students.

2.5.10 The Role of teacher in WQs strategy

The educational use of WQs depends on a student-centred learning approach. The role of the teacher is a facilitator of the learning process. He guides students to use WQs effectively to achieve positive educational results. Consequently, he carries out some activities like designing WQs, choosing the appropriate materials in the form of links, defining the sufficient time to complete the required tasks, dividing students into groups, giving every student a role, and assessing students work through some rubrics (Ebadi & Rahimi, 2018).

Lipscomb (2003: 154), suggests these points to help teachers implement effective WQs:

1. Wisely choosing the WQs.
2. Conduct measurement for the proficiency of students' technology.
3. Determining students 'prior knowledge/content understanding.
4. Conducting assessment for computer availability.
5. Having a backup plan.
6. Maximizing the time of class on computer availability.
7. Defining the students' rules.
8. Going on working even after computer time is finished.
9. Conducting a clear assessment for students.
10. Being excited about the possibilities.

2.5.11 The Role of learners in WQs

Learners work in groups to achieve a specific task as they collaborate to solve a problem or answer a question. Everyone has a certain role like a journalist, a detective or a scientist

but they work together to accomplish a certain task. Kundu & Bain (2015) assure the idea stated, that when students collaborate as a group, they engage in interactive teamwork, with each member assuming a distinct and purposeful role. They are equipped with resources designed to support them in accomplishing their assigned tasks. These resources are utilized for problem assessment and information evaluation, enabling them to formulate a collective response to the central challenge posed by WQs. Furthermore, they engage in meaningful interactions among themselves, involving the exchange of vocabulary, language, information, and personal experiences. They actively listen to their peers' viewpoints and share their own experiences, thereby facilitating mutual learning and knowledge acquisition through peer interaction.

As Laborda (2009) notes, in achieving a WQs task, learners read varied materials and express their own, and thus have the opportunity to explore the target language correctly and improve their speaking skills. In addition, they construct knowledge by themselves. They do not receive information passively but rather use it actively to achieve a certain task. Moreover, cognitive learning which happens in WQs develops learners' opportunity to teach each other and to correct others' mistakes. This creates responsibility in learners and makes them independent. The following table shows the teacher´s and learner´s roles in the WQs strategy, see Table 1.

Table 1. Teacher's and learner's role through WebQuests steps

Components	Teacher's role	Learner's role
Introduction	Designs and formulates the task based on curricular goals and students' prior knowledge. Reviews and filters Internet sources	
Task	Presents and explains the task to students using students' prior knowledge.	

Components	Teacher's role	Learner's role
Process	Provides procedural guidance and cognitive tools to complete the task.	Collaboratively and/or cooperatively negotiate the processes to complete the task.
Information resources	Places reviewed and filtered Internet sources onto a webpage or in print form.	Use procedural guidance and cognitive tools to synthesize information from reviewed and filtered Internet sources.
Evaluation	Designs and uses a rubric to assess students' completed tasks.	Collaboratively and/or cooperatively use a rubric to complete and self-assess task requirements.
Conclusion	Reflects on completed tasks about curricular goals, students' prior knowledge, and their newly constructed knowledge and plans for further activities.	Present their completed tasks. Reflect on the significance of the completed task about curricular goals, their prior knowledge, and their newly constructed knowledge.

2.5.12 Related Studies

Synekop (2020) investigated the attitudes of ESP teachers towards WQs learning and explored the potential of WQs in differentiated instruction for information technology (IT) students. A qualitative research design was employed for this study. The participants consisted of 31 ESP teachers (28 females and 3 males) from the Department of English for Engineering at the National Technical University of Ukraine "Igor Sikorsky Kyiv

Polytechnic Institute." The ESP teachers voluntarily took part in the study during the 2019-2020 academic year. Data collection was conducted through an anonymous questionnaire. The findings from the questionnaire revealed that most ESP teachers value the idea of implementing WQs learning in their instruction. The analysis of WQs specifics led to the development of a classification system based on ten criteria. The structure of WQs was described, taking into consideration IT students' language learning styles and proficiency levels. The study also examined the different approaches to WQs learning used by ESP teachers in differentiated instruction. The results indicated that incorporating various types of WQs to cater to learners' individual needs contributes to the diversification of ESP learning in technical universities and promotes the development of professional communicative skills.

Parra et al., (2018) examined the effects of technological strategies, specifically WQs and MiniQuest, on the reading comprehension performance of Ecuadorian students learning English as a Foreign Language (EFL). The study focuses on how the implementation of these strategies influences students' reading comprehension abilities. The sample consisted of EFL students in Ecuador, selected based on specific criteria such as age, proficiency level, and prior exposure to technological strategies. The outcomes of this study provided insights into the impact of using WQs and MiniQuest on enhancing reading comprehension skills among EFL learners in Ecuador, contributing to the field of language education and instructional design.

Shvaikina (2020) investigated the effectiveness of WQs technology as an instructive tool in teaching foreign languages at a technical university. The study aimed to enhance learners' attitudes towards science concepts learning and promote student creativity, decision-making, initiative-taking, and engagement. It continued over two semesters, the study involved 45 participants from the Faculty of Industrial and Civil Engineering (ICE). Data collection methods included student questionnaires and final testing through the creation of a language portfolio. WQs were used to facilitate the collection of necessary materials from Internet sources and encourage student-generated web pages for presenting their findings. The study examined the impact of WQs on the formation of foreign-language competence among future engineers and provided insights into the potential of this technology for enhancing foreign language instruction in technical education settings.

Awada et al. (2020) conducted a study to investigate the effect of integrating Student Team Achievement Division (STAD), a structured cooperative learning method, and WQs, an inquiry-based technological model (IBTM), on developing EFL students' argumentative writing skills and teachers' perceptions of the use of the two instructional methods. The study duration was 12 weeks, with 78 students taking part in the experiment. Students were divided into an experimental group (n = 5) and a control group (n = 24). The researcher used a pre- and post-writing test and questionnaire to collect the data. ANCOVA was used to analyze the collected data. The outcomes revealed that only the less skilled students in the control and experimental groups improved their writing skills in L2.

Salem (2022) investigated the impact of using WQs to improve the academic writing skills and soft skills of language learners and reduce their writing anxiety. The sample comprised 54 students divided into three groups: the first group studied through WQs (sheltered learning), the second group learned through the free Google search (unsheltered learning), and the third group studied through offline sheltered learning. The instruments were the Soft Skills Rating Card, developed by the author, the Second Language Writing Anxiety Inventory (Cheng, 2004), and the IELTS writing task. SPSS was used to analyze the data. The results showed that WQs is an effective tool for improving writing and soft skills and reducing writing anxiety.

Synekop (2020) explored teacher attitudes towards WQs as an instructional method and analyzed the application of WQs in teaching information technology. The participants were 31 students from the Department of English for Engineering. The study used a qualitative research design. The main findings revealed the positive attitude of teachers towards WQs. In addition, WQs contributed to developing communicative skills for ESP students. Thus, WQs played a significant role in enhancing English language skills.

In the same vein, Saekhow & Kittisunthonphisarn (2015) conducted a study on 40 students in Communicative English lessons. The objectives of this research were to: 1) use social networking to create communicative English lessons for WQs; 2) compare the performance of 40 students in communicative English lessons before and after using WQs; and 3) determine how satisfied the students were with the communicative English lessons on WQs. The results referred to the effectiveness of WQs in supporting students' satisfaction with communicative English lessons through social media.

Ebadi & Rahimi (2018) investigated the effect of a WQs-based classroom on EFL learners' critical thinking and academic writing skills. The study involved two full classes of ten EFL students, each taking an IELTS course at a language school in Sanandaj, Iran. Participants' critical thinking abilities were evaluated using the California Critical Thinking Skills Test (CCTST) developed by Facione and Facione (1993), their academic writing abilities were evaluated using IELTS Academic Writing Task 1 and Task 2, and their perceptions of the effects of the WQs-based classroom on critical thinking and academic writing abilities were evaluated using a semi-structured interview. The researcher/instructor journals were also used to contribute to the qualitative findings. The quantitative data were analyzed using one-way MANCOVA and MANOVA. The findings showed that both face-to-face and WQs-based instruction improved the students' academic writing and critical thinking abilities, but that the former outperformed the latter in both post- and delayed post-tests (i.e., short- and long-term effects) and required fewer sessions to complete the required material. Additionally, a thematic analysis of the qualitative data revealed several topics that addressed the learners' favourable opinions of the influence of the WQs-based classroom.

Salem (2022) explored the impact of learning in a sheltered Internet environment, "WQs," on improving the academic writing skills of English for Academic Purposes (EAP) non-native English speakers. It also investigated the impact of using sheltered online instruction on improving the soft skills of EAP language learners. In addition, the study assesses the impact of sheltered online instruction on reducing the writing anxiety levels of writers in the International English Language Testing System (IELTS, Writing Tasks 1 and 2). Three groups of EAP learners were selected to participate in the study, adopting three learning styles: sheltered online instruction (the experimental group, 15 ESP university students), unsheltered online instruction (free Google search) (the first control group, 19 students), and sheltered offline instruction (the second control group, 20 students). Instruments used included a sample of the IELTS writing test, the Brookings Soft Skills Rating Card, and the Second Language Writing Anxiety Inventory (SLWAI). The sequential exploratory mixed method was used as it consisted of both quantitative and qualitative data analyses for the elaborate explanation of results. Successive data analysis rounds showed the EAP students' plentiful gains in their academic writing skills and the level of their soft skills. It is also revealed that EAP students are not as anxious and reluctant to write as before. In addition, the analysis of the student's responses to the

semi-structured interview revealed that learning in sheltered Internet environments represents an interesting as well as motivating learning experience. The outcomes referred to the fact that it is necessary for WQs to be implemented as a sheltered online instruction strategy in language learning and to design sheltered Internet environments other than WQs to improve the quality of the teaching process.

AL-Khataybeh & AL-Awasa (2016) investigated the Effect of using Web Quest on improving 100 seventh-grade female students' writing Skills in the southern ALMazar Directorate of Education in Jordan. The sample was randomly selected from three schools. It was divided into two groups: the control group (30) female students who were taught using the traditional method and two experimental groups; the first group was (35) female students who were trained for (2 hours) and the second group was (35) female students who were trained for (4 hours) on using web quest. The results showed that there were statistically significant differences at ($\alpha = 0.01$) between the experimental group and the control group in favour of the experimental group, and there were statistically significant differences at ($\alpha = 0.01$) between the (two hours) and (four hours) at the experimental group in favour of the (four hours). The study recommended the need to apply the Web Quests in the educational process in Jordanian schools and the need to train teachers in how to use the Web Quests and its application in the educational process.

Al-Sayed et al. (2018) conducted a study to find out the efficacy of the WQs model in developing an English language planning strategy for second year distinguished governmental language preparatory school pupils. The sample of the study was fifty second-year pupils at Hassan Abu-Bakr Distinguished Governmental Language School at Al-Qanater Al-Khairia (Qalubia Governorate). This sample was selected randomly and divided into two groups: the first was an experimental group which was taught through the WQs model and the second was a control group which was taught through the traditional way. The researchers used Quantitative and qualitative data analyses. T-test was used to compare the mean scores of the control group and the experimental one in the pre-post applications. The findings indicated that there was a significant improvement in pupils' English language planning strategy in favour of the experimental group. The study suggested that the WQs model should be integrated into writing instruction programs.

Al-Shamisi (2016) investigated the effect of WQs on Grade 11 reading comprehension in a secondary school in the UAE and perceptions of WQs as a study tool. The participants

were 56 female Emirati students. They were divided into two groups: one of them is controlled and taught traditionally and the other is an experimental group and taught with WQs strategy. The study followed a quasi-experimental research design. The researcher used (ANCOVA) and descriptive statistics to analyse the data. The findings revealed that WQs is an effective strategy.

Ahmed (2016) aimed at investigating the effect of using a Web Quest program on developing some EFL critical reading and writing skills of first-year experimental secondary school students. The sample of the study was 60 students from one of the experimental secondary schools in Egypt. The instruments of the study were EFL critical reading and writing tests. The study showed that there was a statistically significant difference between the mean scores of the pre-and the post critical reading test and writing test of the experimental group in favour of the post-tests. This difference can be attributed to using Web Quest.

Salem et al. (2017) conducted a study to investigate the effect of a WQs-based program on developing the EFL listening and speaking skills of secondary-stage students. The participants were 40 among 2nd secondary school students. They were selective only students who had computer literacy. Qualitative and quantitative methods were used to analyse data. The results showed improvement in students' speaking and listening skills. The study recommended using WQs as a technique for teaching EFL skills and as a training approach in the professional development program of EFL teachers.

Hassanien (2006) which was conducted on higher Education students that students assured that using WQs helped increase their achievement and motivation for learning as most students agreed (62 per cent strongly agreed and 35 per cent agreed) that the WQs sessions were relevant and useful because these sessions enabled them to avoid two main problems: wasting time and surfing inappropriate materials to reach the required knowledge through WQs strategy. Also, students had positive attitudes towards WQs strategy as there was rarely a time when students were not enthusiastic about what they were learning and doing on the computers. Students also found a new appreciation for the wealth of knowledge to be found on the Internet.

Alshumaimeri & Almasri (2012) conducted a study at King Saud University (KSU), Saudi Arabia. Within this cohort, there were 42 students assigned to the experimental group and 41 students in the control group. The study spanned a total of 10 sessions, each

lasting 50 minutes, conducted over seven weeks from June to August 2011. In the experimental group, traditional teaching methods were supplemented with the inclusion of WQs activities, while the control group exclusively received traditional teaching. A post-test was administered to assess the student's comprehension performance, allowing for a comparison between the two groups to determine if there were statistically significant differences attributable to the treatment. The findings revealed a notable improvement in reading comprehension performance among the experimental group in the post-test compared to their pre-test scores, suggesting that the integration of WQs can effectively enhance students' reading comprehension abilities. These results underscored the potential utility of WQs to bolster reading comprehension skills.

Auditor & Roleda (2013) aimed to discover the impact of WQs on students' critical thinking, content-knowledge acquisition, task competence and perceptions in basic Physics. Twenty students participated in the research. The period of the study lasted for almost five months (September 2010 through February 2011). The study followed a mixed method Design (i.e., quantitative and qualitative methods) and was used in a complementary fashion. Also, it employed both descriptive and inferential data analysis procedures. The results of the study showed the effectiveness of WQs in enhancing critical thinking and content-knowledge acquisition. Also, it suggests that the WQs model can be a useful tool for student learning.

Ginaya (2018) aimed to assess the impact of integrating WQs project tasks within a modified traditional teaching framework on the speaking proficiency of students in a vocational college. The research involved 51 participants, comprising 27 males and 24 females, all in their third semester of a three-year diploma program specializing in Tourism and Travel Business at a public higher education institution located in Bali. Data collection followed a systematic procedure encompassing planning, implementation, observation, and reflection. To assess the effectiveness of the intervention, a pretest-posttest control group design was employed, and statistical analysis involved paired t-tests and a mixed design ANCOVA (analysis of covariance). These analytical methods were used to detect any statistically significant enhancements in speaking skills resulting from the intervention. Qualitative data was also analysed, drawing insights from comprehensive observations of the action and the outcomes of questionnaires. The findings showed a notable improvement in English speaking proficiency among the

students who underwent the treatment, a positive shift that was further substantiated by their heightened motivation and interest in learning.

Fitrianto et al. (2016) aimed to assess the impact of Web Quest utilization on extensive reading. The participants in the study were drawn from two distinct classes, with one serving as the experimental group and the other as the control group. These classes were composed of fifth-semester students majoring in English at STKIP PGRI Jombang, Indonesia. The experimental group, comprising 26 students, engaged in reading a story delivered through WQs, largely enabled by the availability of computer lab access as per the schedule. In contrast, the control group, consisting of 27 students, participated in a traditional reading session where the story was presented in print form as the sole resource. In this scenario, the instructor read the story and assisted the students in completing related exercises. Notably, the study's findings revealed no statistically significant differences between the two groups ($p=0.575$). Additionally, the outcomes indicated that both approaches, WQs and traditional methods, effectively facilitated learning and represented valuable teaching strategies. Furthermore, it was evident that most students in both groups encountered challenges when it came to reading in English.

Al-Shamisi (2016) conducted a study to investigate the effect of WQs on students' reading comprehension. The sample for this study consisted of Grade 11 students who were all Emirati females sharing a common cultural background and having Arabic as their primary language. Each class consisted of 28 students aged between 16 and 17 years old. The research employed a quasi-experimental design involving both control and experimental groups. Furthermore, to assess students' perceptions about perceptions about WQs, a Likert scale questionnaire was administered. Data analysis involved the use of analysis of covariance (ANCOVA) and descriptive statistics. The findings revealed a statistically significant improvement in the reading abilities of the experimental group. Additionally, the students exhibited positive attitudes toward WQs, noting that they enhanced collaboration, language skills, reading skills, and higher-order thinking capabilities.

Ali (2015) explored the impact of WQs utilization on the enhancement of reading comprehension skills and cultural awareness among first-year secondary students in an experimental school in Egypt. A total of 31 students were randomly selected and placed in an experimental group. Both a reading comprehension test and a cultural awareness assessment were administered to the students as pre-tests and post-tests. The statistical

analysis revealed notable enhancements in the students' reading abilities and cultural awareness. Qualitative analysis of students' responses obtained from semi-structured interviews and reflective journals confirmed a positive inclination toward learning with WQs, underscoring its effectiveness as a pedagogical approach.

Hadriana & Adanan (2020) created an M-WQs to enhance the reading comprehension skills of 30 Grade XI senior high school students in Pekanbaru, Riau, Indonesia. Upon a comprehensive analysis of the questionnaires administered, it was evident that the experts reached a common agreement regarding the practicality and feasibility of the created M-WQs. This agreement encompassed various dimensions, including technical functionality, content quality, the organization of instructional materials, and the potential impact of M-WQs on both students and teachers. Similarly, English teachers and students were in accord in their evaluation of the M-WQs, particularly concerning its user interface, textual elements, and content relevance. In summary, it can be concluded that the M-WQs is a valuable resource for facilitating learning activities in the English Reading Comprehension subject.

Stetter & Hughes (2017) explored the use of WQs to enhance reading comprehension skills among students. The sample included seven middle school students with learning disabilities. During each session, these students independently engaged with a story on their individual computers, where they not only read the story but also examined its structural components, including plot, character, setting, and theme. They then proceeded to complete a story map and answered a brief comprehension quiz, all while navigating through WQs. Following the completion of five WQs, a survey was administered to assess the students' perceptions of their experience. The findings indicated that students were able to correctly identify the terms plot, character, setting, and theme, although they encountered challenges when attempting to apply these concepts to their reading. In general, students reported that the WQs were informative and beneficial in improving their reading skills.

Gokalp (2011) conducted a study on 226 ninth-grade students from eight classes of four high schools in Ankara. He divided students into two groups: The experimental group studied through the WQs strategy and the control one studied through the traditional way. The instruction in both groups took eight weeks. Multivariate Analysis of Covariance (MANCOVA) was used as inferential statistics. The results of the study showed that the achievement of the experimental group was higher than the control one. Also, no

significant difference was found in the attitudes towards force and motion between the groups.

Miftah (2020) explored the integration of WQs, an internet-based learning tool, into an EFL writing class. The participants in this research consisted of twenty-three EFL students enrolled in an Argumentative Writing course and an English teacher from the English Education Department at Institut Agama Islam Negeri Palangka Raya, Indonesia. The data for this study were derived from the teaching activities involving WQs as an internet-based learning tool in the EFL writing class. The researcher utilized various research instruments, including an observation checklist, field notes, interviews, and documentation, to collect data. The results indicated that WQs can effectively be integrated into Indonesian EFL writing classes, guiding students in the essay production process by aligning writing activities with the components outlined in the WQs framework: introduction, tasks, process, resources, evaluation, and conclusion.

Berezova et al. (2018) investigated the effectiveness of incorporating WQs in improving the writing and reading abilities of university-level students. In the experimental groups, traditional instruction was supplemented with WQs-based reading and writing activities, while the control groups exclusively received traditional ESL lessons. Notably, significant disparities in reading and writing performance were observed in the experimental groups during the post-test assessments. By comparing these results with the pre-test outcomes, the researchers concluded that the utilization of WQs can indeed augment students' reading and writing skills. Consequently, this study's findings underscore the potential of WQs in enhancing the reading and writing proficiencies of students.

Royhana et al. (2021) The purpose of this study was to assess the effectiveness of implementing WQs in teaching descriptive text writing by measuring the difference in students' scores before and after the application of WQs. The research followed a quantitative approach with a pre-experimental design, involving a single group's pre-test and post-test. The study focused on tenth-grade students at MA Al-Ibrohimy Galis during the 2018/2019 academic year. Data were collected through a writing test administered as a pre-test, followed by the application of WQs as a teaching method, and concluding with a post-test. The data analysis involved the use of a dependent t-test, revealing that WQs were a more effective instructional approach, as students' post-test scores were higher than their pre-test scores. Considering these findings, using WQs as a teaching tool

appears to be a viable option for enhancing English writing skills, specifically in descriptive text writing, for tenth-grade students at MA Al-Ibrohimy Galis.

Alshumaimeri & Bamanger (2013) conducted a study to investigate whether notable distinctions existed between EFL students who received writing instruction through WQs and those subjected to conventional teaching methods. The study involved 14 male students from Saudi Arabia who were randomly divided into experimental and control groups. They were between 19 and 23 years old. Both groups underwent Pre-tests and post-tests following the instructional period. The results revealed that the students in the experimental group, who received WQs-based instruction, exhibited superior writing performance compared to their counterparts in the control group in terms of text length, vocabulary usage, and grammatical accuracy. These findings suggest that the implementation of WQs for writing instruction can lead to enhanced writing abilities.

Awada & Ghaith (2014b) aimed to assess the effectiveness of WQs in enhancing the English for Occupational Purposes (EOP) writing skills of a group of English as a foreign language (EFL) learners enrolled in a certified university professional business program in Lebanon. The research aimed to assess whether WQs is considered a valuable and effective educational tool. The study operated on the premise that language instructors could utilize WQs as a valuable source of authentic materials to enhance the content and exercises found in conventional English for Specific Purposes (ESP) textbooks. The research adopted an experimental pretest-posttest control group design. Performance scores of learners in both the control and experimental groups were subjected to descriptive statistical analysis, including gender-based comparisons. Additionally, a Multivariate Analysis of Covariance (MANCOVA) test was conducted to investigate the influence of treatment conditions, gender, and the interaction between treatment and gender on writing achievement. The results of the study did not reveal any significant treatment effects associated with WQs use, nor did they indicate significant interaction effects between treatment and gender. Furthermore, it was observed that female students outperformed their male counterparts in writing proficiency.

Chen (2021) investigated the Impact of Integrating WQs into Technology Education on the Critical Thinking and Operational Proficiency of Business Management Students. This research employed a quasi-experimental design and involved a total of 188 business management students from universities in Fujian. These students underwent technology education enriched with WQs activities. The experimental teaching sessions were

conducted for three hours per week for 16 weeks, totalling 48 hours of instruction. The research outcomes revealed several key findings: 1. The incorporation of WQs significantly influenced critical thinking psychology, 2. WQs had a significant impact on the students' operational capability, 3. Critical thinking psychology demonstrated a significantly positive relationship with problem clarification within the context of operational capability, 4. Critical thinking psychology displayed notably positive effects on effective interaction in operational capability, and 5. Critical thinking psychology exhibited a significant positive influence on inductive inference within the realm of operational capability. Based on these results, recommendations are put forth, with the hope of aiding the development of domestic technology education in a more organized and systematic manner, ultimately fostering the technological literacy of students.

Saekhow & Kittisunthonphisarn (2015) conducted a study to investigate the effect of WQs on Communicative English instruction through social networking. They employed the following tools: 1) Communicative English lessons implemented via WQs. 2) A learning achievement test characterized by difficulty levels ranging from 0.20 to 0.80, discrimination power from 0.21 to 0.80, and a reliability score of 0.72. 3) A satisfaction survey was administered to students who received instruction through the WQs-based approach. This survey had discrimination powers ranging from 0.45 to 0.82 and reliability scores from 0.82 to 0.91. Data analysis was conducted using various statistical measures such as percentages, means, standard deviations, and dependent t-tests. The results indicated that the development and effectiveness of Communicative English Lessons delivered via WQs through social media exceeded the predetermined performance criteria of 80/80, achieving a score of 82.10/80.65. Furthermore, the pre-and post-study academic performance of students in Communicative English Lessons utilizing WQs through social media exhibited statistically significant differences at a significance level of 0.05. Lastly, the overall student satisfaction score for Communicative English Lessons delivered through WQs via social media was 4.70, with a standard deviation of 0.22, indicating a high level of satisfaction among the students.

Akhand (2015) investigated the effect of WQs on autonomy and performance. The sample was composed of 20 master students in Bangala. Quantitative research was used. students' level in English is intermediate/upper intermediate. The experiment continued for 4 weeks. The results showed that Project-based learning with WQs is effective for students' autonomy and performance. In addition, it benefits in and out of class assignments.

Sadaghian & Marandi (2016) explored the utilization of WQs as a resource for promoting autonomy in online language courses. The study involved 18 Iranian EFL language learners, encompassing both male and female participants, who were enrolled in virtual language courses. These courses were synchronous and occurred twice a week, facilitated through a Moodle-based course management system supplemented with additional features like Adobe Acrobat Connect and synchronous video and voice interactions. The learners were familiar with online learning modalities, having been enrolled in online English courses and E-zaban virtual university for nearly two years, with their proficiency level being at the intermediate stage during the study. The outcomes of this investigation reveal that WQs play a role in nurturing learner autonomy by stimulating critical thinking among students. Moreover, the study highlights the potential of WQs as a versatile resource and activity repository within online autonomous language courses. Given their adaptability and dynamic nature, WQs can be customized to cater to the evolving needs of learners throughout a learning cycle.

Renau & Pesudo (2016) investigated the implementation of a WQs for English language learning in a secondary school in Spain. The study sought to ascertain whether students experienced the following outcomes: 1) increased motivation in learning English, 2) enhanced digital proficiency, and 3) the acquisition of cultural competence. The study sample consisted of 23 students in their third year of compulsory secondary education. A questionnaire was employed as an assessment tool to gauge students' attitudes and perceptions. The findings of the study demonstrated that the integration of new technologies, such as WQs, has not only heightened students' motivation toward the teaching and learning of English but has also led to improvements in their digital skills and cultural competence.

Halat (2013) aimed to investigate the viewpoints of primary school students regarding the utilization of WQs as a learning tool. The participants in this research included nine graduate students, along with twenty-six 4th-grade and thirty 5th-grade pupils. The study spanned eight weeks and was conducted within the framework of a graduate course. The graduate students were responsible for designing and developing their WQs as part of a project aligned with their interests. To collect data on perceptions, the researcher administered a questionnaire, which included open-ended questions, to both the graduate students and the primary school students. However, the focus of the analysis was solely on the primary school students' perspectives regarding the utilization of WQs in their

learning experiences. The results of the study indicated that both 4th and 5th-grade students found WQs to be highly engaging and motivating, and they expressed that using WQs allowed them to have fun while learning.

Irzawati & Asiah (2013) conducted a study to explore using WQs in Learning Grammar: Students' Perceptions in Higher Education. Seventy-two participants were in their second semester of higher education. Data collection was carried out through the administration of questionnaires and interviews, allowing for both quantitative and qualitative analysis. The findings of the study showed that students held favourable views concerning the incorporation of WQs into their grammar learning process. They expressed a belief that WQs can serve as an effective internet-based learning tool for grammar studies.

Sadikin (2016) focused on the utilization of WQs to enhance the vocabulary of primary school students, specifically those aged between 9 and 10 years old, who shared a similar level of proficiency in the English language. The study employed a pre-experimental design featuring a one-group pre-test-post-test structure. The study's outcomes demonstrated the effectiveness of using WQs as an instructional tool for teaching English vocabulary to primary school students. These findings highlight a substantial improvement in students' vocabulary skills following the WQs treatment.

Warda (2018) investigated the impact of employing a web quest approach on academic achievement and assessing whether collaborative learning enhances the effectiveness of utilizing web quests as an instructional tool in the field of educational psychology among female students at Al Majmaa University in Saudi Arabia was the primary focus of this research. A combination of quantitative and qualitative research methods was employed to explore the effectiveness of using web quests as a teaching tool alongside collaborative learning in the context of Educational Psychology. The research utilized a questionnaire adapted from Dodge's work, with each questionnaire item structured on a Likert scale, allowing respondents to provide scores ranging from 1 to 5. In the quantitative phase of the study, a total of 33 students participated in interviews aimed at understanding their perceptions of collaborative learning and the use of web quests. The study population consisted of 65 female students enrolled in the Faculty of Education at Al Majmaa University during the academic year 2014-2015. These students were divided into two groups: the experimental group, comprising 33 students who were instructed using a web quest approach, and the control group, consisting of 32 students who were taught through conventional methods. The findings suggest that while collaborative learning did not

demonstrate a positive impact, using web quests as a standalone instructional tool still resulted in improved student learning outcomes.

Strickland & Nazzal (2005) conducted a study to explore the use of WQs in teaching content. A total of 86 seventh-grade students were involved in the study. They are divided into two groups. The control group, which engaged in traditional instructional activities, comprised 38 students, with 18 being males and 20 females. Meanwhile, the experimental group, which participated in the WQs activity, included 48 students, with an even split of 24 males and 24 females. These two groups were formed by randomly selecting intact classes from a teacher's roster of Texas History courses. At the beginning of the school year, school administrators assigned students to one of four class periods, ensuring that all classes were homogenous in terms of academic ability. An independent samples t-test was conducted to assess any differences in prior knowledge between the experimental and control groups. The results indicated that the control group, consisting of students who completed the poster activity, outperformed the experimental group, composed of students who completed the WQs activity, on the end-of-unit exam.

Gaskill et al. (2006) conducted action research in the context of social sciences classrooms within a rural high school. The primary aim of their study was to compare the effectiveness of WQs to conventional instructional methods. The study involved 72 high school students enrolled in a freshman history class, and they were divided into two groups. The first group, consisting of 41 students, received traditional instruction. Their teacher, who possessed over two decades of teaching experience in social studies and was known for being an engaging storyteller, delivered a lecture on the topic of "Assassinations of Four American Presidents and Their Impact on the History of the United States." Students in this group took notes, watched a related movie, and engaged in discussions. On the other hand, the second group, comprising 31 students, completed a WQs assignment prepared by university professors. These students worked individually and were tasked with creating a PowerPoint presentation about the assassinations of four American Presidents. The research continued for four days. Pre/post-test was used to assess the differences. At the conclusion of the four-day period, both groups underwent an identical post-test. The results were surprising for those who had expectations about the effectiveness of the WQs activity. Contrary to those expectations, the findings demonstrated that traditional instruction led to significantly greater student learning.

To sum up, it is evident from the previous literature review that WQs have emerged as a promising instructional tool in educational settings. These digital learning modules have been employed to engage students in active, inquiry-based learning experiences, offering a dynamic alternative to traditional classroom instruction. However, as highlighted by some studies, there remain notable barriers to the implementation of WQs that warrant attention. One of the foremost concerns relates to the time constraints within a classroom setting. Despite the benefits of WQs, some students may not have sufficient time to fully immerse themselves in the required reading materials or videos, owing to the inherent diversity in the readiness and comprehension levels of the student body.

The incorporation of WQs into classroom instruction presents a multifaceted challenge, primarily centred around the allocation of time. The traditional classroom schedule often follows a predetermined pace, and teachers must cover a predetermined curriculum within a given timeframe. This constraint, coupled with variations in student abilities, may lead to situations where some students struggle to complete the assigned tasks in WQs adequately. While advanced students may find the material straightforward and finish quickly, those who require more time to digest and process information may be late. Consequently, the implementation of WQs only during class time may create a sense of frustration among some learners, as they struggle to keep pace with their peers.

Moreover, it is essential to consider the variance in student readiness levels. Not all students enter a classroom with the same pre-existing knowledge or skills. Some students may already possess a solid foundation in the subject matter, while others may be starting from scratch. The wide range of readiness levels can pose a challenge when implementing WQs, as the instructional materials and tasks are typically designed to cater to an average or predefined skill level. As a result, advanced students may find the content too elementary and unchallenging, leading to disengagement. Conversely, students who lack the necessary background knowledge or skills may struggle to grasp the concepts presented in WQs, which can hinder their overall learning experience. In essence, the 'one-size-fits-all' nature of WQs may not adequately address the individualized learning needs of students, thereby limiting their effectiveness as an instructional tool.

Educators and students unfamiliar with integrating computers and collaborative learning into their classroom should anticipate a learning curve initially. It's essential for students to hold the required social skills for effective participation in cooperative groups, which are prepared through practical experience. In the early stages, teachers should be prepared

for confusion and management challenges but remain confident that students will adapt appropriately over time. Effective classroom management is vital for optimizing student engagement, and teachers should establish clear boundaries. Since there isn't a one-size-fits-all approach, teachers should develop their own management strategies, therefore, if teachers become more accustomed to utilizing computers and cooperative learning in educational activities, the process becomes more manageable. The inherent structure of WQs should ensure that students engage exclusively in activities assigned by the teacher and visit only specified internet resources.

In conclusion, while WQs offer a promising avenue for enhancing the educational experience, it is crucial to acknowledge the existing barriers to their implementation. The constraints of classroom time and the diversity in student readiness levels present challenges that educators must navigate when integrating WQs into their teaching strategies. To address these issues, further research and development are needed to create more adaptable and personalized WQs that can cater to the diverse needs of students. Additionally, educators should consider implementing strategies such as differentiated instruction to bridge the gap in readiness levels and ensure that all students can benefit from the engaging and interactive nature of WQs. Only through thoughtful consideration of these challenges and the development of innovative solutions can WQs truly reach their full potential as a valuable tool in modern education.

2.6 FWQ (Flipped-based WebQuest)

FWQ has three forms:

2.6.1 The first form of FWQ

The Flipped-Based WebQuest(FWQ) model has been designed in light of FL, which uses the WQs structure with some additional sections. The FWQ model is divided into three stages, and each stage has some icons. The first stage is pre-class. This stage includes an introduction icon that provides students with some background information on what they will learn. This is followed by a Steps icon that presents students with the instructions they will need to follow to complete the required tasks. After this, a Process and Information Resources icon gives students the resources they need to perform these tasks. The second stage is in class. Students embark on the second part of the process, which provides them with opportunities to present their work. During this stage, an evaluation icon provides students with feedback from their teacher and classmates. Lastly, a Conclusion icon gives students a brief report on the contents they have learned. The third stage is post-class, which includes the Test Yourself and Comment icons. In the Test Yourself icon, there is a quiz for students to complete at home after class time. Via the Comment icon, students can send any comments or questions they have about the FWQ stages to their teacher, see Figure 15.

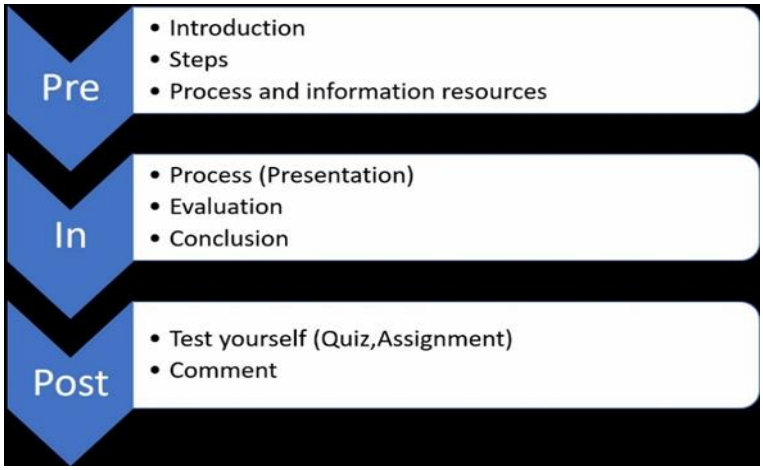

Figure 15 . FWQ model 1

2.6.2 The second form of FWQ

FWQ is a mixture of two learning strategies, namely WQs and FL. This strategy comprises three stages: the first and third stages take place at home, while the second step is deployed in class. The first stage includes the first two components of WQs: the introduction, which provides students with a background on the topic, and the task, which

gives information about the required task. Students also contact each other before class to prepare for the required task that will be presented in class. The process and information resources stages provide students with the steps they follow and the required resources.

The second stage is implemented in class and includes the remaining components of WQs. In addition, another section called "Activities" will provide students with the opportunity to engage in class activities. The evaluation helps students receive feedback from their teacher and their classmates. The conclusion provides students with a summary of the lesson. The third stage, which includes an assignment component to deepen students' knowledge and understanding, takes place after the class has finished, see Figure 16.

FWQ is composed of three stages:

First stage (before class): it includes the first three components of WQs:

- Introduction: Provides students with background on the topic.
- Task: Gives information about the required task. Students also contact each other before class to prepare for the required task that will be presented in class.
- Process and information resources: provide students with the steps they follow and the required resources.

Second stage (in-class):

- Activities: Provide students with the opportunity to engage in class activities.
- Evaluation: Gives students feedback from their teacher and their classmates.
- Conclusion: Provides students with a summary of the lesson.

Third stage (after class):

- Assignment: Provides students with more understanding.

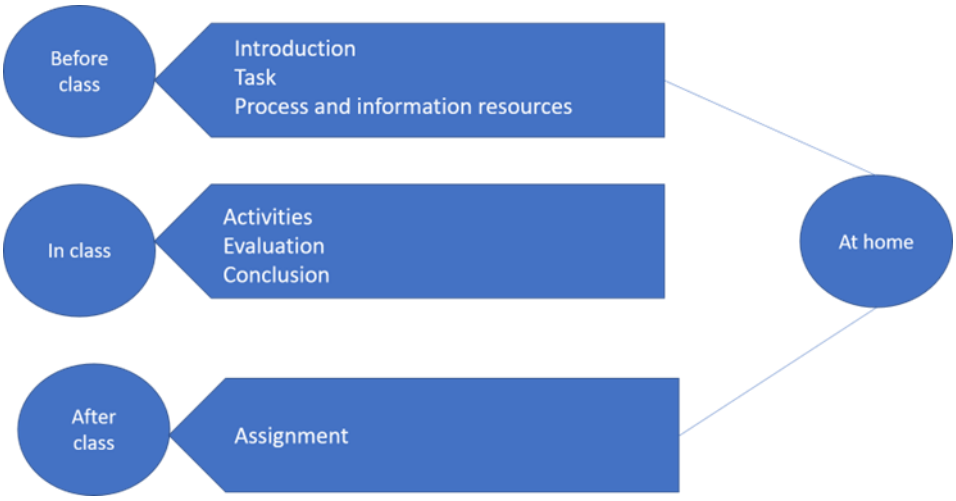

Figure 16. FWQ model 2

2.6.3 The third form of FWQ

The FWQ strategy integrates two learning strategies, specifically WQs and FL, into a comprehensive framework. This model has three distinct stages: The first and final stages occur outside the classroom at home, while the second stage is conducted during class time. The first stage includes the first three elements of WQs, namely the introduction, which offers the aims of the lesson, and the task, which outlines the requirements of the assignment and process and information resources, which present internet resources. Before the class session, students also collaborate to prepare for the upcoming task that will be presented in class and out of class. The second stage takes place within the classroom, including the other components of WQs. Additionally, an "Activities" element is incorporated to engage students in various class activities. An evaluation stage enables students to receive feedback from both their teacher and peers. The conclusion stage provides students with a summary of the lesson. The final stage involves an assignment component that encourages students to deepen their understanding and knowledge, and it occurs after the completion of the class session, see Figure 17.

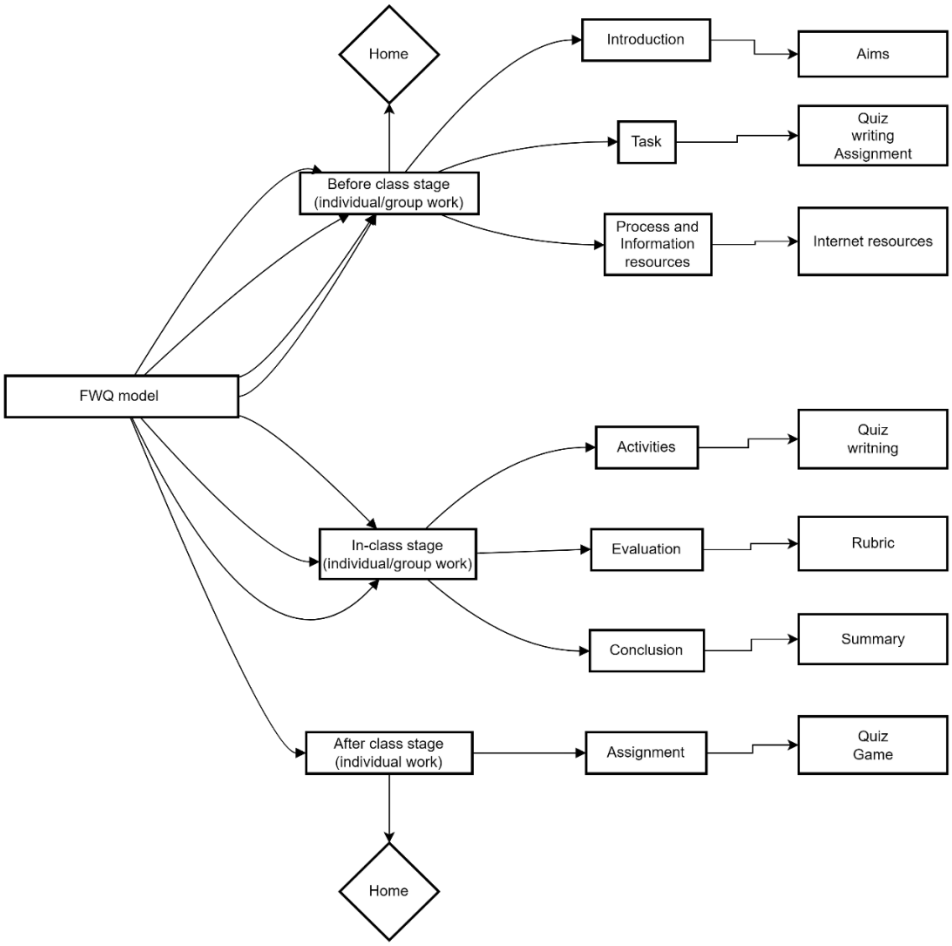

Figure 17. FWQ model 3

2.7 Anxiety

2.7.1 Foreign language anxiety

Foreign English language anxiety, also known as FELA, is a psychological phenomenon that affects many individuals who are learning English as a second or foreign language. It is characterized by feelings of stress, nervousness, and fear associated with the use of English in social or academic settings (Uştuk & Aydın, 2016). Horwitz et al. (1986: 128) define FLA as "a distinct complex of self-perceptions, beliefs, feelings, and behaviours related to classroom language learning arising from the uniqueness of the language learning process".

There are three types of FLA: test anxiety, communication apprehension, and test anxiety (Horwitz et al., 1986). When students believe they are unable to make a favourable social impression, they are more likely to dread criticism, causing fear of negative evaluation.

Individuals who worry about receiving negative feedback from others tend to stop participating in activities. The second is communication anxiety, which occurs when students experience tension and anxiety while engaging with others (Aydin, 2016). The learners' perception of themselves as skilled communicators is undermined by communication anxiety, which could result in additional anxiety and fear (Horwitz et al., 1986). Finally, test anxiety is the stress caused by the grade expectation. It can be inferred that situational anxiety, categorized as FLA, arises due to the difficulty of creating favourable social impressions and communication challenges that result in the fear of failure on tests in foreign language learning (Aydin, 2008). Consequently, FLA leads to negative emotional responses in learners.

2.7.2 Foreign Language Writing Anxiety

Learning a foreign language can be a challenging task, especially when it comes to writing (Rad et al., 2021). Writing in a foreign language requires a great deal of effort and practice, and it can be overwhelming for some learners. Many learners experience foreign language writing anxiety, which is a feeling of fear, nervousness, and discomfort when writing in a foreign language (Quvanch & Kew, 2022).

According to Cheng (2002), foreign language writing anxiety refers to the dysfunctional anxiety that individuals experience when they have to complete writing tasks in a foreign language. This means that learners who are highly anxious tend to perform poorly in foreign language tasks, including writing (Aydin, 2008; Cheng, 2002). In addition, their foreign language writing skills, motivation, writing self-efficacy, writing attitude, and writing strategies (Abdel Latif, 2015; Cheng, 2002; Wu & Lin, 2016).

According to research, several factors contribute to writing anxiety. The lack of writing practice during academic years is a primary cause (Rabadi & Rabadi, 2020). In addition, anxious writers may experience aversion to writing, fear of criticism, and anxiety about being judged. Moreover, individual differences, such as age, gender, and socioeconomic background, have been associated with varying levels of writing anxiety (Aydin, 2008; Cheng, 2002). Contextual variables, including teacher attitudes, instructional methods, and peers, can also contribute to writing anxiety, such as discouraging or strict teaching styles, disinterested writing topics, unfamiliar formats, and negative or inadequate teacher feedback (Liu & Ni, 2015; Rasool et al., 2023).

2.7.3 Foreign language listening anxiety

FLLA has a distinct expression called Foreign Listening Anxiety (FLA), which involves feeling uneasy, anxious, and uncertain while attempting to comprehend a foreign language (Horwitz et al., 1986). FLA presents a formidable obstacle for learners of a second or foreign language since listening is usually a challenging skill to acquire (Kim, 2000). FLA can adversely impact students' language learning progress, influencing their motivation, language proficiency, confidence, and study methods (Liu & Xu, 2021).

Foreign language listening anxiety can be attributed to several factors. The initial four factors include an input-related factor, such as the level of difficulty and repetition of input; a process-related factor, such as inappropriate strategies and a lack of processing time; an instructional factor, such as testing and an uncomfortable environment; and a personal factor, such as fear of failure and nervousness; a knowledge-related factor, such as unfamiliar words or topics; an output-related factor, such as test anxiety and negative social evaluation; and the type of task, such as writing a composition (Kimura, 2008; Wang, 2010; Wang & Zhang, 2022; Zhang, 2013).

Furthermore, several emotions are associated with listening anxiety, such as tension and worry over English listening, indicating negative emotions among listeners. Lack of self-confidence is also indicative of dissatisfaction with listening proficiency or experiences of failure in listening activities. Other factors that contribute to listening anxiety include low confidence in comprehending spoken English, taking English listening courses as a requirement, and emotionality, including dislike, discomfort, annoyance, alienation, intimidation, and a lack of confidence. Additionally, worry reflects cognitive perceptions involved in monitoring and evaluating learners' performance in listening tasks, while anticipatory fear indicates anxious feelings about potential negative outcomes (Kim, 2000; Liu & Xu, 2021; Wang, 2010).

In conclusion, FLA is a common and challenging issue for many individuals who are learning English as a second or foreign language. However, with the right strategies and support, language learners can overcome their anxiety and develop the confidence and proficiency they need to communicate effectively in English.

2.7.4 Foreign language grammar anxiety

Grammar anxiety, a common experience among individuals learning English, represents a range of emotions and pressures linked to navigating the intricacies of English grammar. It encompasses a pervasive sense of unease, incorporating feelings of apprehension and stress concerning the intricate rules and structures of English grammar (Ekinci Çelikpazu & Taşdemir, 2022). Within the realm of language learning, students often grapple with this form of anxiety when tasked with forming accurate and appropriate sentences or engaging in conversations that demand precision in language use. The origins of this anxiety are multifaceted, stemming from a variety of factors such as the persistent fear of making errors and the perceived judgment or evaluation by peers, classmates, or instructors (Karçiç & Çetin, 2017). Thus, this pervasive unease not only affects the learning process but also significantly impacts learners' confidence and their willingness to actively participate in language-based activities and social interactions that require linguistic proficiency.

Grammar anxiety represents a substantial barrier in the process of acquiring a language and refining overall communication abilities. This emotional response often diminishes self-assurance and restricts the active involvement of students in both spoken and written language tasks, inevitably influencing their educational journey and achievement (Dewaele et al., 2007). Educators play a pivotal role in mitigating this anxiety by implementing proficient strategies, thereby fostering a more confident and enjoyable atmosphere conducive to effective learning.

To sum up, the challenges posed by English writing anxiety, English listening anxiety, and English grammar anxiety collectively impede the comprehensive development of language proficiency. Each anxiety aspect represents a distinct barrier in the process of acquiring English language skills. English writing anxiety encompasses stress related to producing written content, hindering effective expression of thoughts and ideas. English listening anxiety impedes the comprehension of auditory information, impacting participation in verbal exchanges and lectures. English grammar anxiety involves unease regarding grammar rules, affecting confidence in accurate language use.

Implementing supportive learning environments, diverse teaching methods, constructive feedback, and normalizing mistakes as part of learning are crucial strategies. By addressing these anxieties, educators can empower students to navigate and conquer these

barriers, fostering an environment conducive to improved language acquisition, better communication skills, and increased confidence in English language learning.

Summary

In conclusion, this chapter has thoroughly examined the theories and existing literature forming the basis of our study. We've explored the theoretical background FL and WQs, delving into important pedagogical concepts like constructivism, scaffolded learning, and blended learning. By understanding how constructivism and blended learning intersect, we've gained insights into their relevance for online and FL environments.

Embarking on our exploration, we delved into the foundational concepts of FL and WQs, gaining insights into these innovative teaching methodologies. In the realm of FL, students assume a proactive role by independently engaging with instructional materials before scheduled class time. This strategic inversion of traditional classroom dynamics fosters more interactive and collaborative learning experiences during face-to-face sessions. On the other front, WQs, as a constructivist-based learning activity, immerse students in hands-on tasks facilitated by online resources, thereby promoting critical thinking and problem-solving skills.

The theoretical journey did not conclude with the examination of teaching methodologies but extended to encompass pivotal pedagogical theories. The theory of constructivism, a foundation stone in contemporary education, claims that learners actively construct knowledge by forging connections between new information and their existing cognitive frameworks. This theory resonates profoundly with the essence of FL and WQs, as it aligns with the idea of students taking charge of their learning journey, engaging independently with instructional content, and constructing understanding autonomously.

In parallel, scaffolded learning emerged as another crucial theoretical underpinning. This theory advocates for a gradual progression of support, enabling learners to master new concepts incrementally. Within the context of FL and WQs, scaffolding manifests implicitly through the design of pre-learning materials and the structuring of online tasks. This approach aims to create a supportive learning environment wherein students can navigate the learning landscape with adequate assistance tailored to their needs.

Expanding our theoretical canvas, the exploration of blended learning emerged as a vital component. Blended learning seamlessly integrates traditional face-to-face instruction with online elements, offering a dynamic educational experience. This integration is particularly valuable as it allows educators to leverage the strengths of both modalities, fostering a balanced and versatile learning environment.

The incorporation of constructivism and blended learning, as uncovered in our exploration, sheds light on their combination, especially within the realms of online and FL. The integration of constructivist principles into blended learning approaches highlights student engagement and facilitates meaningful interactions. This conceptual interplay not only enriches our theoretical understanding but also provides a robust foundation for comprehending how the FWQ model, merging FL with WQs strategies, might influence language learning outcomes.

Looking ahead, the next chapter will move from theory to practice, explaining how we implemented the FWQ model. It will outline the steps we took in our research design, including participant selection, instructional material development, and the execution of the FWQ model within our study's framework. The focus will be on the systematic collection of data, covering both quantitative and qualitative methods to comprehensively analyse the effectiveness of the FWQ model. The chapter will also provide an overview of our study's structure, helping readers navigate subsequent chapters and follow the progression of our research. In essence, this chapter acts as a link, connecting the theoretical foundations to the practical methods, aiming to contribute valuable insights to language education and teaching by exploring the potential effectiveness of the FWQ model.

Chapter three: Methods and procedures

In the third chapter, we dive into the practical aspects of our study. We outline our goals, the questions we're seeking answers to, and the step-by-step procedures we used to create the FWQ model. This chapter lays out the systematic design process in a straightforward manner, making sure everything is clear and follows a well-defined method. With specific objectives and questions as our guide, we walk through each phase of developing the model. The chapter smoothly transitions to three case studies, each showing how the FWQ model was put into action and evaluated. The first case study explores the model's application in a specific context, followed by the second and third case studies, which offer unique insights into how well the FWQ model works in different situations. This chapter is a key resource for understanding how we approached the practical side of our research, providing a roadmap for the design, implementation, and evaluation of the FWQ model in diverse educational settings.

3.1 Objectives

This doctoral thesis aims to investigate the impact of the FWQ (Flipped based WebQuest) model on various aspects of language learning in the context of EFL education. The thesis aims to examine the effectiveness of the FWQ model in enhancing students' writing skills, alleviating writing anxiety, improving listening comprehension, reducing listening anxiety, improving grammar proficiency, and decreasing grammar anxiety. By analyzing these key dimensions of language acquisition, this thesis seeks to provide valuable insights into the potential benefits of the FWQ model as a pedagogical approach to contribute to the existing body of research on effective teaching and learning practices in EFL contexts.

The current doctoral thesis aims at:

1. Analysing the impact of the FWQ model on students' writing skills in English as a Foreign Language (EFL).
2. Analysing the impact of the FWQ model on students' writing anxiety.
3. Analysing the impact of the FWQ model on students' listening comprehension in EFL.
4. Analysing the impact of the FWQ model on students' listening anxiety in EFL.
5. Analysing the impact of FWQ on students' grammar proficiency.
6. Analysing the impact of FWQ on students´ grammar anxiety.
7. Analysing the impact of FWQ on students' attitudes.

Objective 1: Identifying the impact of the FWQ model on students' writing.

The first objective of this thesis is to assess the impact of the FWQ model on students' writing skills in EFL. In particular, the thesis seeks to investigate how the implementation of the FWQ model influences students' ability to construct well-structured and coherent written pieces in a foreign language. By analysing the writing outputs of students who have been exposed to the FWQ model, we aim to determine whether this instructional approach enhances their writing proficiency, such as by improving their organization, clarity, and effectiveness in conveying their ideas.

Objective 2: Identifying the impact of the FWQ model on students' writing anxiety.

The second objective of this thesis focuses on understanding the influence of the FWQ model on students' writing anxiety levels. Writing anxiety can hinder students' ability to express themselves freely and confidently in written form. By conducting a writing anxiety scale, we aim to determine whether this instructional approach can alleviate writing anxiety. This objective aims to shed light on the potential psychological benefits of the FWQ model in reducing students' writing-related stress and promoting a more positive attitude towards writing.

Objective 3: Identifying the impact of the FWQ model on students' listening skills.

The third objective of this thesis is to investigate the impact of the FWQ model on students' listening skills. Listening comprehension is a vital aspect of language learning, and this objective seeks to examine whether the implementation of the FWQ model positively affects students' ability to understand and interpret spoken language. By analyzing the listening performance of students who have received instruction through the FWQ model, we aim to determine whether this approach enhances their listening comprehension, accuracy, and overall engagement with auditory material.

Objective 4: Identifying the impact of the FWQ model on students' listening anxiety.

The fourth objective of this thesis focuses on understanding the impact of the FWQ model on students' listening anxiety levels. Listening anxiety can impede students' ability to comprehend and process spoken language effectively. By examining students' experiences and perceptions regarding the FWQ model, this objective aims to determine whether this instructional approach can alleviate listening anxiety. Understanding the

potential impact of the FWQ model on reducing students' listening-related stress can provide insights into creating a more supportive and conducive learning environment for language learners.

Objective 5: The fifth objective of this thesis aims to assess the impact of FWQ model on students' grammar proficiency. Grammar proficiency is vital for effective communication and academic achievement. FWQ integrates regular, low stakes writing assessments into learning, allowing students to practice and improve their grammar skills. This thesis will systematically examine how FWQ implementation relates to students' grammar proficiency. Data collection and analysis, including grammar assessment scores and student feedback, will determine if FWQ positively influences grammar skills. The findings can inform educators and curriculum designers about the benefits of using FWQ in language instruction, contributing to our understanding of how formative assessments enhance language learning outcomes.

Objective 6: The sixth objective of this thesis aims to analyze the impact of FWQ on reducing students' grammar anxiety. Grammar anxiety refers to the apprehension and discomfort that many students experience when faced with the task of using proper grammar in their writing and communication. It can hinder their language learning process and impact their overall academic performance. FWQ is an instructional approach that incorporates using FL with WQs strategy provides students with opportunities to practice and refine their grammar skills in a supportive and non-threatening environment.

Objective 7: The seventh objective of this thesis to analyse the impact of FWQ on students´ attitudes. Students' attitudes towards learning, particularly in the context of language acquisition, can significantly impact their engagement and success. FWQ is an instructional approach that incorporates flipped with WQs, offering students opportunities to practice and refine their skills in a supportive learning environment.

This research seeks to systematically assess how the integration of FWQ affects students' attitudes. Data collection will involve surveys from students who have engaged in FWQ-based activities. The analysis aims to uncover any notable shifts or improvements in students' attitudes as a result of their involvement with FWQ. This thesis aims to shed light on the broader implications of using FWQ as an instructional tool by examining shifts in motivation, engagement, and general attitude towards language learning. Ultimately, the findings may provide educators and curriculum designers with valuable

insights into the role of FWQ in shaping positive attitudes towards learning, thereby contributing to more effective language education strategies and enhancing students' overall academic experiences.

This research will involve a systematic examination of how the implementation of FWQ affects students' levels of grammar anxiety. Data collection will include pre/post-test of grammar. The analysis will seek to identify any noticeable reductions in grammar anxiety as a result of engaging with FWQ. The findings of this thesis can offer valuable insights into the effectiveness of FWQ in alleviating grammar anxiety, thereby enhancing the language learning experience for students and contributing to improved academic outcomes in language education.

The current thesis aims to make several significant contributions to the field of English as a Foreign Language (EFL) education by addressing key research gaps and advancing our understanding of effective pedagogical approaches. Firstly, this thesis seeks to fill the research gap regarding the impact of the FWQ (Flipped based WQs) model on students' language skills and anxieties. While various instructional models have been explored in EFL contexts, there is a lack of comprehensive research specifically examining the effects of the FWQ model on writing skills, writing anxiety, listening comprehension, listening anxiety, grammar proficiency, and grammar anxiety. By conducting a thorough analysis of these dimensions, the thesis will provide empirical evidence on the effectiveness of the FWQ model as a tool for language development, thereby bridging the existing research gap.

Secondly, the thesis is expected to contribute to the field by offering valuable insights into effective pedagogical strategies that can be implemented in EFL classrooms. The findings of this thesis will shed light on the benefits of incorporating focused questioning techniques, such as those employed in the FWQ model, to enhance students' language learning experiences. By demonstrating the impact of the FWQ model on multiple language domains, including writing and listening, the thesis will provide guidance for educators, curriculum designers, and policymakers in designing and implementing effective instructional practices. This contribution is particularly crucial in the field of EFL education, where educators face the challenge of fostering language proficiency in learners who are not immersed in an English-speaking environment.

Furthermore, by investigating the effects of the FWQ model on both language skills and anxieties, the thesis will contribute to a more holistic understanding of language learning processes. It will provide insights into how the model enhances students' linguistic competence and examine its potential in mitigating anxiety levels associated with writing and listening tasks. This comprehensive approach aligns with the growing recognition of the importance of addressing learners' affective factors in language education. The thesis will contribute to the development of learner-centered approaches that prioritize the well-being and confidence of EFL students, ultimately pushing the field forward by promoting more inclusive and effective instructional practices.

In summary, the current thesis fills a research gap by investigating the impact of the FWQ model on multiple language dimensions in EFL education. Through its empirical findings, the thesis will provide valuable insights into effective pedagogical strategies, offering guidance to educators and policymakers. By considering both language skills and anxieties, the thesis advances our understanding of holistic language learning processes and contributes to a more learner-centred approach in the field of EFL education.

3.2 Research questions

1. How does the FWQ model impact students' writing?
2. Do students in the FWQ group learn significantly better than those in the control group?
3. Does the FWQ model help decrease learners' L2 writing anxiety?
4. What is the effect of the FWQ and TWQ on students' listening?
5. what is the effect of the FWQ and TWQ on students' English language listening anxiety?
6. To what extent does grammar proficiency improve in the FWQ group?
7. How effectively do grammar skills improve in the WQ group?
8. Are there statistically significant differences in grammar proficiency levels among the FWQ, WQ, and TL groups?
9. To what extent does grammar anxiety decrease in the FWQ group?
10. How effectively does grammar anxiety reduce in the WQ group?
11. Are there statistically significant differences in grammar anxiety levels among the FWQ, WQ and TL groups?
12. What are students' attitudes towards the FWQ model?

3.3 Steps of designing the FWQ model

ADDIE model

The researcher used the Analysis, Design, Development, Implementation, and Evaluation (ADDIE) instructional model to design FWQ lessons {listening, writing and grammar proficiency} on preparatory school students, see Figure.

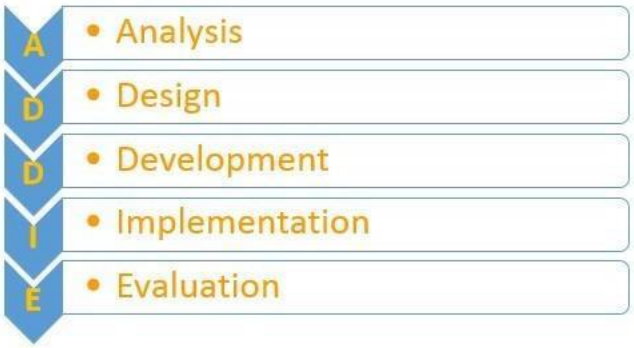

Figure 18. ADDIE model

Analysis stage

This stage includes:

a. Analysing the content.

The researcher analyses writing, listening and grammar topics that are included in preparatory school to adopt these topics in light of Flipped and WQs strategies.

b. The students' characteristics Participants in the thesis were students in preparatory school. Before the experiment, the teacher tested the students' knowledge of using computers and the internet to ensure that all participants had basic IT skills. All participants come to the computer lab, and the teacher asks them to do some commands on computers. She found that some students lack sufficient proficiency in technological skills; therefore, they have two training sessions to master the required technical skills to facilitate their work during the learning process, see the following figure 19.

These skills can be concluded as follows:

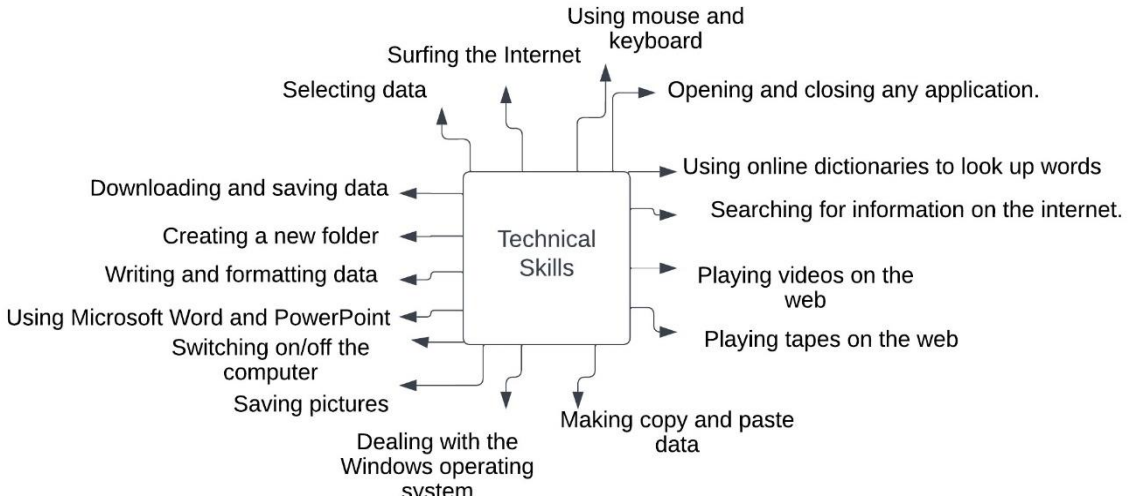

Figure 19. learners´ technical skills

The potential of the learning environment is significant in the implementation of the FWQ strategy. The researcher tried to benefit from these potentials as much as possible.

- The teacher implemented the experiment in the computer lab. The computer lab has Internet access and a data show.

d. Obstacles

Sometimes, students face some problems such as: - Low Internet speed. The teacher could overcome the problem of the low speed of the Internet by preparing offline FWQ/WQ lessons and downloading them on the computer.

Design stage

In this stage, the researcher designed the three websites for writing and listening to herself through a free Google account. The researcher followed the following steps during the design stage:

- Specifying topics of writing, listening and grammar suitable for preparatory school.
- Specifying instructional and behavioural objectives according to student book and teacher's guide of preparatory school.
- Collecting material through the internet to get pictures, drawings, and videos to design the lessons.
- Arranging instructional materials.

- Specifying student tasks.
- Specifying ways of achieving students' tasks
- Preparing assessment tools.
- Designing websites for writing, listening and grammar by the researcher herself through Google site.
- Uploading instructional material on the Websites
- Evaluating and publishing the Website.

Development stage

The researcher designed the websites for FWQ, TWQ and WQ lessons by herself through a free account on Google site. The first webpage on each website includes short notes on FWQ and TWQ strategies as an introduction. To access any lesson, the student had to click on the title of the lesson. The design was simple enough to help students easily surf the web pages.

Implementation stage

a. Training on using the Internet. The researcher held some sessions before the experiment to ensure that all students had sufficient knowledge of computers and the Internet.
b. Training on the way of work using FWQ, TWQ and WQ strategy the teacher held some sessions for students to train how to deal with FWQ, TWQ and WQ lessons. Also, the teacher trained them on how to use evaluation rubrics and editing checklists. This training made students' tasks easier.
c. Publishing the WQs sites on the Internet.
   The researcher published the websites on the internet, and thus they were ready. All participants could access them.

Evaluation stage

The researcher specified the evaluation stage for FWQ, TWQ and WQ lessons as follows:

Knowledge evaluation

In the writing lessons, students were evaluated through their writing as they were asked to write paragraphs, posters, brochures, or magazine articles.

In the listening lessons, students were evaluated by answering the exercises and cooperating to present their work.

In the grammar lessons, students were evaluated through quizzes and exercises.

Behavioural evaluation

Students evaluated their work through the evaluation rubric that was related to accuracy, teamwork, presentation skills, using technology, time, attractiveness, Grammar, and vocabulary. Also, this evaluation stage was to investigate the effectiveness of FWQ and TWQ, WQ strategies in improving writing, listening and grammar.

3.4 Design

This thesis adopted a quantitative methodology to scrutinize the statistical aspects of data obtained from three case studies, utilizing various pre- and post-assessment tools such as writing tests, anxiety scales, listening tests, and grammar assessments alongside the FWQ questionnaire to gauge students' L2 performance and attitudes. The decision to employ quantitative analysis was driven by its suitability for investigating the impact of variables on specific outcomes, as advocated by Creswell (2009). This approach aimed to produce precise and reliable data that could be extrapolated to diverse educational settings, shedding light on psychological traits related to language learning. Previous studies in foreign language teaching and applied linguistics, including works by Dewaele (2005) and Dörnyei (2007), further validated the appropriateness of this methodological choice. By utilizing quantitative techniques, the researcher sought to establish a robust foundation for exploring the relationship between the FWQ model and students' language skills, anxiety levels, and attitudes, thereby facilitating objective evidence presentation.

Quantitative designs offer several advantages in this research context. Firstly, they ensure precision and objectivity in data collection and analysis, crucial for interpreting intervention effectiveness objectively. Secondly, they enable the measurement of outcomes through statistical analysis, facilitating a straightforward comparison of results. Thirdly, they enhance the generalizability of findings by employing statistical sampling and analysis methods. Fourthly, they prove to be more time and resource-efficient, aligning with practical considerations. Lastly, they provide a focused scope, allowing for a targeted analysis of specific research questions without overwhelming data overload. Overall, the quantitative approach adopted in this thesis offers a structured and efficient means of investigating the intervention's impact on language skills and anxiety levels,

contributing to a deeper understanding of language learning processes Dewaele, 2005; Dörnyei, 2007; Queirós al.,2017)

Despite the strengths of the chosen quantitative approach, it is essential to acknowledge its potential limitations. Firstly, it tends to overlook the deeper meanings and explanations behind social phenomena, as it primarily focuses on numerical data. For example, a study measuring the effect of genre on writing scores failed to delve into the reasons behind the observed effects. Additionally, quantitative research often captures only a snapshot of a phenomenon at a specific moment in time, potentially missing out on the dynamic nature of the subject. For instance, a study involving a large number of participants may show statistical significance but might not provide deeper insights into individual experiences or perspectives. Furthermore, the quantitative approach may struggle to measure subjective concepts, such as the importance of English language tests for immigrants settling in the UK. Lastly, this method can sometimes overlook respondents' experiences and perspectives in highly controlled settings, as researchers may lack direct interaction with participants during data collection, leading to an objective data gathering process (Rahman, 2020).

While it is widely acknowledged that incorporating both quantitative and qualitative approaches can offer a more comprehensive understanding of research phenomena Creswell (2009). It is important to note that in this particular study, qualitative methods such as interviews were not employed due to a confluence of factors, primarily stemming from directives issued by the school directory. Compliance with institutional guidelines and policies was paramount to maintain a harmonious relationship with the school administration. These directives may have emphasized a quantitative-focused approach or restricted certain data collection methods, including qualitative interviews. Secondly, the comfort level of the sampled participants with qualitative analysis emerged as a crucial consideration. Respecting participants' preferences and ensuring their well-being were prioritized to foster a conducive research environment. Concerns regarding privacy, confidentiality, and familiarity with qualitative processes may have contributed to participants' hesitancy or discomfort with engaging in qualitative data collection methods such as interviews. By prioritizing participant comfort and adhering to institutional directives, the researcher aimed to conduct the study in an ethical and respectful manner while ensuring methodological rigor. Despite these limitations, the chosen quantitative

approach offers valuable insights into the relationships between variables and contributes to the empirical understanding of language learning processes.

Overall, the decision to prioritize quantitative methods in this study was driven by the need to obtain precise and reliable data. Quantitative approaches offer the advantage of producing numerical results that can be objectively analysed, ensuring a robust foundation for conclusions. By employing inferential statistical tools, the study aimed to yield precise insights into the relationships between variables, enhancing the clarity and validity of the research findings.

3.5 The first case study

To achieve the first and the second objective: Identifying the impact of the FWQ model on students´ writing and writing anxiety.

3.5.1 FWQ model

The researcher conducted an experiment and followed these procedures:

The Flipped-Based WQs (FWQ) model has been designed in light of FL which uses the WQs structure with some additional icons. The FWQ model is divided into three stages, and each stage has some phases. The first stage is pre-class. This stage includes an Introduction that provides students with some background information on what they will learn. This is followed by a Steps that presents students with the instructions they will need to follow to complete the required tasks. After this, a Process and Information Resources that gives students the resources they need to perform these tasks. The second stage is in class. Students embark on the second part of the process that provides them with opportunities to present their work. During this stage, an evaluation that provides students with feedback from their teacher and classmates. Lastly, a Conclusion that gives students a brief report on the contents they have learned. The third stage is post-class, which includes Test Yourself and Comment phases. In the Test Yourself phase, there is a quiz for students to complete at home after class time. Via the Comment phase, students can send any comments or questions they have about FWQ stages.

3.5.2 Design

The researcher used a quantitative approach to analyse the statistics of the data garnered from the pre-and post-writing test and pre- and post-writing anxiety scales (Cheng, 2004). The collected data were tabulated and analysed using inferential statistical tools. The reason for using a quantitative design is that it is the best choice to investigate the effect

of a variable on an outcome (Creswell, 2009). It is systematic, provides precise and reliable data that produces generalizations of individual learning differences to other contexts, and explains psychological traits. Quantitative designs have been consistently used in prior research studies in foreign language teaching and applied linguistics to measure students' anxiety levels (see, for instance, Dewaele 2005; Dörnyei 2007)

The researcher adopted a quantitative approach to conduct a thorough analysis of the data obtained from the pre-and post-writing tests and pre- and post-writing anxiety scales, as described by (Cheng, 2004). This approach involved the use of inferential statistical tools to tabulate and examine the collected data. The choice of a quantitative design was driven by several factors. Firstly, it is well-suited for investigating the impact of a variable on a particular outcome, as highlighted by (Creswell, 2009).By employing this approach, the researcher aimed to derive accurate and reliable data that would facilitate generalizations of individual learning differences in various educational contexts. Furthermore, quantitative designs are advantageous in their systematic nature, enabling researchers to precisely measure phenomena and gain insights into psychological traits. The consistent utilization of quantitative designs in previous research studies within the fields of foreign language teaching and applied linguistics to gauge students' levels of anxiety further supports the appropriateness of this approach levels (Dewaele 2005; Dörnyei 2007). By employing a quantitative approach, the researcher sought to establish a strong foundation for examining the relationship between the FWQ model and students' writing skills, as well as their levels of writing anxiety. This method allowed for the application of statistical analyses to explore the extent of the impact and provide objective evidence. The collected data were systematically organized and subjected to inferential statistics, enabling the researcher to draw meaningful conclusions and identify significant patterns or trends.

Quantitative designs offer a range of advantages in this research context. Firstly, they provide precise measurements, allowing for the quantification of variables and the establishment of quantifiable relationships. This precision aids in the interpretation and comparison of results across different studies, enhancing the generalizability of findings. Additionally, quantitative approaches enable researchers to identify statistical significance, determining the likelihood that observed effects are not due to chance. This strengthens the reliability of the research outcomes and supports the formulation of informed conclusions.

In this study, the researcher utilized a pre-and post-test design to assess the effectiveness of the FWQ model on students' writing skills. The participants were divided into two groups: a control group and an experimental group. The control group received traditional instruction, while the experimental group followed the FWQ model using Google Sites.

To measure the students' writing skills, pre- and post-writing tests were administered to both groups. These tests likely involved tasks or prompts that assessed various aspects of writing, such as organization, grammar, and coherence. The scores obtained from the tests were used to analyse the impact of the FWQ model on students' writing proficiency.

In addition to assessing writing skills, the study also examined the students' writing anxiety. The researcher employed pre- and post-writing anxiety scales to measure and compare the levels of anxiety experienced by the students before and after the implementation of the FWQ model. The anxiety scales likely consisted of items or statements related to cognitive, somatic, and behavioural dimensions of anxiety.

The collected data, including the test scores and anxiety scale responses, were subjected to statistical analysis using inferential statistical tools. These tools, which may have included techniques like correlation analysis or t-tests, allowed the researcher to conclude the relationship between the FWQ model and the student's writing skills and anxiety levels.

Overall, the quantitative research methodology used in this study provided a systematic and rigorous approach to examining the impact of the FWQ model on students' writing skills and writing anxiety. By collecting and analysing numerical data, the researcher aimed to derive objective insights, establish statistically significant relationships, and contribute to the understanding of effective language teaching strategies.

3.5.3 Participants

The current study involved sixty-nine preparatory school students, with an average age of 12-13 years old, from the Assiut Directorate in Egypt. A convenient sample total of 69 EFL learners were randomly assigned to a control group of 35 (16 male, 19 female) and the experimental group of 34 (15 male, 19 female). Convenience sampling was used due to practical considerations and accessibility to the researchers. The control group received traditional instruction, following the regular teaching methods employed in the school, while the experimental group followed the FWQ model that was developed using Google Sites. This webpage was designed according to WQs stages, with some additional phases

to guide students' learning process, along with a Test Yourself phase that includes a quiz to test students' knowledge after the lesson. Students can send their teacher questions or comments at any time. In the experimental group, the lessons were delivered in the form of an FWQ website, designed specifically for this study.

All the participants are native speakers of Arabic who received the treatment for 2 months. The students were chosen from the same educational stage, ensuring that they shared a similar educational background and were at a comparable level of English proficiency. The participants' English language level was assessed to be at the A2 level, according to the Common European Framework of Reference for Languages (CEFR). Before starting the treatment, collaboration with the school administration and agreement from the student´s parents, teachers, and students were asked. Informal discussions were held with the students to establish whether they were comfortable with participating in the study, see Figure 20.

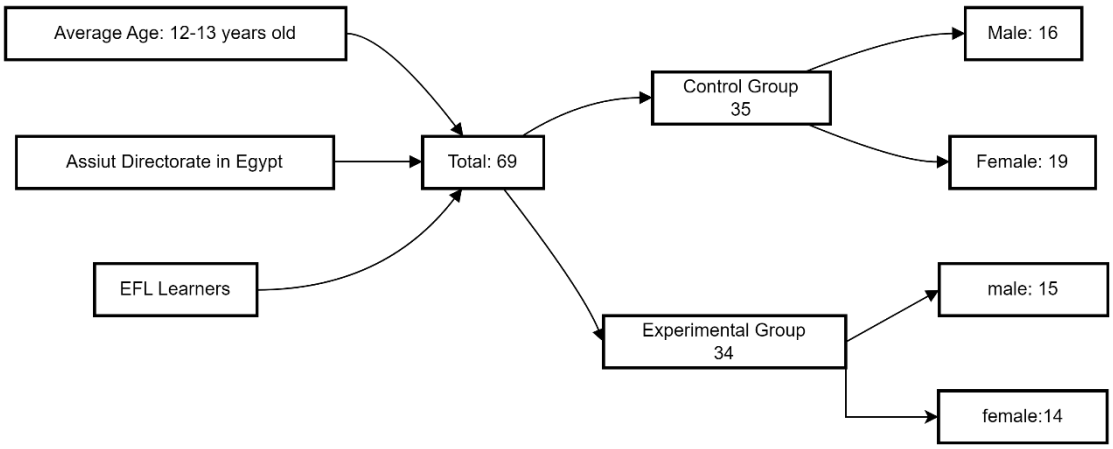

Figure 20. First case study sample

3.5.4 Instruments

The FWQ site was developed using Google Docs to provide students with lessons and resources. Research data was collected through pre- and post-writing tests (the A2 Cambridge exam). All students in the control and experimental groups completed the pre- and post-writing tests. To examine whether the use of the FWQ model could have a significant impact on developing English writing skills, a paired sample t-test was used to compare students' mean scores in the pre-and post-writing tests using SPSS. An independent sample t-test was used to compare the mean scores of the control and experimental groups to ascertain if students in the FWQ model group learned significantly better than those in the traditional instruction group.

The SLWA questionnaire developed by (Cheng,2004) was used to measure students' L2 English writing anxiety. The scale offered three dimensions of anxiety: Somatic Anxiety, Cognitive Anxiety, and Avoidance Behaviour. Somatic Anxiety relates to individuals' perception of the physiological manifestations of anxiety, such as heightened unpleasant feelings like nervousness and tension. Cognitive Anxiety pertains to the cognitive aspects of anxiety, such as negative expectations, preoccupation with performance, and concerns about how others perceive one's writing ability (Cheng, 2004). Avoidance Behaviour refers to the behavioural aspect of anxiety, specifically the tendency to avoid engaging in writing tasks (Cheng, 2004). Additionally, (Cheng, 2004) highlighted that the negative relationship between test anxiety and L2 writing performance primarily stems from the cognitive components of anxiety rather than the somatic components or avoidance behaviour.

The questionnaire uses a Likert scale based on five points, with 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, and 5 = strongly agree. For the reliability of the scale, Cronbach's coefficient was 0.91, and the test-retest reliability of an estimate of SLWA was 0.85. The SLWA was administered at the beginning and end of the experiment to see the impact of the FWQ model on L2 learners' writing anxiety. Pre-tests and post-tests were collected and analysed with SPSS. A paired-sample t-test was used to compare the means of the two groups, see Figure 21.

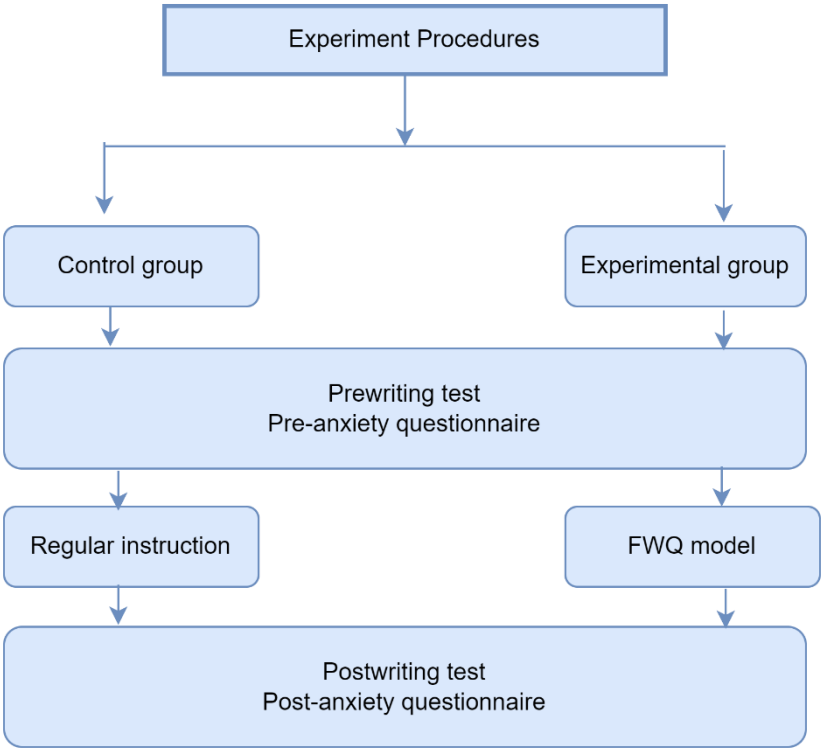

Figure 21. The first experiment design

3.4.5 Experiment

Two groups were used in this experiment, the control and experimental group. The control group studied traditionally, and the experimental group studied using the FWQ model. Participants in both groups were between 12 and 13 years old and studied the same subject, i.e., EFL. Students had a similar level of English based on their English test exam scores awarded by the Directorate of Education. The prewriting test was administered to both groups. An A2 Cambridge writing exam was chosen because it was suitable for the student's age. The test is similar to the final exam administered by the Directorate of Education, so the students were accustomed to these types of questions. The pre-and post-writing tests were scored according to the Cambridge evaluation rubric. The A2 Cambridge writing band descriptor was used to evaluate participants' writing skills. Students received training on FWQ learning and its procedures and stages, and the teacher provided the students with the FWQ website. Students could log into the resources and materials that were prepared for them before the in-class session and study them at their own pace. Students followed the introduction, steps, task, process, and information. resources at home. All other stages, i.e., process, evaluation, and conclusion, were completed during class time. Students used these resources to understand the lesson, prepare tasks, and present their work in class, where they received feedback from their

teacher and classmates. The FWQ website had different resources suitable for different levels. It also offered meaningful videos to help students in the experimental group understand the lesson easily (see Table 2). In contrast, the control group received traditional instruction. The study period continued for two months. After that, the post-writing test was administered to the control and experimental groups. In addition, the (SLWA) Scale developed by Cheng (2004) was used to measure students' L2 writing anxiety. The questionnaire was run twice, at the beginning and end of the experiment. See table.

Table 2. Experimental group Conditions

Item	Flipped-Based WebQuest
Teacher's Role	Provide the student with the FWQ lessons. Give students specific tasks. Facilitate the learning process. Give students feedback.
Student's Role	Study at home through the FWQ website. Prepare the required task to present it during class time. Receive feedback on the required task.
Methods	The teacher provides students with the FWQ website. Students navigate the FWQ lessons at home. Students prepare the required task to present it during class time. Students receive feedback during class time.
Duration	Two months
Assessment	Formative assessment and summative assessment. Individual, peer, and group assessment.

3.5.6 FWQ lessons

The Objectives of FWQ lesson Lessons are to improve the writing of preparatory school students.

Writing sub-skills

Ideas and content

- Writing an appropriate main topic sentence
- Using a correct layout.
- Language use
- Effective complex construction.
- Using suitable structures.
- Correct grammar

Vocabulary

- - Using correct word forms.
- - Expressing ideas with varied and appropriate vocabulary.

Organization

- - There is a relationship between the ideas in the paragraph.
- - Joining sentences to form a paragraph

Mechanics

- - Applying capitalization and correct communication.
- - Correct spelling of vocabulary.

3.5.7 Results

To check normality, a Kolmogorov-Smirnov test was used. Two-tailed significance returned by this test for pretest and posttest control and experimental group samples equalled 0.200, 0.200, 0.200, and 0.128, respectively. All four were greater than 0.05, which assures the normality of data in all tests, see table 3

Table 3. One Kolmogrov-Smirnov Test for Normality of Data (first case study)

	Group	Kolmogorov-Smirnov[a]		
		Statistic	*df*	*Sig.*
Pretest	Con.	.112	35	.200

	Exp.	.094	34	.200
Posttest	Con.	.123	35	.200
	Exp.	.134	34	.128

The quantitative results of the pretest for the control and experimental groups showed a higher mean for the first (M = 14.63; SD = 6.283) compared to the second (M =14.35; SD = 5.979), as shown in Table 4. However, this difference was not significant ($p > 0.05$), as the p-value was 0.853. This result shows the equivalence of the experimental and control groups (refer to Tables 4 and 5).

Table 4. Experimental and Control Group Prewriting Test Descriptive Statistics

Group Statistics					
	Group	N	Mean	Std. Deviation	Std. Error Mean
Pretest	Con.	35	14.63	6.283	1.062
	Exp.	34	14.35	5.979	1.025

Table 5. Experimental and Control Group Prewriting Test Inferential Statistics

Independent Sample Test									
			T-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Pretest	.188	.666	.187	67	.853	.276	1.477	-2.673	3.224

To answer the first research question on the impact of the FWQ model on students' writing, a paired sample t-test was run to calculate the difference between the mean scores of Pre-tests and post-tests obtained by students in the experimental group. The scores obtained in the pretest (M = 14.35; SD = 5.979) and the post-test (M = 23.94; SD = 4.886), as shown in Table 6, reported a significant difference from students' pretest scores to their posttest scores as a result of the FWQ model being applied (df = 33; t = 26.203; p < 0.000) (see Table 7).

Table 6. Experimental Group Prewriting and Post-writing Test Paired Sample Statistics

		Mean	*N*	*Std. Deviation*	*Std. Error Mean*
Pair 1	post_writ_exp	23.94	34	4.886	.838
	pre_writ_exp	14.35	34	5.979	1.025

Table 7. Paired Sample T-test Results

Paired Sample Test									
		Paired Differences					T	df	Sig. (2-tailed)
		Mean	*Std. Deviation*	*Std. Error Mean*	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	post_exp pre_exp	9.588	2.134	.366	8.844	10.333	26.203	33	.000

To answer the second research question on whether students in the FWQ group learn significantly better than those in the control group, an independent sampled t-test was used, and the two-tailed test value was estimated. The results revealed a significant difference at the 0.05 level in the post-test scores, indicating that the experimental group (M = 23.94; SD = 4.886) outperformed the control group (M = 18.06; SD = 6.936; t = -4.083; p = 0.000). Therefore, students in the FWQ group had better performances than those in the control group (see Tables 8 and 9) and Figure 22.

Table 8. Experimental and Control Group Post Writing Test Descriptive Statistics

Group Statistics					
	Group	N	Mean	Std. Deviation	Std. Error Mean
Posttest	Con.	35	18.06	6.936	1.172
	Exp.	34	23.94	4.886	.838

Table 9. Experimental and Control Group Post Writing Test Inferential Statistics

t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
-4.083	61.164	.000	-5.884	1.441	-8.766	-3.002

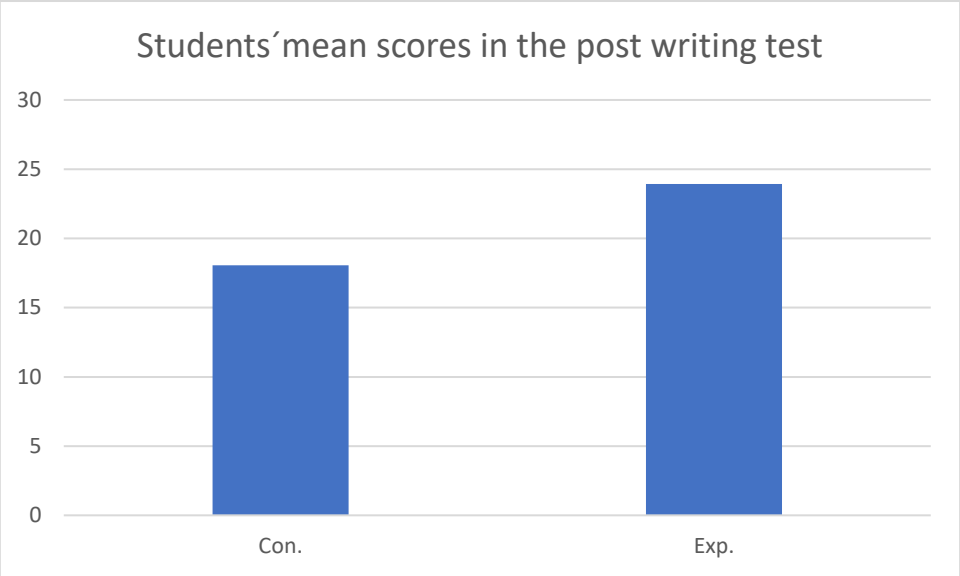

Figure 22. Students' mean scores in the post writing test

To answer the third research question on whether the FWQ model helps decrease learners' L2 writing anxiety, a paired sample t-test was run to examine the effect of the FWQ model and traditional instruction on participants' L2 writing anxiety. A paired sample t-test was used to calculate the difference between the control group students' pretest and post-test anxiety mean scores. The results were statistically significant (df = 34; t = -7.627; p < 0.000), as can be seen in Table 11, with higher anxiety scores observed in the pretest (M = 70.91; SD = 5.746) than in the post-test (M = 68.23; SD = 6.015), as shown in Table 10 and 11.

Table 10. Control Group Paired Sample Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pre_anx_con	70.91	35	5.746	.971
	post_anx_con	68.23	35	6.015	1.017

Table 11. Control Group Paired Sample T-test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Control	pre_anx post_anx_	2.686	2.083	.352	1.970	3.401	7.627	34	.000

A paired sample t-test was run to calculate the difference between the mean scores of pre- and post-anxiety tests obtained by experimental group students. Once again, the scores reported in the pretest (M = 69.68; SD = 5.127) were higher than in the post-test (M = 50.53; SD = 7.700), as shown in Table 13, with the results being highly statistically significant (df = 33; t = 18.066; p = 0.000), as can be seen in Table 12 and 13.

Table 12. Experimental Group Paired Sample Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pre_anx_exp	69.68	34	5.127	.879
	post_anx_exp	50.53	34	7.700	1.321

Table 13. Experimental Group Paired Sample T-test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			

Pair 1	pre_anx_exp - post_anx_exp	19.147	6.180	1.060	16.991	21.303	18.066	33	.000

An independent sampled t-test was used, and the two-tailed test value was reported using SPSS. This revealed a significant difference at the 0.05 level in the post-test scores (t = 10.620; p = 0.000), with students in the experimental FWQ group reporting less anxiety (M = 50.53; SD =7.700) than those in the control group with traditional instruction (M = 68.23; SD = 6.015) (see Tables 14 and 15).

Table 14. Experimental and Control Group Post-Anxiety Test Descriptive Statistics

Group Statistics					
	Group	*N*	*Mean*	*Std. Deviation*	*Std. Error Mean*
Post-test	Con.	35	68.23	6.015	1.017
	Exp.	34	50.53	7.700	1.321

Table 15. Experimental and Control Group Post-Anxiety Test Inferential Statistics

t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
10.620	62.430	.000	17.699	1.667	14.368	21.030

Based on these results, there is a statistical difference that occurs between the control group (t = 7.627; P = 0.000) and the experimental group (t = 18.066; P = 0.000). Despite that, the experimental group has a lower mean score in anxiety than the control group. In addition, the results of the independent t-test of post-anxiety were t = 10.620 and p =

0.000. Thus, the results show that the FWQ model helps to decrease L2 language anxiety better than traditional instruction, see Figure 23.

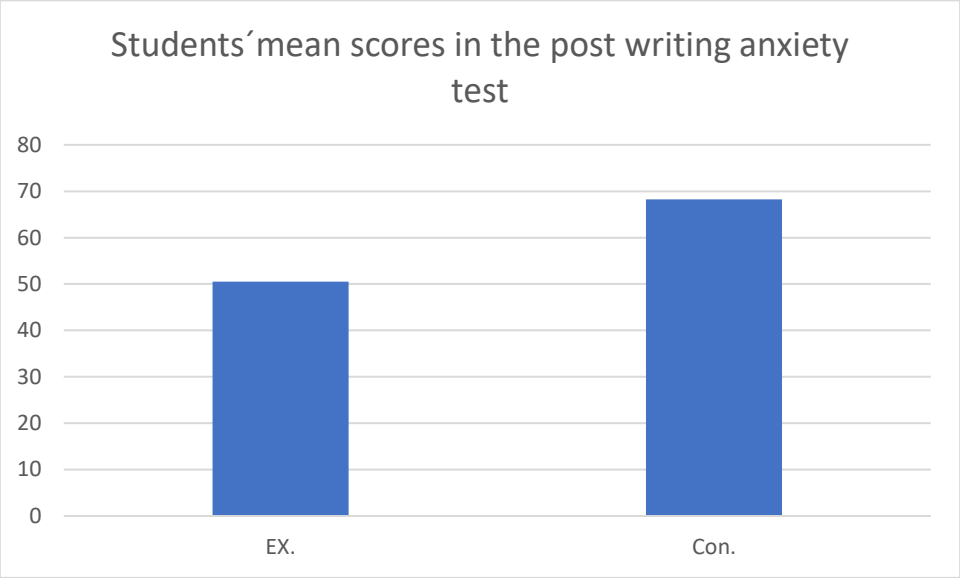

Figure 23. Students' mean scores in the post writing anxiety test

3.5.8 Discussion

To answer the research questions established in our study, a paired sample t-test and an independent sample t-test were used. The findings showed that the experimental group who received FWQ instruction had better performances in the L2 writing skills posttest compared to the control group. In addition, the experimental group reported a significant gain in their post writing test scores in comparison to their prewriting test scores. Moreover, the FWQ proved to be more effective in decreasing students' anxiety than traditional face-to-face L2 instruction.

For the implementation of the FWQ model, students were provided with the content before class time in the form of a WQs design that included several icons categorized as Introduction, Task, Process and Information Resources, Evaluation, and Conclusion. An additional Steps icon was integrated to guide students at home on how to implement their FWQ journey. There was also a Test Yourself icon that included a quiz or assignment, which students completed after class, and a Comment stage that enabled students to send their teacher any questions or comments they had during the intervention via email. The FWQ model consisted of three stages: pre-class, in-class and post-class. In the first stage, students attempted to understand their lesson through the provided resources, videos, or

webpages. During this stage, students could read the webpages or view the videos provided as many times as they needed to master the lesson, allowing them to develop learner autonomy and self-regulation, which is important for learning success (Jenkins et al. 2017). Then, they produced their written work. In the second stage, students collaborated to present their work and received feedback from their teacher and classmates. Collaboration in the FWQ model is a significant component in the learning process to achieve active learning. This stage allowed students to exchange ideas, create an active environment, enhance their higher-order thinking skills, and support positive attitudes toward the use of FL (Nederveld and Berge 2015; Roach 2014). After that, students completed a quiz or an assignment that tested their knowledge of what they had learned. Students could send any comments or questions to their teacher at any stage of the FWQ model. Using the FWQ model to provide students with the content of their lesson before class gave students more time to learn at their own pace. Self-assessment and autonomous learning were enhanced, creating a sense of responsibility toward the learning process. Consequently, students had a structured model that provided the necessary scaffolding and guidance to complete the required tasks.

The outcomes of the current study highlight the positive effects of the FWQ model in EFL learners' writing in prepararory school. In this regard, the results of the study are in line with those of Samiei and Ebadi (2021), who reported that using FL and WQs helped students improve their inferential reading comprehension skills. Similarly, in this study, there was a significant difference between the experimental group, who learned through FL and WQs, and the control group, who learned through the traditional way, with the experimental group reporting better results. They are also in line with the findings of Li et al. (2022), who investigated the effect of FL on EFL written communicative competence and corroborated the positive role of FL in developing EFL written communicative skills. In addition, Challob (2021) assured the usefulness of FL in improving writing skills since it helps students enhance their autonomy and motivation toward learning. Moreover, Rad et al. (2021) investigated the impact of technology-enhanced discussion-oriented and role-reversal models of FL on English language learners' expository writing skills. The findings indicated that FL groups outperformed the non-flipped groups.

The findings of the current study also concur with the study of Awada, Burston, and Ghannage (2020), who investigated the effect of integrating Student Team Achievement

Division (STAD), a structured cooperative learning method, and WQs, an Inquiry-Based Technological Model (IBTM), on developing university students' argumentative writing skills. The outcomes indicated that the WQs strategy helped to develop the writing skills of those who had a low level. In addition, the study by Mingyong (2013) showed the significant role of WQs as an effective tool in improving English writing and enhancing students' motivation and interest in this subject. Likewise, Awada and Ghaith (2014) investigated the effect of WQs in developing eighth-grade students' writing apprehension. The results assured the effectiveness of WQs in decreasing students' writing apprehension.

3.5.9 Conclusion

The current study investigated the effect of the FWQ model on students' writing skills in a foreign language as well as its impact on anxiety. An independent sample t-test was administered to gauge improvement across control and experimental group students. The results showed that those who studied through the FWQ model, i.e., experimental participants, outperformed those who studied using traditional teaching methods, i.e., control group participants. A paired sample t-test was used to determine whether there was a significant difference between the pre-test and post-test scores within the same group. The outcomes revealed that there was a significant difference between these results. A paired sample t-test was used to check the effect of the FWQ model on L2 writing anxiety. The results corroborated the effectiveness of the FWQ model in decreasing L2 writing anxiety.

These outcomes could be attributed to the advantages of combining both strategies, i.e., FL and WQs. The FWQ model enabled students to have additional time out of class to achieve their writing tasks. The students were given enough time to produce their written work accurately, which improved their writing skills. Furthermore, the organized and structured design of the FWQ model played a significant role in the learning process. Students knew exactly what they needed to do at each stage and how they needed to proceed through the given resources, which helped steer them in the right direction amidst the vast amount of data on the internet. The variety of information resources in the form of webpages and videos and their appropriateness contributed to mastering the lessons easily. Thus, the FWQ model is an effective strategy for improving EFL writing skills.

The results of the paper should be taken with caution, however, as they report on an exploratory case study carried out in a specific context. Longitudinal studies with larger

samples should be carried out to confirm the cumulative effect of the model presented. Prospective research lines should also include teachers' perceptions of the use of FWQ, t analysis of the model when teaching the L1, and its possible implementation in primary or tertiary education contexts.

The findings of the current study can be a guide for foreign language instructors to combine the two methods to facilitate language learning and improve other language skills, such as speaking, reading, and listening. Overall, the current research provides new insights to promote students' independent learning and reduce their anxiety in L2 language learning.

3.6 The second case study

3.6.1 FWQ model

To achieve the third and the fourth objective: Identifying the impact of the FWQ model on students´ listening and listening anxiety.

The researcher conducted an experiment and followed these procedures:

FWQ is a mixture of two learning strategies, namely WQs and FL. This strategy comprises three stages: The first and third stages take place at home, while the second step is deployed in class. The first stage includes the first two components of WQs: The introduction, which provides students with a background on the topic, and the task, which gives information about the required task. Students also contact each other before class to prepare for the required task that will be presented in class. The process and information resources stages provide students with the steps they follow and the required resources. The second stage is implemented in class and includes the remaining components of WQs. In addition, another stage called "Activities" will provide students with the opportunity to engage in class activities. The Evaluation helps students receive feedback from their teacher and their classmates. The conclusion provides students with a summary of the lesson. The third stage, which includes an assignment component to deepen students' knowledge and understanding, takes place after the class has finished.

FWQ is composed of 3 stages:

First stage (before class): it includes the first three components of WQs:

- Introduction: Provides students with a background on the topic.

- Task: Gives information about the required task. Students also contact each other before class to prepare for the required task that will be presented in class.
- Process and information resources: Provides students with the steps they follow and the required resources.

Second stage (in-class):

- Activities: Provide students with the opportunity to engage in class activities.
- Evaluation: Gives students feedback from their teacher and their classmates.
- Conclusion: Provides students with a summary of the lesson.

Third stage (after class):

- Assignment: Provides students with more understanding.

3.6.2 Design

The researcher used a quantitative method to thoroughly analyse the data collected from the listening tests before and after the study, as well as the listening anxiety scales, following the approach described by (Kim, 2000) . This method involved using statistical tools to organize and study the gathered information. The choice of a quantitative design was influenced by several reasons. Firstly, it's effective for examining how a factor affects a specific outcome (Creswell, 2009). By using this method, the researcher aimed to obtain precise and dependable data that could be used to make broader conclusions about individual learning differences in different educational settings. Additionally, quantitative methods offer advantages in their structured approach, allowing researchers to precisely measure phenomena and gain insights into psychological characteristics. The consistent use of quantitative methods in previous research within the fields of foreign language teaching and applied linguistics to assess students' anxiety levels also supports the suitability of this approach, as seen in studies by (Dewaele 2005; Dörnyei 2007)

The researcher used a quantitative method to lay a solid foundation for studying how the FWQ model relates to students' writing abilities and their levels of listening anxiety. This approach involved using statistical analyses to understand the extent of this impact and provide unbiased evidence. The gathered data were carefully arranged and analysed using statistical methods that help draw meaningful conclusions and identify important patterns or trends.

Using quantitative research methods has several benefits in this study. First, it allows for exact measurements, which means you can measure things precisely and see how they are related. This precision helps you understand and compare results from different studies, making the findings more widely applicable. Additionally, quantitative methods help researchers figure out if their findings are statistically significant, meaning the results are not just random chance. This makes the research results more reliable and helps draw well-informed conclusions.

In this study, the researcher used a method where they tested students before and after to see if the FWQ model helped improve their listening skills. The students were divided into three groups: one group received regular teaching, another used the FWQ model with Google Sites, and the third used the TWQ model with Google Sites.

To evaluate the students' listening abilities, tests were given before and after both groups. These tests included tasks or questions that assessed different aspects of listening. The scores from these tests were then used to see how much the FWQ model affected the students' listening skills.

In addition to assessing listening skills, the study also examined the students' listening anxiety. The researcher employed pre- and post-listening anxiety scales to measure and compare the levels of anxiety experienced by the students before and after the implementation of the FWQ model.

The data collected, which includes the test results and responses to the anxiety scale, were analysed using statistical methods that help make broader conclusions about how the FWQ model relates to the student's listening skills and anxiety levels. These methods might include techniques like T-tests and ANOVA.

3.6.3 Participants

The current study involved 96 preparatory school students, with an average age of 12-13 years old, from the Assiut Directorate in Egypt. A convenient sample total of 96 EFL learners were randomly assigned to a control group of 32 (16 male, 16 female), the first experimental group of 32 (15 male, 17 female) and the second group of 32 (14 male, 18 female). Convenience sampling was used due to practical considerations and accessibility to the researchers. The control group received traditional instruction, following the traditional teaching methods employed in the school, while the first experimental group followed the FWQ model that was developed using Google Sites. In the experimental

group, the lessons were delivered in the form of an FWQ website. The second group followed the TWQ model that was developed using Google site in the form of a TWQ site.

All the participants are native speakers of Arabic who received the treatment for 2 months. The students were chosen from the same educational stage, ensuring that they shared a similar educational background and were at a comparable level of English proficiency. The participants' English language level was assessed to be at the A2 level, according to the Common European Framework of Reference for Languages (CEFR). Before starting the treatment, collaboration with the school administration and agreement from the student´s parents, teachers, and students were asked. Informal discussions were held with the students to establish whether they were comfortable with participating in the study.

3.6.4 Instruments

FWQ and TWQ sites provided students with the resources. A pre-post listening test (the A2 Cambridge exam) was administered at the beginning and end of the experiment for the control and experimental groups. To evaluate the listening skills of the participants, the A2 Cambridge band descriptor was used. ANOVA analysis was used to examine the effect of FWQ and TWQ on students' English listening and anxiety and compare the means of scores between the control and experimental groups using SPSS.

The foreign language listening anxiety scale(Kim, 2000) was used to measure students' listening anxiety in English. It is a Likert scale based on five points: 1: strongly disagree; 2: disagree; 3: neither agree nor disagree; 4: agree; 5: strongly agree. For the reliability of the scale, Cronbach's coefficient was 93, and the test-retest reliability accounted for.84. The foreign language anxiety listening scale was run at the beginning and end of the experiment to measure the effect of the FWQ model on L2 learners' listening. Pre- and post-tests were collected and analysed by SPSS. A one-way ANOVA was used to compare the means of the three groups. See Figure 24 for the research design.

Kim's (2000) Listening Anxiety Scale is a significant tool in the realm of language learning and anxiety research. This scale is designed to measure and assess the levels of anxiety experienced by individuals in the context of listening comprehension. Listening anxiety is a common phenomenon among language learners, and understanding its impact is crucial for effective language instruction. Kim's scale comprises a set of 33 items or statements that delve into various dimensions of anxiety, including cognitive, somatic,

and behavioural aspects. Respondents rate their agreement or disagreement with these statements, providing valuable insights into their anxiety levels during listening tasks.

The scale's development and utilization have contributed to a deeper comprehension of the affective domain of language learning. Researchers and educators can use the listening anxiety scale to identify and address anxiety-related challenges in the classroom, tailoring teaching strategies to create a more supportive and conducive learning environment. Kim's scale is considered an essential tool for both researchers and specialists in the field of language education, facilitating a better understanding of the emotional aspects that can significantly impact language learning success.

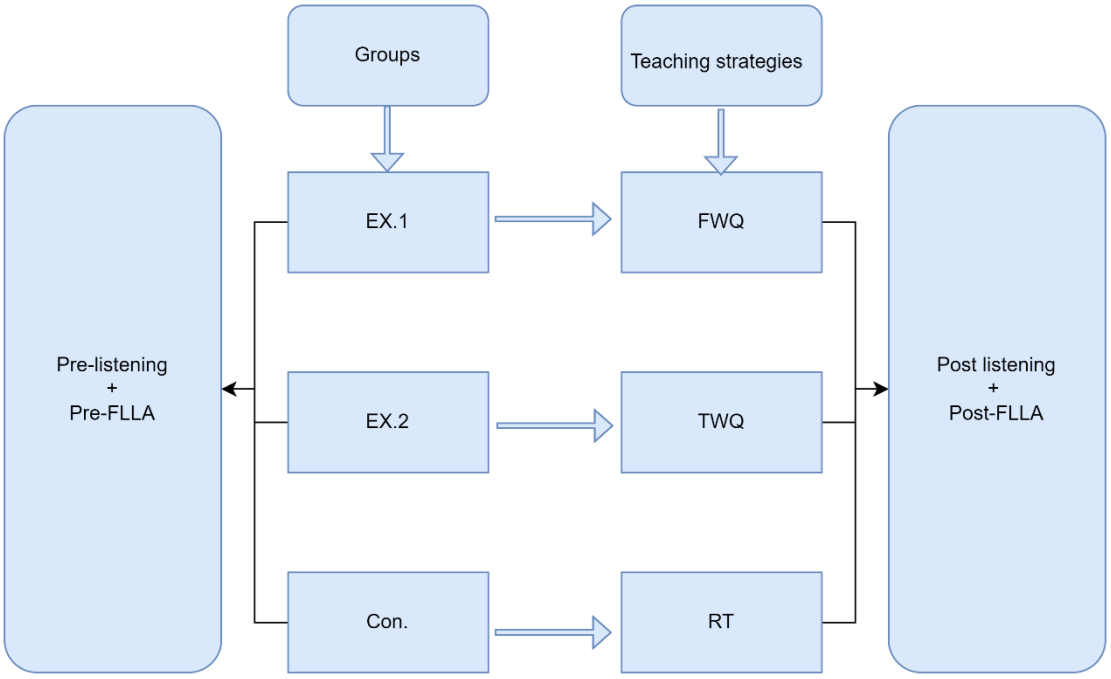

Figure 24. The second experiment research design

3.6.5 Experiment

Students in the three classes had a similar level of English (as evidenced by their English exam scores in tests conducted by the Directorate of Education). The pre-listening test was administered to the three groups; an A2 Cambridge listening exam was used as a pre- and post-test because of its appropriateness for the student's age. The evaluation rubric from Cambridge was used as a scoring rubric in the current study. The A2 Cambridge listening band descriptor was used to evaluate the participants' listening skills.

The foreign language listening anxiety questionnaire (Kim, 2000) was administered before and after the intervention to investigate the impact of the strategies on decreasing listening anxiety. The reliability of the foreign language listening anxiety scale was 0.93. The questionnaire contains 33 five-point Likert scale items.

Two Google sites were created for the FWQ and TWQ models, and the two experimental groups were trained in both approaches. The FWQ model had three stages: before, during, and after class. Regarding the first experimental group, students followed the introduction, task, and information resources before class time to have a good understanding of the lesson. In the introduction, students learned about the lesson and read or listen about the chosen topic. In the task, students had the freedom to contact each other before class time and cooperate to find answers and solutions to the required task. During class time, students engaged in class activities, followed by the evaluation and conclusion. In the evaluation rubric, students received feedback from their teachers and classmates. In conclusion, students received a summary of what they had learned in this lesson. After the class, there was an assignment that students prepared at home individually before presenting their work in the next session.

In the second experimental group, students followed the introduction, steps, and information resources, Evaluation, and conclusion during class time. In the introduction, students learned about the lesson. In the task, students were divided into groups to complete the task in the class. Students followed the process, information resources, evaluation, and conclusion. They had lesson links, which provided them with the lesson resources. In the evaluation rubric, students received feedback from their teachers. In conclusion, they received a summary of what they had learned in this lesson. students in the three classes had a similar level of English (as evidenced by their English exam scores in tests conducted by the Directorate of Education). The pre-listening test was administered to the three groups; an A2 Cambridge listening exam was used as a pre-and post-test because of its appropriateness for the student's age. The evaluation rubric from Cambridge was used as a scoring rubric in the current study. The A2 Cambridge listening band descriptor was used to evaluate the participants' listening skills.

The foreign language listening anxiety questionnaire (Kim, 2000) was administered before and after the intervention to investigate the impact of the strategies on decreasing listening anxiety. The reliability of the foreign language anxiety scale was 093. The questionnaire contains 33 five-point Likert scale items.

In the control group, students learned according to the "traditional" way through printed papers and books. The period of the study was two months. The listening test was administered twice, at the beginning and end of the experiment.

3.6.6 FWQ and TWQ lessons

Coming home.

How are you feeling?

Great jobs.

Into the past.

Helping you, helping me.

Different environments.

3.6.7 Results

Pre-test results were analysed to check the distribution of the three groups. As shown in Table 16, the mean score of the second experimental group (M=13.97– SD 3.789) was higher than the first experimental group (M=13.59– SD 4.493) and the control group (M=13.69; SD 3.814). However, this difference was not significant (p>0.05), since the p-value was .928, as shown in Table 16 and 17. Thus, the three groups were almost equivalent.

Table 16. Descriptive statistics of the three groups in the listening pre-tests

Descriptives								
					95% Confidence Interval for Mean			
	N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Minimum	Maximum
EX.1	32	13.59	4.493	.794	11.97	15.21	7	24
Ex.2	32	13.97	3.789	.670	12.60	15.33	7	23
con	32	13.69	3.814	.674	12.31	15.06	7	22

Total	96	13.75	4.005	.409	12.94	14.56	7	24

Table 17. One-way Anova in the listening pre-test

ANOVA					
pre_listening_all					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.438	2	1.219	.074	.928
Within Groups	1521.563	93	16.361		
Total	1524.000	95			

To check the normality of the data, a Kolmogorov-Smirnov test was run. The results of the experimental and control groups in the pre-test were .122, .200, and .200 respectively, while the listening post-tests were 200 .200 and .200 which assures the normality of data, as shown in table 18.

Table 18. The one-sample Kolmogorov-Smirnov test for normality of data

	Group	Kolmogorov-Smirnov[a]		
		Statistic	df	Sig.
Pre-test	Exp1	.139	32	.122
	Exp 2	.097	32	.200
	Con	.108	32	.200
Post-test	Exp 1	.103	32	.200
	Exp 2	.124	32	.200
	Con	.121	32	.200

To answer the first research question **(**What is the effect of the FWQ and TWQ on students' listening?) an independent sampled one-way ANOVA was run. The descriptive statics showed that the mean scores of the first and second experimental groups were 19.22 and 17.47, respectively, and the mean scores of the control group were 16.22, as

shown in Table 19, F 4.113, P .019, as shown in table 20, therefore, it seems that the two experimental groups had better performance than the control group.

Table 19. Descriptive statistics of the three groups in the listening post-tests

Descriptives								
post_listening_all								
					95% Confidence Interval for Mean			
	N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Minimum	Maximum
EX. 1	32	19.22	3.998	.707	17.78	20.66	10	25
Ex.2	32	17.47	3.681	.651	16.14	18.80	10	25
Con	32	16.22	4.844	.856	14.47	17.97	9	25
Total	96	17.64	4.339	.443	16.76	18.51	9	25

Table 20. One-way Anova in the listening post-test

ANOVA					
post_listening_all					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	145.333	2	72.667	4.113	.019
Within Groups	1642.906	93	17.666		
Total	1788.240	95			

The outcomes of the Tukey test compare the scores of the three groups and confirm that there are significant differences between the post-test of the three groups in favour of the experimental groups, see table 21 and Figure 25.

Table 21.Post-hoc Tuckey Test, Multiple Comparisons (Post-test)

Multiple Comparisons						
Dependent Variable: post_listening_all						
Tukey HSD						
(I) Groups	(J) Groups	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Ex.1	Ex.2	1.750	1.051	.224	-.75	4.25
	Con	3.000	1.051	.015	.50	5.50
Ex.2	Ex.1	-1.750	1.051	.224	-4.25	.75
	Con	1.250	1.051	.462	-1.25	3.75
Con	Ex.1	-3.000	1.051	.015	-5.50	-.50
	Ex.2	-1.250	1.051	.462	-3.75	1.25
*. The mean difference is significant at the 0.05 level.						

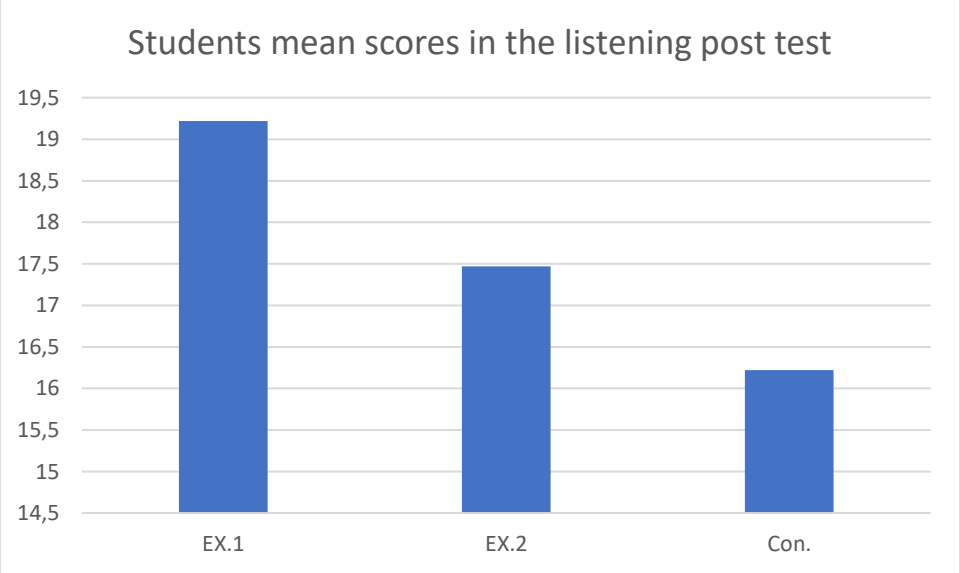

Figure 25. Students mean scores in the listening post-test

To answer the second question (what is the effect of the FWQ and TWQ on students' English language listening anxiety?) the independent sampled one-way ANOVA was run and the descriptive statics showed that the mean scores of the first and second experimental groups were 71.03 and 76.09, respectively, and the mean scores of the

control group were 83.19, as shown in table 22, F 4.007, and P .021, as shown in table23. Therefore, it seems that the two experimental groups had better performance than the control group, see Figure 26.

Table 22. Descriptive statistics of the three groups in the listening anxiety post-tests

Descriptives								
post_anx_all								
					95% Confidence Interval for Mean			
	N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Minimum	Maximum
Ex.1	32	71.03	18.816	3.326	64.25	77.82	39	109
Ex2	32	76.09	16.336	2.888	70.20	81.98	44	115
Con	32	83.19	16.509	2.918	77.24	89.14	49	119
Total	96	76.77	17.795	1.816	73.17	80.38	39	119

Table 23. One-way Anova in the listening anxiety post-test

ANOVA					
post_anx_all					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2386.396	2	1193.198	4.007	.021
Within Groups	27696.563	93	297.813		
Total	30082.958	95			

The outcomes of the Tukey test compare the scores of the three groups and confirm that there are significant differences between the post-test of the three groups in favour of the experimental groups, as shown in table 23.

Table 24 .Post-hoc Tuckey Test, Multiple Comparisons (Post-test)

Multiple Comparisons						
Dependent Variable: post_anx_all						
Tukey HSD						
(I) Groups	(J) Groups	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Ex.1	Ex.2	-5.062	4.314	.472	-15.34	5.21
	Con	-12.156*	4.314	.016	-22.43	-1.88
Ex.2	Ex.1	5.063	4.314	.472	-5.21	15.34
	Con	-7.094	4.314	.232	-17.37	3.18
Con	Ex.1	12.156*	4.314	.016	1.88	22.43
	Ex.2	7.094	4.314	.232	-3.18	17.37
*. The mean difference is significant at the 0.05 level.						

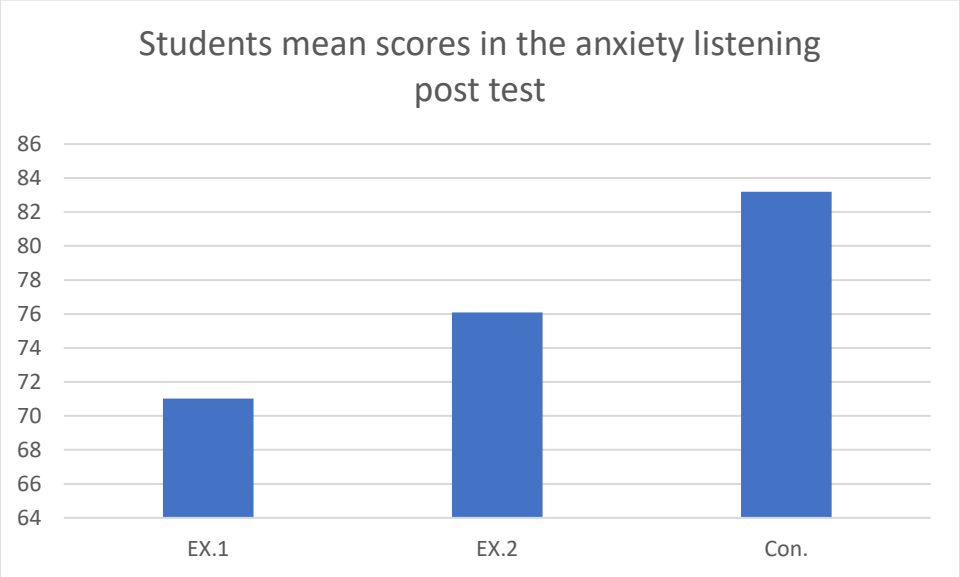

Figure 26. Students mean scores in the anxiety listening post-test

3.6.8 Discussion

The results of the ANOVA show that both FWQ and TWQ have a significant impact on students' improvement of listening skills. Likewise, both models contribute to reducing learners' listening anxiety. However, participants who studied through FWQ achieved better performance in developing English listening skills and decreasing English listening

anxiety than those who studied through TWQ and the control group who studied through RT.

The results highlighted the fact that providing students with materials before the classes in the blended modalities contributed to developing students' L2 listening skills, enhancing students' autonomy, and supporting student-centered learning. These findings are in line with Ebadi and Rahimi (2018) who observed that the WQs-based flipped classroom can increase students' English skills and responsibility levels more than the conventional way of teaching languages due to its interactive nature and meaningful resources.

In addition, student interaction and collaboration before class and during group discussions promote English language skills and helped learners to be prepared in advance for the class task. These findings are in agreement with Almansour and Kurt (2022) who state that student-group contact enhances students' understanding and motivation towards the process of learning. In the same regard, Awada et al. (2020) see that collaboration during class time enhances and supports English language skills.

Furthermore, the analysis of results shows that student anxiety is decreased through the mixed use of flipped and WQs due to its interactive environment, since students appear to have more time and space to reflect on and come up with solutions to the learning issues before class starts, through the organized instruction of the WQs. This is in line with Gok et al. (2021) who point out the significant role of the flipped classroom in decreasing students' foreign language classroom anxiety and reading anxiety.

3.6.9 Conclusion

The current case study aims to contribute to research on BL and the impact of ICTs in language teaching by exploring the didactic possibilities of WQs. In particular, we propose a new model (FWQ) and we compare it with TWQ and regular L2 instruction.

While most previous studies followed the traditional WQs structure, the current study adopted a model that incorporates two strategies in which the sequences of the WQs were adjusted to support EFL preparatory school students. SPSS was used to carry out all the required analyses and ANOVA was estimated to assess the effect on the three groups (FWQ, TWQ and RT).

The results of the study confirm exposing students to Web-based learning did result in more effective learning than simply using traditional instruction methods. The analyses underline that there is a significant difference in improving English listening skills and decreasing students' English listening anxiety in favour of FWQ.

These positive results are due to the use of Web learning tools, the effective use of BL and the structured design of WQs. FWQ provided students with opportunities to have continual access to class resources, watch videos as many times as they want and develop their listening skills through authentic materials. The organized structure of FWQ streamlines the learning process since students have defined stages with clear instructions. With this modality, students are compelled to contact each other before class time to prepare for the task that will later be presented in class. The class time was interactive and full of activities that enhanced listening and speaking skills. The assignment after class increases students' time for practice to develop their English language skills.

We feel the current study can help English instructors develop their students' English skills through new teaching modalities (BL). Hence, the proposed design model has major implications for curriculum and instructional material designers, giving them knowledge of how to employ technology in education and incorporate different instructional strategies to foster English language skills.

There are limitations to this study even though the data strongly suggested that flipped and WQs strategies are beneficial for improving students' listening skills and decreasing anxiety. One significant limitation of this study is students' familiarity with using FWQ and TWQ. Before starting the experiment, students have negative perceptions of learning through new teaching strategies instead of using the traditional way. For that reason, two sessions were provided to the students before the experiment to prepare them and give them some information about the strategies to be used. Second, some students lack sufficient proficiency in technological skills; therefore, they have two training sessions to master the required technical skills to facilitate their work during the learning process. Third, the teacher provides students with a printed copy of the required resources before the class (to make sure they can complete it even if technical difficulties –such as a bad Internet connection– arise at home).

While the study focuses on EFL in the preparatory stage, further studies may explore the impact of FWQ in improving reading, writing and speaking, while also decreasing other

foreign language anxiety skills. Our findings have important implications. The results suggest that using the flipped classroom and WQs has the potential to alleviate foreign language and listening anxiety. Additionally, providing ESL students with appropriate strategies can contribute to their education. The flipped classroom and WQs research, which combine a student-centered environment with a technology-enhanced approach, have the potential to open up new avenues for foreign language education research in the current era.

3.7 The third case study

To achieve the fourth, fifth, fourth and fifth objectives: Identifying the impact of the FWQ model on students´ grammar and grammar anxiety and attitudes towards FWQ.

The researcher conducted an experiment and followed these procedures:

3.7.1 FWQ model

The FWQ strategy integrates two learning strategies, specifically WQs and FL, into a comprehensive framework. This model has three distinct stages: The first and final stages occur outside the classroom at home, while the second stage is conducted during class time. The first stage includes the first three elements of WQs, namely the introduction, which offers the aims of the lesson, and the task, which outlines the requirements of the assignment and process and information resources, which present internet resources. Before the class session, students also collaborate to prepare for the upcoming task that will be presented in class and out of class. The second stage takes place within the classroom, including the other components of WQs. Additionally, an "Activities" element is incorporated to engage students in various class activities. An evaluation stage enables students to receive feedback from both their teacher and peers. The conclusion stage provides students with a summary of the lesson. The final stage involves an assignment component that encourages students to deepen their understanding and knowledge, and it occurs after the completion of the class session.

- To achieve the fifth, sixth and seventh objectives: Identifying the impact of the FWQ model on students´ grammar proficiency, grammar anxiety and students' attitudes towards FWQ.

The researcher conducted an experiment and followed these procedures:

3.7.2 Design

The present study followed a quantitative method, utilizing pre- and post-grammar tests with a questionnaire to collect data about students' L2 grammar skills. A quasi-experimental design was adopted to answer the following research questions:

1. To what extent does grammar proficiency improve in the FWQ group?
2. How effectively do grammar skills enhance in the WQs group?
3. Are there statistically significant differences in grammar proficiency levels among the FWQ, WQs, and Traditional Learning (TL) groups?
4. To what extent does grammar anxiety decrease in the FWQ group?
5. How effectively does grammar anxiety reduce in the WQs group?
6. Are there statistically significant differences in grammar anxiety levels among the FWQ, WQs, and TL?
7. What are students´ attitudes towards the FWQ model?

In this study, the researcher used a quantitative method to thoroughly analyse data from both before and after grammar tests, as well as before and after grammar anxiety assessments, following the approach outlined by (Ekinci Çelikpazu & Taşdemir, 2022). This involved using statistical tools to organize and study the gathered information. The choice of a quantitative approach was influenced by several reasons. Firstly, it's effective for examining how a factor affects a specific outcome, (Creswell, 2009). By using this method, the researcher aimed to obtain precise and dependable data that could be used to make broader conclusions about individual learning differences in different educational settings. Additionally, quantitative methods offer advantages in their structured approach, allowing researchers to precisely measure phenomena and gain insights into psychological characteristics. The consistent use of quantitative methods in previous research within the fields of foreign language teaching and applied linguistics to assess

students' anxiety levels also supports the suitability of this approach, as seen in studies levels (see, for instance, Dewaele 2005; Dörnyei 2007).

The researcher used a quantitative method to lay a solid groundwork for investigating the connection between the FWQ model, students' writing abilities, and their levels of writing anxiety. This approach involved applying statistical techniques to thoroughly assess the extent of influence and offer factual evidence. The gathered data were methodically arranged and analysed using inferential statistics, which permitted the researcher to make meaningful findings and recognize important trends or patterns.

Quantitative research methods have several benefits in this study. To begin with, they allow for exact measurements, making it possible to quantify variables and establish measurable connections. This precision helps in understanding and comparing results across various studies, which improves the applicability of the findings. Furthermore, quantitative approaches enable researchers to detect statistical significance, which helps determine the probability that observed effects are not random. This enhances the trustworthiness of the research results and facilitates the development of well-informed conclusions.

In this study, the researcher employed a method where they tested students before and after to see if the FWQ model helped improve their grammar skills. The students were divided into three groups: one group received regular teaching, another used the FWQ model with Google Sites, and the third used the WQ model with Google Sites.

In addition to assessing grammar proficiency, to evaluate the students' grammar skills, they took grammar tests before and after the study. The scores from these tests were used to analyse how the FWQ model affected the students' grammar proficiency. Moreover, to assess the attitudes towards using the FWQ model, the researcher developed a questionnaire consisting of 10 statements. The questionnaire was run at the end of the experimental group on the first experimental group.

The data gathered, which included test results and responses to the anxiety scales, underwent statistical analysis using inferential statistical methods. These techniques, such as T-tests and ANOVA, were likely used by the researcher to make findings about how the FWQ model related to the students' grammar proficiency and anxiety levels.

To sum up, the quantitative research method applied in this study offered a structured and thorough way to investigate how the FWQ model influenced students' grammar skills, anxiety about grammar, and their attitudes. Through the collection and analysis of numerical data, the researcher aimed to gain unbiased insights, establish statistically meaningful connections, and enhance our knowledge of effective language teaching methods.

3.7.3 Participants

In this study, a total of 106 preparatory school students, aged between 12 and 13 years old, from the Assiut Directorate in Egypt were involved. We used a convenient sampling method to select 106 English as a Foreign Language (EFL) learners for our study. These students were randomly divided into three groups: The first experimental group of 35 (17 males, 18 females) learned using FWQ; the second experimental group 34 (16 male, 18 female) learned using WQ; and the control group 37 (18 males, 19 females) received traditional face-to-face teaching (or traditional learning –TL–).

We chose convenient sampling because it was practical and allowed easy access to participants. The control group received traditional instruction, following the standard teaching methods used in the school. In contrast, the first experimental group used the FWQ model, which was presented through a specially designed website on Google Sites. The second experimental group followed the WQ model, also presented through a Google Site designed for this purpose.

All of the participants in this study are native Arabic speakers, and they received the treatment for two months. We selected students who were at the same educational stage to ensure they had similar educational backgrounds and were at a similar level of English proficiency. Based on the Common European Framework of Reference for Languages (CEFR), the participants' English language skills were assessed to be at the A2 level.

Before starting the treatment, we obtained permission from the school administration and received consent from the students' parents, teachers, and the students themselves. We also had informal discussions with the students to make sure they felt comfortable participating in the study.

3.7.4 Instruments

FWQ and WQ sites provided students with the resources. A pre-post grammar test was run at the beginning and end of the experiment for the control and experimental groups.

To evaluate grammar proficiency. It was comprised of 20 questions that included multiple-choice, complete, read and correct, and reordering words.

A grammar anxiety scale (Ekinci Çelikpazu & Taşdemir, 2022) was used before and after the treatment. It is a Likert scale based on five points: 1: strongly disagree; 2: disagree; 3: neither agree nor disagree; 4: agree; 5: strongly agree. It is composed of 33 statements. For the reliability of the scale, Cronbach's coefficient was .87. The foreign language anxiety grammar scale was run at the beginning and end of the experiment to measure the effect of the FWQ model on L2 learners' grammar. Pre- and post-scale were collected and analysed by SPSS.

Anxiety is an emotional factor that can hinder learning progress. It is linked to learners' unique qualities such as their beliefs, attitudes, expectations, motivation, and emotions (Bailey et al., 2000; Eysenck et al., 2007; MacIntyre, 1995). The items on the GAS (Grammar Anxiety Scale) were selected with the understanding that anxiety is a hidden aspect influencing learning and by considering existing research on the emotional aspects of learning. The scale's questions were categorized into three subgroups, each addressing areas known to trigger anxiety, as discussed in previous studies (Ekinci et al., 2022).

ANOVA analysis was used to examine the effect of FWQ and WQ on students' English grammar and anxiety and compare means of scores between the control and experimental groups using SPSS. Additionally, the FWQ questionnaire was administered after the treatment with the first group to assess student attitudes towards the use of FWQ. ANOVA analysis was used to examine the effect of FWQ and WQ on students' English grammar and anxiety and compare the means of scores between the control and experimental groups using SPSS, see Figure 28.

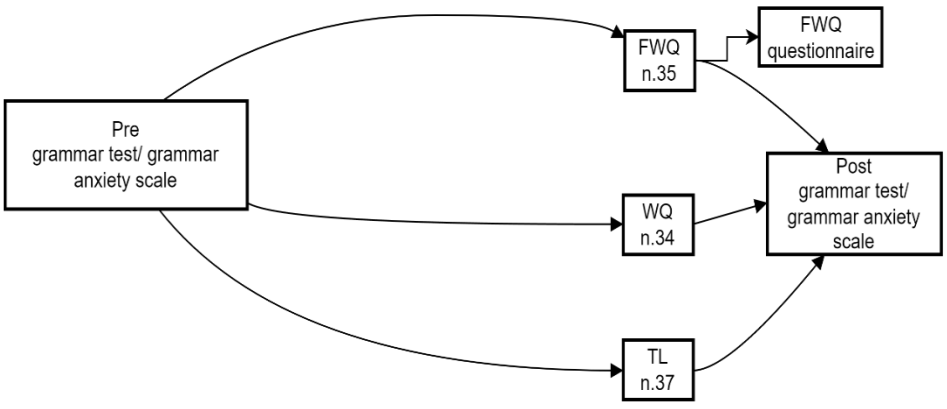

Figure 27. The third experiment research design

3.7.5 Experiment

106 students participated in the experiment. Learners had similar L2 proficiency based on the results of the English exam conducted by the Directorate of Education, Assuit, Egypt. The grammar test was run twice at the beginning of the experiment and the end of the experiment. It was comprised of 20 questions that included multiple-choice, complete, read and correct, and reordering words.

Two Google sites were established for the FWQ and WQ models, and both approaches were used to train the two experimental groups. The FWQ model was divided into three phases: Before, during, and after class. To have a good understanding of the lesson, students in the first experimental group received their learning through the FWQ model and followed the introduction, task, and information resources before class time. Students learned about the lesson objectives in the beginning. Then, learners understand what the required tasks are before the conclusion of the course, and they have the freedom to contact each other before class time and collaborate to find answers and solutions to the required work. Students should use the available links to gain a thorough understanding of the subject.

In class, students participate in class activities. The first task is to answer a quiz, and the second is to collaborate to write some sentences regarding the topic they have learned. The evaluation and conclusion follow. Then, students received feedback from their teachers and peers on the evaluation rubric. As a conclusion, students had a summary of what they had learned in this lesson. After the class, there was an assignment that students did at home individually to deepen their understanding of the topic.

In the second experiment, the lessons were done in class. Learners followed the five components of WQs. They were provided with information about the lesson objectives. Students were then divided into groups to collaboratively work on the activities during class. After that, they followed a structured process, referred to information resources, received evaluation through a rubric, and concluded the lesson with a summary of their learnings. While the control group received the traditional way through book texts. The study continued for one term, see table 25.

Table 25. Experimental group conditions (third case study)

Item	FWQ	WQ	TL
Teacher's Role	- Provide the student with the FWQ lessons. - Give students specific tasks. - Facilitate the learning process. - Give students feedback.	- Provide students with WQ lessons. - Give students specific tasks. - Give students feedback.	- Provide students with textbooks and print sheets. - Prepare some activities based on the printed sheets.
Student's Role	- Study at home through the FWQ website. - Prepare the required task to present it during class time. - Cooperate in groups to discuss the required task (out of class). - Cooperate in groups to present the required task in class. - Receive feedback on the required task.	- Study in class through the WQ website. - Cooperate in groups to prepare and present the required task. - Receive feedback on the required task	- Receive the instruction in class - Study at home what he has learned in class.

Item	FWQ	WQ	TL
Methods	- The teacher provides students with the FWQ website. - Students navigate the FWQ lessons at home. - Students prepare the required task to present it during class time. - Students cooperate out of class to achieve the required task. - Students receive feedback during class time.	- The teacher provides students with the WQ website. - Students navigate the FWQ lessons in class. - Students cooperate to achieve the required task in class time. - Students receive feedback during class time.	- The teacher explains the lesson. - The student receives the lesson in class. - The student studies at home.
Duration	Two months	Two months	Two months
Assessment	Formative assessment and summative assessment. Individual, peer, and group assessment.	Formative assessment and summative assessment. Individual, peer, and group assessment.	- Exercises - exams

3.7.6 FWQ and WQ lessons

1. To be in the present.
2. To be in past.
3. Sentence structure.
4. Present simple.
5. Past simple.

6. Present continuous.
7. Past continuous.
8. Future simple.

3.7.7 Results

A Kolmogorov-Smirnov test was run to check the normality of the data. The results of the experimental and control groups in the pre-test were .200, .200, and .200 respectively, while the listening post-tests were 200 .200 and .102, thus assuring the normality of data, as shown in Table 26.

Table 26.The one-sample Kolmogorov-Smirnov test for normality of data

	Group		Kolmogorov-Smirnov[a]		
			Statistic	Df	Sig.
Pre-test	Pre-test	Exp1	.098	35	.200
		Exp 2	.087	34	.200
		Con	.086	37	.200
	Post-test	Exp 1	.106	35	.200
		Exp 2	. 101	34	.200
		Con	. 132	37	.102

results were analysed to check the distribution of the three groups. The mean score of the first experimental group (M=9.60– SD 4.067) was higher than the second experimental group (M=8.91– SD 4.159) and the control group (M=9.08; SD 3.759). This difference was not significant (p>0.05), since the p-value was .756, as shown in Table 27. Thus, the three groups were almost equivalent.

Table 27.The descriptive statistics of the three groups in the grammar pre-tests

	N	Mean	Std. Deviation	F	Sig.
1	35	9.60	4.067	0.281	0.756
2	34	8.91	4.159		
3	37	9.08	3.759		
Total	106	9.20	3.965		

To answer the first research question (To what extent does grammar proficiency improve in the FWQ group?), a paired sample t-test was conducted, to determine the differences between the mean scores of pre-tests and post-tests in the experimental group. The results, presented in Table 28, indicated a noteworthy difference between the pretest (M = 9.60, SD = 4.067) and post-test (M = 14.94, SD = 3.741) scores of the students. This significant difference was observed as a consequence of implementing the FWQ model. The analysis revealed a substantial change from the students' pre-test scores to their post-test scores (df = 34; t = 19.888; p < 0.000).

Table 28.Paired sample statistics

	N	Mean	Std. Deviation	T	Df Sig.
Post-g-G1	35	14.94	3.741	19.888	34 .000
Pre-g-G1	35	9.60	4.067		

To answer the second question (How effectively do grammar skills improve in the WQ group?), a paired sample t-test was conducted to determine the differences between the mean scores of pre-tests and post-tests in the experimental group. The results, presented in Table 29, indicated a noteworthy difference between the pretest (M = 8.91, SD = 4.159) and post-test (M = 12.53, SD = 4.069) scores of the students. This significant difference was observed because of implementing the FWQ model. The analysis revealed a

substantial change from the students' pretest scores (df = 33; t = 15.907; p < 0.000).

Table 29.Paired sample statistics (grammar proficiency, Group 2)

	N	Mean	Std. Deviation	T	Df	Sig.
Post-g-G2	34	12.53	**4.069**	15.907	33	.000
Pre-g-G2	34	8.91	4.159			

To answer the third question (Are there statistically significant differences in grammar proficiency levels among the FWQ, WQ, and TL groups?), independent sampled one-way ANOVA was run. The descriptive statistics showed that the mean scores of the first and second experimental groups were 14.94 and 12.53, respectively, and the mean scores of the control group were 10.16, F 13.474, P< .000, as shown in Table 30. Therefore, it can be concluded that the two experimental groups performed better than the control group.

Table 30. The descriptive and interferential statistics of the three groups in the grammar post-tests

	N	Mean	Std. Deviation	F	Sig.
1	35	14.94	3.741	13.474	0.000
2	34	12.53	4.069		
3	37	10.16	3.905		
Total	106	12.50	4.345		

The results of the Scheffe test compare the scores of the three groups and confirm that there are significant differences between the post-test of the three groups in favour of the experimental groups, as shown in Table 31. Therefore, The FWQ outperformed the WQ, and the TL group as shown from the pre/post results in the grammar test, see Figure.

Table 31. Post-hoc Scheffe Test, Multiple Comparisons (Post-test Multiple Comparisons)

Multiple Comparisons						
Dependent Variable: post_grammar						
Scheffe						
(I) groups	(J) groups	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	2.413*	.941	.041	.08	4.75
	3	4.781*	.921	.000	2.49	7.07
2	1	-2.413*	.941	.041	-4.75	-.08
	3	2.367*	.928	.043	.06	4.67
3	1	-4.781*	.921	.000	-7.07	-2.49
	2	-2.367*	.928	.043	-4.67	-.06
*. The mean difference is significant at the 0.05 level.						

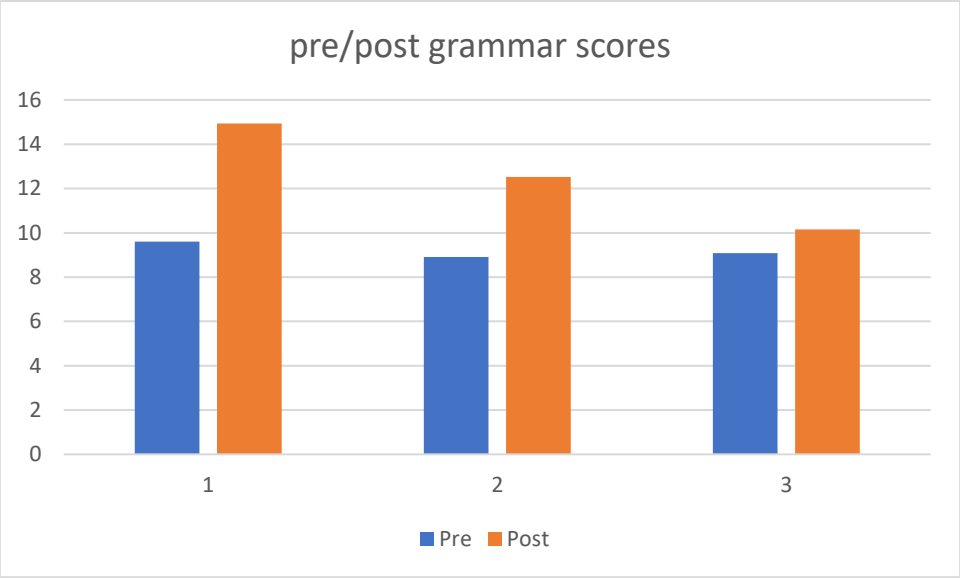

Figure 28. pre/post-grammar results

To answer the fourth question (To what extent does grammar anxiety decrease in the FWQ group?), a paired sample t-test was conducted to determine the differences between the mean scores of pre-tests and post-tests in the experimental group. The results, presented in Table 32, indicated a noteworthy difference between the pretest (M = 110.14, SD = 8.200) and post-test (M = 78.97, SD = 9.316) scores of the students. This significant difference was observed because of implementing the FWQ model. The analysis revealed a substantial change from the students' pretest scores to their post-test scores (df = 34; t = 20.660; p < 0.000).

Table 32. Paired samples Statistics (grammar anxiety, Group 1)

	N	Mean	Std.Deviation	T	Df.Sig
Pre-anx-G1	35	110.14	8.200	20.660	33.000
Post-anx-G1	35	78.97	9.316		

To answer the fifth question (How effectively does grammar anxiety reduce in the WQ group?), a paired sample t-test was conducted to determine the differences between the mean scores of pre-tests and post-tests in the experimental group. The results presented in Table 31, indicated a noteworthy difference between the pretest (M = 110.88, SD = 11.200) and post-test (M = 91.85, SD = 8.832) scores of the students. This significant difference was observed because of implementing the FWQ model. The analysis revealed a substantial change from the students' pretest scores to their post-test scores (df = 33; t = 18.124; p < 0.000).

Table 33. Paired Samples Statistics (grammar anxiety, Group 2)

	N	Mean	Std.Deviation	T	Df.Sig
Pre-and-G2	35	110.88	8.200	18.124	33.000
Post-anx-G2	35	91.85	9.316		

To answer the sixth question (Are there statistically significant differences in grammar anxiety levels among the FWQ, WQ and TL groups?), independent sampled one-way ANOVA was run. The descriptive statistics showed that the mean scores of the first and second experimental groups were 78.97 and 91.85, respectively, and the mean scores of the control group were 104.51, 11, F 75.092, P .000, as shown in Table 34. Therefore, it can be concluded that the two experimental groups performed better than the control group.

Table 34. Descriptive statistics of the three groups in the grammar anxiety scale

	N	**Mean**	**Std. Deviation**	**F**	**Sig.**
1	35	78.97	9.316	75.092	.000
2	34	91.85	8.832		
3	37	104.51	8.372		
Total	106	92.02	13.727		

According to the outcomes of the Scheffe test, a comparison of the scores of the three groups reveals that there are significant differences favouring the experimental groups in their post-test performance. as shown in Table 35. Thus, the FWQ achieved a significant change in the anxiety level more than the other two groups, see Figure 30.

Table 35. Post-hoc Scheffe Test, Multiple Comparisons (Post-test)

Multiple Comparisons						
Dependent Variable: post_anxiety						
Scheffe						
(I) groups	(J) groups	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	-12.882*	2.129	.000	-18.17	-7.59
	3	-25.542*	2.084	.000	-30.72	-20.37
2	1	12.882*	2.129	.000	7.59	18.17
	3	-12.661*	2.100	.000	-17.88	-7.44
3	1	25.542*	2.084	.000	20.37	30.72
	2	12.661*	2.100	.000	7.44	17.88
*. The mean difference is significant at the 0.05 level.						

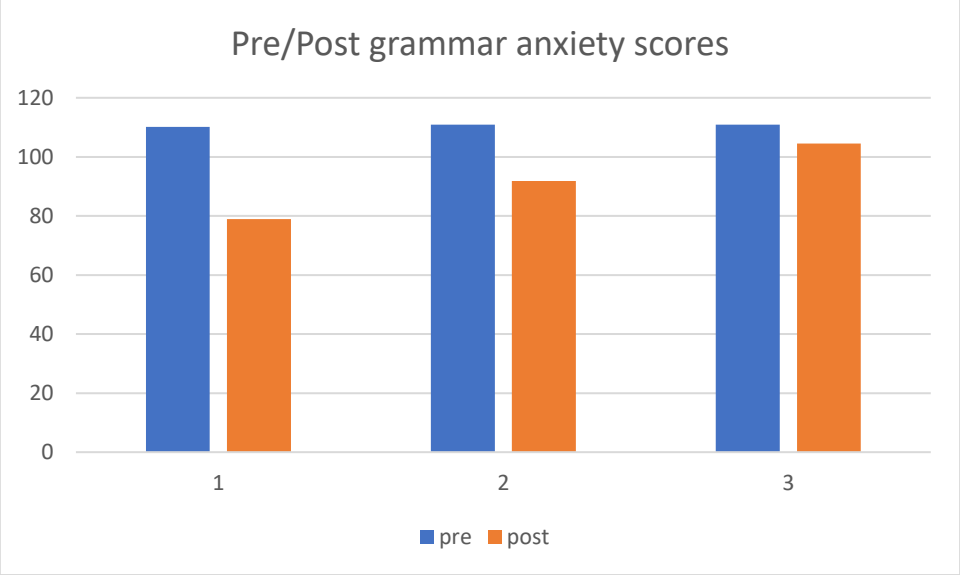

Figure 29. Pre/post grammar anxiety scores

To answer the seventh question (what are students' attitudes towards the FWQ model?), mean values and standard deviations were used (see Table 36).

Table 36. Descriptive statistics of students' attitudes towards using the FWQ model

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
1- FWQ is easy to use	35	2	5	3.97	.785
2- FWQ helps me understand well	35	3	5	4.37	.598
3- FWQ is enjoyable	35	3	5	4.43	.698
4. FWQ is difficult	35	3	5	4.11	.718
5- FWQ increases my collaboration with my peers	35	3	5	4.09	.781
6. FWQ helps me develop my evaluation skills	35	3	5	4.03	.785
7- FWQ prepared me well for in-class sessions	35	4	5	4.57	.502
8- FWQ helps me feel more confident	35	3	5	3.94	.838
9- FWQ is boring	35	3	5	4.14	.772
10- Overall, I am satisfied with FWQ learning	35	3	5	4.23	.731
Valid N (listwise)	35				
Total				4.18	.438

Based on the data shown in Table 34, n.7 FWQ prepared me well for in-class sessions and got the highest mean score (M=4.57). This may be because of the availability of resources before class sessions, therefore, students can rewatch videos or review anything they missed as many times as they want, helping them understand well as presented in n.2, students show a high average of agreement(M=4.37) on the effective role of FWQ in supporting their understanding. This outcome goes in line with the study (Chen & Hwang, 2020) which reported that students are provided with pre-recorded instructional materials to review outside of class, allowing them to familiarize themselves with the content at their own pace. This pre-learning phase sets the stage for in-class activities where students actively engage with the material through discussions, group work, and hands-on exercises. Whereas n.3 FWQ is enjoyable got the second highest mean score (M=4.43). It means that the majority of students strongly agree with this statement. This may be due to the interactive environment of the FWQ model that offers an engaging learning experience for students. This result is consistent with (Bārdule, 2021; Hsia et al., 2021; Hwang et al., 2023), who reported that the interactive environment of the flipped classroom transforms the traditional learning experience into an active journey through watching videos and engaging in different authentic tasks.

Many students agree that FWQ helped them to improve their evaluation skills through the evaluation rubric and the feedback they receive, and it is clear from the mean scores of students (M=4.03) in n.6. This goes in line with (Thai et al., 2020) who refer to the significant role of feedback in developing students´ evaluation skills. Also, many students showed a high average score (M=4.09) indicating their agreement on the significant role of FWQ in supporting collaborative learning. This is consistent with (Awada et al., 2020; Li & Li, 2022) who state that FL offers great cooperative learning opportunities through engaging in collaborative activities. Additionally, Students found that FWQ was easy to use because of its well-structured design. (Al Asadi, 2020; Kozlovskii et al., 2021) refer that the well-structured design of WQs helps the student to get knowledge easily without missing a vast amount of information on the internet. with a mean score of (M= 4.11), students expressed their agreement that FWQ boosts their confidence. According to the studies of (Singay, 2020; Zakaria & Yunus, 2020) outcomes, flipped classroom plays a significant role in enhancing students´ confidence. Moreover, the outcomes reveal a general sense of satisfaction regarding the use of FWQ with mean scores (M=4.23). Generally, Table 12 showed that the general mean score of the students´ responses was

4.18, with a standard deviation of,438. This means that there is a generally positive attitude towards the use of the FWQ model, see Figure 31.

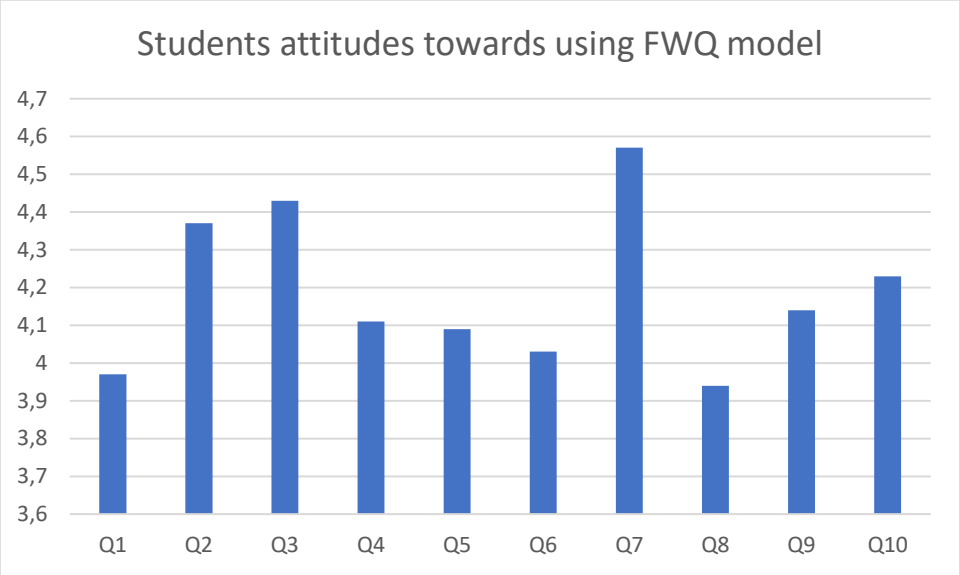

Figure 30. Students´ attitudes towards using the FWQ model

3.7.8 Discussion

The outcomes of the paired sample T-test and ANOVA revealed that both FWQ and TWQ have a significant effect on students' improvement in grammar. Likewise, both models helped in reducing learners' grammar anxiety. However, participants who studied through FWQ outperformed those who studied using WQs and TL in improving their grammar level and decreasing their anxiety. Additionally, there is a generally positive attitude towards the use of the FWQ model.

The findings of the study shed light on the importance of providing students with educational resources before class time as a key element in web-based learning to improve student's level of grammar proficiency, support students' autonomy, and enhance student-centred learning. These outcomes align with previous research conducted by (Ebadi & Rahimi, 2018) which demonstrated that using the WQs based flipped classroom yielded significant improvements in students´ English language proficiency and levels of responsibility compared to the traditional away. This finding can be attributed to the interactive nature and meaningful resources in combining flipped and WQs strategies in language acquisition.

In addition, students' engagement in pre-class interactions and collaborative discussion contributed to developing English language acquisition which helped students to be well

prepared for the in-class activities through engaging in meaningful communication, fostering a deeper understanding of vocabulary and grammatical structures by participating in discussion and exchanging ideas with peers. Thus, engagement in pre-class interactions and collaborative discussions plays a crucial role in the continuous development and improvement of students' English language acquisition. These empirical findings are in line with (Almansour & Kurt, 2022), who asserted that student-group interaction enhances students´ comprehension and motivation, creating a positive attitude towards the learning process.

Besides, according to (Awada et al., 2020), collaborative activities in-class session plays a significant role in enhancing and supporting English language proficiency Since these activities encourage active participation and interaction among students, allowing them to construct knowledge and develop a deeper understanding of the subject matter. By engaging in collaborative tasks, students have the opportunity to engage in discussion, exchange ideas, share perspectives, and develop a sense of ownership towards their learning and the collective learning objectives of the group. Consequently, collaborative activities in class develop students' level of language learning and enhance their interpersonal skills as well.

In a similar vein, the feedback that students receive from their teacher and classmates through the evaluation rubric in the context of FL and WQs holds significant importance in their grammar level. The evaluation rubric provides students with clear criteria for their performance, offering a structured framework for their required tasks, and helping students to enhance their understanding, thinking, and application of knowledge. This agrees with Prilipko (2018) and Bārdule (2021) who assured the importance of feedback in developing student language learning. Consequently, receiving feedback is a significant component in the process of language learning as it is a guide for students to their current and future performance.

Moreover, the examination of the results reveals a notable decrease in grammar anxiety as a result of the blended implantation of the flipped and WQs. This decrease can be attributed to the interactive learning environment facilitated by these strategies, as they offer opportunities for students to have great opportunities before class time to learn according to their peace. This observation aligns with the findings highlighted by Gok et al. (2021) and Chen & Hwang (2020), who underscore the significant role of the flipped

classroom approach in decreasing students' anxiety related to foreign language instruction and reading.

Furthermore, the outcomes showed that there is a general positive attitude towards the use of the FWQ model in English grammar. This attitude can be due to the interactive nature of the FWQ model in teaching language. This finding is consistent with (Chou et al., 2021; Fernández-Carballo, 2022), who state the effective role of FL in enhancing students' attitudes towards the learning process since the students who experienced the flipped classroom reported a great sense of ownership over their learning, which positively influenced their attitudes and motivation.

3.7.9 Conclusion

This study aims to contribute to the existing body of research on web-based learning and the impact of ICTs in language teaching by examining the pedagogical potential of using FL and WQs. Specifically, a new model –the FWQ– is proposed and compared with WQs and traditional learning. The current study designed a model based on incorporating two strategies –FL and WQs– to enhance EFL students in grammar proficiency and decrease their anxiety. SPSS was administered to conduct all the study analyses, and paired sample T-test and ANOVA were used to assess the impact on the three groups (FWQ, WQ, and TL). Mean and standard deviation was used to assess students´ attitudes towards the use of FWQ.

The findings of the study refer to the significant role of web-based learning and ICTs, specifically in improving and enhancing EFL students´ language learning. The outcomes revealed that there are significant differences in the improvement of grammar proficiency and decreasing grammar anxiety, favouring the utilization of the FWQ. FWQ provide students with easy access to the resources before class, enabling them to watch the videos repeatedly or login the page webs many times as they need, facilitating the process of learning, and enhancing their grammar proficiency Also, engaging students in interaction and communication before class time supported their language learning through share and exchange ideas. Therefore, students were motivated to prepare and engage in-class tasks with their peers. In addition, the structured design of FWQ helped students to have a clear vision of all stages that they will pass to achieve the required tasks. Moreover, the interactive environment of the class activities plays a crucial role in improving grammar and decreasing anxiety, developing English language skills. Furthermore, the post-class assignment offered students additional practice opportunities, allowing them to improve

their grammar and cultivate their English language skills. Consequently, positive attitudes towards the use of FWQ were fostered due to its merits.

The current study can help educators and curriculum designers to employ and develop technological tools in education and integrate diverse pedagogical approaches, using different strategies to prompt the development of English language skills.

Despite the effectiveness of FL and WQs strategies in improving students´ grammar proficiency, there are some limitations such as students' lack of technological skills; therefore, students were provided with three training sessions to enhance their technological skills and make the process of learning easier. Also, a printed copy of the instructional resources was given to students before class time to overcome any technical problems face students during their work such as bad internet connection. In addition to, students´ unfamiliarity with using FWQ and TWQ; therefore, two sessions are given to students to prepare them and give them the required information on the use of the two strategies before implementing the experiment.

While the current study concentrates on EFL students in preparatory education, the further stage could investigate the effects of FWQ on enhancing speaking, reading, and writing, as well as reducing anxiety levels associated with other aspects of foreign language learning. The findings of the study bear significant implications, as they suggest that the FWQ model is promising in alleviating foreign language and grammar proficiency. Moreover, providing students with suitable strategies can make valuable contributions to their educational experiences. Hence, the integration of FL and WQs strategies which combine student-centred learning with technology-enhanced practices has the potential to pave the way for a new avenue of research in the field of foreign language learning.

In summary, the third chapter has provided a comprehensive examination of the practical aspects supporting our study, offering a detailed account of the systematic design process employed in the creation and implementation of the FWQ model. The chapter has meticulously outlined our goals, research questions, and the step-by-step procedures guiding the development of the model, ensuring transparency and methodological rigor. As we transition from the methodological exploration presented in this chapter, the subsequent Chapter Four will delve into a comprehensive discussion, draw conclusions from our findings, and put forth valuable recommendations based on the insights gained. Building upon the practical foundation laid out here, Chapter Four will serve as a

culmination of our research journey, providing a synthesized understanding of the FWQ model's effectiveness and offering practical guidance for its application in educational settings.

Chapter four: Discussion and Conclusions

In the fourth chapter, we dive into a thorough discussion of our findings, taking the time to analyse and interpret them in depth. This section is dedicated to exploring the details of what we discovered, connecting our results with the theories we discussed earlier and addressing the questions we set out to answer. Through this discussion, we identify patterns and potential implications of our thesis. We then move on to draw firm conclusions, summarizing the key insights we gained from the entire research process. While acknowledging the strengths of our thesis, we also honestly recognize its limitations, giving a clear picture of the challenges we faced. By doing so, we set clear boundaries for our research. Next, we explore the broader impact of our findings, considering how they contribute to the existing knowledge in the field. The chapter wraps up with practical recommendations for future research and applications in educational settings. This comprehensive discussion, conclusion, limitation, implication, and recommendation chapter serves as a crucial summary of our research journey, capturing both its successes and areas for further exploration.

4.1 Discussion

In our thesis, one-sample Kolmogorov-Smirnov test, Paired Sample T-test, an independent sample t-test, One-way ANOVA, Post-hoc Tuckey Test, Post-hoc Scheffe Test were used to respond to the thesis questions. The results indicated that FWQ was helpful in improving English language competence and reducing students' anxiety compared to traditional, in-person language instruction.

In order to address the first research question regarding the impact of the FWQ model on student writing, a statistical test (paired sample t-test) was used. This test calculated the difference between the average scores of assessments taken before and after the FWQ model implementation by students in the experimental group. The scores in the pre-test were averaged at 14.35 (with a standard deviation of 5.979), whereas in the post-test, they averaged at 23.94 (with a standard deviation of 4.886). The difference between the students' scores before and after the application of the FWQ model was evident (with a degree of freedom of 33; t-value of 26.203; and p-value of less than 0.000).

The noticeable enhancements in student writing skills, as demonstrated by the substantial increase in post-test scores following the implementation of the FWQ model, align seamlessly with and extend the insights gleaned from Awada et al.'s (2020) study which explored the impact of WQs on writing skills. In reinforcing the potential efficacy of innovative pedagogical methods to enhance language proficiency, these findings underscore the adaptability and generalizability of structured cooperative learning approaches. The accordance in outcomes not only reaffirms the FWQ model's effectiveness but also contributes to a deeper understanding of how such interventions can transcend contextual differences. By building upon Awada et al.'s foundational research, this thesis provides a nuanced perspective on the mechanisms through which innovative instructional methods, such as the FWQ model, contribute to significant improvements in language proficiency, emphasizing their valuable role in diverse linguistic educational settings.

In Ebadi & Rahimi's (2018) study, the investigation centered around the impact of a WebQuest (WQs)-based classroom on EFL learners' critical thinking and academic writing skills. In contrast, my thesis employed the FWQ model, incorporating both FL and WQs elements. Both studies yielded positive outcomes, showcasing enhancements in students' academic writing and critical thinking abilities. While Ebadi & Rahimi focused solely on the benefits of a WQs-based approach, the current thesis research delved into the combined effects of FL and WQs within the FWQ model. Despite this difference, the parallel improvement trends underscore the effectiveness of technologically enhanced instructional methods in fostering writing proficiency among EFL learners. This suggests a broader consensus regarding the positive impact of technology-integrated approaches on language skill development.

In line with this, Ahmed's (2016) study and the current thesis lies in the shared recognition of the positive impact of WQs on language skills development. Ahmed's investigation focused on EFL critical reading and writing skills among first-year experimental secondary school students in Egypt. The study, involving a sample of 60 students, revealed a statistically significant difference between the mean scores of pre- and post-tests for both critical reading and writing skills in favour of the post-tests. This notable improvement is attributed to the utilization of a WQs program. Similarly, in the current thesis, which employed the FWQ model integrating FL and WQs, a positive influence on writing skills was observed. The accordance between these studies underscores the

efficacy of WQs as a pedagogical tool for enhancing language skills, whether in the context of critical reading and writing abilities in Ahmed's study or in the broader development of writing proficiency in my thesis. The consistent findings across studies emphasize the valuable role of technology-mediated instructional methods, specifically WQs, in fostering language learning outcomes.

The current thesis and Soltanpour and Valizadeh's (2018) study both contribute to the investigation of innovative language teaching approaches, although they differ in their specific focus and context. While the current thesis centres on the impact of the FWQ model on improving writing skills among EFL learners, Soltanpour and Valizadeh investigate the impact of flipped instruction on the quality of argumentative essays among Iranian EFL learners. Both studies employ quasi-experimental design. The findings in Soltanpour and Valizadeh's study reveal that the flipped instruction group outperformed the traditional classroom group in the overall quality of essays, emphasizing the positive impact of flipped instruction on writing skills. Similarly, the current thesis underscores the positive outcomes of the FWQ model in improving writing proficiency in an EFL context. The alignment lies in the acknowledgment of the benefits associated with innovative teaching approaches, whether in the form of the FWQ model or flipped instruction, emphasizing their potential to enhance writing skills through active learner engagement, diverse techniques, and effective teacher-learner interaction during in-class activities.

To address the second research question about whether students in the FWQ group learn significantly better than those in the control group, we used independent sampled t-test. This test helped compare the two groups. The results showed a notable difference in the post-test scores at a significant level ($p = 0.05$). The experimental group (with an average of 23.94 and a standard deviation of 4.886) performed better than the control group (with an average of 18.06 and a standard deviation of 6.936). This means that students in the FWQ group demonstrated better performance compared to those in the control group.

In comparison with Salem’s (2022) study, which investigated the impact of learning in a sheltered Internet environment using “WQs,” my thesis results, employing the FWQ model (FL and WQs), reveal similar positive trends in enhancing academic writing skills. Salem focused on English for Academic Purposes (EAP) non-native English speakers, while my research encompassed EFL learners. Both studies adopted a multi-faceted approach, assessing the effects on academic writing skills, soft skills, and writing anxiety

levels. Salem utilized three learning styles—sheltered online instruction, unsheltered online instruction, and sheltered offline instruction—whereas my study centered on the integration of FL and WQs. Notably, both studies showcased notable improvements in writing skills and soft skills, underscoring the efficacy of sheltered Internet environments. The alignment in outcomes strengthens the case for the implementation of technologically enriched strategies, such as the FWQ model and WQs, in language learning to foster a more engaging and motivating learning experience.

Accordingly, Al-Khataybeh & Al-Awasa's (2016) study and the current thesis lies in the shared recognition of the advantages of WQs in improving writing skills. Al-Khataybeh & Al-Awasa's findings reveal statistically significant differences in favor of experimental groups exposed to WQs training, underscoring the positive impact of this instructional method. Similarly, in my thesis, the integration of WQs within the FWQ model is associated with improvements in writing skills among EFL learners. Both studies highlight the interactive and engaging nature of WebQuests as a key factor contributing to enhanced writing abilities. The structured and technology-mediated approach of WQs provides students with opportunities for meaningful exploration and research, fostering critical thinking and creativity in the writing process. Al-Khataybeh & Al-Awasa's emphasis on the need to train teachers aligns with the practical implications discussed in my research, emphasizing the importance of educators being adept in utilizing WQs to maximize their effectiveness. In essence, the accordance between these studies emphasizes the pedagogical value of WQs in cultivating writing skills, supporting the notion that integrating such technology-enhanced methods can be instrumental in creating a more interactive and effective learning environment for students.

To answer the third research question on whether the FWQ model helps decrease learners' L2 writing anxiety, we employed an independent sampled t-test and analysed the two-tailed test value using SPSS. This analysis indicated a noteworthy difference in the post-test scores at a significant level of 0.05. The results showed that students in the experimental FWQ group reported experiencing less anxiety (with an average score of 50.53 and a standard deviation of 7.700) compared to those in the control group receiving traditional instruction (with an average score of 68.23 and a standard deviation of 6.015).

The findings from the thesis align with those of Salem (2022), who investigated the impact of utilizing WebQuests (WQs) to enhance academic writing skills and reduce writing anxiety among language learners. Salem's study, encompassing 54 students across

three distinct learning groups, revealed that WQs proved to be an effective tool for improving both writing proficiency and soft skills, while concurrently mitigating writing anxiety. This parallels my own thesis's emphasis on innovative pedagogical methods, specifically the FWQ model, and its positive influence on student writing skills. Salem's exploration of different learning groups, including those engaged in sheltered and unsheltered learning, resonates with the contextual variations considered in my thesis. The collective evidence from both studies contributes to a growing body of research advocating for the effectiveness of technologically integrated approaches, such as WQs and the FWQ model, in fostering language proficiency and alleviating associated anxieties among language learners. The interactive nature of WQs encourages collaborative learning, enabling students to share insights and perspectives, which contributes to a richer writing process. Additionally, the integration of multimedia elements in WQs helps stimulate creativity and facilitates a multi-sensory approach to language acquisition, promoting a more holistic development of writing abilities. The accordance in results strengthens the broader applicability of these pedagogical interventions in diverse educational contexts.

The current thesis and Ginting's (2018) study share a common focus on investigating the impact of innovative teaching approaches on language skills, although they differ in their specific contexts. While the current thesis explores the effects of the FWQ model on improving writing skills among EFL learners, Ginting investigates the impact of the Flipped Learning (FL) approach on higher education students' achievements in academic writing skills. Both studies employ experimental research designs, utilizing quantitative data analysis for result interpretation.

Ginting's findings demonstrate a significant positive effect of the FL approach on college students' academic writing skills. The study emphasizes the potential benefits of incorporating the FL model in EFL classrooms, particularly for teaching writing. Similarly, the current thesis underscores the positive outcomes of the FWQ model in improving writing proficiency in an EFL context because of the significant role of FL enhancing writing skills by providing students with pre-recorded instructional content that covers essential writing concepts, allowing them to review at their own pace. This approach ensures that students enter class with a foundational understanding of writing principles, maximizing in-class time for interactive discussions, peer collaboration, and targeted writing exercises. The incorporation of multimedia resources, such as video

tutorials or model essays, engages students visually and aurally, reinforcing writing techniques and styles. Additionally, the FL model promotes active participation during in-class sessions, as students apply their pre-acquired knowledge to practical writing tasks, receiving immediate feedback and guidance from instructors and peers. The alignment between these studies lies in the acknowledgment of the potential benefits associated with innovative teaching approaches, whether in the form of the FWQ model or FL. Both studies highlight the positive impact on specific language skills, emphasizing the importance of considering innovative models to enhance different aspects of the language learning experience, from writing proficiency to academic writing skills in higher education settings.

To address the fourth research question about the impact of FWQ and TWQ on students' listening skills, we used an independent sample one-way ANOVA. The average scores for the first and second experimental groups were 19.22 and 17.47, respectively, while the control group's average score was 16.22. The ANOVA results showed a significant difference (F 4.113, P .019). This suggests that both experimental groups performed better than the control group. The Tukey test further confirmed significant differences among the post-test scores of the three groups, favouring the experimental groups.

Al-Sayed et al.'s (2018) study and the current thesis lies in the shared focus on the efficacy of instructional models for language development. Al-Sayed et al. explored the effectiveness of the WebQuest (WQs) model in enhancing English language planning strategy for second-year pupils, specifically at a distinguished governmental language preparatory school. Similarly, the current thesis investigated the impact of the FWQ model, combining FL and WQs, on improving writing skills among EFL learners. Both studies employed experimental and control groups, utilizing quantitative and qualitative data analyses.

Al-Sayed et al.'s findings revealed a significant improvement in pupils' English language planning strategy in favour of the experimental group taught through the WQs model. This resonates with the current thesis, where the integration of the FWQ model resulted in positive outcomes for writing skills. These online instructional models promote active exploration, fostering critical thinking and research abilities crucial for language development. The structured nature of WQs encourages collaborative learning, enabling students to delve into diverse sources and perspectives. Furthermore, the incorporation of multimedia elements not only enhances creativity but also offers a multi-sensory

approach, enriching language acquisition and overall proficiency. The accordance emphasizes the value of technology-mediated instructional approaches, whether through the WQs model in Al-Sayed et al.'s study or the FWQ model in my thesis, in contributing to language skill development. The consistent positive trends across studies support the broader integration of such models into language instruction programs, affirming their potential to enhance learning outcomes.

Al-Shamisi's (2016) study underscored the efficacy of WebQuests (WQs) in enhancing language skills in different contexts. In the current thesis, the focus is on the FWQ model's impact on improving listening skills among EFL learners. Conversely, Al-Shamisi investigated the effect of WQs on Grade 11 reading comprehension and perceptions of WQs as a study tool among female Emirati students in the UAE. Both studies employ quasi-experimental designs, dividing participants into controlled and experimental groups.

In Al-Shamisi's study, WQs proved to be an effective strategy for improving reading comprehension, aligning with the positive trends observed in the current thesis regarding listening skills. The use of statistical analyses, such as ANCOVA, adds rigor to both studies. The congruence in findings highlights the versatile effectiveness of WQs in diverse language skill domains, reinforcing their potential as valuable tools in language education across different contexts.

Yulian's findings demonstrate a significant improvement in students' critical thinking abilities in critical reading through the implementation of the FL teaching model. The study underscores the positive impact on various aspects of critical thinking, such as accuracy, clarity, precision, depth, relevance, and logic. Similarly, the current thesis underscores the positive outcomes of the FWQ model in improving language proficiency in an EFL context. The alignment between these studies lies in the acknowledgment of the potential benefits associated with innovative teaching approaches, whether in the form of the FWQ model or FL. Both studies emphasize the positive impact on specific language skills, highlighting the importance of considering innovative models to enhance different aspects of the language learning experience.

The current thesis and Moreno and Malovrh's (2020) study both contribute to the exploration of innovative language teaching approaches, with a focus on restructuring language programs. While the current thesis delves into the impact of the FWQ model on

improving language skills among EFL learners, Moreno and Malovrh investigate the effects of a flipped and blended course design on the four language skills (reading, writing, speaking, and listening) for beginning-level Spanish learners. Both studies employ experimental research designs, utilizing pre/post-test measurements to evaluate progress in language skills. Moreno and Malovrh's findings demonstrate that the flipped and blended course design had positive effects on both receptive and productive language skills, showcasing comparable progress in receptive skills and even greater advancement in productive skills compared to the traditional instructional format. Similarly, the current thesis underscores the positive outcomes of the FWQ model in improving language proficiency in an EFL context. For reading, FL often involves pre-assigned reading materials or video lectures, encouraging students to familiarize themselves with the content prior to class discussions, and promoting deeper comprehension. In listening and speaking, FL incorporates multimedia resources such as pre-recorded conversations, enabling students to practice listening skills and engage in speaking activities during class, where instructors can provide targeted feedback and facilitate interactive language practice. Overall, FL optimizes classroom time for collaborative activities, practical exercises, and personalized guidance, resulting in a comprehensive improvement across all language skills. The alignment between these studies lies in the acknowledgment of the potential benefits associated with innovative teaching approaches, emphasizing the importance of instructional context and depth of language processing in language skill development. Both studies contribute empirical evidence supporting the successful restructuring of language programs through the incorporation of innovative approaches, whether in the form of the FWQ model or flipped and blended learning.

To address the fifth question about the impact of FWQ and TWQ on students' anxiety in English language listening, an independent sampled one-way ANOVA was conducted. The average scores for the first and second experimental groups were 71.03 and 76.09, respectively, while the control group's average score was 83.19. The ANOVA analysis indicated a significant difference (F 4.007, and P .021), suggesting that both experimental groups showed lower anxiety levels compared to the control group. The Tukey test further confirmed notable differences among the post-test scores of the three groups, favoring the experimental groups.

The current thesis, focusing on the impact of the FWQ model on improving listening skills among EFL learners, can be compared to Fitrianto et al.'s (2016) study, which

assessed the impact of Web Quest (WQ) utilization on extensive reading among fifth-semester English major students in Indonesia. While the specific language skills targeted differ, both studies share a common emphasis on the effectiveness of WQs in language education. Fitrianto et al.'s research, with an experimental group engaging in WQ-enabled extensive reading and a control group using traditional print resources, discovered no statistically significant differences between the two approaches. This aligns with the current thesis's recognition of the positive impact of the FWQ model on listening skills. The similarity lies in the acknowledgment that both WQs and traditional methods can effectively facilitate learning and serve as valuable teaching strategies.

Despite the varying language skills under scrutiny, the accordance between the studies highlights the adaptability of WQs in diverse language learning contexts. The findings suggest that WQs, whether applied to listening skills (current thesis) or extensive reading (Fitrianto et al.), contribute positively to language education, underscoring their relevance in varied language learning domains.

The current thesis and Phoeun and Sengsri's (2021) study share a common objective of investigating innovative teaching approaches' impact on language skills, specifically focusing on speaking proficiency. While the current thesis explores the effects of the FWQ model on EFL learners' language skills, Phoeun and Sengsri examine the impact of a Flipped Learning (FL) approach integrated with Communicative Language Teaching (CLT) on speaking skills in an undergraduate English class in Cambodia. Both studies utilize pre- and post-tests and data analysis to assess the effectiveness of their respective approaches. Phoeun and Sengsri's findings reveal notable improvements in students' speaking abilities, aligning with the positive outcomes observed in the current thesis regarding language proficiency. Additionally, both studies highlight positive changes in students' attitudes toward learning English, emphasizing the broader impact of innovative teaching approaches on overall learning outcomes leading to less anxiety. The alignment between these studies emphasizes the potential benefits of incorporating flipped and communicative approaches in language classrooms to enhance specific language skills and foster positive attitudes toward language learning.

To address the sixth research question concerning the improvement in grammar proficiency within the FWQ group, a paired sample t-test was carried out. This test aimed to compare the average scores of pre-tests and post-tests in the experimental group. The results displayed a noticeable difference between the students' scores in the pretest (M =

9.60, SD = 4.067) and the post-test (M = 14.94, SD = 3.741). This substantial change in scores was a direct result of applying the FWQ model. The analysis highlighted a significant shift from the students' initial test scores to their subsequent test scores (with degrees of freedom at 34; t-value of 19.888; and a p-value less than 0.000).

Zakaria and Yunus's findings reveal that the majority of primary 3 students had a positive perception of learning grammar through the FL approach, emphasizing its potential benefits over traditional methods. Similarly, the current thesis underscores the positive outcomes of the FWQ model in improving grammar proficiency in an EFL context since this model enables students to review grammar rules and explanations outside the classroom, freeing up valuable in-class time for interactive activities and targeted practice. The incorporation of multimedia resources, such as video tutorials or interactive quizzes, engages students visually and aurally, reinforcing grammar concepts through multiple modalities. Moreover, the FL model encourages active participation, as students take responsibility for their learning, fostering a deeper understanding of grammar rules and structure. The alignment between these studies lies in the acknowledgment of the potential benefits associated with innovative teaching approaches, whether in the form of the FWQ model or FL. Both studies highlight the positive impact on specific language skills, emphasizing the importance of considering innovative models to enhance different aspects of the language learning experience, from writing proficiency to grammar learning in younger classrooms.

To answer the seventh question about the effectiveness of improving grammar skills within the WQ group, we conducted a paired sample t-test. This test aimed to compare the average scores of pre-tests and post-tests in the experimental group. The results revealed a notable difference between the students' scores in the pretest (M = 8.91, SD = 4.159) and the post-test (M = 12.53, SD = 4.069). This significant change in scores was a result of implementing the FWQ model. The analysis demonstrated a substantial shift from the students' initial test scores to their subsequent test scores (with degrees of freedom at 33; t-value of 15.907; and a p-value less than 0.000).

The current thesis and Ali's (2015) research both contribute insights into the impact of WebQuests (WQs) on language skills. In the current thesis, the focus is on the influence of the FWQ model on improving writing skills among EFL learners, while Ali's study explores the impact of WQs on reading comprehension skills and cultural awareness among first-year secondary students in Egypt. Both studies share a commonality in employing a quasi-

experimental design, utilizing pre-tests and post-tests to assess the impact of WQs on language skills. Ali's study, focusing on reading comprehension and cultural awareness, discovered notable enhancements in these areas, while the current thesis emphasizes the positive impact on writing skills. Qualitative analyses in both studies, including interviews and reflective journals, affirm the effectiveness of WQs as a pedagogical approach, with students displaying a positive inclination toward learning.

The accordance across these studies highlights the adaptability of WQs in diverse language domains, demonstrating their efficacy not only in enhancing reading comprehension and cultural awareness but also in improving grammar skills, as observed in the current thesis due to the interactive nature of WQs activities allowing students to engage with grammar rules in a meaningful context, promoting practical application over rote memorization. By incorporating grammar exercises within the context of real-world tasks, learners can deepen their understanding of grammatical concepts and witness their practical relevance. The interactive online format also enables immediate feedback, allowing students to identify and rectify grammatical errors promptly, contributing to a more iterative and effective learning process. The collective evidence supports the broader integration of WQs into language education, showcasing their potential to positively influence various language skills across different educational contexts.

To address the eighth question about the differences in grammar proficiency levels among the FWQ, WQ, and TL groups, an independent sampled one-way ANOVA was conducted. The mean scores for the first and second experimental groups were 14.94 and 12.53, while the control group's mean score was 10.16. The ANOVA statistics showed a substantial difference (F 13.474, P< .000). This suggests that both experimental groups performed better than the control group. The Scheffe test results, which compared the scores of the three groups, confirmed significant differences in favor of the experimental groups. Therefore, it's evident that the FWQ group excelled compared to the WQ and TL groups based on the pre/post results in the grammar test.

The focus in the current thesis is exploring the FWQ model's impact on improving grammar skills among EFL learners, while Hadriana & Adanan's study (2020) centers on the creation of a Mobile WebQuest (M-WQs) to boost reading comprehension skills among Grade XI senior high school students in Indonesia. Both studies involve the creation of technology-enhanced resources—FWQ model and M-WQs, respectively—with a shared goal of improving language skills. Hadriana & Adanan's comprehensive

analysis, including expert evaluations and input from both English teachers and students, underscores the practicality and feasibility of M-WQs. Similarly, the current thesis emphasizes the positive outcomes of the FWQ model in improving grammar skills owing to The interactive online format also enables immediate feedback, allowing students to identify and rectify grammatical errors promptly, contributing to a more iterative and effective learning process. Additionally, the collaborative elements often present in WQs foster peer-to-peer learning, providing students with opportunities to discuss and reinforce grammar concepts collectively. The commonality lies in the recognition of technology-mediated approaches, whether through the FWQ model or M-WQs, as valuable resources in language education.

To address the ninth question regarding the reduction in grammar anxiety within the FWQ group, a paired sample t-test was conducted. This test aimed to compare the average scores of pre-tests and post-tests in the experimental group. The results showed a significant difference between the students' scores in the pretest ($M = 110.14$, $SD = 8.200$) and the post-test ($M = 78.97$, $SD = 9.316$). This notable change was a result of implementing the FWQ model. The analysis highlighted a substantial shift from the students' initial test scores to their subsequent test scores (with degrees of freedom at 34; t-value of 20.660; and a p-value less than 0.000).

The current thesis and Afzali and Izadpanah's (2021) study contribute to the exploration of innovative language teaching models, though they differ in their specific focus and methodologies. While the current thesis centers on the impact of the FWQ model on improving grammar skills among EFL learners, Afzali and Izadpanah investigate the impact of the Flipped Learning (FL) model on the engagement and motivation of intermediate and upper-intermediate English learners in learning grammar. Both studies share a quasi-experimental design, involving pre-test and post-test measurements, and employ statistical analyses for data interpretation. Afzali and Izadpanah's findings reveal that learners in the FL model outperformed those in the traditional class in terms of engagement and motivation, emphasizing the positive impact of FL on language learning. Similarly, the current thesis underscores the positive outcomes of the FWQ model in improving language proficiency in an EFL context and decreasing language anxiety. The alignment between these studies lies in the acknowledgement of the potential benefits associated with innovative teaching approaches, whether in the form of the FWQ model or FL. Both highlight the positive impact on specific language skills, emphasizing the

importance of considering innovative models to enhance different aspects of the language learning experience, from language proficiency to engagement and motivation and reducing language anxiety.

To address the tenth question about the reduction of grammar anxiety within the WQ group, a paired sample t-test was carried out. This test aimed to compare the average scores of pre-tests and post-tests in the experimental group. The results showed a significant difference between the students' scores in the pretest (M = 110.88, SD = 11.200) and the post-test (M = 91.85, SD = 8.832). This notable change occurred due to implementing the FWQ model. The analysis demonstrated a substantial shift from the students' initial test scores to their subsequent test scores (with degrees of freedom at 33; t-value of 18.124; and a p-value less than 0.000).

The current thesis and Yaroslavova et al.'s (2020) study both contribute to the exploration of effective language teaching models, focusing on improving language competence through innovative approaches. While the current thesis investigates the impact of the FWQ model on EFL learners' language skills, Yaroslavova et al. aim to develop an efficient Flipped Learning (FL) blended learning model for university students studying English as a Foreign Language (EFL). Both studies involve large samples of students and instructors, employing multiple measures, including tests, statistics and student surveys, to assess the effectiveness of their respective models. The findings from both studies highlight positive outcomes in the test groups, demonstrating better performance and increased interest in the online course. Yaroslavova et al.'s study further emphasizes benefits such as optimized classroom practice, reduced teacher preparation time, and the provision of a comfortable digital learning environment, aligning with the efficiency and advantages observed in the current thesis regarding the effective role of FWQ model in reducing language anxiety. Both studies contribute to the ongoing exploration of innovative language teaching models, emphasizing the potential benefits of incorporating technology and flipped approaches in language education.

To address the eleventh question regarding differences in grammar anxiety levels among the FWQ, WQ, and TL groups, an independent sampled one-way ANOVA was conducted. The average scores for the first and second experimental groups were 78.97 and 91.85, while the control group's mean score was 104.51. The ANOVA analysis indicated a substantial difference (F 75.092, P .000). This suggests that both experimental groups performed better than the control group. As per the Scheffe test results, which compared

the scores of the three groups, significant differences favouring the experimental groups were observed in their post-test performance. Thus, it is evident that the FWQ group notably decreased anxiety levels more than the other two groups.

Comparing Ginaya (2018) study with the current thesis, both emphasize the positive impact of instructional interventions on language skills. While the current thesis focuses on the FWQ model's influence on grammar proficiency in EFL learners, Ginaya's study demonstrates the effectiveness of integrating WQs into a modified traditional framework to enhance speaking proficiency among vocational college students. The common thread lies in the recognition of technology-mediated approaches, such as WQs and the FWQ model, as valuable tools for fostering language development and motivating learners across different language domains.

Comparing Ginaya (2018) study with the current thesis, both emphasize the positive impact of instructional interventions on language skills. While the current thesis focuses on the FWQ model's influence on grammar proficiency in EFL learners, Ginaya's study demonstrates the effectiveness of integrating WQs into a modified traditional framework to enhance speaking proficiency among vocational college students. The common thread lies in the recognition of technology-mediated approaches, such as WQs and the FWQ model, as valuable tools for fostering language development and motivating learners across different language domains.

To address the twelfth question about students' opinions regarding the FWQ model, mean values and standard deviations were employed. The findings indicated a favourable attitude toward the use of the FWQ model in teaching the English language.

The current thesis concentrates on the FWQ model's impact on improving language skills among EFL learners, while Hassanien's study explores the effects of WQs on achievement, motivation, and attitudes among higher education students. In Hassanien's study, students expressed positive attitudes toward WQs, emphasizing their relevance, usefulness, and the avoidance of common challenges like wasting time and encountering inappropriate materials. The positive shift in students' enthusiasm and appreciation for the wealth of knowledge on the Internet aligns with the emphasis in the current thesis on the engaging and interactive nature of the FWQ model.

The common link between the studies lies in the acknowledgment that the nature of WQs, characterized by structured, technology-mediated, and interactive learning experiences,

contributes positively to students' attitudes and engagement. Both studies emphasize the importance of creating a conducive learning environment, fostering enthusiasm, and avoiding common obstacles, thereby underscoring the broader role of WQs in influencing students' perceptions and attitudes toward language learning.

The current thesis and Romero-García et al.'s (2019) study share a common emphasis on innovative educational models, although they differ in focus and context. The current thesis centres on the FWQ model's impact on improving language skills among EFL learners, while Romero-García et al.'s study explores the implementation of the Flipped Learning (FL) model in a master's degree program in Teacher Training offered online. There is accordance in the recognition of innovative educational models, such as the FWQ and FL models, as catalysts for positive outcomes in education. Romero-García et al.'s study indicates that the FL model enhances student satisfaction, improves academic performance, and fosters positive attitudes. Similarly, the current thesis underscores the positive impact of the FWQ model on language skills in the context of English as a Foreign Language and the positive attitudes of students towards it. The accordance between these studies highlights the potential benefits of adopting innovative educational models to enhance various aspects of the learning experience, from writing proficiency to overall satisfaction and performance.

The current thesis and the study by Sengul and Bensen (2021) both contribute to the exploration of innovative language teaching models, though they differ in their specific focus and methodologies. While the current thesis centers on the impact of the FWQ model on improving language skills among EFL learners, Sengul and Bensen investigate EFL students' attitudes towards in-class and out-of-class writing models within a Flipped Learning (FL) setting. Both studies share quantitative research design and employ questionnaires for data collection. The findings in Sengul and Bensen's study reveal positive attitudes among EFL students towards both in-class and out-of-class writing models in the FL, with a notable preference for the latter. Similarly, the current thesis underscores the positive impact of the FWQ model on language skills. The alignment lies in the acknowledgment of the significance of student preferences in designing effective language courses, suggesting that incorporating innovative models, whether in the form of the FWQ model or FL, should consider and prioritize the preferences of EFL learners to enhance the overall language learning experience.

The current thesis and Singay's (2020) study both contribute to the exploration of innovative language teaching approaches, although they differ in their specific focus and context. While the current thesis centers on the impact of the FWQ model on improving language skills among EFL learners, Singay investigates the attitudes and perceptions of Bhutanese students towards the implementation of the Flipped Learning (FL) approach. The findings in Singay's study indicate positive attitudes and perceptions among students towards the FL approach, emphasizing its effectiveness in facilitating grammar knowledge acquisition and promoting a conducive learning atmosphere. Similarly, the current thesis underscores the positive impact of the FWQ model on language skills in an EFL context. The alignment lies in the acknowledgment of the benefits associated with innovative teaching approaches, whether in the form of the FWQ model or FL, emphasizing their potential to create positive learning environments, integrate technology effectively, enhance teacher-student interactions, and foster collaboration among students.

In summary, our study utilized various statistical tests such as the one-sample Kolmogorov-Smirnov test, Paired Sample T-test, independent sample t-test, One-way ANOVA, and Post-hoc Tukey and Scheffe Tests to address the study's inquiries. The findings consistently demonstrated the effectiveness of the FWQ method in enhancing English language skills and alleviating students' anxiety, enhancing positive attitudes in comparison to traditional, face-to-face language instruction.

4.2 Conclusion

The culmination of three independent research studies on the Flipped Classroom with WQs (FWQ) model in language teaching has yielded valuable insights into its efficacy in enhancing language skills reducing anxiety among students and creating positive attitudes towards the use of technological tools in language learning. The studies conducted, each employing statistical analyses to assess the impact of FWQ on various language proficiency areas, consistently showed promising results, suggesting that this model can significantly contribute to language learning. This comprehensive review will delve into the individual findings of each study and synthesize their conclusions to provide a holistic view of the FWQ model's effectiveness, its advantages, limitations, and the potential implications for language instructors and educational curriculum design.

The Flipped Classroom with WQs (FWQ) model has emerged as a compelling tool in the realm of online learning, especially during the challenging times of the COVID-19 era.

The model's structure, which integrates the concepts of a Flipped Classroom and WQs strategies, has offered a transformative approach to education. As traditional face-to-face learning became limited due to safety concerns and lockdowns during the pandemic, online learning became the primary mode of education. In this landscape, the FWQ model provided a valuable framework for students and educators to adapt to remote learning environments.

Through rigorous data collection and analysis, this thesis has successfully achieved the aims outlined in Objective 1, focusing on the analysis of the (FWQ) model's impact on students' writing in English as a Foreign Language (EFL). The combination of FL and WQs elements actively engage students, creating an interactive and dynamic learning environment. Importantly, the thesis has clarified a positive connection between the FWQ model and improvements in various writing aspects, including organization, coherence, and language proficiency. The integration of FL and WQs components create an interactive and dynamic learning environment, fostering active student engagement with writing tasks. The model's emphasis on student-centered exploration contributes to refining subskills such as discerning main ideas, recognizing details, and understanding nuanced language elements, thereby influencing a comprehensive development of writing proficiency. These findings emphasize the meaningful contribution of the FWQ model to the overall development of EFL students' writing abilities, shedding light on the intricate relationship between teaching methods and language skill enhancement. This underscores the potential of the FWQ model as a valuable tool for educators aiming to foster comprehensive improvements in their students' language competencies.

The thesis successfully addressed Objective 2: Analysing the impact of (FWQ) model on students' writing anxiety. Through a meticulous exploration, the thesis has provided valuable insights into the psychological dimensions of the FWQ model in relation to students' anxiety levels during the writing process. The findings indicate a notable reduction in writing anxiety among students exposed to the FWQ model, showcasing its efficacy as a pedagogical tool for alleviating apprehensions associated with writing tasks in (EFL) contexts. The integration of FL and WQs components not only fostered an environment conducive to skill development but also contributed to a positive shift in students' attitudes toward writing. By shedding light on this significant aspect, the thesis contributes to the broader discourse on effective teaching methodologies that not only

enhance academic skills but also address the emotional aspects of language learning, ultimately paving the way for more confident and proficient EFL writers.

Also, thesis has successfully achieved the aims outlined in Objective 3, focusing on the analysis of the (FWQ) model's impact on students' listening comprehension in English as a Foreign Language (EFL). Through a comprehensive investigation, the study delved into the intricate dynamics of the FWQ model, shedding light on its effectiveness in enhancing students' listening skills. The integration of FL and WQs components proved instrumental in creating an immersive and interactive learning environment that facilitated improved comprehension. Through this model, students actively participate in pre-listening activities, gaining context and vocabulary that positively impact their listening comprehension. The FWQ model's emphasis on student-centered exploration not only improves overall listening skills but also refines subskills such as discerning main ideas, recognizing details, and understanding nuanced language elements, collectively contributing to a comprehensive enhancement of students' listening abilities. The findings underscore a positive correlation between the utilization of the FWQ model and advancements in students' ability to comprehend spoken English, emphasizing the model's potential as a valuable pedagogical tool for EFL educators. By addressing Objective 3, this thesis not only contributes to the understanding of innovative teaching methodologies but also provides practical insights for educators seeking effective strategies to enhance students' listening comprehension skills in the realm of English language education.

In addition, this thesis has systematically addressed the established objectives, with a primary focus on Objective 4, which aimed to analyze the impact of the (FWQ) model on students' listening anxiety in English as a Foreign Language (EFL) settings. Through a methodical investigation, the thesis has uncovered valuable insights into the psychological dimensions of the FWQ model concerning students' anxiety levels during listening activities. The findings suggest a significant reduction in listening anxiety among students exposed to the FWQ model, highlighting its effectiveness in creating a supportive and engaging learning environment. The integration of FL and WQs components has played a pivotal role in alleviating anxiety, providing students with the tools and confidence to navigate listening tasks. By successfully addressing Objective 4, this thesis not only contributes to the understanding of innovative teaching methodologies

but also offers practical implications for educators seeking strategies to create more comfortable and effective learning experiences in EFL listening contexts.

Moreover, this thesis has successfully navigated through the outlined objectives, notably focusing on Objective 5, which aimed at analyzing the impact of the (FWQ) model on students' grammar proficiency. Through meticulous research and analysis, the thesis has provided valuable insights into the effectiveness of the FWQ model in influencing students' grasp of grammar concepts in English as a Foreign Language (EFL) learning environments. The integration of FL and WQs components has proven instrumental in creating an engaging platform for grammar instruction, fostering active student participation and understanding. The findings reveal a positive correlation between the FWQ model and improvements in students' grammar proficiency, emphasizing the model's potential as an effective pedagogical tool for enhancing language skills. By successfully addressing Objective 5, this thesis contributes not only to the broader discourse on language education but also offers practical implications for educators seeking innovative approaches to foster grammar proficiency in EFL context.

Likewise, this thesis has systematically addressed the outlined objectives, particularly focusing on Objective 6, which sought to analyze the impact of the (FWQ) model on students' grammar anxiety. Through thorough research and examination, the thesis has provided valuable insights into the psychological dimensions of grammar learning within the context of the FWQ model. The findings illuminate a notable reduction in grammar anxiety among students exposed to the FWQ model, emphasizing its role in creating a supportive and less intimidating environment for grammar instruction in English as a Foreign Language (EFL) settings. The integration of FL and WQs components has proven effective in easing anxiety, fostering a positive attitude toward grammar learning. By successfully addressing Objective 6, this thesis contributes to our understanding of innovative teaching methodologies that not only enhance grammar proficiency but also alleviate students' apprehensions, offering practical implications for educators seeking strategies to create more comfortable and effective learning experiences in EFL grammar instruction.

Furthermore, this thesis has meticulously addressed Objective 7, which aimed at analysing the impact of the Flipped and WebQuest (FWQ) model on students' attitudes. Through a comprehensive investigation, the thesis has unveiled valuable insights into the transformative influence of the FWQ model on shaping positive attitudes among students.

The integration of FL and WQs components has played a pivotal role in creating an engaging and interactive learning environment, fostering a more favourable disposition towards learning English as a Foreign Language (EFL). The findings underscore a noticeable improvement in students' attitudes, indicating that the FWQ model not only enhances academic outcomes but also contributes to a more positive and enjoyable learning experience. By successfully addressing Objective 7, this thesis contributes to the broader understanding of pedagogical approaches that go beyond skill development, emphasizing the importance of cultivating positive attitudes to foster a conducive and effective EFL learning environment. These results can be attributed to the benefits of combining two approaches: the Flipped Classroom (FL) and WQs. The FWQ model provided students with extra time outside of regular class hours to complete their work. This additional time allowed students to create their work more accurately, leading to an improvement in their language abilities. Moreover, the well-structured design of the FWQ model significantly influenced the learning process. Students were clear on what tasks they needed to accomplish at each stage and how to navigate through the provided resources, which guided them effectively during the vast information available on the internet. The diverse array of information sources, including web pages and videos, along with their suitability, made it easier for students to master the lessons. Hence, the FWQ model proves to be an effective method for enhancing English as a Foreign Language (EFL) skills.

Equally important, the use of FWQ model played a fundamental role in providing students with continuous access to learning resources during the COVID-19 pandemic. Students could engage with course materials, videos, and web resources at their convenience, promoting a self-paced learning approach. The model's design allowed for greater flexibility, permitting students to review materials repeatedly and access resources as needed, essential when faced with the challenges of remote learning during the pandemic. Moreover, the structured nature of the FWQ model ensured that students received clear instructions and step-by-step guidance on how to navigate online resources, a critical factor when faced with the vastness of online information.

Additionally, the interactive and collaborative elements within the FWQ model supported students in staying engaged and connected with their peers and instructors, a significant need during a time when physical interactions were restricted. Students could communicate, collaborate, and prepare for class activities, fostering a sense of community

even in a remote learning environment. This increased interaction, both before and during class, helped to alleviate the potential feelings of isolation that often accompany online learning, particularly during a time when students were distanced from traditional classroom settings due to the pandemic.

Moreover, the study's findings support the idea that utilizing web-based learning is more effective compared to traditional teaching methods. The analyses show a significant improvement in students' English skills and a reduction in their anxiety when using the FWQ approach. These positive outcomes can be attributed to the use of online learning tools, the efficient utilization of BL, and the structured format of WQs. The FWQ model allowed students continuous access to class resources, enabling them to watch videos multiple times and enhance their listening abilities using authentic materials. The organized structure of FWQ facilitated a streamlined learning process by providing clear instructions and defined stages for students. This model also encouraged pre-class interactions among students to prepare for tasks to be presented during class, fostering an interactive and activity-filled learning environment that improved listening and speaking skills. Additionally, post-class assignments provided students with extra practice time to develop their English language skills.

Furthermore, the current thesis findings present an opportunity for educators and curriculum designers to harness and advance the utilization of technological tools within educational settings. These insights serve as a guiding light for the implementation of a variety of teaching methods, expanding pedagogical approaches aimed at nurturing and elevating the development of English language skills. This thesis's outcomes furnish a foundational framework for educators and curriculum designers to revolutionize their instructional methods by integrating technology with a rich array of strategies, thereby contributing significantly to the enhancement of English language proficiency among students.

In conclusion, the pandemic highlighted the necessity for adaptable and effective remote learning tools, and the FWQ model provided a reliable structure that catered to these needs. Its combination of Flipped Classroom elements, which offer pre-class resources, and WQs strategies, which guide students through online resources, proved particularly advantageous in the COVID-19 era. As education continued in a primarily online format, the FWQ model served as a bridge, offering a structured, interactive, and resourceful

platform that helped students and educators navigate the challenges posed by the pandemic and facilitated an effective online learning experience.

4.2.1 Conclusión

La culminación de tres estudios de investigación independientes sobre el modelo Flipped Classroom con WebQuests (FWQ) en la enseñanza de lenguas ha arrojado valiosos conocimientos sobre su eficacia para mejorar las habilidades lingüísticas, reducir la ansiedad entre los estudiantes y crear actitudes positivas hacia el uso de herramientas tecnológicas en el aprendizaje de idiomas. Los estudios realizados, cada uno empleando análisis estadísticos para evaluar el impacto del FWQ en diversas áreas de competencia lingüística, mostraron consistentemente resultados prometedores, lo que sugiere que este modelo puede contribuir significativamente al aprendizaje de lenguas. Esta revisión integral profundizará en los hallazgos individuales de cada estudio y sintetizará sus conclusiones para proporcionar una visión holística de la eficacia del modelo FWQ, sus ventajas, limitaciones y las posibles implicaciones para los instructores de lenguas y el diseño del currículo educativo.

El modelo FWQ ha surgido como una herramienta convincente en el ámbito del aprendizaje en línea, especialmente durante los tiempos difíciles de la era COVID-19. La estructura del modelo, que integra los conceptos de un Flipped Classroom (aula invertida) y las estrategias de WebQuests (WQs), ha ofrecido un enfoque transformador de la educación. A medida que el aprendizaje presencial tradicional se vio limitado debido a las preocupaciones de seguridad y los cierres durante la pandemia, el aprendizaje en línea se convirtió en el modo principal de educación. En este panorama, el modelo FWQ proporcionó un marco valioso para que estudiantes y educadores se adaptaran a entornos de aprendizaje remoto.

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Mediante una rigurosa recolección y análisis de datos, esta tesis ha logrado exitosamente los objetivos descritos en el Objetivo 1, centrado en el análisis del impacto del modelo FWQ en la escritura de los estudiantes en inglés como lengua extranjera. La combinación de elementos de FC y WQs involucra activamente a los estudiantes, creando un entorno de aprendizaje interactivo y dinámico. Es importante destacar que la tesis ha aclarado una conexión positiva entre el modelo FWQ y las mejoras en diversos aspectos de la escritura, incluida la organización, la coherencia y la competencia lingüística. La integración de componentes de FC y WQs crea un entorno de aprendizaje interactivo y dinámico, fomentando la participación activa de los estudiantes en las tareas de escritura. El énfasis del modelo en la exploración centrada en el estudiante contribuye a refinar habilidades como discernir ideas principales, reconocer detalles y comprender elementos lingüísticos matizados, lo que influye en un desarrollo integral de la competencia de escritura. Estos hallazgos enfatizan la contribución significativa del modelo FWQ al desarrollo general de las habilidades de escritura de los estudiantes de inglés como lengua extranjera, arrojando luz sobre la intrincada relación entre los métodos de enseñanza y la mejora de las habilidades lingüísticas. Esto subraya el potencial del modelo FWQ como una herramienta valiosa para los educadores que desean fomentar mejoras integrales en las competencias lingüísticas de sus estudiantes.

El Objetivo 2 de la tesis también ha sido abordado con éxito: Analizar el impacto del modelo FWQ en la ansiedad por escribir de los estudiantes. A través de una exploración meticulosa, la tesis ha proporcionado valiosos conocimientos sobre las dimensiones psicológicas del modelo FWQ en relación con los niveles de ansiedad de los estudiantes durante el proceso de escritura. Los hallazgos indican una notable reducción en la ansiedad por escribir entre los estudiantes expuestos al modelo FWQ, lo que demuestra su eficacia como herramienta pedagógica para aliviar las aprensiones asociadas con las tareas de escritura en contextos de inglés como lengua extranjera. La integración de componentes de FC y WQs no solo fomentó un entorno propicio para el desarrollo de habilidades, sino que también contribuyó a un cambio positivo en las actitudes de los estudiantes hacia la escritura. Al arrojar luz sobre este aspecto significativo, la tesis contribuye al discurso más amplio sobre metodologías de enseñanza efectivas que no solo mejoran las habilidades académicas sino que también abordan los aspectos emocionales del aprendizaje de idiomas, facilitando el desarrollo de la competencia escrita en inglés.

La tesis también ha logrado con éxito el Objetivo 3, centrado en el análisis del impacto del modelo FWQ en la comprensión auditiva de los estudiantes en inglés como lengua extranjera. A través de una investigación exhaustiva, el estudio se adentró en la dinámica intrincada del modelo FWQ, arrojando luz sobre su eficacia para mejorar las habilidades auditivas de los estudiantes. La integración de componentes de FC y WQs resultó fundamental para crear un entorno de aprendizaje inmersivo e interactivo que facilitó una mejor comprensión. Mediante este modelo, los estudiantes participan activamente en actividades previas a la escucha, adquiriendo contexto y vocabulario que impactan positivamente su comprensión auditiva. El énfasis del modelo FWQ en la exploración centrada en el estudiante no solo mejora las habilidades auditivas en general, sino que también refina habilidades como discernir ideas principales, reconocer detalles y comprender elementos lingüísticos matizados, lo que contribuye en conjunto a una mejora integral de las habilidades auditivas de los estudiantes. Los hallazgos subrayan una correlación positiva entre la utilización del modelo FWQ y los avances en la capacidad de los estudiantes para comprender el inglés hablado, lo que enfatiza el potencial del modelo como una herramienta pedagógica valiosa para los docentes de EFL. Al abordar el Objetivo 3, esta tesis no solo contribuye a la comprensión de metodologías de enseñanza innovadoras, sino que también brinda conocimientos prácticos para los educadores que buscan estrategias efectivas para mejorar las habilidades de comprensión auditiva de los estudiantes en el ámbito de la enseñanza del inglés.

Adicionalmente, esta tesis ha abordado de manera sistemática los objetivos establecidos, con un enfoque principal en el Objetivo 4, el cual tuvo como propósito analizar el impacto del modelo FWQ en la ansiedad por la comprensión oral de los estudiantes en contextos de inglés como lengua extranjera. Mediante una investigación metódica, la tesis ha desvelado valiosos conocimientos sobre las dimensiones psicológicas del modelo FWQ en relación con los niveles de ansiedad de los estudiantes durante las actividades de escucha. Los hallazgos sugieren una reducción significativa en la ansiedad auditiva entre los estudiantes expuestos al modelo FWQ, lo que resalta su eficacia para crear un entorno de aprendizaje solidario y atractivo. La integración de componentes de FC y WQs ha desempeñado un papel fundamental en el alivio de la ansiedad, brindando a los estudiantes las herramientas y la confianza para navegar por las tareas de escucha. Al abordar con éxito el Objetivo 4, esta tesis no solo contribuye a la comprensión de

metodologías de enseñanza innovadoras, sino que también ofrece implicaciones prácticas para los educadores que buscan estrategias para crear experiencias de aprendizaje más cómodas y efectivas en contextos de comprensión auditiva en inglés como lengua extranjera.

Asimismo, esta tesis ha navegado exitosamente a través de los objetivos establecidos, centrándose particularmente en el Objetivo 5, cuyo propósito fue analizar el impacto del modelo FWQ en la competencia gramatical de los estudiantes. Mediante una investigación y análisis meticulosos, la tesis ha proporcionado valiosos conocimientos sobre la eficacia del modelo FWQ para influir en la comprensión de los estudiantes sobre los conceptos gramaticales en entornos de aprendizaje de inglés como lengua extranjera. La integración de componentes de FC y WQs ha demostrado ser instrumental en la creación de una plataforma atractiva para la instrucción gramatical, fomentando la participación activa y la comprensión por parte de los estudiantes. Los hallazgos revelan una correlación positiva entre el modelo FWQ y las mejoras en la competencia gramatical de los estudiantes, lo que subraya el potencial del modelo como una herramienta pedagógica eficaz para mejorar las habilidades lingüísticas. Al abordar con éxito el Objetivo 5, esta tesis contribuye no solo al discurso más amplio sobre la educación lingüística, sino que también ofrece implicaciones prácticas para los educadores que buscan enfoques innovadores para fomentar la competencia gramatical.

Del mismo modo, esta tesis ha abordado el Objetivo 6, que buscaba analizar el impacto del modelo FWQ en la ansiedad por la gramática de los estudiantes. A través de una investigación y análisis exhaustivos, la tesis ha brindado valiosos conocimientos sobre las dimensiones psicológicas del aprendizaje de la gramática dentro del contexto del modelo FWQ. Los hallazgos iluminan una notable reducción en la ansiedad por la gramática entre los estudiantes expuestos al modelo FWQ, lo que subraya su papel en la creación de un entorno de aprendizaje solidario y menos intimidante para la instrucción gramatical. La integración de componentes de FC y WQs ha demostrado ser eficaz para aliviar la ansiedad, fomentando una actitud positiva hacia el aprendizaje de la gramática. Al abordar con éxito el Objetivo 6, esta tesis contribuye a nuestra comprensión de metodologías de enseñanza innovadoras que no solo mejoran la competencia gramatical sino que también alivian las aprensiones de los estudiantes, ofreciendo implicaciones prácticas para los educadores que buscan estrategias para crear experiencias de aprendizaje más cómodas y efectivas en la instrucción gramatical de EFL.

El Objetivo 7 tenía como propósito analizar el impacto del modelo FWQ)en las actitudes de los estudiantes. A través de una investigación exhaustiva, la tesis ha revelado valiosos conocimientos sobre la influencia transformadora del modelo FWQ en la formación de actitudes positivas entre los estudiantes. La integración de componentes de FC y WQs ha desempeñado un papel fundamental en la creación de un entorno de aprendizaje atractivo e interactivo, fomentando una disposición más favorable hacia el aprendizaje del inglés como lengua extranjera. Los hallazgos subrayan una mejora notable en las actitudes de los estudiantes, lo que indica que el modelo FWQ no solo mejora los resultados académicos sino que también contribuye a una experiencia de aprendizaje más positiva y placentera. Al abordar con éxito el Objetivo 7, esta tesis contribuye a una comprensión más amplia de los enfoques pedagógicos que van más allá del desarrollo de habilidades, enfatizando la importancia de cultivar actitudes positivas para fomentar un entorno de aprendizaje de inglés propicio y eficaz. Estos resultados se pueden atribuir a los beneficios de combinar dos enfoques: el FC y los WQs. El modelo FWQ brindó a los estudiantes tiempo adicional fuera del horario regular de clases para completar su trabajo. Este tiempo adicional permitió a los estudiantes realizar sus tareas con mayor precisión, lo que condujo a una mejora en sus habilidades lingüísticas. Además, el diseño bien estructurado del modelo FWQ influyó significativamente en el proceso de aprendizaje. Los estudiantes tenían claro qué tareas debían realizar en cada etapa y cómo navegar a través de los recursos proporcionados, lo que los guió de manera efectiva en la vasta información disponible en internet. La diversa gama de fuentes de información, incluidas páginas web y videos, junto con su idoneidad, facilitó a los estudiantes el dominio de las lecciones. Por lo tanto, el modelo FWQ demuestra ser un método eficaz para mejorar las habilidades del inglés como lengua extranjera.

Igualmente importante, el uso del modelo FWQ desempeñó un papel fundamental al brindar a los estudiantes acceso continuo a los recursos de aprendizaje durante la pandemia de COVID-19. Los estudiantes podían interactuar con materiales del curso, videos y recursos web a su conveniencia, promoviendo un enfoque de aprendizaje autodirigido. El diseño del modelo permitió una mayor flexibilidad, permitiendo a los estudiantes revisar materiales repetidamente y acceder a los recursos según fuera necesario, lo cual es esencial cuando se enfrentan a los desafíos del aprendizaje remoto durante la pandemia. Además, la naturaleza estructurada del modelo FWQ garantizó que

los estudiantes recibieran instrucciones claras y una guía paso a paso sobre cómo navegar por los recursos en línea, un factor crítico cuando se enfrentan a la inmensidad de la información disponible en internet.

Además, los elementos interactivos y colaborativos dentro del modelo FWQ apoyaron a los estudiantes a mantenerse comprometidos y conectados con sus compañeros e instructores, una necesidad significativa en un momento en el que las interacciones físicas estaban restringidas. Los estudiantes podían comunicarse, colaborar y prepararse para las actividades de clase, fomentando un sentido de comunidad incluso en un entorno de aprendizaje remoto. Esta mayor interacción, tanto antes como durante la clase, ayudó a aliviar los posibles sentimientos de aislamiento que a menudo acompañan al aprendizaje en línea, particularmente durante una época en la que los estudiantes estaban alejados de los entornos educativos tradicionales debido a la pandemia.

Los hallazgos del estudio, además, respaldan la idea de que el aprendizaje basado en la web es más efectivo en comparación con los métodos de enseñanza tradicionales. Los análisis muestran una mejora significativa en las habilidades de inglés de los estudiantes y una reducción de su ansiedad al utilizar el enfoque FWQ. Estos resultados positivos se pueden atribuir al uso de herramientas de aprendizaje en línea, la utilización eficiente del aprendizaje invertido y el formato estructurado de las WQs. El modelo FWQ permitió a los estudiantes el acceso continuo a los recursos de clase, permitiéndoles ver videos varias veces y mejorar sus habilidades auditivas utilizando materiales auténticos. La estructura organizada del FWQ facilitó un proceso de aprendizaje optimizado al proporcionar instrucciones claras y etapas definidas para los estudiantes. Este modelo también fomentó las interacciones previas a la clase entre los estudiantes para preparar las tareas que se presentarían durante la misma, fomentando un entorno de aprendizaje interactivo y lleno de actividades que mejoró las habilidades de comprensión auditiva y expresión oral. Además, las tareas posteriores a la clase brindaron a los estudiantes tiempo de práctica adicional para desarrollar sus habilidades en el idioma inglés.

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En conclusión, la pandemia puso de relieve la necesidad de herramientas de aprendizaje remoto adaptables y efectivas. El modelo FWQ brindó una estructura confiable que atendió a estas necesidades. Su combinación de elementos del FC, que ofrece recursos previos a la clase, y las estrategias de WQs, que guían a los estudiantes a través de recursos en línea, demostró ser particularmente ventajosa en la era del COVID-19. A medida que la educación continuaba en un formato principalmente en línea, el modelo FWQ sirvió como puente, ofreciendo una plataforma estructurada, interactiva y con recursos que ayudó a estudiantes y educadores a navegar los desafíos planteados por la pandemia y facilitó una experiencia de aprendizaje en línea eficaz.

4.3 Limitations

Despite the effectiveness of FL and WQs strategies in improving students´ English proficiency, there are some limitations such as students' lack of technological skills; therefore, students were provided with some training sessions to enhance their technological skills and make the process of learning easier. Also, a printed and digital copy of the instructional resources was given to students before class time to overcome any technical problems faced by students during their work such as bad internet connection. The digital repository of resources, including videos and internet pages, was downloaded and stored on USB drives for students' convenience, particularly in scenarios where internet connectivity may be unreliable or unavailable. These resources were carefully selected and curated to supplement the learning experience, providing access to valuable materials even in the absence of a stable internet connection. By utilizing USB drives, students could easily access the resources offline, ensuring uninterrupted access to educational content regardless of external factors such as internet outages or poor

connectivity. This approach aimed to enhance the accessibility and flexibility of learning materials, empowering students to engage with course content at their own pace and convenience, thereby mitigating potential disruptions caused by internet-related issues. In addition to, students´ unfamiliarity with using FWQ and TWQ; therefore, some sessions were given to students to prepare them and give them the required information on the use of the two strategies before implementing the experiment.

To sum up, while the effectiveness of FL and WQs in enhancing students' English proficiency is evident, addressing limitations such as students' technological skill gaps, technical issues, and unfamiliarity with FWQ and TWQ through training and resource provision has been crucial. Moving forward, future stages should expand research to explore the impact of FWQ on speaking and reading skills while mitigating anxiety in various aspects of foreign language learning.

4.4 Implications

The use of FWQ model presents a promising avenue for enhancing student engagement in English language learning within the academic context. Through the provision of interactive and self-paced learning experiences, the FWQ model departs from conventional pedagogical approaches. Its implementation empowers students to actively participate in their learning process, creating a personalized and dynamic educational environment. This heightened interactivity not only improves comprehension and retention but also cultivates intrinsic motivation. The ability for students to shape their learning trajectory at an individualized pace aligns with their aptitudes and preferences, fostering increased interest and enthusiasm for mastering the nuances of the English language. Consequestly, incorporating the FWQ model into language learning brings numerous benefits to both students and educators:

> The incorporation of the FWQ model facilitates personalized learning experiences, representing a pivotal advancement in English language education. Within this model, students gain the ability to access educational materials at their own pace, affording them the flexibility to revisit concepts as required. This approach promotes a more profound understanding of the difficulties of the English language, as learners have the liberty to navigate through the content in a manner that aligns with their individual learning preferences and needs. The adaptability of the FWQ model empowers students to engage with the material in

a manner conducive to their unique cognitive processes, fostering not only a more comprehensive grasp of linguistic concepts but also promoting a self-directed and enriching educational journey

The implementation of the FWQ model holds the promise of elevating language proficiency through heightened exposure to language materials and interactive tasks. This approach has the potential to advance vocabulary acquisition and comprehension among learners. By engaging with a diverse array of language materials within the FWQ model, students benefit from an enriched linguistic environment that fosters a deeper understanding of various language nuances. Furthermore, the interactive tasks embedded in the model encourage active participation, creating opportunities for practical application of acquired language skills. This combination of increased exposure and interactive engagement is anticipated to catalyse a more rapid and comprehensive development of vocabulary and comprehension skills. In essence, the application of the FWQ model emerges as a potentially impactful strategy for advancing language proficiency, constituting a valuable avenue for educators and learners alike in the pursuit of enhanced language acquisition.

Participating in online resources within the FWQ model component has the potential to cultivate crucial digital literacy skills, a paramount feature in our contemporary interconnected world. As students navigate digital platforms embedded in the FWQ model, they are exposed to diverse online resources, enhancing their ability to navigate, evaluate, and synthesize information effectively. This engagement goes beyond traditional literacy, encompassing the digital realm where proficiency is increasingly vital. In developing these digital literacy skills, students not only enhance their capacity to access and utilize information but also acquire critical skills for discernment and responsible online citizenship. Thus, the FWQ model not only serves as a tool for language learning but also as a conduit for the cultivation of essential competencies, preparing students to navigate the complexities of the digital landscape they will encounter in both academic and real-world contexts.

The implementation of the FWQ model has the potential to catalyse a shift in the teaching landscape, prompting educators to embrace innovative methods that

enhance instructional strategies and adapt to the evolving educational milieu. As educators integrate the FWQ model into their pedagogical practices, they are prompted to explore new approaches, leveraging the interactive and self-paced learning features inherent in the model. This engagement can stimulate a revision of traditional teaching methods, encouraging instructors to explore and incorporate technology-driven and student-cantered techniques. The FWQ model serves as a catalyst for pedagogical innovation, encouraging educators to be adaptive and responsive to the changing dynamics of education. Consequently, this adoption of innovative teaching methods not only aligns with the contemporary educational paradigm but also holds the potential to enhance the overall quality and effectiveness of instruction in response to the diverse learning needs of students.

The FWQ model holds the potential to cater to a wide range of learning styles and abilities, allowing for personalized instruction and fostering a more inclusive learning environment for those acquiring the English language. With its interactive and self-paced elements, the FWQ model provides a flexible framework that can adapt to individual learning preferences and proficiency levels. This adaptability enables educators to customize their teaching methods to address the specific needs of a diverse group of students, accommodating various learning styles and abilities in the context of English language learning. Consequently, the FWQ model becomes a valuable tool for promoting inclusivity, recognizing and appreciating the unique qualities of each learner. In this way, it contributes to a more equitable educational experience, ensuring that students with different linguistic backgrounds and abilities can engage with the English language in ways that suit their individual strengths and requirements.

The combination of FL and WQs in education has the potential to promote critical thinking skills in the context of language learning. By engaging with online resources, students are encouraged to analyse information, collaborate with peers, and tackle language-related problems or tasks. In the FL approach, students independently explore instructional content before class, allowing for more in-depth collaboration during interactive activities. WQs contribute by structuring tasks that require the synthesis of information and problem-solving. This

combined method not only enhances language acquisition but also develops essential cognitive abilities. Navigating the digital landscape equips students with the skills to assess, synthesize, and strategically apply information. Therefore, the integration of FL and WQs serves as a powerful strategy for fostering critical thinking skills in language education, providing students with valuable cognitive tools applicable across various academic and real-world scenarios.

To conclude, the findings of the thesis bear significant implications, as they suggest that the FWQ model is promising in alleviating English as foreign language. Moreover, providing students with suitable strategies can make valuable contributions to their educational experiences. Hence, the integration of FL and WQs strategies which combine student-centred learning with technology-enhanced practices has the potential to pave the way for a new avenue of research in the field of foreign language learning.

4.5 Recommendations

Based on the positive outcomes of the FWQ (Flipped Based WebQuest) model in improving English language competence and reducing anxiety, several recommendations emerge for educators, institutions, and policymakers.

Firstly, it is recommended that educators undergo training and professional development programs to familiarize themselves with the implementation of the FWQ model. This includes gaining proficiency in creating engaging and effective online resources, structuring FL activities and designing meaningful WQs. Providing educators with the necessary skills and knowledge will empower them to successfully integrate the FWQ model into their language teaching practices. In addition, educational institutions should consider allocating resources and support for the development and implementation of the FWQ model. This may involve investing in technology infrastructure, learning management systems, and other digital tools that facilitate the creation and delivery of online content. Institutions can also establish collaborative platforms for educators to share best practices and collaboratively develop FWQ-based materials, fostering a community of practice centered around effective language teaching methodologies.

Policymakers are encouraged to incorporate the FWQ model into language education policies and guidelines. Recognizing the model's potential impact on personalized learning, anxiety reduction, and technology integration, policymakers can advocate for the adoption of FWQ-based approaches in national or regional language education frameworks. This endorsement can provide a systematic and standardized approach to the implementation of the FWQ model across diverse educational contexts.

Moreover, it is recommended that future research endeavours explore the long-term effects of the FWQ model on language proficiency and retention. A longitudinal study could provide insights into the sustained benefits of incorporating the FWQ model over an extended period. This research could inform educators and policymakers about the durability of the positive outcomes observed in the initial experiment, guiding decisions on the continued integration of the FWQ model into language curricula.

Furthermore, educators are encouraged to regularly assess and adapt FWQ materials to align with evolving educational technologies and pedagogical trends. Continuous improvement and refinement of FWQ-based content ensure that it remains relevant, engaging, and effective in meeting the evolving needs of language learners. This adaptive approach involves collecting feedback from students, staying abreast of technological advancements, and integrating new insights from language education research.

Lastly, the development of a supportive and collaborative learning community is recommended. Educators, students, and administrators can benefit from a shared space where they can exchange experiences, resources, and insights related to the implementation of the FWQ model. This community-building effort fosters a culture of continuous improvement, where stakeholders collaboratively contribute to the refinement and enhancement of FWQ-based language education practices.

In conclusion, these recommendations centre around professional development, resource allocation, policy advocacy, longitudinal research, continuous adaptation, and community building. By taking these recommendations into consideration, stakeholders can optimize the implementation of the FWQ model, maximizing its potential to improve English language competence and reduce anxiety among language learners.

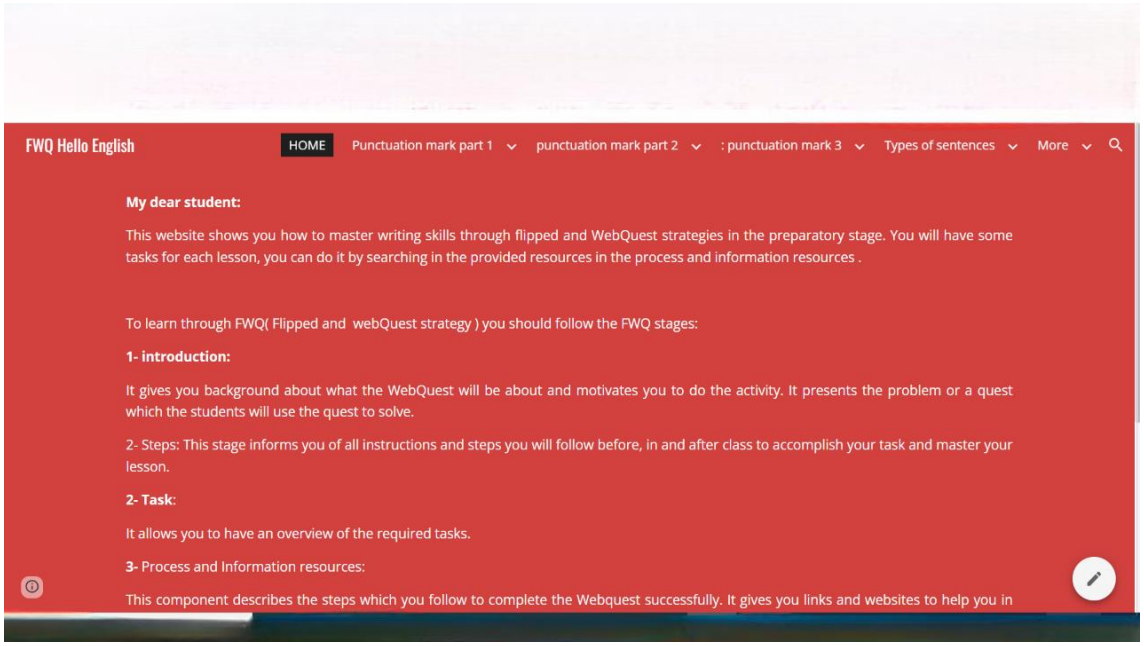
In summary, we thoroughly discuss our findings, engaging in a detailed analysis and interpretation. We delve into the specifics of our discoveries, linking our results with previously discussed theories and addressing our initial research questions. This dialogue

reveals patterns and potential implications emerging from our thesis. Subsequently, we draw firm conclusions, summarizing key insights garnered throughout the entire research process. Acknowledging the strengths and limitations of our thesis, we transparently outline the challenges faced, establishing clear boundaries for our research. We then explore the broader impact of our findings, contemplating their contribution to existing knowledge in the field. The chapter concludes by providing practical recommendations for future research and applications in educational settings. Serving as a comprehensive summary, this chapter encapsulates the essence of our research journey, highlighting both its successes and avenues for further exploration.

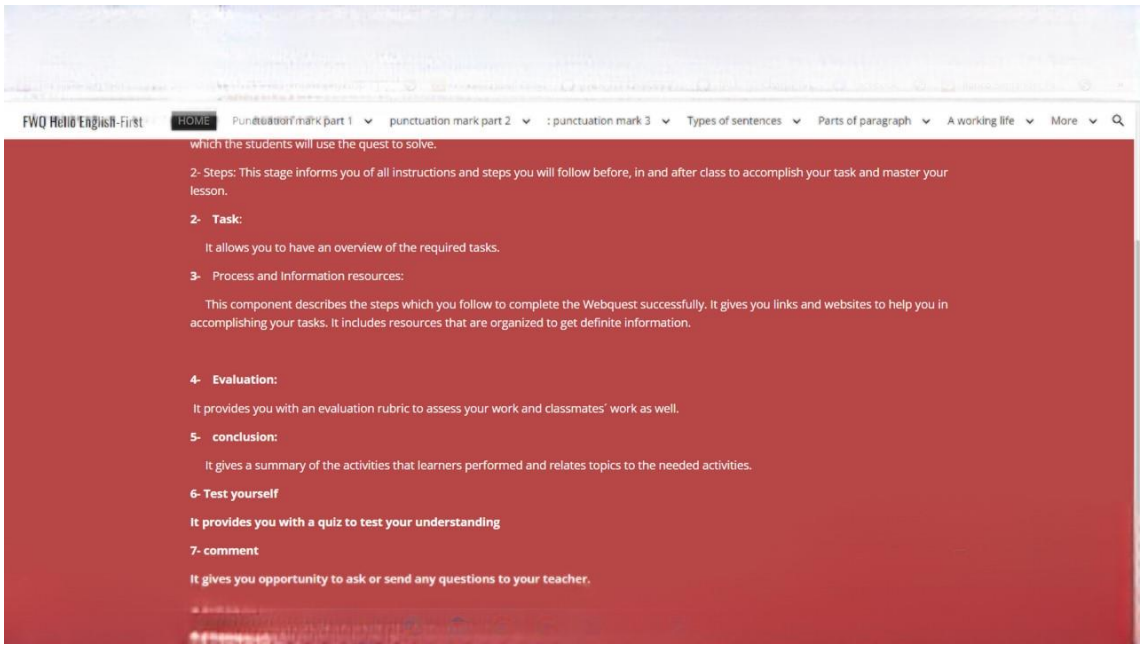
Websites screenshots

Screenshots of FWQ site (writing)

Screenshot 1



Screenshot 2



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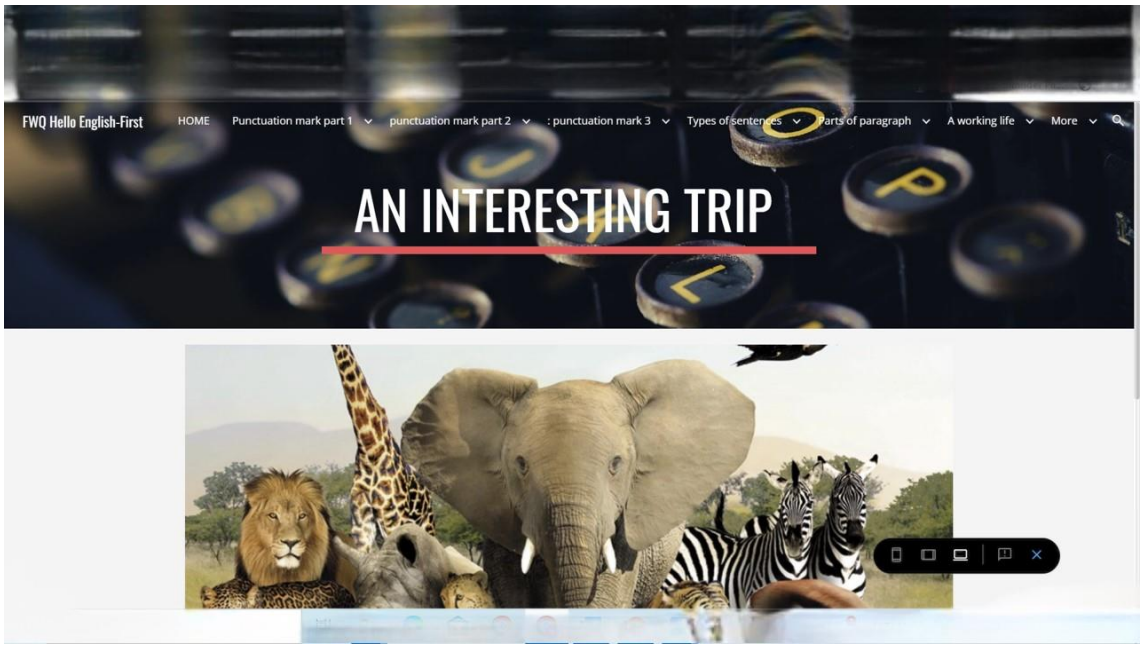

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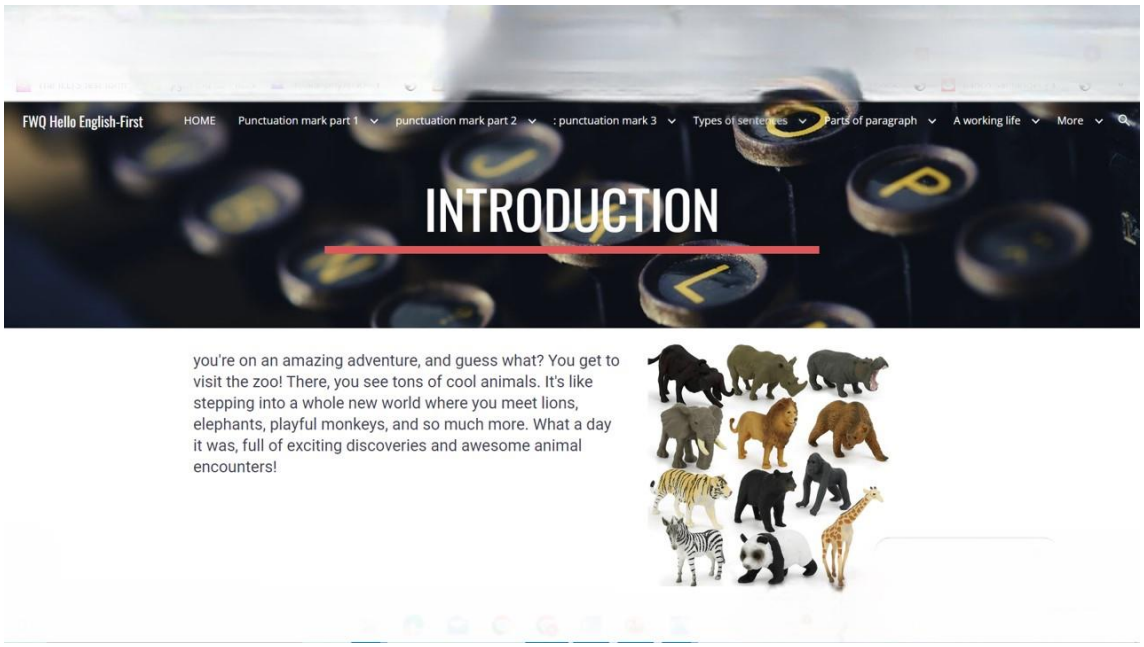
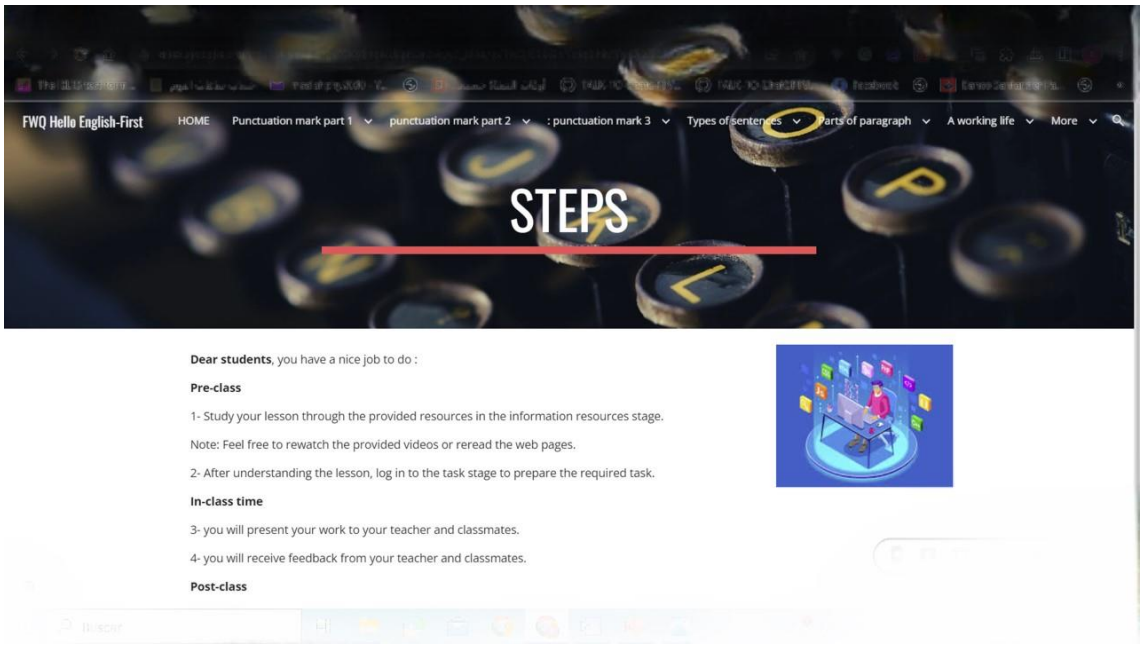


Screenshot 5



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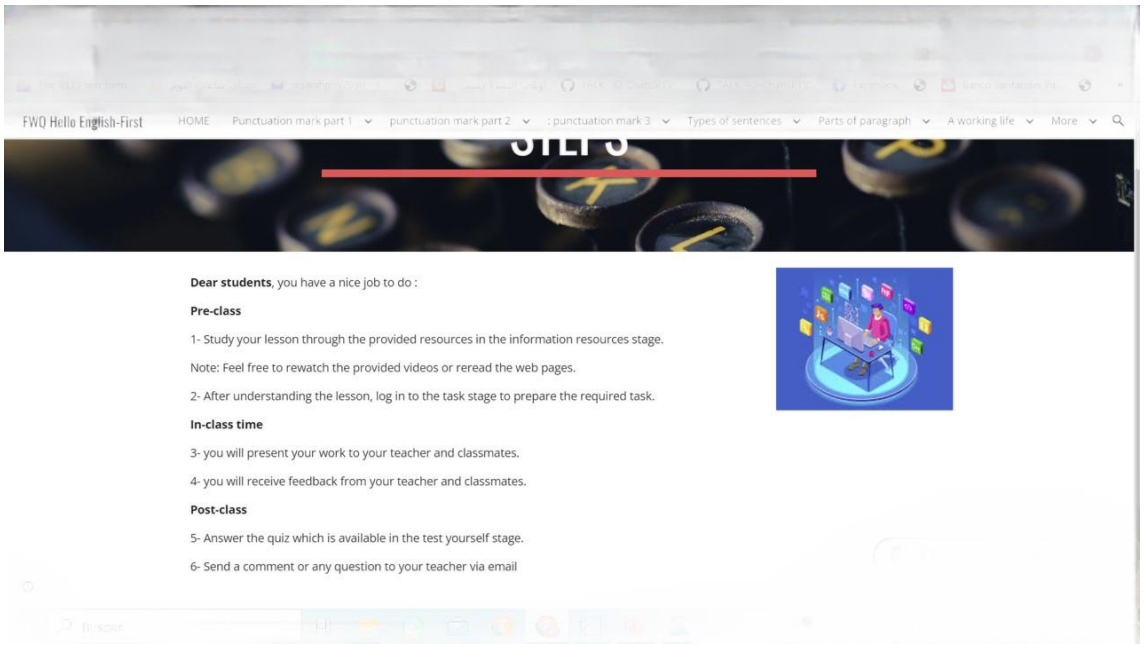
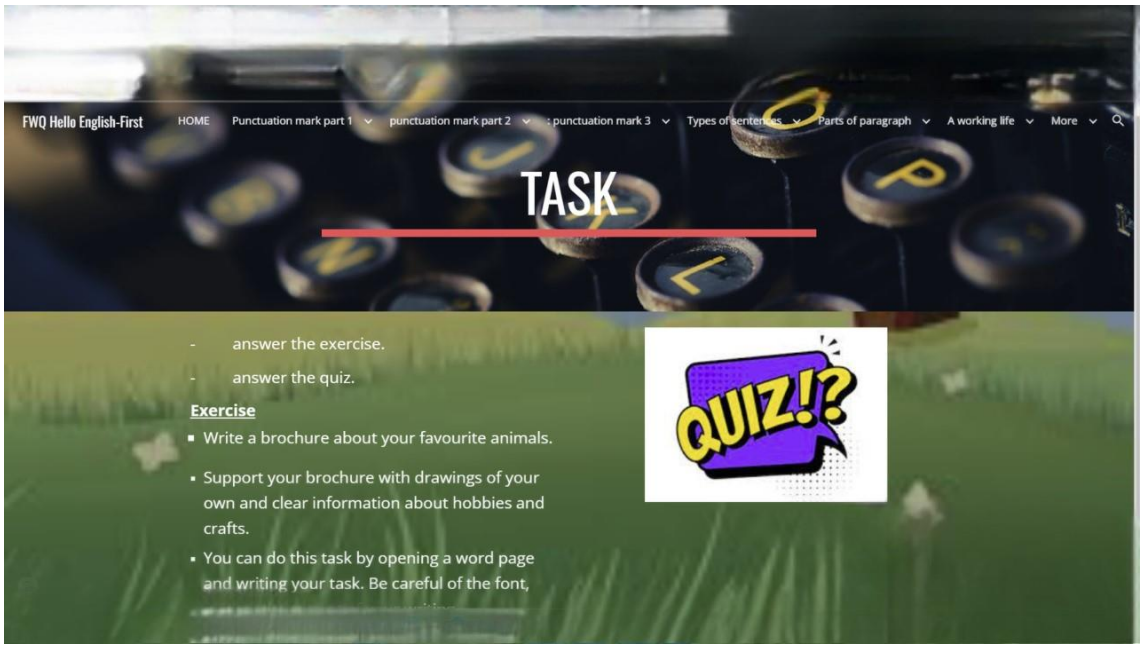
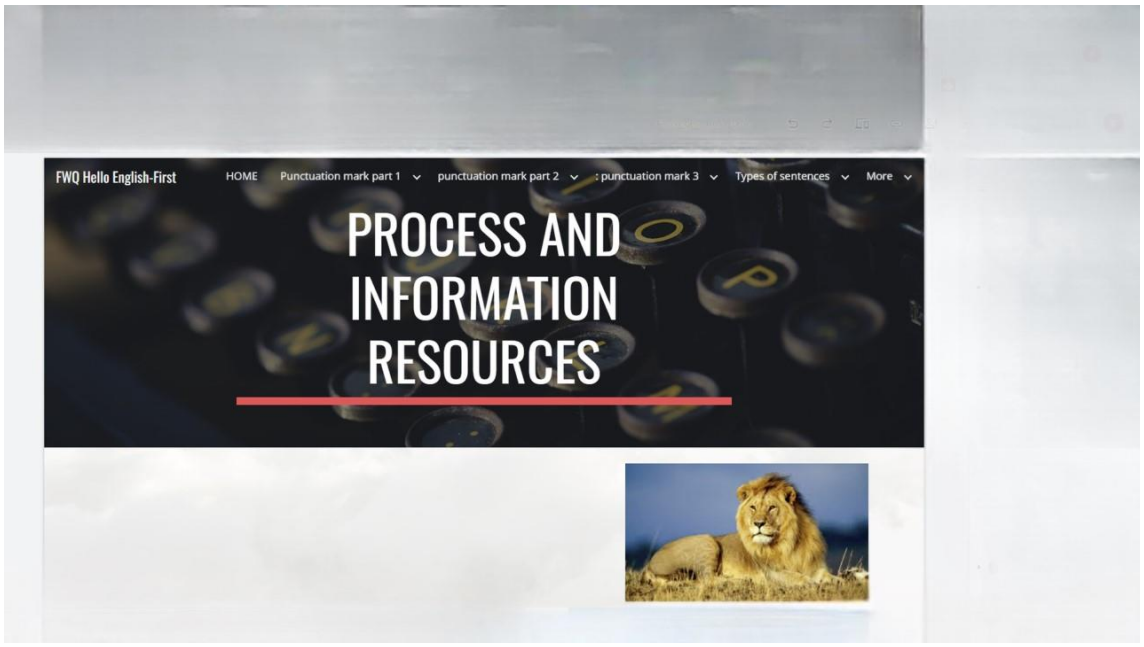


Screenshot 7



Screenshot 8



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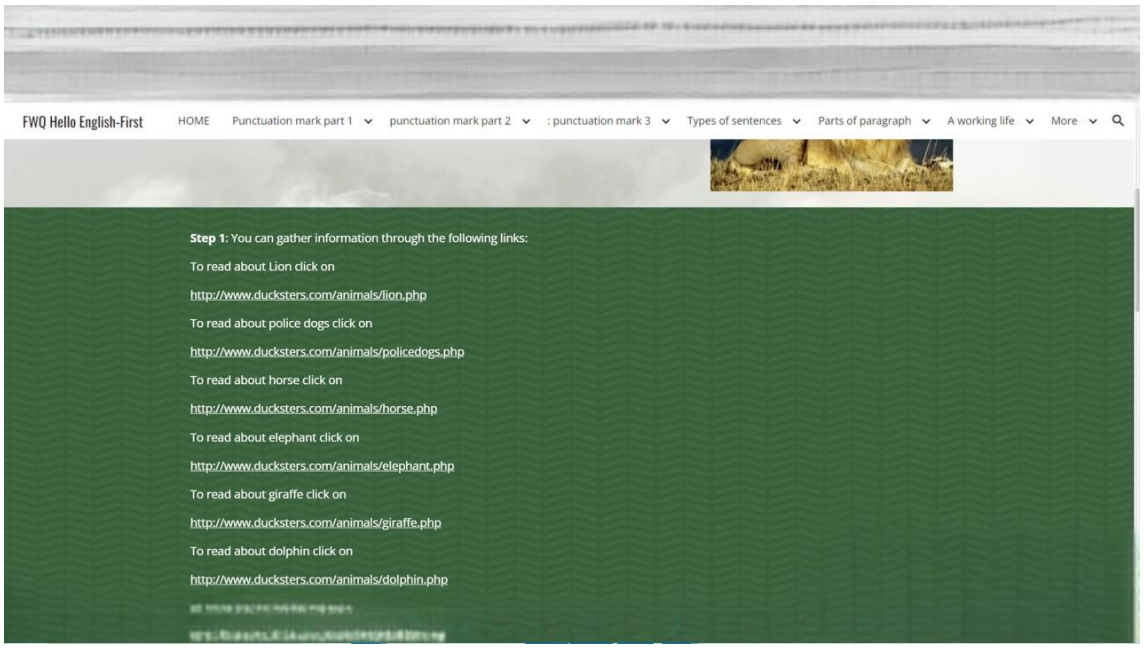

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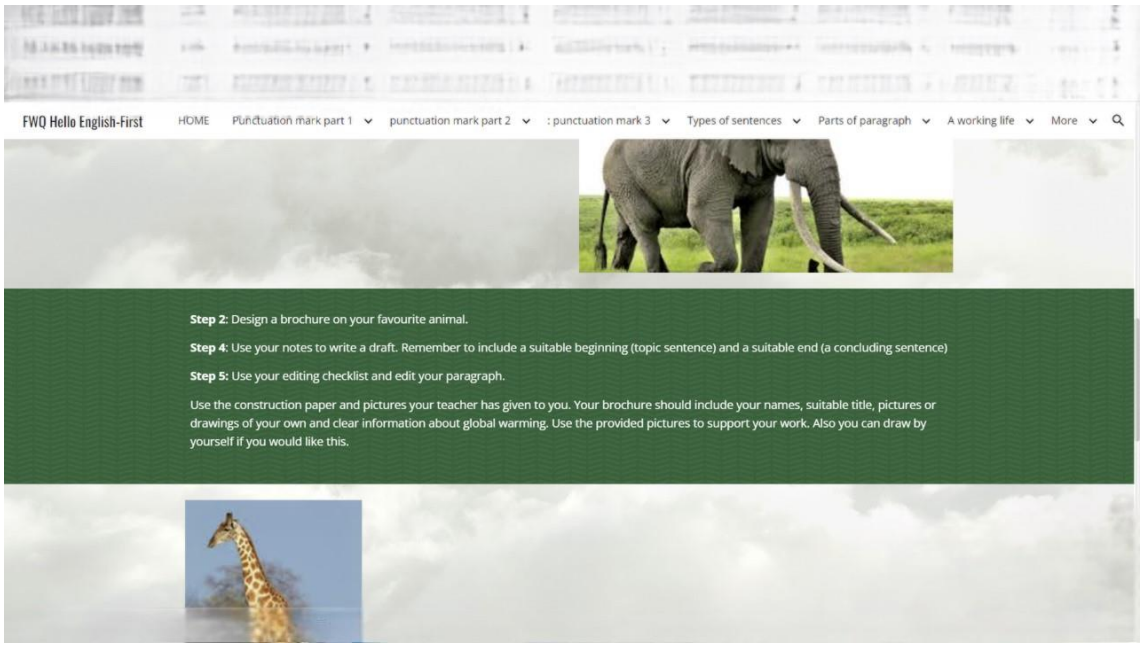
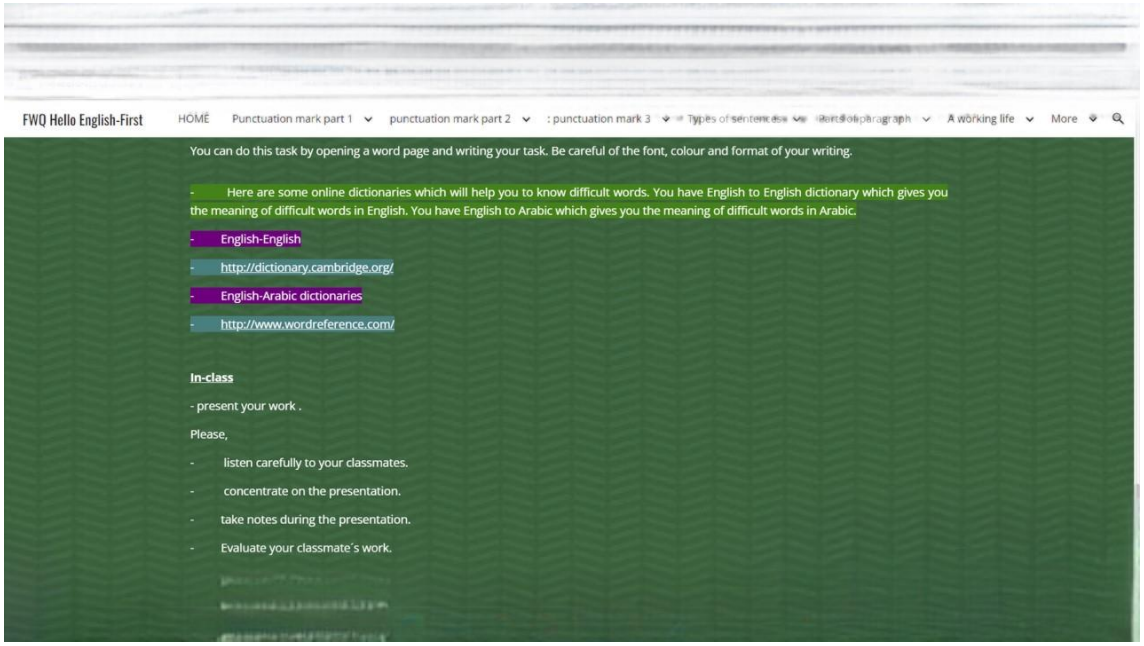
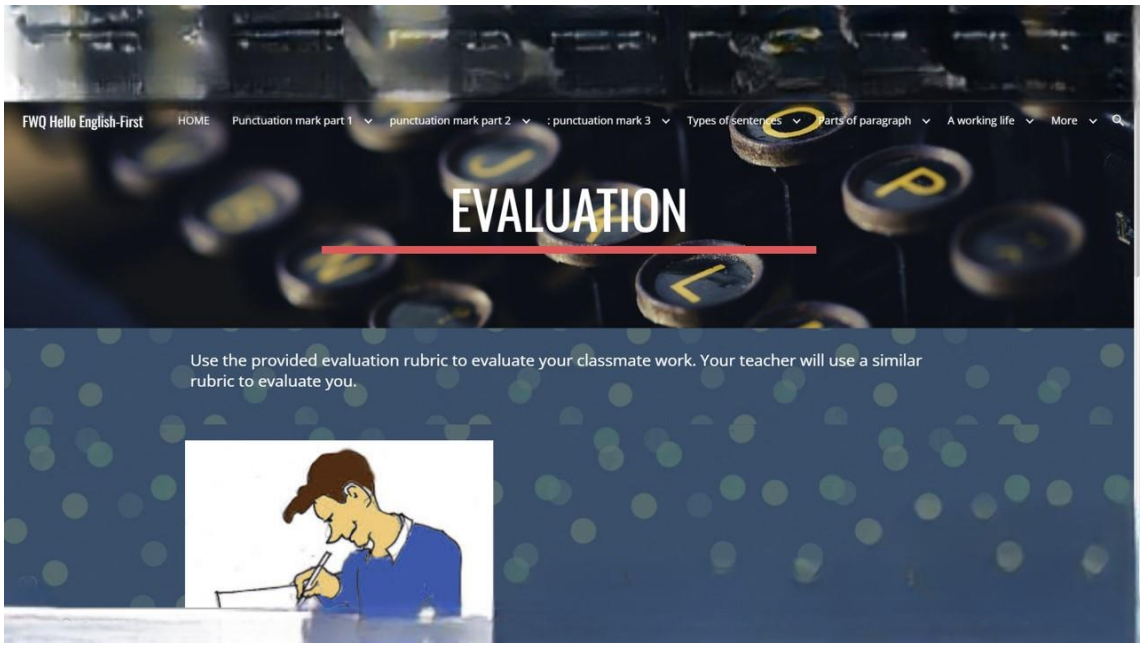


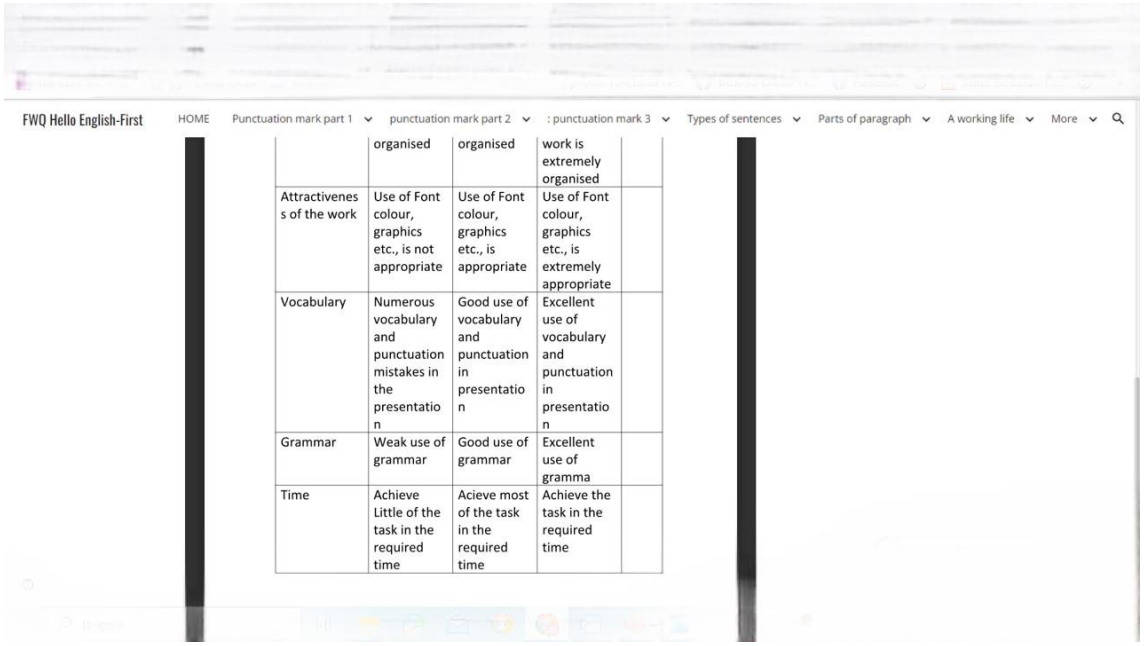
Screenshot 11



Screenshot 12

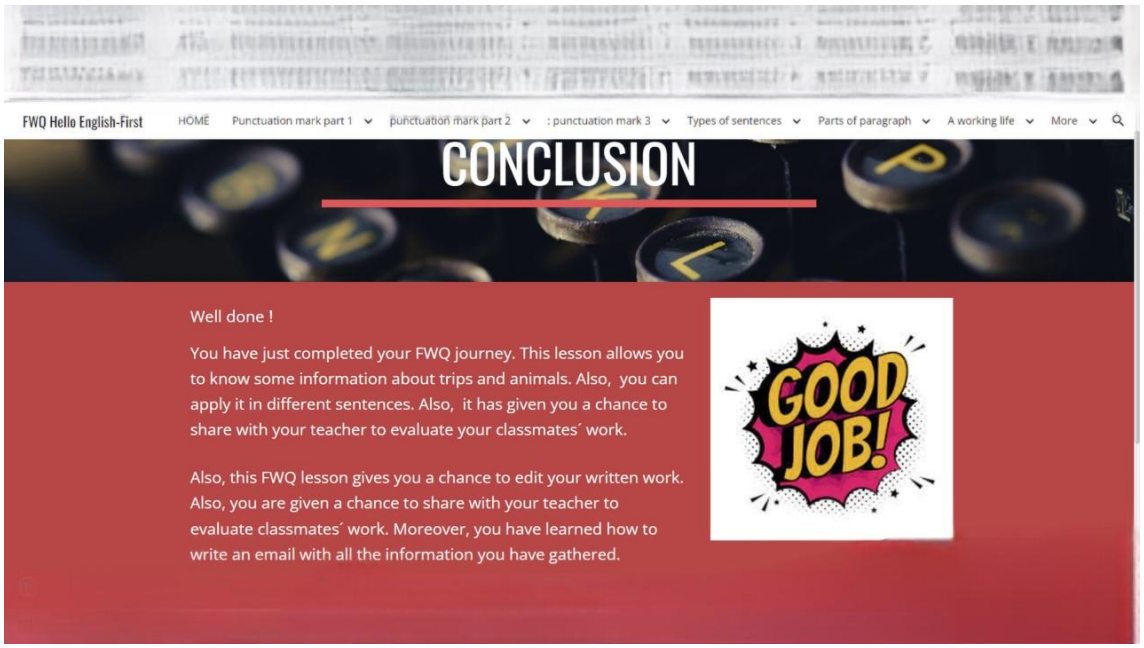


Screenshot 13



	organised	organised	work is extremely organised	
Attractiveness of the work	Use of Font colour, graphics etc., is not appropriate	Use of Font colour, graphics etc., is appropriate	Use of Font colour, graphics etc., is extremely appropriate	
Vocabulary	Numerous vocabulary and punctuation mistakes in the presentation	Good use of vocabulary and punctuation in presentation	Excellent use of vocabulary and punctuation in presentation	
Grammar	Weak use of grammar	Good use of grammar	Excellent use of gramma	
Time	Achieve Little of the task in the required time	Acieve most of the task in the required time	Achieve the task in the required time	

Screenshot 14



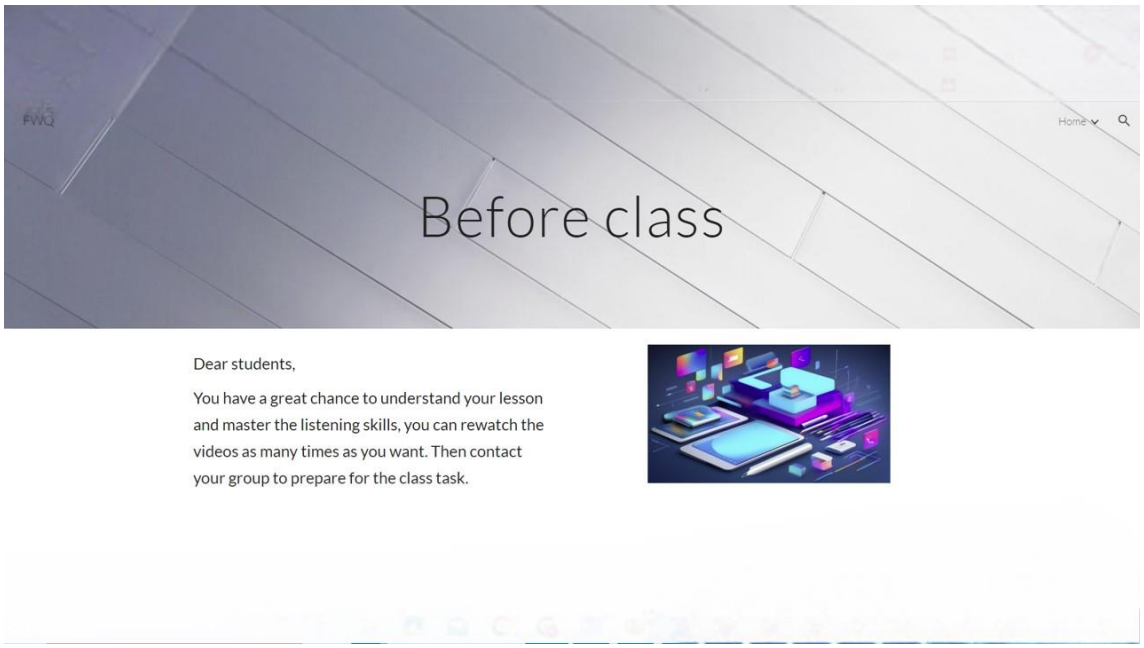
Screenshot 15

Screenshot 16

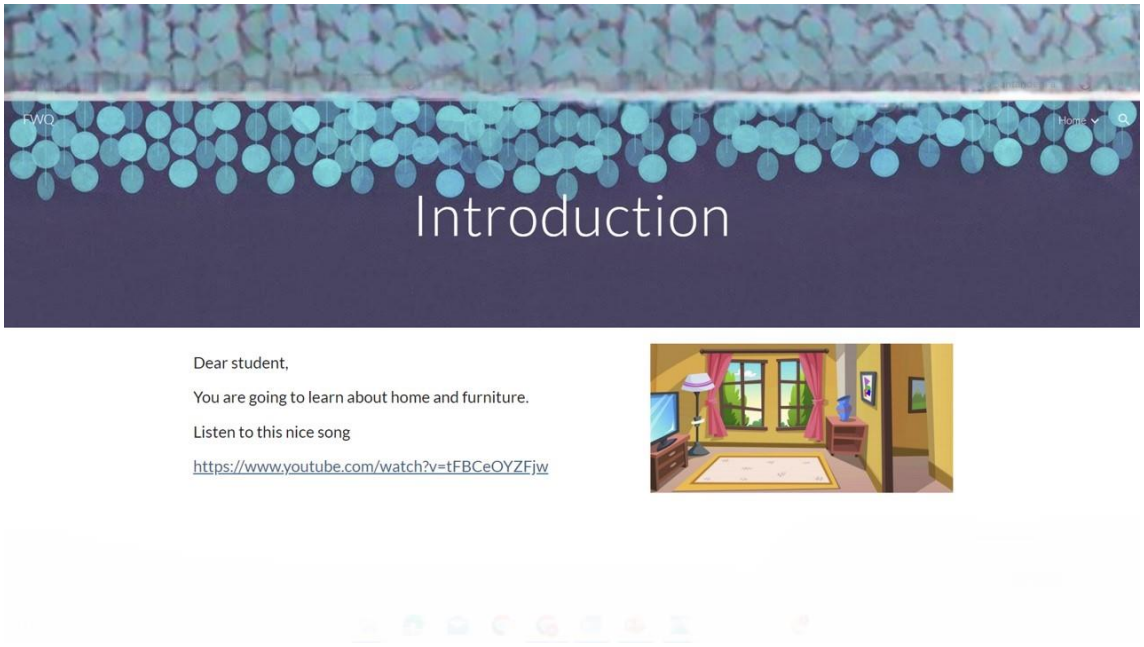
Screenshots of FWQ listening

Screenshot 17

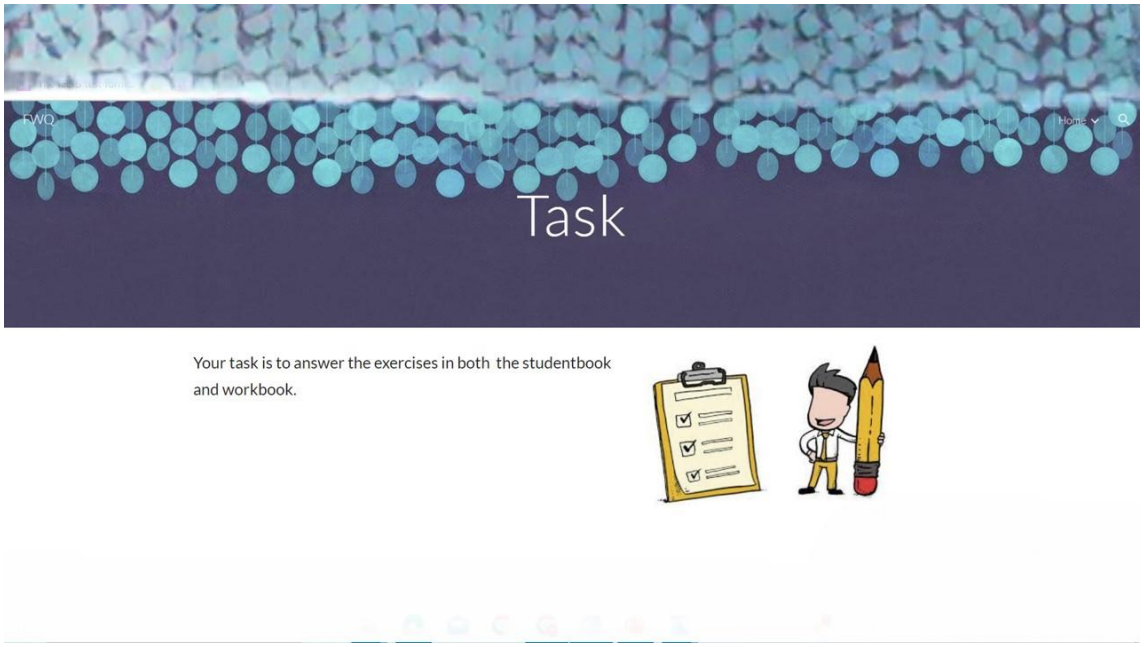
Screenshot 18



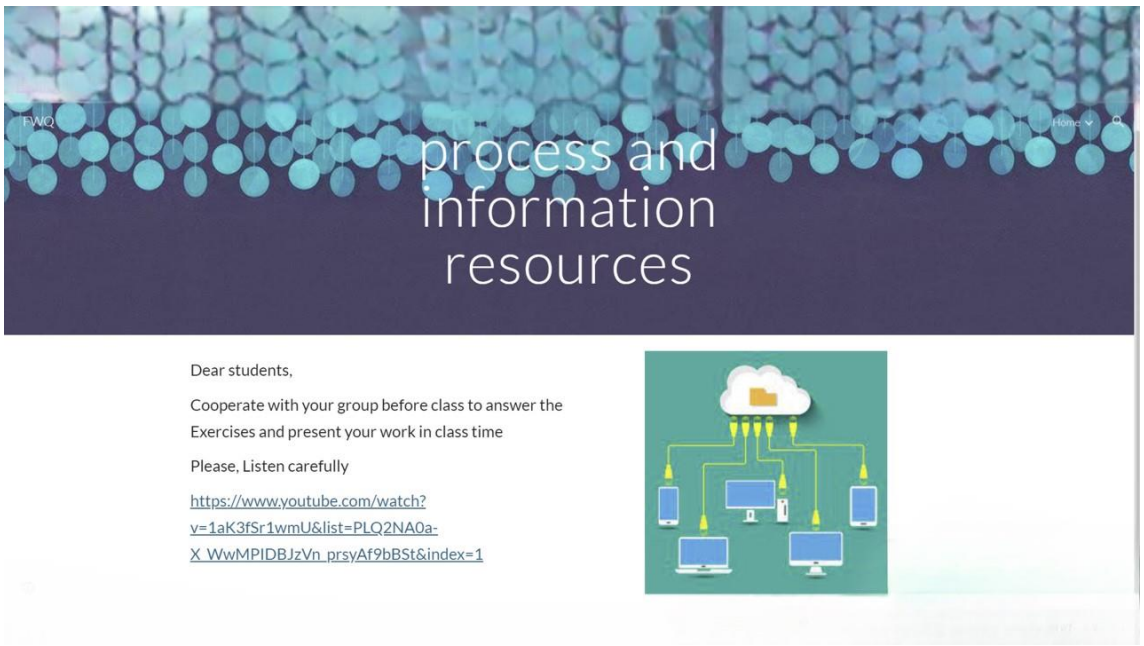
Screenshot 19



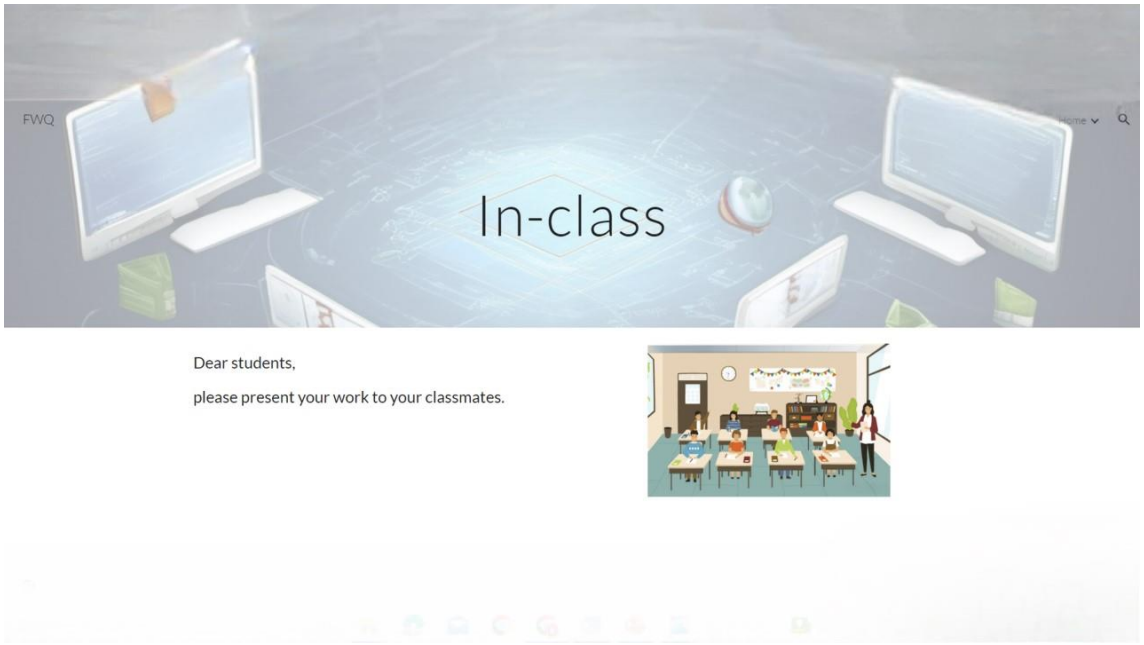
Screenshot 20



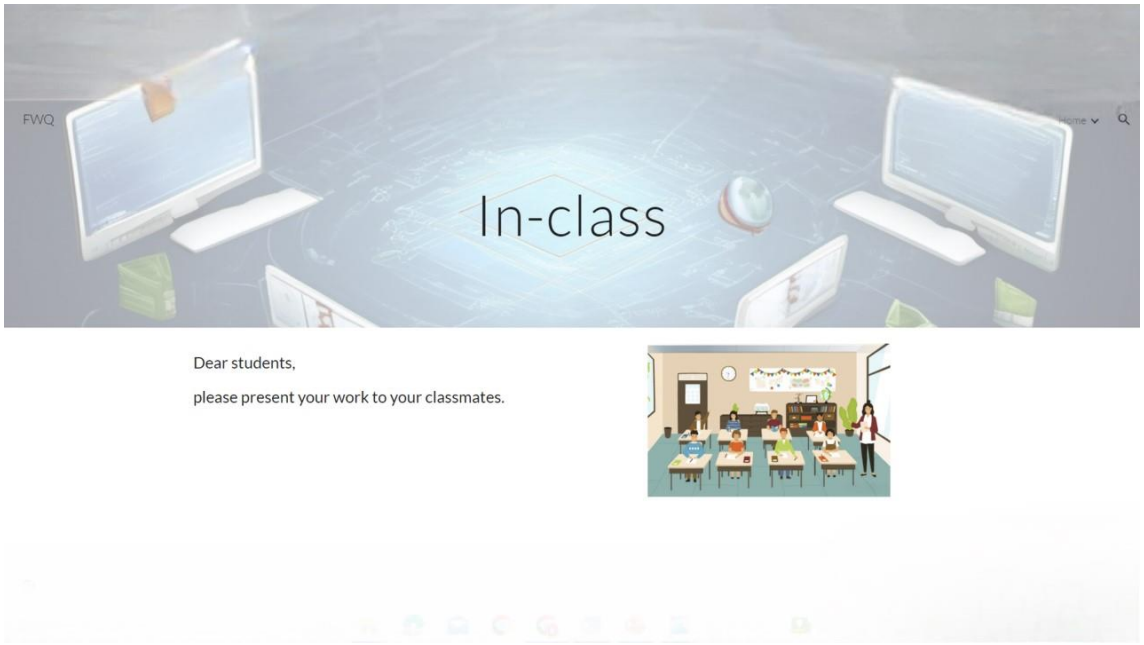
Screenshot 21



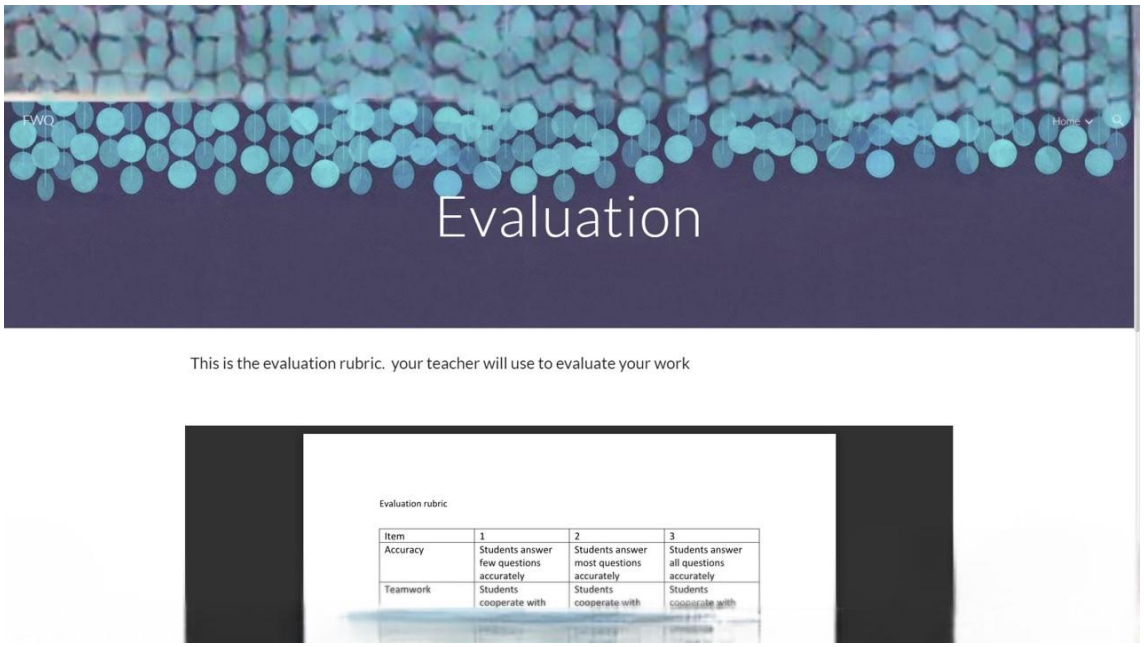
Screenshot 22



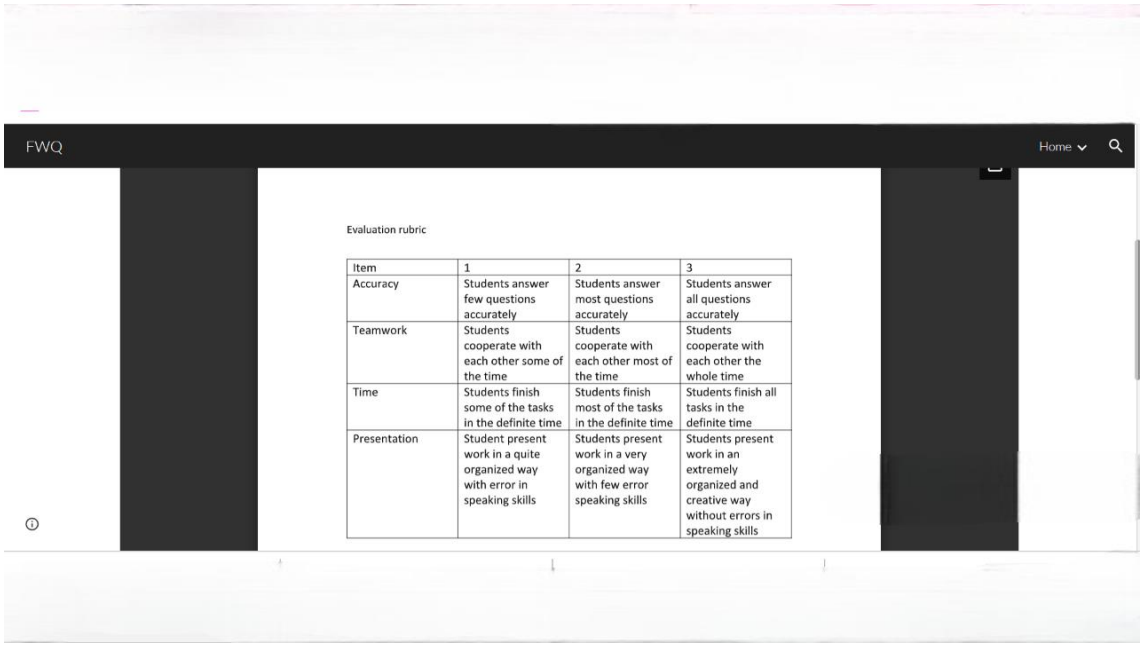
Screenshot 23



Screenshot 24



Screenshot 25

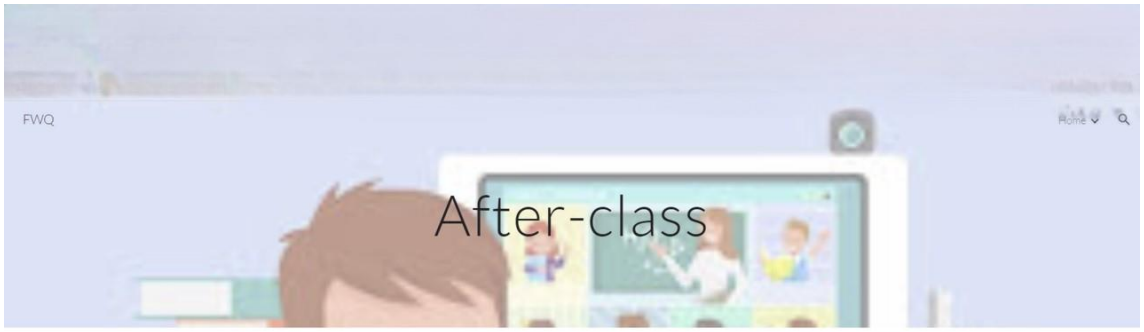


Screenshot 26

Dear students,

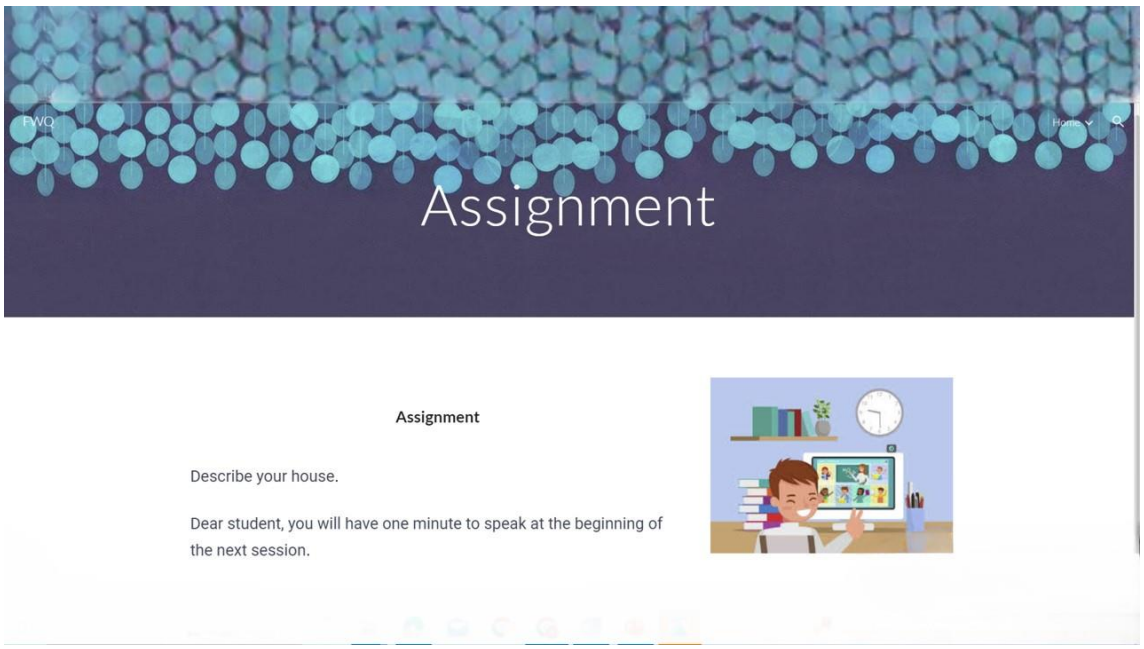
You have just completed your lesson. You have learned about home and furniture.

Screenshot 27



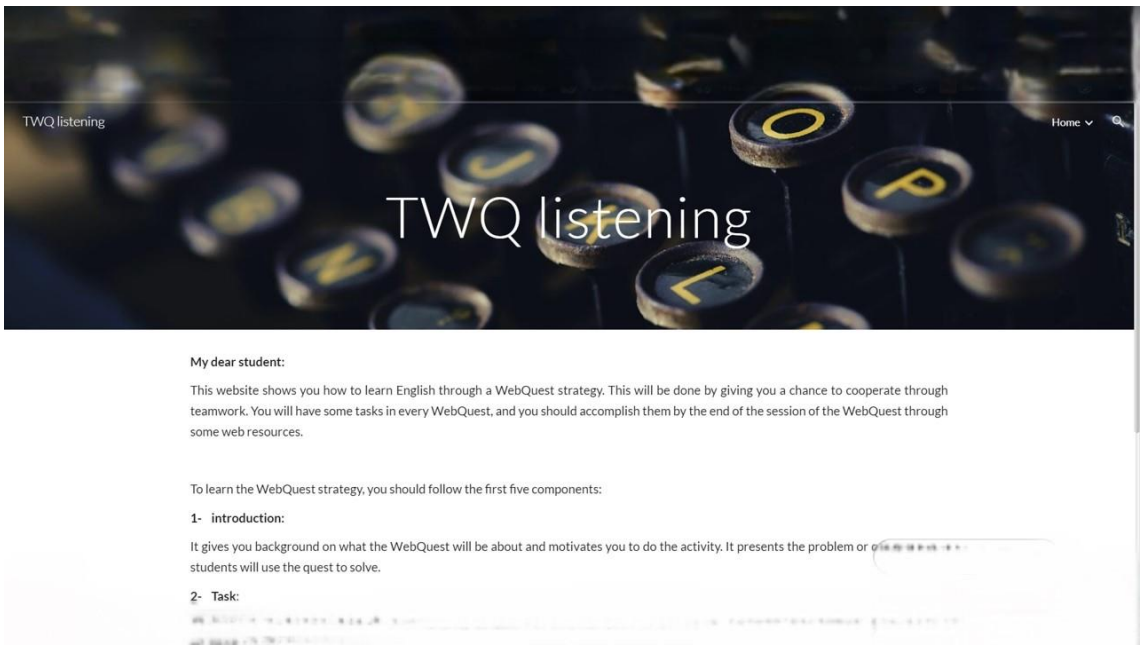
Dear students, please revise your lesson for more understanding

Screenshot 28

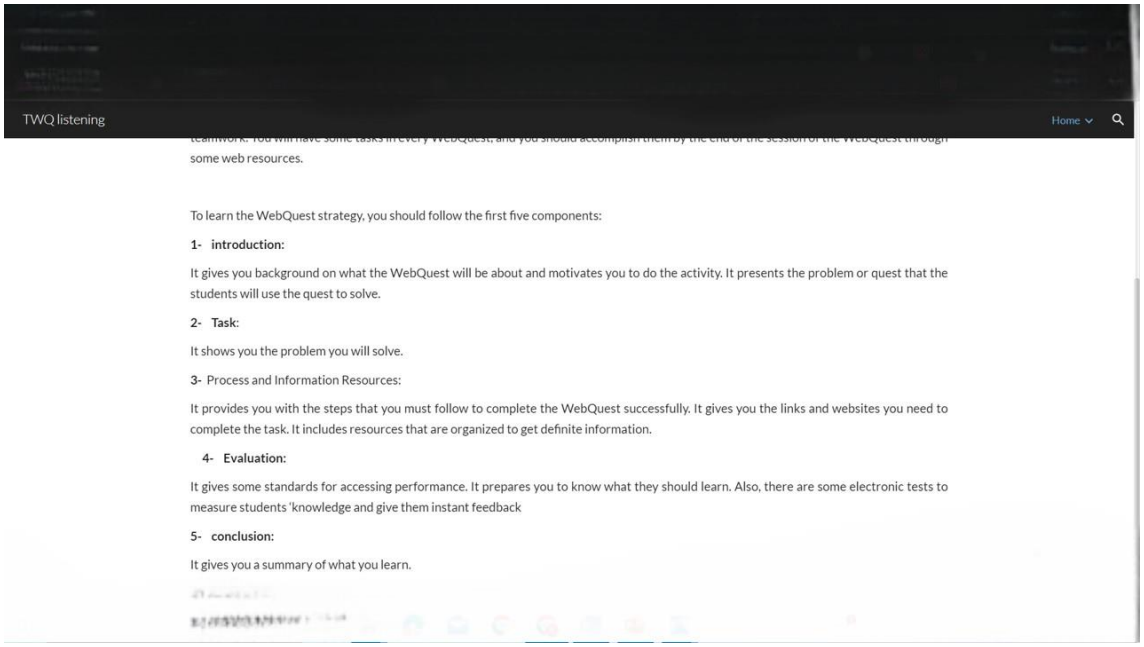


Screenshots of TWQ listening

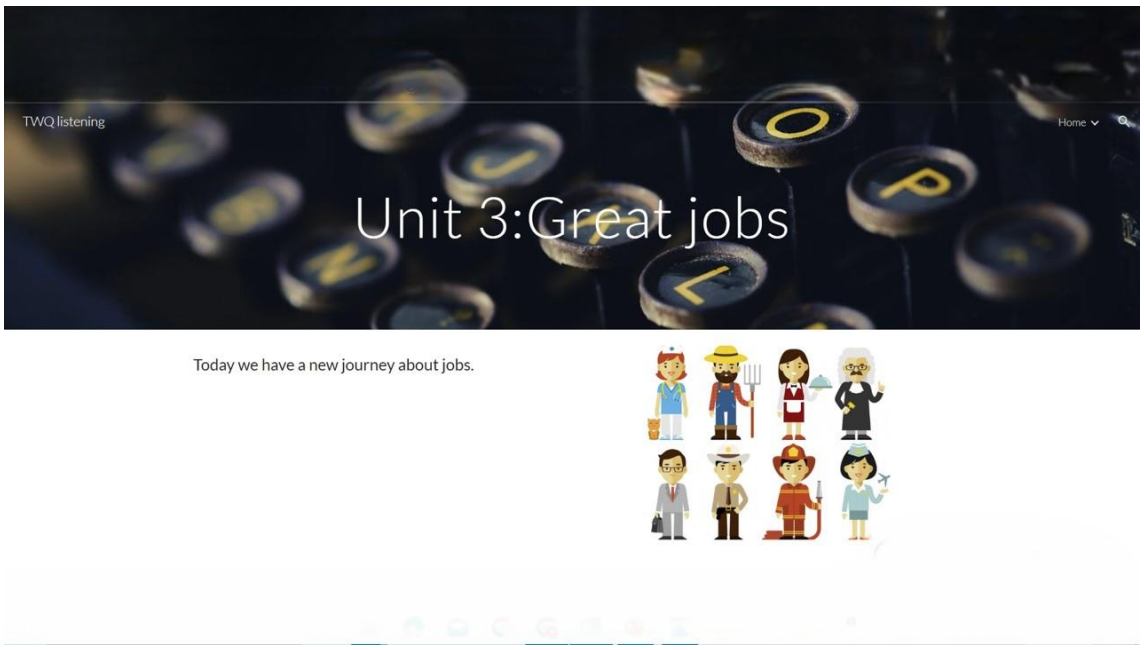
Screenshot 29



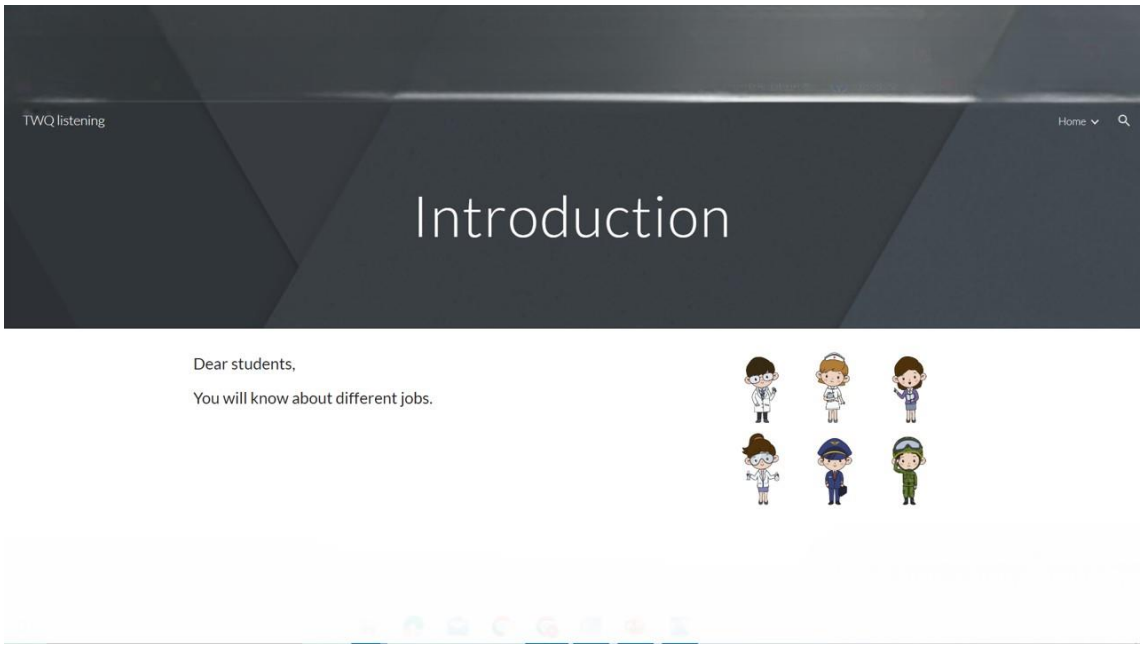
Screenshot 30



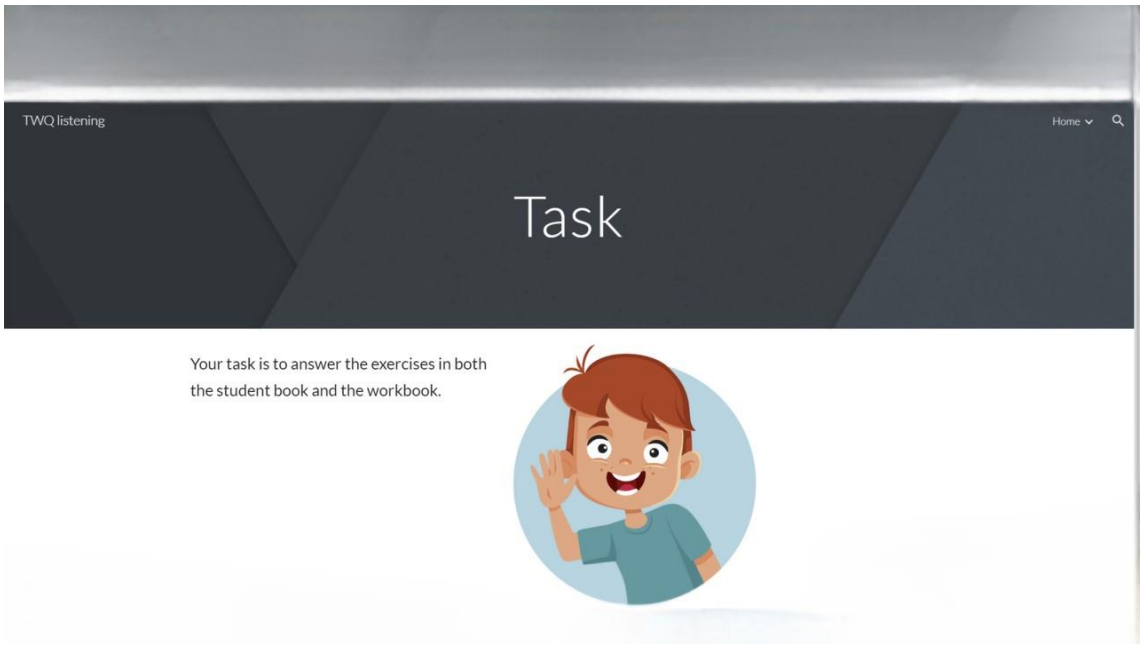
Screenshot 31



Screenshot 32



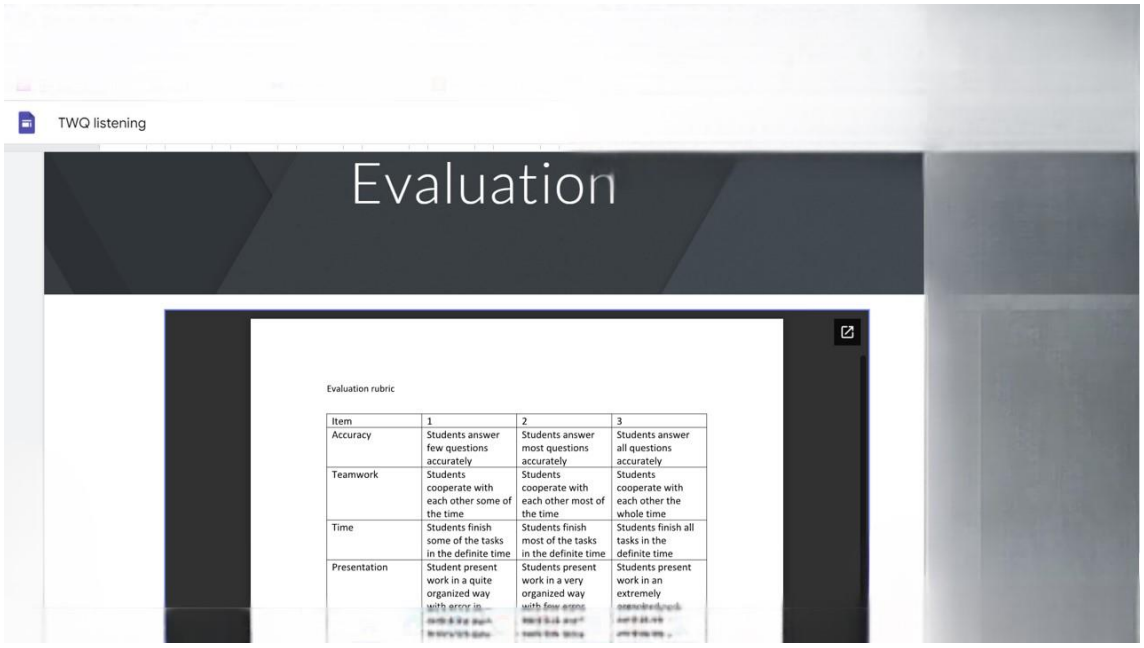
Screenshot 33



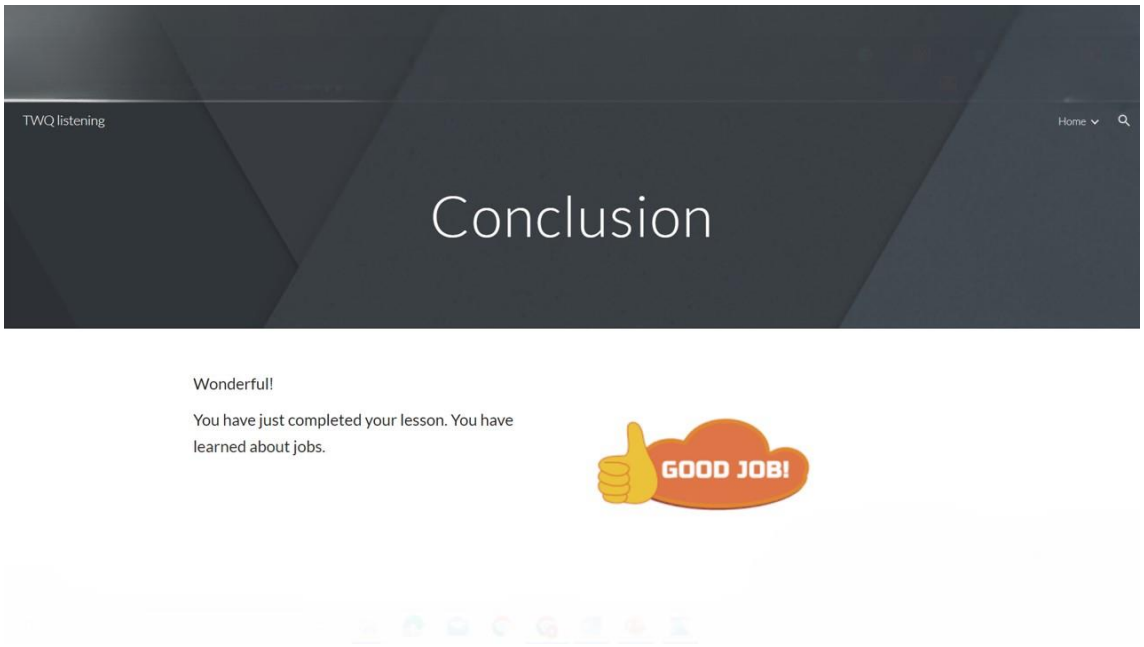
Screenshot 34

Screenshot 35

Screenshot 36

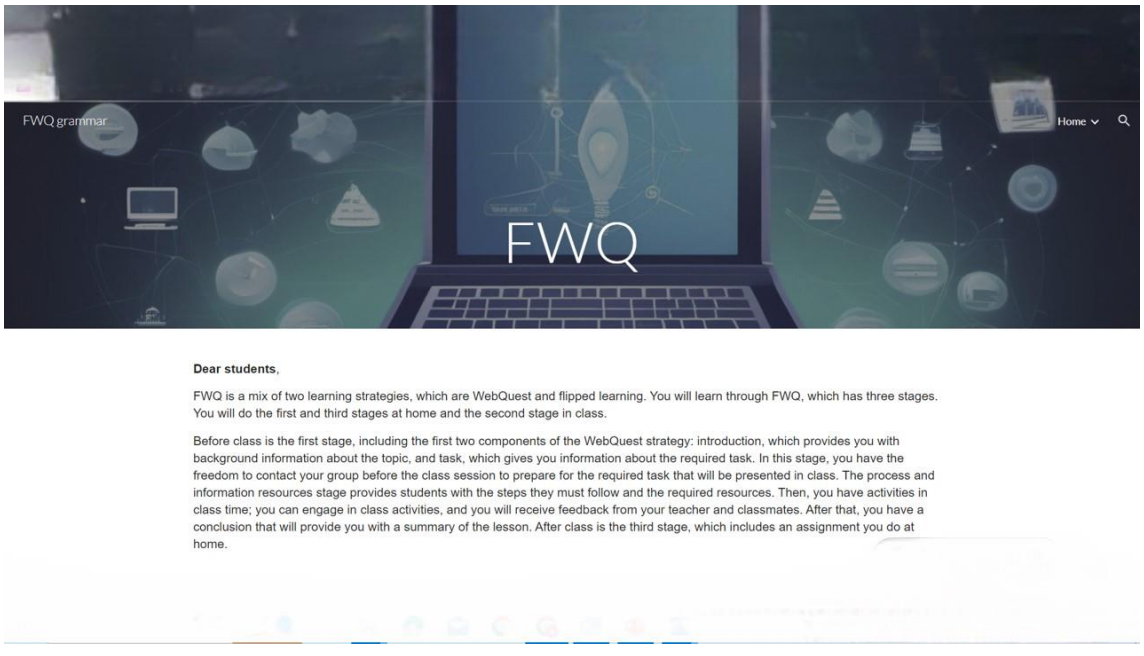


Screenshot 37

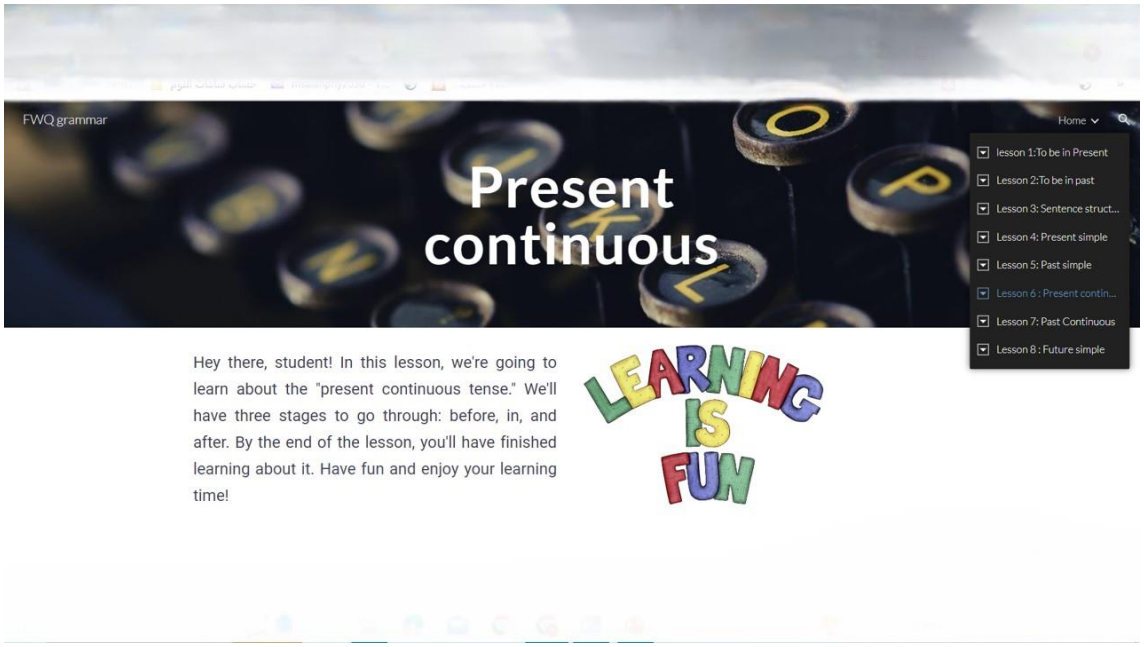


Screenshots of FWQ grammar

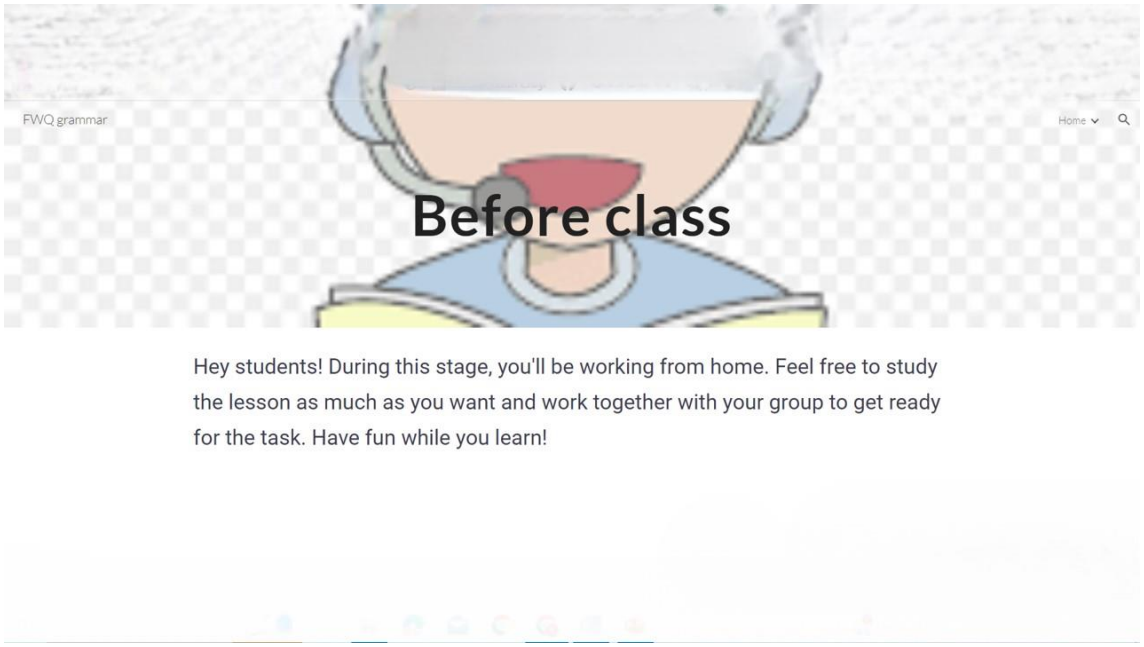
Screenshot 38



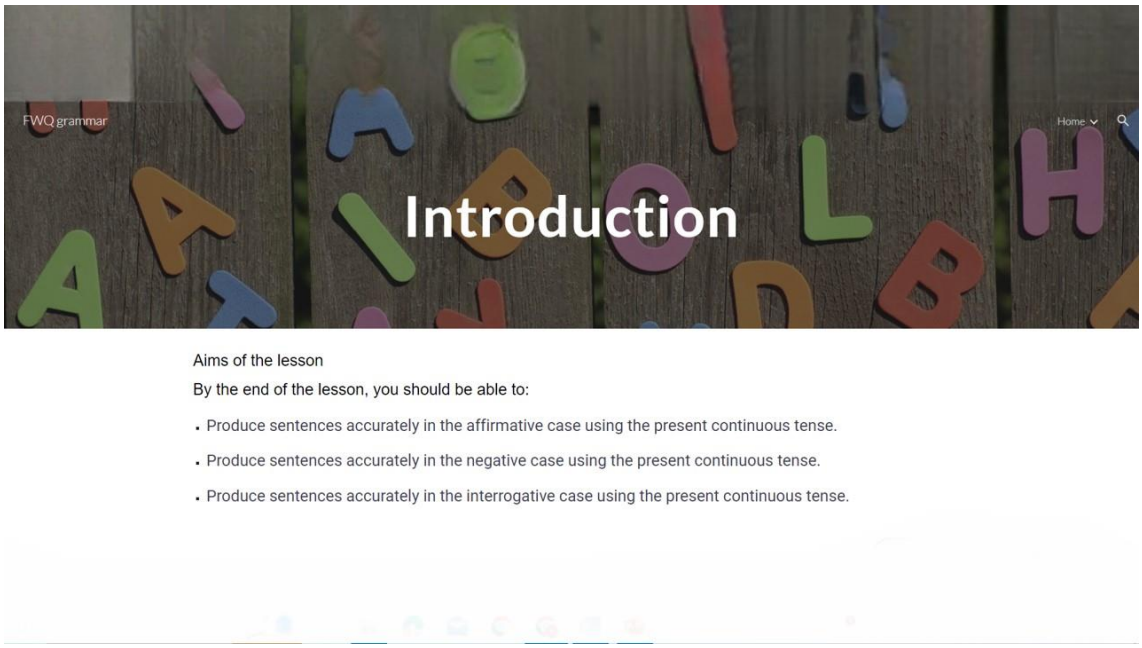
Screenshot 39



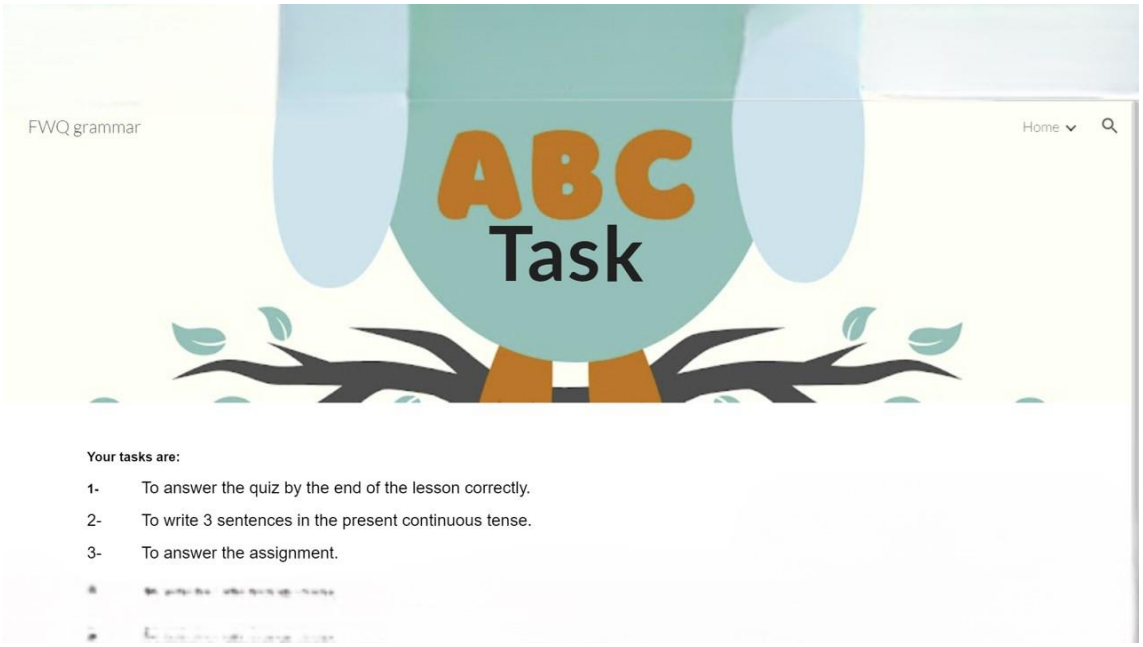
Screenshot 40



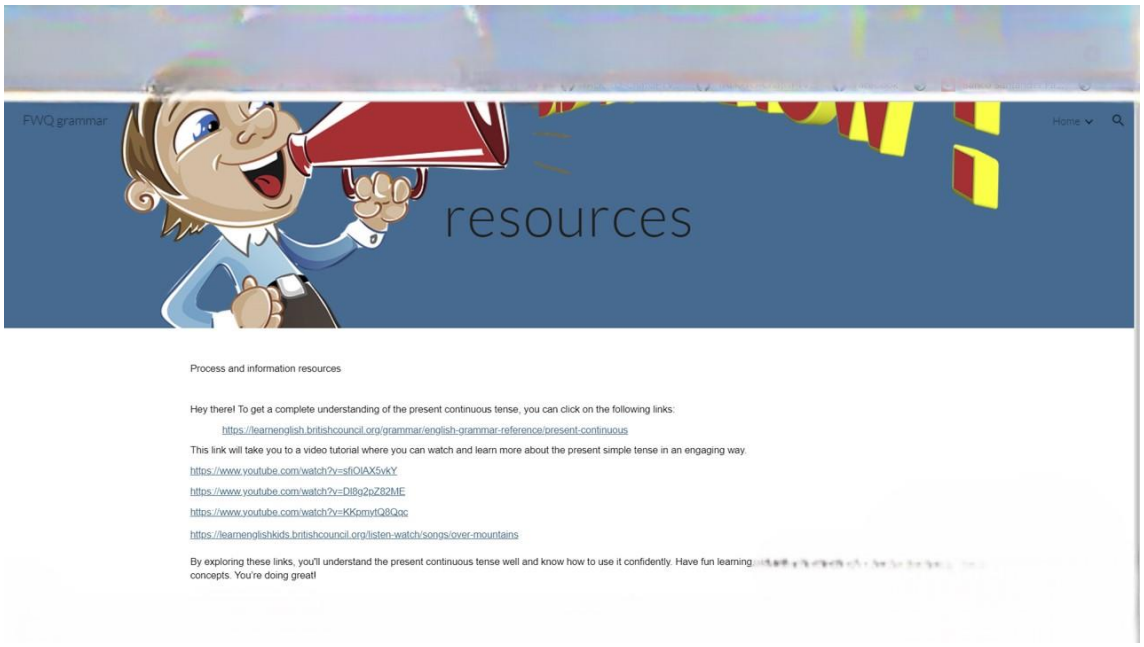
Screenshot 41



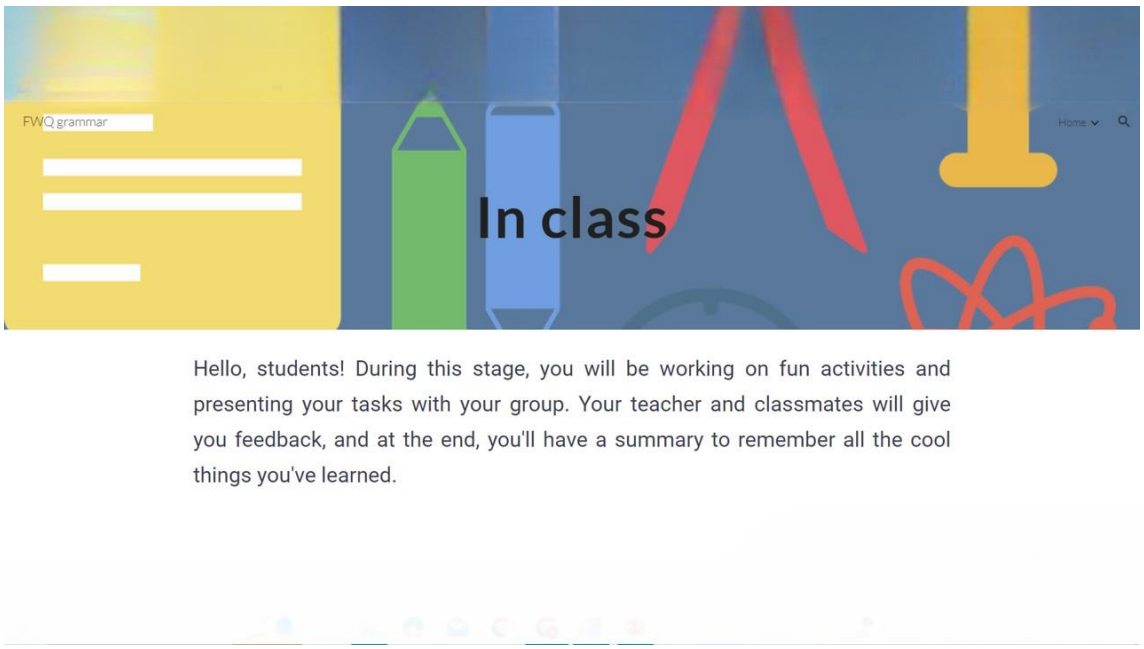
Screenshot 42



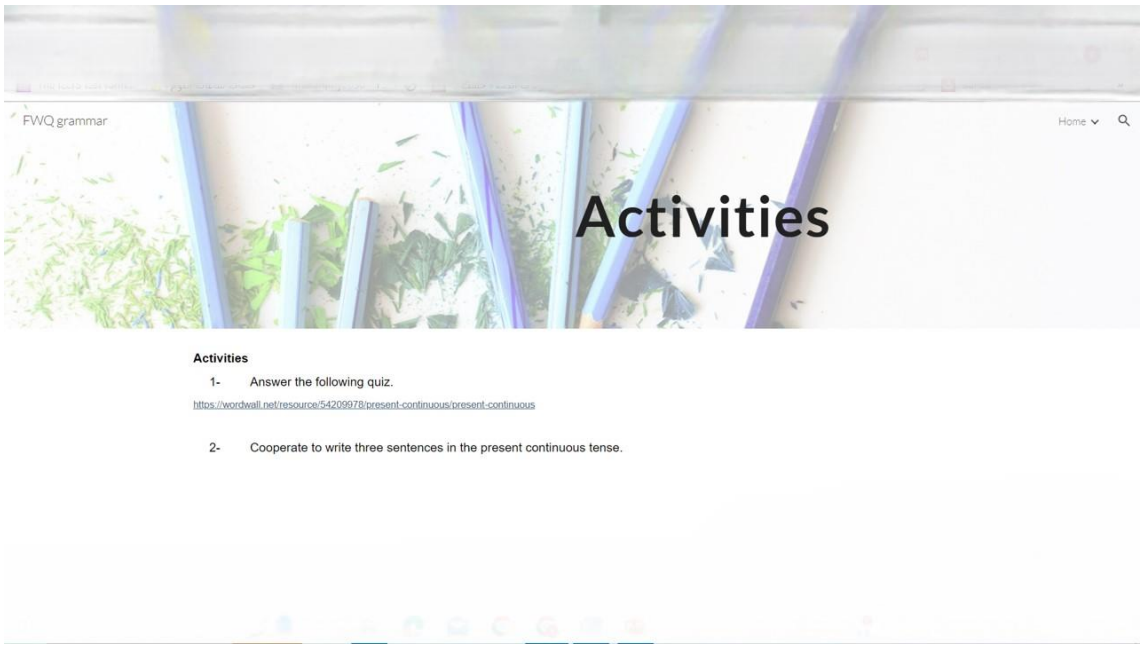
Screenshot 43



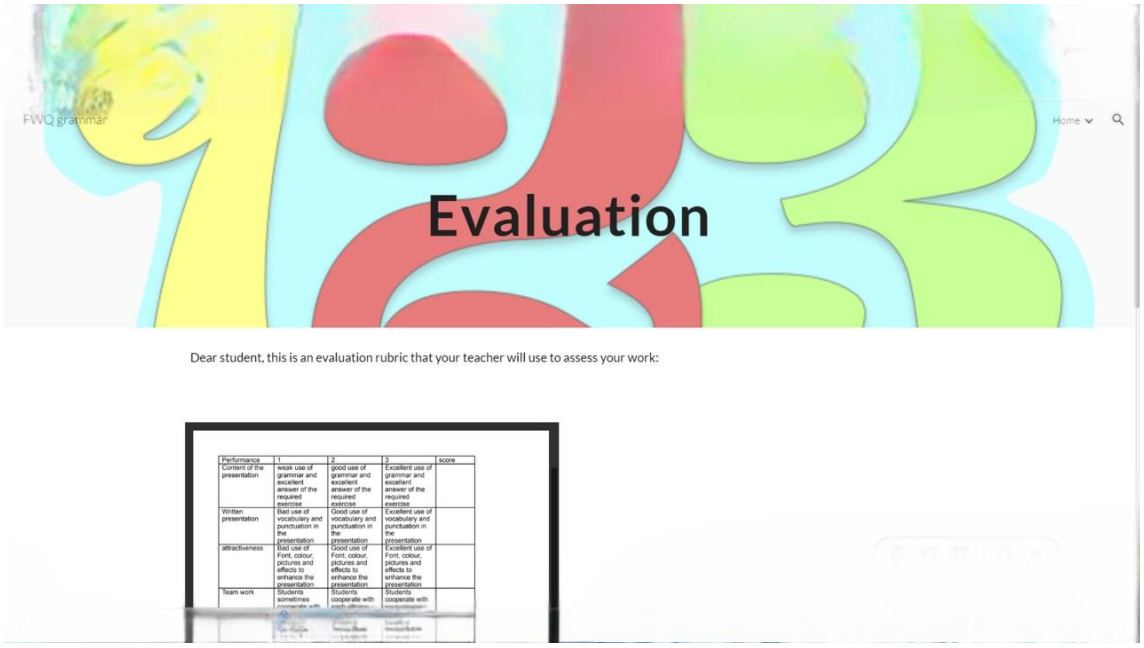
Screenshot 44



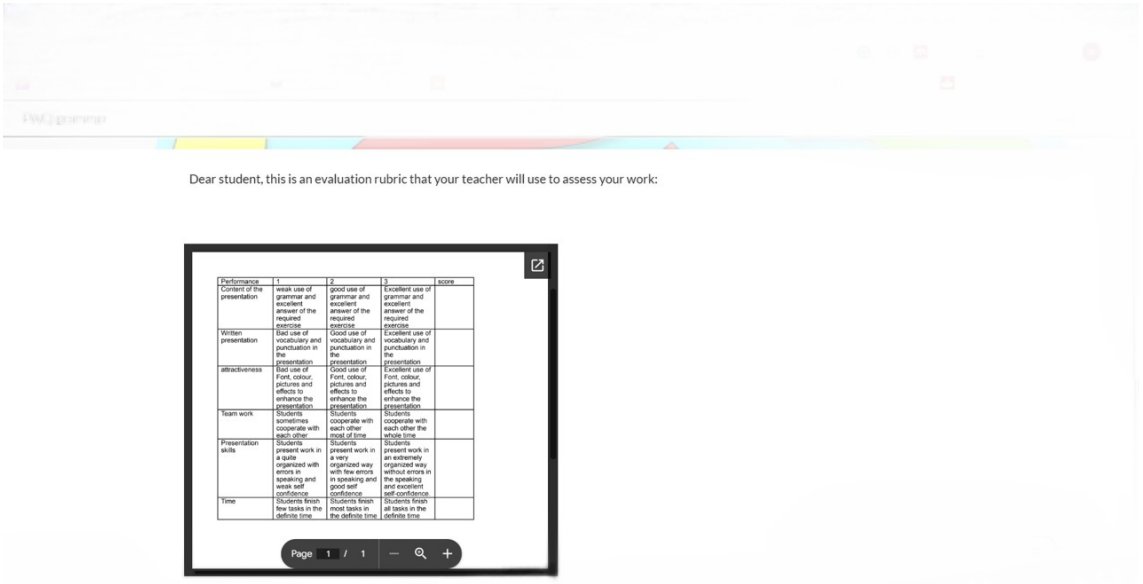
Screenshot 45



Screenshot 46



Screenshot 47



Dear student, this is an evaluation rubric that your teacher will use to assess your work:

Performance	1	2	3	score
Content of the presentation	weak use of grammar and excellent answer of the required exercise	good use of grammar and excellent answer of the required exercise	Excellent use of grammar and excellent answer of the required exercise	
Written presentation	Bad use of vocabulary and punctuation in the presentation	Good use of vocabulary and punctuation in the presentation	Excellent use of vocabulary and punctuation in the presentation	
attractiveness	Bad use of Font, colour, pictures and effects to enhance the presentation	Good use of Font, colour, pictures and effects to enhance the presentation	Excellent use of Font, colour, pictures and effects to enhance the presentation	
Team work	Students sometimes cooperate with each other	Students cooperate with each other most of time	Students cooperate with each other the whole time	
Presentation skills	Students present work in a quite organized with errors in speaking and weak self confidence	Students present work in a very organized way with few errors in speaking and good self confidence	Students present work in an extremely organized way without errors in the speaking and excellent self-confidence.	
Time	Students finish few tasks in the definite time	Students finish most tasks in the definite time	Students finish all tasks in the definite time	

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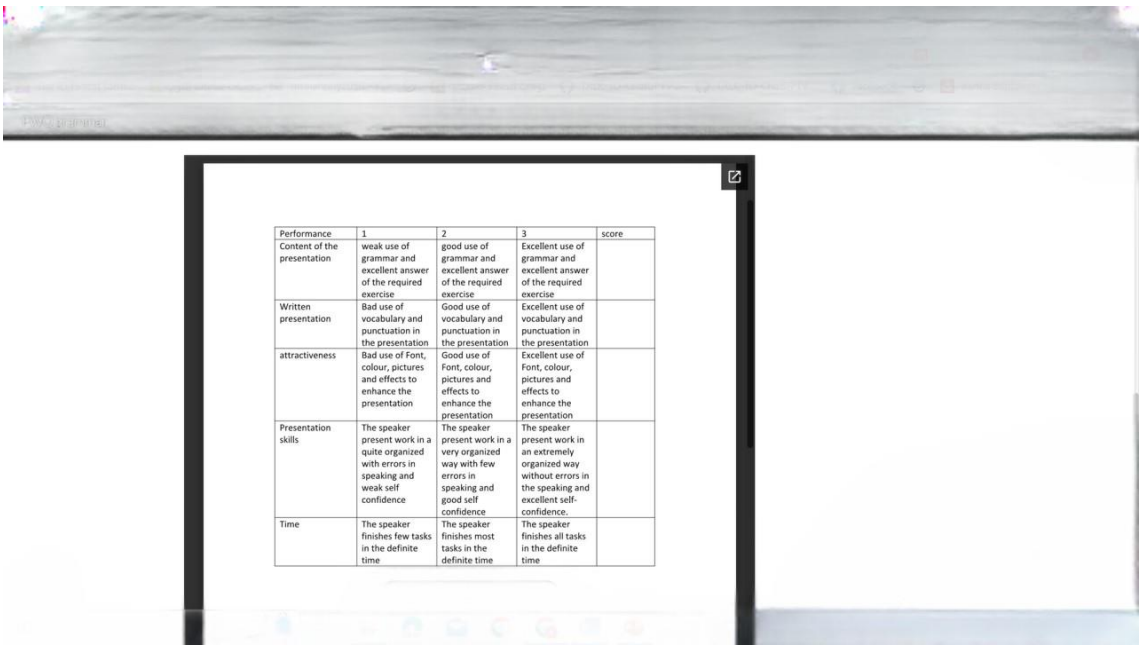
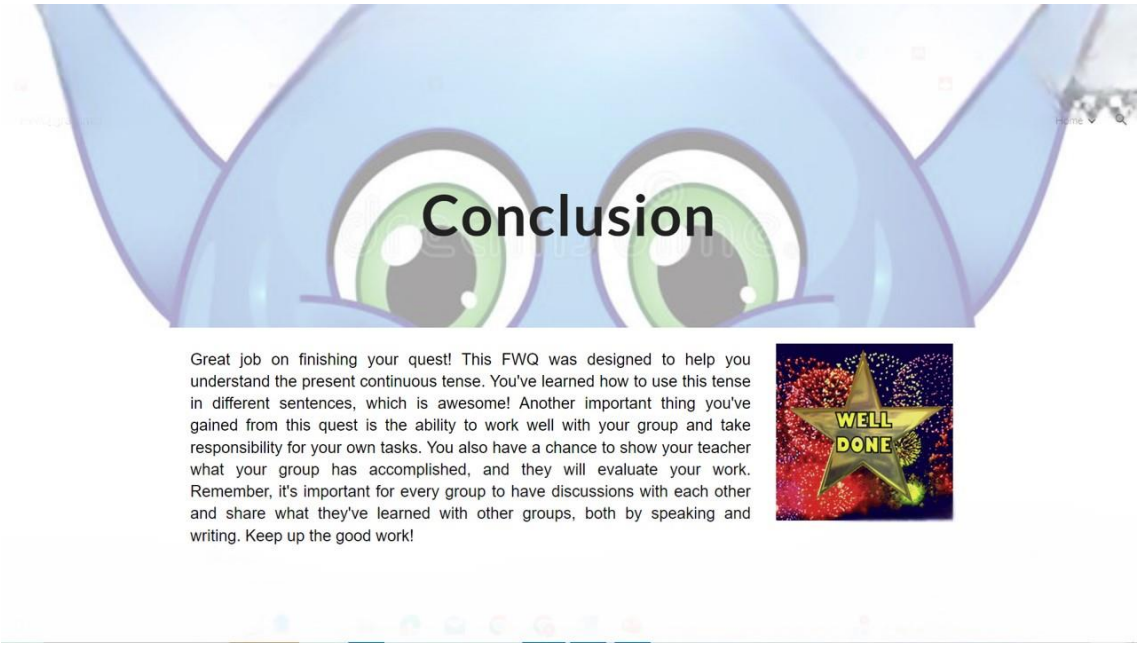
Screenshot 48



Performance	1	2	3	score
Content of the presentation	weak use of grammar and excellent answer of the required exercise	good use of grammar and excellent answer of the required exercise	Excellent use of grammar and excellent answer of the required exercise	
Written presentation	Bad use of vocabulary and punctuation in the presentation	Good use of vocabulary and punctuation in the presentation	Excellent use of vocabulary and punctuation in the presentation	
attractiveness	Bad use of Font, colour, pictures and effects to enhance the presentation	Good use of Font, colour, pictures and effects to enhance the presentation	Excellent use of Font, colour, pictures and effects to enhance the presentation	
Presentation skills	The speaker present work in a quite organized with errors in speaking and weak self confidence	The speaker present work in a very organized way with few errors in speaking and good self confidence	The speaker present work in an extremely organized way without errors in the speaking and excellent self-confidence.	
Time	The speaker finishes few tasks in the definite time	The speaker finishes most tasks in the definite time	The speaker finishes all tasks in the definite time	

Screenshot 49

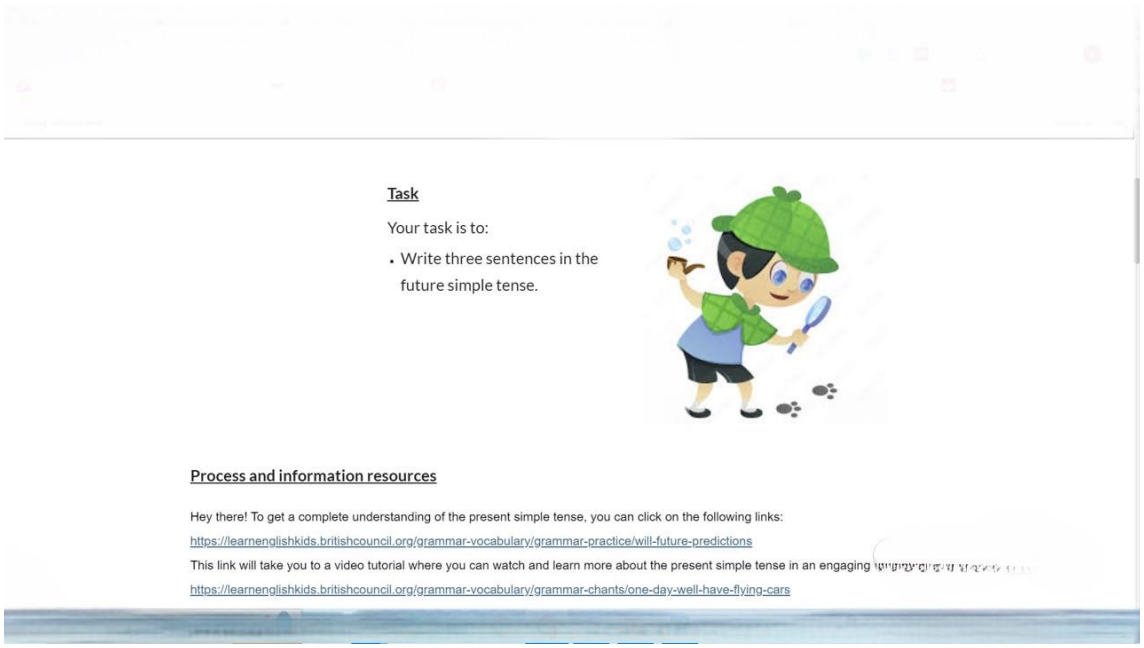


Screenshots of WQ Grammar website

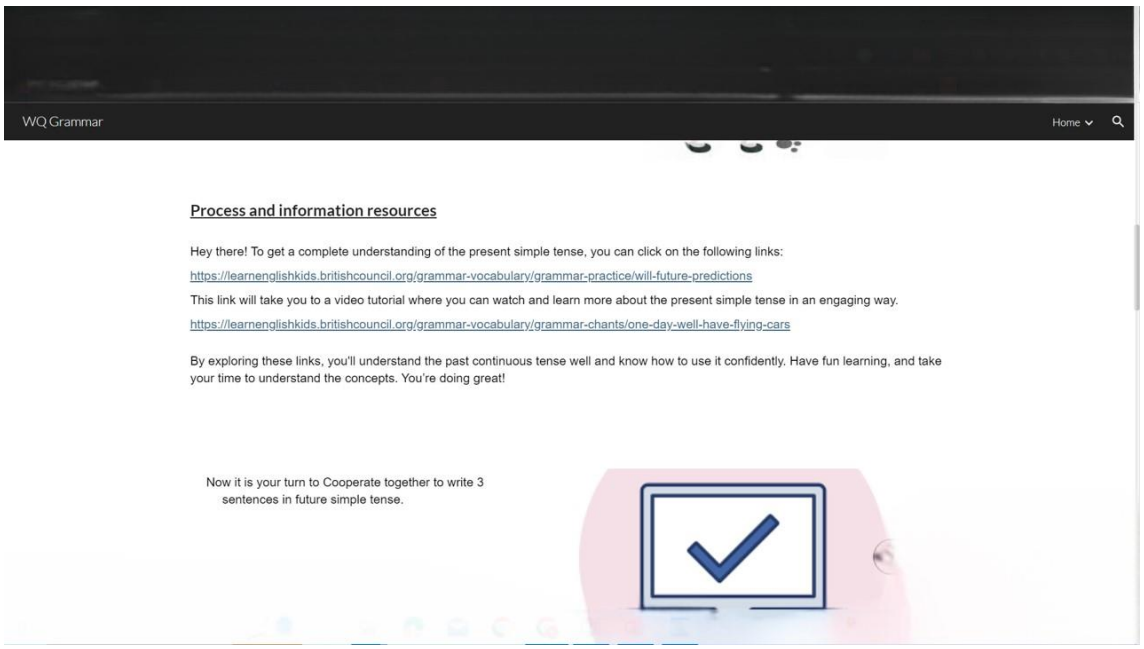
Screenshot 50

Screenshot 51

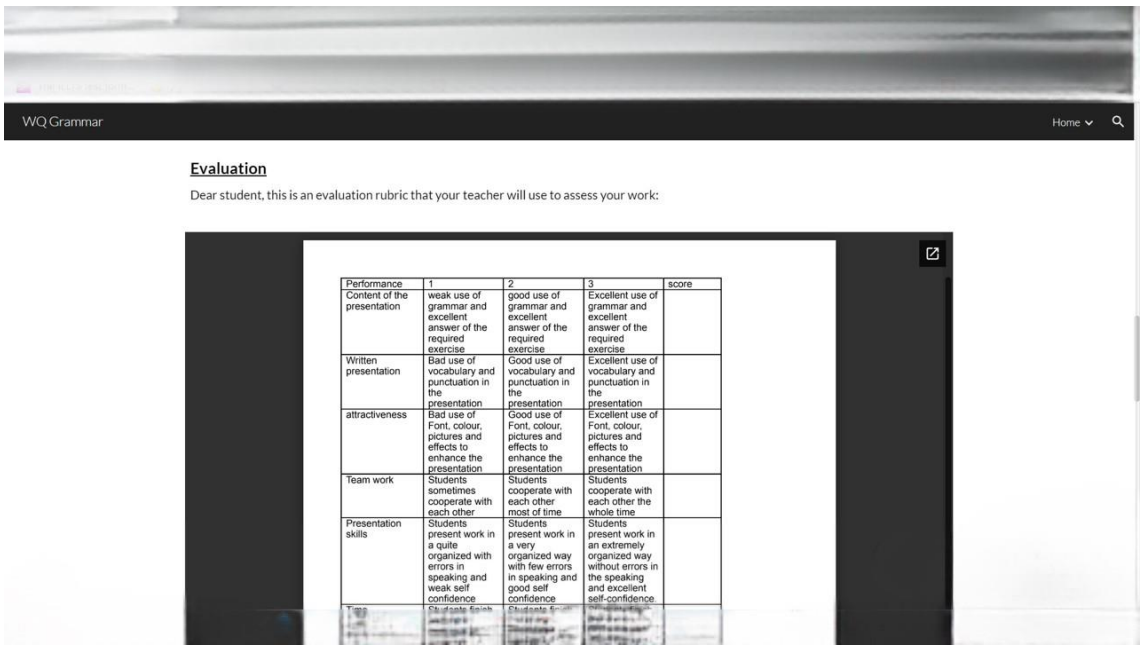
Screenshot 52



Screenshot 53

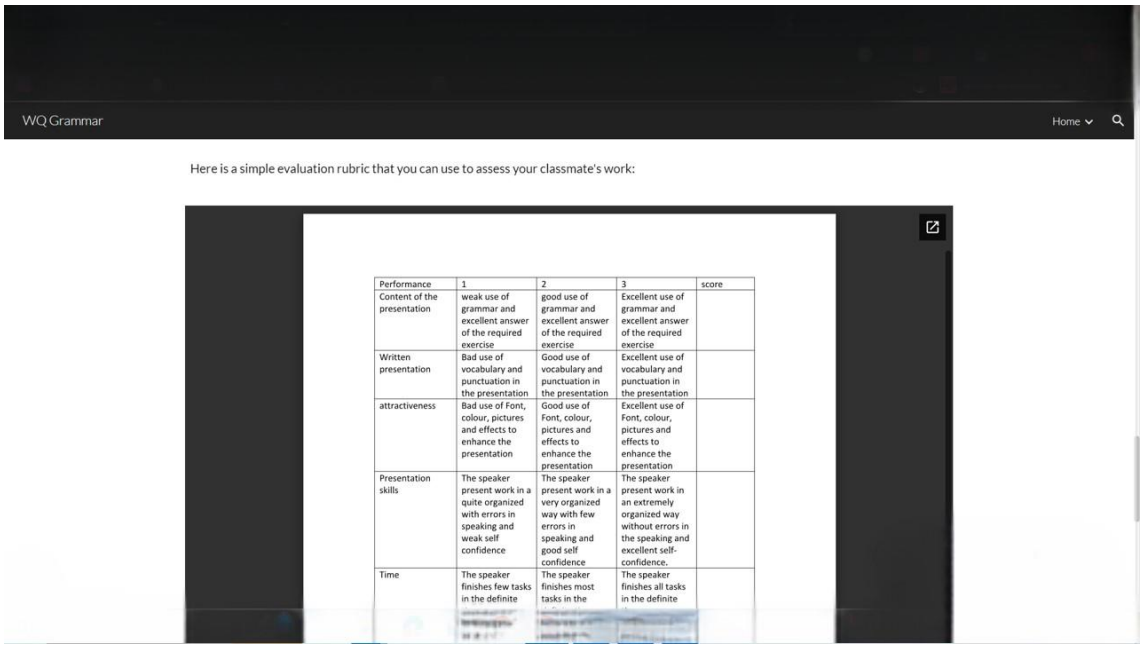


Screenshot 54



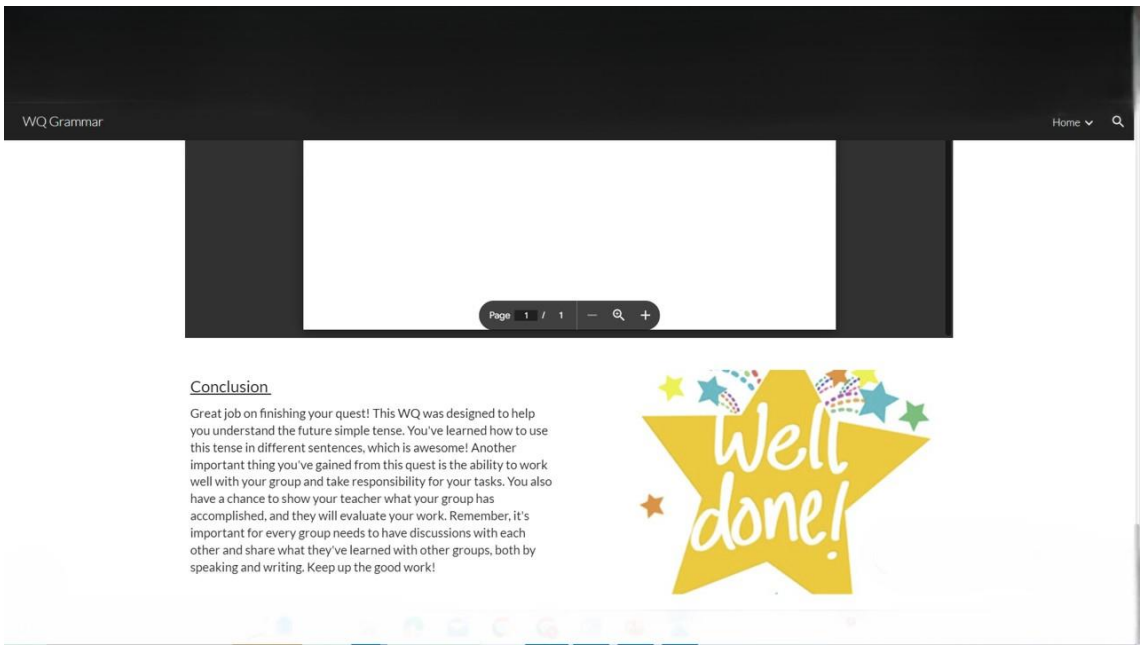
Performance	1	2	3	score
Content of the presentation	weak use of grammar and excellent answer of the required exercise	good use of grammar and excellent answer of the required exercise	Excellent use of grammar and excellent answer of the required exercise	
Written presentation	Bad use of vocabulary and punctuation in the presentation	Good use of vocabulary and punctuation in the presentation	Excellent use of vocabulary and punctuation in the presentation	
attractiveness	Bad use of Font, colour, pictures and effects to enhance the presentation	Good use of Font, colour, pictures and effects to enhance the presentation	Excellent use of Font, colour, pictures and effects to enhance the presentation	
Team work	Students sometimes cooperate with each other	Students cooperate with each other most of time	Students cooperate with each other the whole time	
Presentation skills	Students present work in a quite organized with errors in speaking and weak self confidence	Students present work in a very organized way with few errors in speaking and good self confidence	Students present work in an extremely organized way without errors in the speaking and excellent self-confidence	

Screenshot 55



Performance	1	2	3	score
Content of the presentation	weak use of grammar and excellent answer of the required exercise	good use of grammar and excellent answer of the required exercise	Excellent use of grammar and excellent answer of the required exercise	
Written presentation	Bad use of vocabulary and punctuation in the presentation	Good use of vocabulary and punctuation in the presentation	Excellent use of vocabulary and punctuation in the presentation	
attractiveness	Bad use of Font, colour, pictures and effects to enhance the presentation	Good use of Font, colour, pictures and effects to enhance the presentation	Excellent use of Font, colour, pictures and effects to enhance the presentation	
Presentation skills	The speaker present work in a quite organized with errors in speaking and weak self confidence	The speaker present work in a very organized way with few errors in speaking and good self confidence	The speaker present work in an extremely organized way without errors in the speaking and excellent self-confidence.	
Time	The speaker finishes few tasks in the definite	The speaker finishes most tasks in the	The speaker finishes all tasks in the definite	

Screenshot 56



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APPENDICES

Appendices

Appendix 1: Writing test

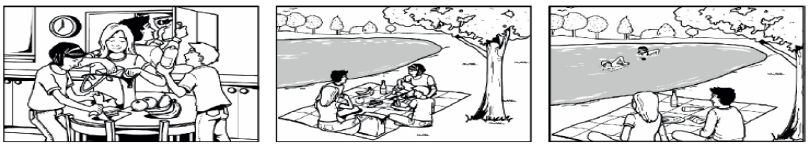
Writing test

Name…… **Class…….**

Gender: Male Female

Answer the following:

Look at the three pictures.
Write the story shown in the pictures.
Write **35 words** or more.



Write the story on your answer sheet.

You are going shopping with your English friend Pat tomorrow.
Write an email to Pat.

Say:

- where you want to meet
- what time you want to meet
- what you want to buy.

Write **25 words** or more.

Write the email on your answer sheet.

Appendix 2: Listening test

Listening test

Name: …….……. Class……..

Gender: Male Female

Answer the following:

Part 1

Questions 1 – 5

For each question, choose the correct picture.

---

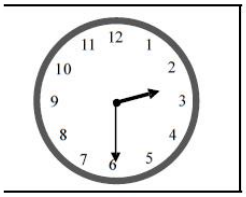
1 What's Julia going to do tonight?

A

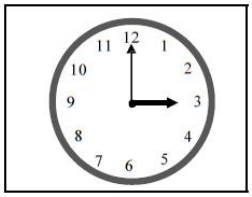
B

C

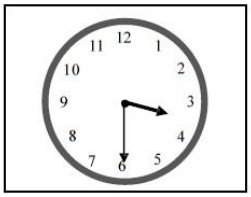
2 What time does the art lesson start?



A

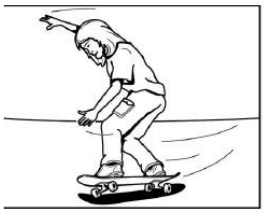


B

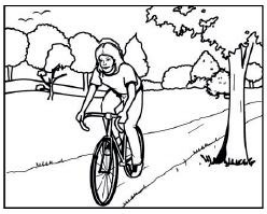


C

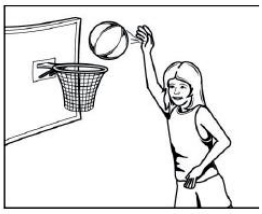
3 What will Chloe do on Saturday?



A



B

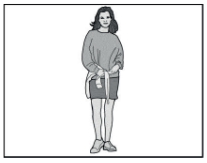


C

4 How much will the girl pay for her cinema ticket?

A	B	C
£4.30	£5.80	£7.60

5 Who will meet Peter at the airport?

A	B	C
		

Part 2

Questions 6 – 10

For each question, write the correct answer in the gap. Write **one word** or a **number** or a **date** or a **time**.

You will hear a teacher telling students about a school camping trip.

School Camping Trip

Cost of trip:	£39.00
Give money to:	**(6)** Mrs .....
Day of return:	**(7)** .....
Time to arrive at school:	**(8)** ..... a.m.
Travel by:	**(9)** .....
Bring:	**(10)** .....

Part 3

Questions 11 – 15

For each question, choose the correct answer.

You will hear Annie talking to her friend Tony about a film she saw.

11 Annie saw a film at

A two o'clock.

B quarter past three.

C half past five.

12 The film was about

A a sports star.

B some animals.

C history.

13 Annie thought the film

A was too long.

B wasn't very interesting.

C needed better actors.

14 Annie's favourite film

A makes her laugh.

B is a true story.

C is very exciting.

15 Annie prefers to watch films

A at a cinema.

B on her laptop.

C on TV.

Part 4

Questions 16 – 20

For each question, choose the correct answer.

---

16 You will hear a teacher talking to her class.
What does the teacher want her class to do?

A work more quickly

B make less noise

C help each other more

17 You will hear two friends talking about their day.
What have they just done?

A They've been to a concert.

B They've had a meal.

C They've played a sport.

18 You will hear a teacher talking to one of his students called Sarah.
Why must Sarah do her homework again?

A She made too many mistakes.

B She did the wrong work.

C She forgot to do some of it.

19 You will hear a girl, Lara, talking about shopping.
Why did Lara buy the bag?

A The size was right.

B The price was right.

C The colour was right.

20 You will hear a man talking to his daughter before she goes out.
What's the weather like today?

A It's cold.

B It's wet.

C It's sunny.

Part 5

Questions 21 – 25

For each question, choose the correct answer.

You will hear Julia talking to her mother about a school fashion show.
What will each person help with?
Example:

0 Julia **D**

People			**Help with**	
21	Anton	☐	**A**	clothes
22	Emma	☐	**B**	food
23	Karl	☐	**C**	lights
24	Sarah	☐	**D**	make-up
25	George	☐	**E**	music
			F	photographs
			G	posters
			H	tickets

Appendix 3: Grammar test

Grammar test

Name: …… Class:…….

Gender: Male Female

Answer the following:

Multiple Choice:

1. What does your mum usually _____ (cook) for dinner?

   a) cooks
   b) cook
   c) is cooking
   d) cooked

2. Last weekend, she _____ (go) to the beach with her family.

   a) goes
   b) going
   c) go
   d) went

3. At the moment, the kids _____ (play) in the backyard.

   a) plays
   b) are playing
   c) play
   d) played

4. While I _____ TV, my mom was cooking dinner.

   a) watch
   b) watched
   c) am watching
   d) was watching

5. Next year, they _____ (travel) to Europe for their vacation.

   a) travels
   b) travel
   c) will travel
   d) travelling

Complete the Sentence:

6. Look! The chef _____ (prepare) a delicious meal in the kitchen.
7. Yesterday, they _____ (build) a sandcastle on the beach.
8. My cat always _____ (sleep) in the sun during the afternoon.
9. While I _____ (read) a book, my brothers were playing video games.
10. By this time next month, I _____ (finish) reading this novel.

Read and Correct:

11. We eated dinner at the restaurant last night.
12. They am going to the park after school.
13. Tomorrow, she will can bake a cake for the party.
14. He don't like swimming; he prefers hiking.
15. While it's snowing, they was skiing on the mountain.

Re-order the Following:

16. painting / is / a beautiful picture / my sister / right now.
17. were / it / when / we / raining / started / to play.
18. will / a / pilot / become / he / someday.
19. school / starts / at 9 AM / every day.
20. visited / grandparents / we / two weeks ago / our.

Appendix 4: Writing anxiety scale

Writing anxiety scale

ESL Writing Anxiety Questionnaire I--- based on Second Language Writing Anxiety Inventory
(SLWAI) (Cheng, 2004)
Name:
class:

Gender: Male Female

Instruction:
1. Read the following statement and express your degree of agreement / disagreement by ticking
(√) the appropriate column.
2. Note that SA=Strongly Agree, A=Agree, U=Uncertain, D=Disagree, SD=Strongly Disagree.

Statement	5. Strongly Agree	4. Agree	3-Uncertain	2. Disagree	1. Strongly Disagree
1- While writing in English, I am not nervous at all.					
2- I feel my heart pounding when I write English compositions under time constraint.					
3- While writing English compositions, I feel worried and uneasy if I know they					

will be evaluated.					
4- I often choose to write down my thoughts in English.					
5- I usually do my best to avoid writing English compositions.					
6- My mind often goes blank when I start to work on an English composition.					
7- don’t worry that my English compositions					
8- tremble or perspire when I write English compositions under time pressure.					
9- If my English composition is to be evaluated, I would worry about getting a very poor grade.					

10- do my best to avoid situations in which I have to write in English.					
11- My thoughts become jumbled when I write English compositions under time constraint					
12- Unless I have no choice, I would not use English to write compositions.					
13- I often feel fear when I write English compositions under time.					
14- I am afraid that the other students would laugh at my English composition if they read it.					
15- I freeze up when unexpectedly asked to write English compositions.					

16- I would do my best to excuse myself if asked to write English compositions.					
17- I don't worry at all about what other people would think of my English compositions					
18- usually seek every possible chance to write English compositions outside of class.					
19- I usually feel my whole body rigid and tense when write English compositions.					
20- am afraid of my English composition being chosen as a sample for discussion in class.					
21- I am not afraid at all that my English compositions would be					

rated as very poor.					
22- Whenever possible, I would use English to write compositions.					

Appendix 5: Listening anxiety scale

listening anxiety scale

ESL listening Anxiety Questionnaire I--- based on Second Language listening Anxiety Inventory (Kim, 2002)
Name:
Class:

Gender: Male Female

Instruction:
1. Read the following statement and express your degree of agreement / disagreement by ticking
(√) the appropriate column.
2. Note that SA=Strongly Agree, A=Agree, U=Uncertain, D=Disagree, SD=Strongly Disagree.

Statement	5. Strongly Agree	4. Agree	3-Uncertain	2. Disagree	1. Strongly Disagree
1-I get stuck with one or two unfamiliar words.					
2-I get nervous if listening test passages are read just once.					
3-It is difficult to understand people with English pronunciation that is different from mine					
4-I worry that I might not be able to understand when people talk too fast.					
5-I am nervous when					

I’m not familiar with the topic.					
6-It is easy to make guesses about the parts I missed.					
7-I worry that I might have missed important information while I was distracted.					
8-I am worried when I cannot see the lips or facial expressions of the person.					
9-get nervous and confused when I don’t understand every word in listening test situations.					
10-It is difficult to differentiate words.					
11-I feel uncomfortable listening without a chance to read the transcript of the speech.					
12-I have difficulty in understanding oral instructions.					
13-It is difficult to concentrate on and hear a speaker I do					

not know well.					
14-feel confident in my listening skills.					
15-I often get so confused that I cannot remember what I have heard.					
16-I fear I might have an inadequate knowledge about the topic.					
17-My thoughts become jumbled and confused in listening for important information.					
18-get worried when I have little time to think about what I have heard.					
19-I often end up translating word by word without understanding what I'm listening to.					
20-I would rather not listen to people talking in English.					
21-I get worried when I cannot listen at the pace I'm					

comfortable with.					
22-I tend to think that other people understand the content well enough.					
23-I get upset when I'm not sure whether I have understood well.					
24-am worried I might not understand when the person lowers their voice while speaking in English.					
25-I have no fear of listening to public speeches in English.					
26-I am nervous when listening to English over the phone or when imagining myself listening over the phone.					
27-I feel tense when listening to, or imagining myself listening to, a lecture.					
28-I have difficulty when the					

environment around me is noisy.					
29-Listening to new information makes me uneasy.					
30-I get annoyed when I come across new words.					
31-English stress and intonation patterns are familiar to me.					
32-It often happens that I do not understand what English speakers say.					
33-The thought that I may be missing key words frightens me.					

Appendix 6: Grammar anxiety scale

Grammar anxiety scale

ESL listening Anxiety Questionnaire I--- based on Second Language grammar Anxiety Inventory (Ekinci Çelikpazu & Taşdemir, 2022)

Name:
Class:

Gender: Male Female

Instruction:
1. Read the following statement and express your degree of agreement / disagreement by ticking
(√) the appropriate column.

2. Note that SA=Strongly Agree, A=Agree, U=Uncertain, D=Disagree, SD=Strongly Disagree.

Statement	5. Strongly Agree	4. Agree	3-Uncertain	2. Disagree	1. Strongly Disagree
1-Grammar lessons are fun.					
2-I like grammar.					
3- Grammar is one of my favorite classes.					
4- It makes me happy to get a different perspective on grammar and feel emotions that I have not felt before.					
5- I enjoy learning grammar subjects.					

6-It makes me happy to use what I have learned in grammar lessons in my daily life.					
7- It makes me happy when a new grammar subject is useful to me.					
8- I find grammar useful because it affects other skills.					
9- I like grammar although I get a little anxious while I'm learning something new about it.					
10- Grammar subjects are easy to learn because they are based on specific rules					
11- I like grammar despite its difficulty and complexity.					
12- Although learning a new grammar subject for the first time may be boring, doing so makes me happy like solving a puzzle.					

13- I work on grammar as I like it.					
14- I am curious about learning grammar.					
15- When I learn grammar, I am most afraid of not being able to succeed.					
16- It worries me that my previous learning about grammar subjects was insufficient.					
17- I do not like memorizing grammar subjects.					
18- I find it difficult to break old patterns in learning grammar					
19- I think memorization is an obstacle to my learning of grammar subjects.					
20- The difficulty of grammar subjects causes me to feel anxious.					
21- Teaching rules, not language, in grammar					

lessons overwhelms me.					
22- The difference between teaching grammar and related practices makes me feel negative emotions.					
23- My suspicion that I cannot understand grammar subjects makes me nervous.					
24- Thinking that I cannot learn because grammar is prescriptive makes me unhappy.					
25- Although I know the importance of grammar, I do not like it.					
26- I always approach grammar with prejudice.					
27- I feel nervous when I learn grammar subjects.					
28- I don't like grammar.					
29- I always feel troubled in grammar lessons.					

30- I have a hard time translating grammar rules into practice.					
31- I often avoid learning grammar.					
32- Grammar is a nightmare for me.					
33- Grammar subjects do not apply to daily life.					

Appendix 7: Evaluation Rubrics

Evaluation rubric

Item	1	2	3	scor e
Presentation skills	The speaker does not have self confidence and his/her work is not organised	The speaker has Good self-confidence and his/her work is well organised	The speaker has excellent self confidence and his/her work is extremely organised	
Attractivenes s of the work	Use of Font colour, graphics etc., is not appropriate	Use of Font colour, graphics etc., is appropriate	Use of Font colour, graphics etc., is extremely appropriate	
Vocabulary	Numerous vocabulary and punctuation mistakes in the presentatio n	Good use of vocabulary and punctuation in presentatio n	Excellent use of vocabulary and punctuation in presentatio n	
Grammar	Weak use of grammar	Good use of grammar	Excellent use of gramma	
Time	Achieve Little of the task in the required time	Acieve most of the task in the required time	Achieve the task in the required time	

Item	1	2	3
Accuracy	Students answer few questions accurately	Students answer most questions accurately	Students answer all questions accurately
Teamwork	Students cooperate with each other some of the time	Students cooperate with each other most of the time	Students cooperate with each other the whole time
Time	Students finish some of the tasks in the definite time	Students finish most of the tasks in the definite time	Students finish all tasks in the definite time
Presentation	Student present work in a quite organized way with error in speaking skills	Students present work in a very organized way with few error speaking skills	Students present work in an extremely organized and creative way without errors in speaking skills

Performance	1	2	3	score
Content of the presentation	weak use of grammar and excellent answer of the required exercise	good use of grammar and excellent answer of the required exercise	Excellent use of grammar and excellent answer of the required exercise	
Written presentation	Bad use of vocabulary and punctuation in the presentation	Good use of vocabulary and punctuation in the presentation	Excellent use of vocabulary and punctuation in the presentation	
attractiveness	Bad use of Font, colour, pictures and effects to enhance the presentation	Good use of Font, colour, pictures and effects to enhance the presentation	Excellent use of Font, colour, pictures and effects to enhance the presentation	
Team work	Students sometimes cooperate with each other	Students cooperate with each other most of time	Students cooperate with each other the whole time	
Presentation skills	Students present work in a quite organized with errors in speaking and weak self confidence	Students present work in a very organized way with few errors in speaking and good self confidence	Students present work in an extremely organized way without errors in the speaking and excellent self-confidence.	
Time	Students finish few tasks in the definite time	Students finish most tasks in the definite time	Students finish all tasks in the definite time	