



**INVESTIGATING THE EFFECTIVENESS OF QUIZZZ AMONG THE  
SECONDARY SCHOOL STUDENTS' FORMAL EMAILS WRITING**

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## **APPROVAL SHEET**

This research paper attached hereto, entitled Investigating The Effectiveness Of Quizizz Among The Secondary School Students' Formal Emails Writing prepared and submitted by Vannessa Jonathan in partial fulfilment of the requirements for the Bachelor of Arts (Hons) is hereby accepted.

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## ABSTRACT

This research investigates the effectiveness of Quizizz among the secondary school students' formal emails writing. A total of Student A to Student Z form 4 students with average to high proficiency participated in the study, which spanned four weeks and involved both pre-test and post-test of email writing. Initially, the participants completed a pre-test consisting of one email writing question from Kedah SPM Trial Paper 10. Then, four students were selected for a group interview to hear their understanding of email writing preparation. Following the interview, students engaged in a two-week intervention covering key sections of content, communicative achievement, organization, and language. After the intervention, students were evaluated through a grammar test using Quizizz, an interactive online learning platform. The results demonstrated a significant improvement in email writing skills among students. Additionally, interviews conducted with four participants highlighted a strong preference for gamified learning approaches, revealing insights into their motivational drives. This study suggests that incorporating gamified learning strategies can effectively enhance grammar acquisition and student engagement which are asked after the post-test on the fourth week. Future research should expand the sample size and explore further elements of online teaching, given the expansive potential of this educational approach. Overall, the findings affirm the hypothesis that gamified learning positively impacts ESL students' email writing learning outcomes and motivation.

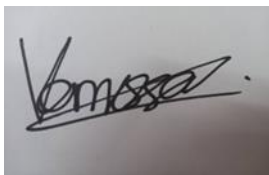
## DECLARATION

I declare that the material contained in this paper is the end result of my own work and that due acknowledgement has been given in the bibliography and references to ALL sources be they printed, electronic or personal.

Name: VANNESSA JONATHAN

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Signed:

A photograph of a handwritten signature in black ink on a light-colored surface. The signature is written in a cursive style and appears to read 'Vanessa Jonathan'.

Date: 12<sup>th</sup> September 2024

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# CHAPTER 1

## INTRODUCTION

### **1.0 Introduction**

#### **1.1 Overview of Research**

The purpose of this Final Year Project is to explore the efficacy of incorporating technological learning programs, with a focus on Quizizz, in enhancing secondary school students' skills in writing formal emails during English classes. The study aims to investigate whether the integration of Quizizz, a popular online quiz platform, positively impacts the compositional quality of formal emails produced by students.

Based on the Teaching Elementary School Students to Be Effective Writers, writing serves a multitude of functions as a communication tool, and educators should assist students in comprehending these functions as well as teaching them how to write effectively for a range of audiences and real-world situations. Furthermore, writing can be used for several things, including expressing ideas, arguing a point, sharing experiences, improving comprehension of reading, and entertaining others (WWC | Teaching Elementary School Students to Be Effective Writers, n.d.) Therefore, it can be inferred that learning how to write formal emails may be important for students if it is a real-life purpose they may encounter.

The teaching of writing, particularly in the context of formal emails composition, is a critical aspect of primary education. As technology continues to evolve, educators seek innovative ways to engage students and enhance learning outcomes. Quizizz, known for its interactive and gamified approach to learning, presents an intriguing avenue for integrating technology into the teaching of



writing. According to Scott and Mouza (2007), a variety of multimedia and electronic communication tools that can facilitate the social writing process have also been made possible by the rapid advancements in technology.

Teachers need to develop "an overarching conception of their subject matter with respect to technology and what it means to teach with technology—a technology pedagogical content knowledge" to effectively integrate technology into the teaching of writing. For this reason, it's critical that we give teachers opportunities to experience writing grounded in new technologies to support their development of both subject-matter and technology knowledge (Scott & Mouza, 2007).

## **1.2 Background of Study**

This Final Year Project aims to make specific benefaction to the latest understanding of the English Education mainly in public secondary school relating to the use of technology-enhanced approaches in teaching writing skills to English Language Learners (ELLs). As the past studies have aware of the benefits and challenges of implementing technology as a teaching tool in teaching of writing, this final year project aims to fill in the research gap of by identifying the effectiveness of technology in writing to increase the ELLs' level of proficiency when it comes to key writing skills components of essays, including grammar, vocabulary acquisition, and overall composition quality.

According to Pheng et al. (2021), technology is often used as teaching tools because it educated teachers about the latest trends of teaching materials and provides flexibility to their lesson plans while students pay attention better to their learning lessons when it comes to collaborating learning because it creates more of a conducive learning. According to Williams and Beam (2019), some classrooms, students are still writing with paper and pen and interacting only with

print-based texts, even though many students—especially those from higher socioeconomic classes—interact in social cyber networks and use multimedia and digital tools to communicate in their daily lives. When teachers actively integrate technology into their educational and instructional strategies, students are more inclined to grow accustomed to it in the classroom. Students can get used to technology in the classroom only if teachers actively employ it in the teaching and learning process. Teachers must set a good example and use technology into their lesson plans for students to adjust to it in the classroom. The development of the Internet, multimedia, and electronic communication tools (such as Web conferencing and email) has changed how people share and communicate with one another, which has led to a real purpose for writing and increased motivation to write (Scott & Mouza, 2007).

Based on Bergdahl et al. (2020), there are several statements from students indicating that they find digital technologies to be helpful for their learning, such as being able to easily concentrate when using a mobile phone/computer/tablet [COG 1], taking the initiative to use additional IT resources in their learning [COG 2], and using different functions in their devices to aid their memory. Overall, the researchers suggests that digital technologies can increase student engagement in learning [EMO 2] and that using these technologies to support learning could be beneficial [EMO 1] (Bergdahl et al., 2020).

However, there are several barriers to the effective use of Information and Communication Technology (ICT) in primary school classrooms. According to Scott and Mouza (2007), teachers exhibited divergent pedagogical perspectives and concentrated mostly on drawbacks or issues related to the use of technology, such as time management, pressure from state exams, students' developmental

readiness, a lack of professional development opportunities, and a lack of administrative support. The lack of available ICT resources, taking precedence over other factors, serves as the primary obstacle to technology integration; teachers' feelings of inadequacy in computer competence, a lack of familiarity with ICT resources, and insufficient skills further hinder implementation, while additional challenges encompass the mismatch between ICT and the curriculum, limited planning time, cost, and infrastructure limitations—especially technical support—and policies governing access to computers; nevertheless, the most significant barrier identified among all these challenges is the scarcity of available technology resources (Firmin and Genesi, 2013).

Throughout this Final Year Project, Quizizz will be implemented for secondary school students to analyze the utilization of online teaching and learning in the composition quality (heading, date, recipient's address, salutation, body, closing, and signature) of writing a formal email. With Quizizz, an online game-based learning platform, educators can choose from pre-made questions that other educators have shared publicly. This allows educators to save time by hand-picking questions from a variety of sources and producing the necessary results more quickly (Quizizz Co-Founders: Deepak Joy Cheenath and Ankit Gupta | ETEC 522, 2020). According to the Co-Founders of Quizizz, Deepak Joy Cheenath and Ankit Gupta, claiming that the online game-based learning platform Quizizz prioritizes the needs of students over those of the teacher, the platform enables students to respond to questions at their own pace using their personal devices, eliminating the need to wait for classmates to finish a lesson; moreover, students view questions on their individual electronic devices, and teachers can

assign homework, offer practice questions for review, divide classes, and monitor student progress through the teacher's dashboard.

According to Puranik et al. (2014), the ability to write formal emails is an excellent predictor of early spelling, a word-level writing skill, and letter-writing fluency is an excellent predictor of written compositional quality and quantity in kindergarten and elementary school children.

### **1.3 Problem Statement**

This research proposal brings forward to fill in the research gap of the pedagogical approaches for technology-enhanced writing instruction. The limited comprehensive awareness of effective technology-enhanced approaches and tools for addressing specific challenges in teaching writing to English Language Learners (ELLs), particularly in the formal email composition skill set, underscores the need for thorough research to fill this crucial gap, providing teachers with methodically based knowledge to inform decision-making, approach, and execution of technology-enhanced writing classes that foster significant involvement, language acquisition, and ultimately proficient writing skills among ELLs, an area that has received insufficient study, especially in the ESL setting (Pheng et al., 2021). Therefore, this research may carefully evaluate the efficacy of using game-based learning in the context of secondary school students' writing classes, particularly formal emails, with the help of Quizizz. Through the utilisation of Quizizz's interactive functionalities and customised content, educators can assess the degree of involvement, educational goals, and general influence on the composition abilities of secondary school students.

#### **1.4 Research Aim**

The aim of this research proposal is to investigate the effect on various technology-enhanced in ELLs' proficiency in writing, inspiration, involvement, and confidence in oneself. Such methods consist of interactive writing sites, online peer feedback systems, and multimodal writing tasks. To assist teachers in this area, it is essential to contrast different methods of teaching to discover the most successful ones.

#### **1.5 Research Objectives**

The present study aims to examine the following research objectives:

- 1) Analyse the impact of interactive online writing platforms: Quizizz to improve compositional quality in a formal email.
- 2) Investigate the extent of enthusiasm and dedication expressed by the secondary school students in writing with the online technological programme of Quizizz.

#### **1.6 Research Questions**

Based on the research objectives provide research questions as following:

- 1) How does the utilization of interactive online writing platforms, specifically Quizizz, impact the improvement of compositional quality in formal emails?
- 2) How much more enthusiastic and dedicated are the English Language Learners (ELLs) in writing lessons when given the opportunity to online technological programme of Quizizz?

#### **1.7 Significance of Study**

In the present-day school setting, the research of "Investigating The Effectiveness Of Quizizz Among The Secondary School Students' Formal Emails Writing" is of utmost significance in relation to the challenges ELLs encounters, such as language obstacles and a variety of level proficiency, technology provides an

opportunity for improvement. Examining how technology-enhanced approaches effect ELLs' writing instruction could assist teachers construct pedagogical approaches that not only enhance language proficiency but also genuine participation and awareness of culture. By providing teachers with knowledge based on evidence that could improve their teaching methods while enhancing ELLs' writing skills, this study has the potential to close a knowledge gap and contribute to the successful integration of ELLs into a variety of professional and educational settings.

By providing evidence-based findings about modern methods of teaching of writing, this study of "Investigating the Effectiveness of Quizizz Among The Secondary School Students' Formal Emails Writing" will contribute to an important improvement to English Education. It would provide teachers with concrete strategies for fulfilling specific linguistic and social needs of ELLs, improving their language proficiency overall and their writing skills. The findings of this research could possibly assist in enhancing broad and equitable English Education, facilitating greater success and confidence for ELL students in language learning and communication.

Paying attention to these developments, this research proposal will provide ESL public secondary school teachers with the opportunity to get insight on which technology teaching tools are effective in improving the ELLs' writing skills. Additionally, the involvement of ELLs' success in the education environment will provide the effectiveness of the use of technology in writing lessons. Hence, this project will grant to the evolution of pedagogical practices that support technology to better playing a part of ELLs in their writing progress proficiency.

## **1.8 Research Limitation**

The primary goal of the research is to evaluate the effectiveness of technology-enhanced approaches for teaching writing to English Language Learners (ELLs). The aim of the study is to evaluate the efficiency of interactive online writing platforms and how they impact of technology-advanced components, such as online peer feedback systems, on ELLs' interest and commitment to writing learning. This research fills a gap in the depth of data on pedagogical strategies for ELLs' technology-enhanced writing education. The study enhances knowledge of how technology tools can improve ELLs' writing skills and involvement in language learning environments through analysing the success rate of different methods.

Due to possible timetable complications and constrained availability, it might be challenging to be placed in the classroom between form 5 to form 6 between higher to average level of proficiency of students to ensure the experimental is a success. It might be essential to work through education administrative processes inside educational systems to have a classroom of secondary school students to participate in this experimental project. Additionally, this project could run into time limitations because an in-depth assessment of technologically upgraded methods and their implications might take a while. Due to the relatively recent emergence of this topic, it may be difficult to find relevant references on the specific research gap of pedagogical approaches for technology-enhanced writing instruction. This may require a deeper exploration of the English education on writing pedagogy and educational technology. Finally, for the experimental project to be in progress, it needs to be consistent to reserve the ICT lab once to

twice a week knowing that there will only have one lab available in public schools.

## **1.9 Definition of Key Terms**

### **1.9.1 Effectiveness**

According to Dawawi and Yamat (2022), in the context of teaching writing in schools, "effectiveness" pertains to the extent to which instructional strategies, interventions, or approaches succeed in enhancing students' writing skills, encompassing aspects like content, organization, language mechanics, and sentence construction. In the editorial office context, effectiveness in communication pertains to the skill of conveying information clearly, accurately, and in a manner that achieves desired outcomes, encompassing the adept transmission of messages, understanding and addressing recipient needs, and successfully attaining communication goals, thereby ensuring authors receive clear and constructive feedback, timely and professional communication of decisions, and the positive maintenance of the journal's image (Whang & Wendler-Shaw, 2021). Evaluation methods include analyzing writing samples, tracking students' progress, and considering their overall development in writing abilities, emphasizing the importance of engaging teaching strategies for meaningful learning experiences and improved writing outcomes (Dawawi & Yamat, 2022).



### **1.9.2 Technological Approach**

According to Jeffrey et al. (2014), in the realm of blended learning, a technological approach involves utilizing online platforms and tools to enrich the learning experience by seamlessly integrating digital resources, facilitating communication, collaboration, and access to educational materials, within the combined framework of face-to-face and online components, thus creating a more interactive and flexible learning environment.

### **1.9.3 Quizizz**

According to Degirmenci (2021), Quizizz, an online quiz platform, enables educators to generate interactive quizzes for students, fostering a gamified setting for participation, competition, and progress tracking, offering diverse question formats to assess and reinforce learning. According to Degirmenci (2021), Quizizz facilitates student participation in quizzes through any internet-enabled device, offering real-time and student-paced modes for flexible engagement. The user-friendly interface not only allows easy navigation and access to various functions but also fosters a sense of competition among learners, motivating increased engagement in their studies through the accumulation of points earned by correct answers (Lim & Yunus, 2021).

### **1.9.4 Email Writing Skills**

According to Dawawi and Yamat (2022), email writing skills encompass the capability to proficiently craft and convey messages through email by grasping the suitable format, tone, and language

for professional or formal correspondence, including adept organization of thoughts, clear and concise expression, appropriate addressing of recipients, adherence to proper email etiquette, and the timely and error-free response, which is essential for effective communication in professional and academic contexts. Email writing abilities include the ability to write and format emails for a variety of contexts, such as academic or professional correspondence. These contexts include the creation of clear subject lines, appropriate greetings and salutations, messages that are well-structured and coherent, and the observance of language conventions and etiquette (Harrison & Vanbaelen, 2011).

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

The present knowledge of this final year project on Investigating The Effectiveness Of Quizizz Among The Secondary School Students' Formal Emails Writing illustrates the potential benefits associated with incorporating technological tools into teaching of writing. Pheng et al. (2021) discovered that when implementing the most recent teaching materials, teachers in public schools often make use of technology to help improve their academic experience. In addition, there are multiple opportunities for successful teaching made achievable by technology, which may encourage ELLs to partake in deeper educational experiences.

#### **2.1 Teaching of Writing**

In Malaysian secondary schools, English writing instruction commonly follows a genre-based approach, exposing students to various text types such as narratives, descriptive essays, and letters. The widely used process writing method involves stages like prewriting, drafting, revising, editing, and publishing. Grammar and vocabulary instruction are integrated to enhance language conventions, and both formative and summative assessments are employed to evaluate students' writing skills. Teachers offer constructive feedback to support improvement, and cultural diversity is incorporated into writing tasks to encourage students to express themselves while respecting different cultures. Notably, technology, including the use of digital tools, plays an increasing role in English language instruction in Malaysian secondary schools.

### **2.1.1 Task-Based Learning Methods**

According to Dawawi and Yamat (2022), task-based learning methods prioritize practical, real-world assignments, compelling students to apply their writing skills to complete specific tasks or projects. For instance, in a Malaysian secondary school that implements task-based learning, pupils may be tasked with working in groups to compose an effective letter to the local government, urging the enhancement of a public area like a park or playground. To complete this mission and convince the authorities to act in the community's best interests, they would need to put their writing skills to use.

### **2.1.2 Incorporating Reading in Writing Classes**

According to Dawawi and Yamat (2022), integrating reading activities into writing classes is beneficial as it enhances students' writing skills by exposing them to diverse writing styles and structures, acknowledging the inherent connection between reading and writing. For instance, students may read and evaluate a range of newspaper stories on environmental issues as part of a reading assignment in a writing class. They might then be required to write argumentative essays of their own supporting environmentally friendly practises, using the knowledge they learned from the readings to improve their writing abilities.

### **2.1.3 Implementing Technology in Teaching and Learning**

Technology integration in education is becoming more and more common, revolutionizing conventional teaching strategies, and offering cutting-edge learning opportunities. Technology is used in a variety of educational contexts, including Malaysian classrooms, to improve instruction and

engage students more actively. To create a more dynamic and multimedia-rich learning environment, educators use digital technologies including interactive presentations, instructional apps, and online resources. In addition to making material more accessible, technology use promotes independent and collaborative learning. Furthermore, online forums and virtual classrooms offer channels for productive interaction and engagement (C. Williams & Beam, 2019). Using technology in the classroom seeks to provide students with the skills necessary for digital literacy while accommodating a variety of learning preferences, resulting in a more dynamic and flexible learning environment.

#### **2.1.4 Teaching Writing**

Several studies have been conducted about teaching writing skills to English Language Learners (ELLs) utilising technology-enhanced methods. An investigation had been carried out, as reported by Williams and Beam (2019), where technology was utilised to motivate students from junior high schools to start writing with the aim of ultimately enhancing their writing skills. The outcomes revealed that students who used to believe writing was "boring" were now devoted about tasks related to writing because the technology grabbed their engagement and motivated them to take an active part in accomplishing the assigned task. Technology, based on teachers, was especially beneficial in promoting the self-confidence of struggling ELLs. Additionally, Beardsley et al. (2021) laid out findings that ESL teachers who utilised technology to teach ELLs writing during the Covid-19 pandemic were inspired to organise classes, teach in the classroom, evaluate students, and deliver feedback. As a result, interactions with students and families

enhanced, and teachers' confidence in utilising technology as a teaching tool likewise improved. It has been reported that excessive usage of digital technology can result in depression and school burnout. In contrast, a study by Bergdahl et al. (2020) emphasised some academics' claims that students may utilise digital devices to disengage by diverting their focus from learning. Collectively, these studies highlight the potential advantages and difficulties of integrating technology in ELL writing education while emphasising the significance of addressing digital fairness and pedagogical factors.

#### **2.1.5 Quizizz**

According to Degirmenci (2021), The literature review underscores the effectiveness of Quizizz in English language learning and teaching, highlighting its positive impact on student progress, increased engagement, and active participation due to its gamified and engaging features, and its utility as a beneficial and enjoyable tool for self-access learning, enabling students to evaluate their progress and customize their learning according to individual preferences. According to Lim and Yunus (2021), Grabinski et al. used Quizizz as an intervention in English language teaching where it was probably created by the researchers to evaluate how Quizizz affected the language proficiency of the pupils. It's possible that Quizizz was incorporated into the curriculum and pupils' competence levels were assessed both before and after the intervention, so to determine whether Quizizz is beneficial in helping students become more proficient in language generally, the study probably included evaluations of students' language abilities in speaking, writing, listening, and reading (Lim & Yunus, 2021).

The study's conclusions showed that the use of the online learning platform significantly raised the learners' competence levels, highlighting Quizizz's beneficial effects on language acquisition (Lim & Yunus, 2021). According to Degirmenci (2021), both teachers and students hold positive views of Quizizz in English language learning, with teachers perceiving it as a valuable tool that boosts students' confidence, motivation, and reading skills, fostering active engagement. Students express a preference for Quizizz, finding it enjoyable and effective for language learning, and they note its role in self-assessment, aiding in the identification of strengths and weaknesses while contributing to progress in grammar comprehension (Degirmenci, 2021).

## **2.2 Theoretical Framework**

### **2.2.1 Connectivism**

According to Sozudogru et al. (2019), connectivism, a learning theory underscored by the importance of technology and online communication platforms, posits that knowledge is distributed across networks, emphasizing the continual and interconnected nature of learning. In the digital age, connectivism highlights the role of social networking tools and online platforms in facilitating dialogue, collaboration, and the construction of knowledge, expanding the learning experience beyond traditional boundaries (Sozudogru et al., 2019).

According to Bozkurt and Ataizi (2015), connectivism, crucial for teaching and learning in the digital age, introduces a novel perspective on how learning unfolds in networked environments. Departing from traditional theories, connectivism acknowledges knowledge distribution across

networks, stressing the active role of learners in navigating and constructing these networks (Bozkurt and Ataizi, 2015). This approach is especially relevant in the digital age, enabling educators to harness Web 2.0 tools for tailored, independent learning experiences that adapt to the diverse needs of learners across formal, informal, and non-formal settings (Bozkurt and Ataizi, 2015).

According to Mohammedeen et al. (2023), one of the key findings that can be found relating to connectivism and writing skills The study formulated hypotheses to assess the impact of the connectivism-based program on the students' communicative writing skills. The first hypothesis predicted a statistically significant difference in the participants' mean scores on the overall writing pre-posttest in favor of the post-test, indicating an expected improvement in the students' overall writing performance following the program (Mohammedeen et al., 2023). The second hypothesis anticipated statistically significant differences in the mean scores of the participants' writing sub-skills on the pre-posttest in favor of the post-test, focusing on specific aspects such as descriptive and narrative writing (Mohammedeen et al., 2023). These hypotheses reflect the researchers' rigorous approach to evaluating the program's effectiveness and aimed to provide empirical evidence of its impact on the students' writing abilities, contributing valuable insights into the potential benefits of connectivism in enhancing students' writing skills (Mohammedeen et al., 2023).



### **2.3 Conclusion**

While prior research has highlighted the potential benefits and challenges of integrating technology in ELL writing instruction, this proposal focuses on how these benefits and challenges are affected. This research makes a significant contribution to a more thorough understanding of the complex dynamics between technology, teaching techniques, and ELLs writing results by concentrating on writing skill components and considering holistic student well-being. There hasn't been much study done on the usefulness of technological tools for writing, especially in an ESL setting (Pheng et al., 2021).

## **CHAPTER 3**

### **METHODOLOGY**

#### **3.0 Introduction**

This Final Year Project endeavors to address the research gap in Investigating the Effectiveness among the Secondary School Students' Formal Emails Writing through a mixed-methods approach. The study involves a quasi-experimental method using Quizziz with public secondary school English students to gauge its impact on improving formal email writing scores. Additionally, qualitative interviews will be conducted to capture students' perspectives on motivation and enthusiasm following Quizziz integration into their writing lessons. The chosen purposive sampling method aims to include participants with diverse experiences in both writing skills and technology use, enhancing the relevance and thoroughness of the study. The project aims to contribute valuable insights to pedagogical approaches for technology-enhanced language instruction, offering practical guidance for educators working with ELLs.

#### **3.1 Research Design**

The research design outlines the designs and mix methods that were used in the study in this chapter. The sampling method also covered the sample size, participants, sampling procedure, and study site. The study's data collection and pilot study forms will be implied by the research processes.

To gather data from the participants for the current study, a quasi-experimental design will be used where the interactive quiz app; Quizizz and formal school email of the participants will be used. Various nonrandomized intervention studies fall under the category of quasi-experimental research. When conducting a randomized controlled experiment is neither ethically nor logistically viable, these designs are

commonly utilized (Harris et al., 2006). Qualitative method will also be applied after the experiment to determine the motivation and enthusiasm during the intervention of Quizziz.

The participants involved will be school students of the age 13 to 17 (form 1 to form 5) which are the target samples of this study. The targeted sample is composed of students. Form 4 to form 5 secondary school students are a suitable sample size for the quasi-experimental study because of their developmental stage, curriculum alignment, presumptive familiarity with technology, cognitive readiness for challenging tasks, relevance to language learning, practical considerations, and the need to exercise ethical caution when working with younger participants.

### **3.2 Purposive Sampling**

This study will use a non-probability sampling method which is a sampling method where samples are chosen by the researcher based on their own assessment as opposed to by chance. It is a less strict approach. Purposive sampling refers to a technique used by researchers to gather data for research from a group of individuals who are readily accessible. This is the most often utilized sample method since it is so quick, simple, and affordable. The purposive sampling is a smaller, usually non-random subset of the population chosen with the goal of rationally representing it in this sampling method, in this case, a small group of students from a chosen school. This study is targeted on students with the age ranges between 13 to 17 years old attending school regularly.

Key student characteristics for the successful implementation of purposive sampling in a classroom setting for this study include adherence to the specified age range of 16 to 17 years old, regular attendance to ensure consistent participation, and a willingness to actively participate in research activities, especially those

involving technology-enhanced writing instruction using Quizizz. Students should also have access to the tools and infrastructure needed for technology. The study may be made more comprehensive by considering the variety within the selected group, which includes a range of talents, language proficiency levels, and attitudes towards technology. In addition, getting parental or guardian agreement is necessary to satisfy ethical requirements and guarantee the students' involvement is supported.

### **3.3 Research Instrument**

#### **3.3.1 Pre and Post Test (Quasi Experimental)**

During the first English writing lesson, there will be an exam for the students in the classroom. The exam's questions will be taken from an exercise book or textbook and will focus on writing a formal email. There will be a thirty-minute test period. Instruction to the students will be as follows:

##### **Exam Overview:**

Time allotted: The exam will take fifteen minutes to finish.

Source Material: Exercise book or textbook will be the source of the questions. Become familiar with the material that these materials cover.

##### **Before Exam Begin:**

Read Prompt Carefully: Give each question a thorough read over the course of a few minutes. Pay close attention to the details and the context that are offered.

Recognise the Situation: Every question aims to gauge the proficiency in handling a certain situation. Prior to drafting the response, make sure to comprehend the context.

**Final Reminders:**

Timing Management: Use the time effectively. To guarantee that the test can be finished within the allotted time, schedule the amount of time that will spend on each question.

Examine the Work: If there is still time, go over to the answers to make sure they are accurate, comprehensive, and clear.

Depending on where the question is modified from, the marking scheme will be taken from the practice book or textbook.

The test scores will be awarded according to how well the formal email was composed (pre and post-test) and sent as follows:

**Scoring Criteria (Compositional Quality):**

Coherence: The answer should make sense and be simple to understand.

Language Proficiency: Use suitable terminology and sentence structures to demonstrate your command of the language.

Formality: Communicate in a businesslike or professional manner by maintaining a formal tone.

Relevance: Make sure the email properly responds to the prompt and has a clear connection to the situation that was provided.

**3.3.2 Intervention of Quizziz**

Students will participate in a structured learning module on formal email production in the ICT room starting in the second week of the English writing course. This training session will take place once or twice a week for a total of one to one and a half months, lasting between thirty and an hour per session. The educational content will be made available via Quizziz, an online learning platform. This platform will provide practice

questions aimed at improving the formal email content quality. These inquiries, meticulously modified from reputable textbooks and workbooks, function as the research tools that direct the educational process. Students will get frequent, helpful feedback to enhance their comprehension of professional email writing rules throughout the Quizizz sessions. This methodical approach, which incorporates research tools into the learning framework, is designed to offer a thorough and engaging learning experience in the field of professional writing.

### **3.3.3 Interview (Qualitative)**

A carefully crafted series of open-ended questions is used as the study instrument for the post-pre-test and post-test interviews that take place after the Quizizz intervention as follows:

#### **Pre-Test Interview Questions:**

##### **Basic Information:**

What information about the subject or topic covered in the pre-test do you presently know?

##### **Anticipations:**

Considering the material from the pre-test, what goals do you have for this course or intervention?

##### **Problems:**

Which pre-test topics or regions stand out to you as particularly difficult or unclear?

##### **Study Routines:**

How do you usually go about studying or getting ready for exams such as the pre-test?

**Preferences for Learning:**

Before starting the next learning activities, could you share your preferred learning strategies or approaches?

**Post-Test (After Quizziz Intervention) Interview Questions:**

**Observed Enhancement:**

Do you think that after taking part in the Quizziz intervention, your comprehension of the subject has improved?

**Successful Techniques:**

After utilising Quizziz, which techniques or resources did you find most useful for getting ready for the post-test?

**Areas Needing Additional Assistance:**

Are there any English lesson skills (reading, listening, speaking) or ideas that you still feel want further help or explanation?

**Comments Regarding Quizziz:**

How do you feel about Quizziz being used as a teaching tool? What effect did it have on your educational process?

The goal of the questions is to get comprehensive answers from every participant. The purpose of these questions is to investigate the students' comprehension levels, opinions on the Quizziz intervention, and any changes in their knowledge that they may have noticed between the pre- and post-tests. To provide a thorough overview of the users' experiences, the interview questions are purposefully broad in the beginning. As time goes on, they become more focused, covering topics like the usefulness of Quizziz, difficulties encountered, and areas that may be improved. The tool

also includes suggestions to help participants think back on their learning preferences and techniques during the intervention time.

### **3.4 Data Collection Procedure**

#### **3.4.1 Experiment**

##### **3.4.1.1 Pre-Test and Post Test**

A thorough pre- and post-test assessment method is used in English writing classes to gauge students' ability to write and send business emails. The 30-minute English writing test is designed to give students enough time to comprehend the directions, write their replies, and go over their work. Here's how the time is divided up:

##### **Introduction and Reading Instructions (5 minutes):**

The exam is introduced, and students have five minutes to read and comprehend the instructions in their entirety. Stress how crucial it is to understand the background and specifications of every inquiry.

##### **Reading and Analyzing Prompts (5 minutes):**

Give pupils five minutes to read and consider the formal email scenarios' suggestions. They have this much time to process the information and background offered in each inquiry.

##### **Composing Formal Emails (15 minutes):**

Give students fifteen minutes, or most of the time, to actively draft their answers to the formal email situations. Urge students to keep their emails official, well-structured, and relevant to the circumstances at hand. They should also use language that is suitable.



**Reviewing and Editing (3 minutes):**

Give students three minutes to go over and make edits to their written replies. They may use this time to ensure that their official emails are accurate, comprehensive, and clear. To polish their work before submitting it, this stage is essential.

**Submission and Closing (2 minutes):**

Allocate the final two minutes for students to turn in their finished exam papers. This is the moment to wrap up the testing session and give any instructions that may be needed for turning in the written replies.

The exam consists of a question that are taken from textbooks or practice books. The purpose of the test is to evaluate students' proficiency with a range of official email settings. Students are advised to familiarise themselves with the source materials and carefully study and comprehend each question's prompt before to the exam. Students are urged to identify the scenario that is asked in each question before to writing their answers. The formal emails' compositional quality is taken into consideration when assigning a score for the exam.

**3.4.1.2 Intervention**

Students will engage in a well-designed learning module focused on formal email output starting in the second week of the English writing course. This teaching project will take place in the ICT room once or twice a week for a total of one to one and a half months. The length of each session will range from thirty minutes to an hour. Quizizz, a reliable

online learning platform, will ease the distribution of instructional information. Quizizz will operate as an active facilitator, providing practice questions that have been carefully taken from reputable textbooks and workbooks. In this way, it will act as a strong research tool that directs the teaching process. By working through these practice questions, the students participate in a systematic data gathering process that provides insights on their ability to write formal email content of the highest calibre. During the Quizizz sessions, students will receive regular and constructive feedback based on a thoughtful and methodical approach, which will help them better comprehend the subtleties of professional email writing practices. This all-encompassing strategy, which incorporates research instruments and data gathering techniques into the educational framework, is painstakingly created to offer a thorough, perceptive, and interesting learning experience in the field of professional writing.

A brief lesson plan for a 30-minute intervention focused on teaching and learning the compositional quality of formal email using Quizizz:

**Objective:**

Enhance students' proficiency in composing high-quality formal emails through interactive learning with Quizizz.

**Materials Needed:**

ICT room with internet access.

Projector or smartboard for displaying Quizizz questions.

Computers provided in the ICT.

**Lesson Plan:**

**Introduction (5 minutes):**

Introduce the subject of formal email writing in brief.

Describe the intervention's goal: to use Quizizz to enhance compositional quality.

Describe the benefits of having expert email writing abilities in different situations.

**Accessing Quizizz (2 minutes):**

Teach students how to use their smartphones to access Quizizz.

Give the URL or Quizizz code for the practice question set.

**Quizizz Session (15 minutes):**

Start the Quizizz session, then use the projector to present the questions.

Students should be urged to thoroughly consider each question and select the best answer.

Given enough time to carefully analyse each issue.

**Real-Time Feedback (5 minutes):**

Give immediate feedback following each Quizizz question, outlining the right and wrong responses.

Provide further details about the formal email writing quality.

**Discussion (3 minutes):**

Start a quick conversation on the main ideas and techniques for enhancing formal email writing.

Students should be encouraged to clarify things or ask inquiries.

**Closing and Summary (2 minutes):**

Write a summary of the main ideas discussed in the intervention.

Stress the value of using the lessons learnt in real-world email writing situations.

**Note:**

- Make sure the classroom is engaging and encouraging.
- Observe how involved the students are in the Quizizz session.
- Positive reinforcement is a good way to promote involvement.
- Give them further references or resources to help them learn more.

**3.4.2 Interview**

After the Quizizz intervention, doing post-test and post-test interviews requires a careful procedure to obtain insightful information. Four students will participate in a group interview that lasts fifteen to twenty minutes. The purpose of the interview is to examine the students' understanding before focusing on certain topics from the pre- and post-tests (after the intervention). To guarantee accuracy and uphold ethical standards, the interviews will take place in a calm, instructional environment—the classroom—with verbal agreement given and audio recorded from a

smartphone. Thematic Analysis software will be used to transcribe the recorded interviews, guaranteeing privacy, and adhering to data protection laws. Pre- and post-test results will be combined with the transcribed data for a thorough analysis that will include categorising replies according to themes found.

### **Lesson Plan: Conducting Pre and Post-Quizizz Intervention Interviews**

#### **Objective:**

Four students will be interviewed in groups for fifteen to twenty minutes to get relevant information about their knowledge both before and after the Quizizz intervention.

#### **Materials Needed:**

Classroom setting.

Smartphone for audio recording.

Thematic Analysis software for transcription.

Pre- and post-test results.

#### **Lesson Plan:**

##### **Introduction (2 minutes):**

As you greet the students, give them a quick explanation of the group interview's goal.

Stress the significance of their observations in figuring out how the Quizizz intervention affected their learning.

##### **Discussion on Understanding (3 minutes):**

Before the Quizizz intervention, start by asking open-ended questions on their general comprehension of formal email writing.

Invite students to talk about their experiences, difficulties, and any apparent gains in their comprehension.

**Focus on Pre- and Post-Tests (5 minutes):**

Talk about certain subjects from the pre- and post-tests that have to do with professional email writing.

Examine how their approach to these subjects was affected by the Quizizz intervention.

Permit students to consider how well Quizizz meets their educational needs.

**Audio Recording and Verbal Agreement (2 minutes):**

Make sure the audio recording procedure is pleasant for the pupils.

Get each student's verbal consent to participate, then record the interview for accuracy.

**Group Discussion (5 minutes):**

Lead a conversation in the group and invite students to contribute ideas, answer one another's ideas, and offer further information.

Ask follow-up questions to learn more about areas of the Quizizz intervention depending on their answers.

**Closing and Acknowledgment (2 minutes):**

List the main topics that were covered in the interview.

Thank them for their involvement and important contributions to the research.

**Transcription Process (1 minute):**

Give a brief explanation of how transcription is done using Thematic Analysis software.

Stress the value of maintaining one's privacy and abiding by data protection regulations.

**Conclusion (2 minutes):**

Acknowledge the time and participation of the pupils.

Make any next stages in the research process clear.

**Note:**

- Keep in mind that there are time limits, and make sure that every student participates fairly.
- Sustain an impartial and supportive demeanour to promote candid dialogue.
- Give ethical issues a priority, making sure that students' permission, privacy, and data are protected.

### **3.5 Plan for Data Analysis**

#### **3.5.1 Experimental**

Analysing and comparing scores or metrics related to the writing samples is usually required when comparing formal email writing samples sent before and after testing using SPSS (Statistical Package for the Social Sciences). According to K. Williams (2023), data from SPSS—a suite of software applications created for the analysis of scientific data in the social sciences—is used in surveys, data mining, market research, and other applications for it offers a quick-visual modelling environment that can handle models of any complexity.

First step will be inputting the data into SPSS of each participant's pre-test and post-test scores in separate columns. Then, calculating descriptive statistics to get an overview of the data such as mean, median, standard

deviation, and range. To determine the mean difference between two sets of observations is significantly different from zero, there will be a paired sample t-test to determine if there is a statistically significant difference between the pre-test and post-test scores. When needed, log transformations could be considered if the data is not normally distributed. There will be visualizations such as histograms, or line graphs to display the distribution of scores in each test. If applicable, there will be correlation and factor analysis to see if there are relationships between these variables and the pre-test/post-test scores and identifying underlying constructs or factors. During presentation of report, there will be statistical values, p-values, and effect sizes if applicable and discussing practical significance of any statistically significant differences. However, it is important to take note that there might be limitations of the analysis, such as sample size, data quality, or other potential confounding factors.

### **3.5.2 Qualitative**

Conducting data analysis for qualitative interviews with four students after pre and post-tests using thematic analysis involves several key steps. According to H (2023), as a qualitative data analysis technique, thematic analysis involves going over datasets such as transcripts of in-depth interviews to find patterns in meaning for the researcher derives themes through an active process of reflexivity in which the meaning-making process from the data is heavily influenced by their subjective experience. There are several methodical processes in the theme analysis process. The researcher first becomes acquainted with the data by transcribing interview tapes, then goes over the transcriptions to familiarise oneself with the



material. After the data is coded to identify significant units linked to the study topic, first codes are generated using inductive coding, which allows themes to develop without the need for predetermined categories. To prevent the imposition of pre-existing categories and promote an organic development, themes are found by grouping related codes together. Themes are refined via a systematic examination to guarantee cohesion and correct depiction. After then, each topic is given a clear definition, a name, and a brief explanation. Finding patterns and connections in data is aided by data organisation using charts or tables. Themes are cross validated against a variety of data sources, and participant comparisons among the four students highlight parallels and divergences. Comprehensive patterns are investigated by integration with quantitative test data, and member verification entails disseminating results to participants for confirmation. The last steps involve writing a narrative that relates themes to the research question, reflecting to identify biases, obtaining peer review to increase credibility, and concluding the analysis to guarantee clearly defined, empirically backed themes that significantly contribute to answering the research question.

## CHAPTER 4

### RESULT AND DATA ANALYSIS

#### 4.0 Introduction

The purpose of this final project is to investigate how using Quizizz, an interactive online learning platform, improves students' formal email writing skills in secondary school. This study is researched to ascertain whether the entertaining and gamified components of Quizizz lead to enhanced writing abilities in this context through extensive data gathering and analysis.

#### 4.1 Data Analysis for Research Question 1

The first research objective of this project is to analyze the impact of interactive online writing platforms, specifically Quizizz, on improving the compositional quality of formal emails. Understanding how these platforms can enhance writing skills is crucial with the increasing integration of digital tools in educational settings. This study seeks to determine whether Quizizz, known for its engaging and interactive learning environment, can effectively elevate the standard of students' formal email compositions. By systematically assessing students' performance before and after the intervention, this research aims to provide insights into the efficacy of Quizizz as a tool for enhancing formal writing skills.

Three steps of the First Research Objective made up the design of the study: the pre-test, the intervention, and the post-test. The 20-minute pre-test was conducted during the first week, specifically on 24th March 2024, to evaluate the students' foundational formal email writing abilities. The intervention

phase ensued, during which students used the Quizizz platform for two weeks, covering the 2nd and 3rd week. The duration of each Quizizz session was two days for each homework assignment because of unforeseen circumstances that will be discussed in the following section. Ultimately, a 20-minute post-test was administered during the 4th week, on 14th April 2024, to assess how much the students' formal email writing abilities had improved after the intervention. This methodical technique made sure that Quizizz's ability to improve formal email writing abilities was thoroughly assessed.

#### **4.1.1 Pre-Test and Post-Test with Data Analysis**

Bar charts were utilized to compare the students' content, communicative achievement, organization, and language, which eventually led to pre- and post-test scores, visually depicting the Quizizz intervention's effect on their professional email writing abilities. These bar charts make it easy to compare the data gathered before and after the intervention by clearly illustrating the changes in performance.

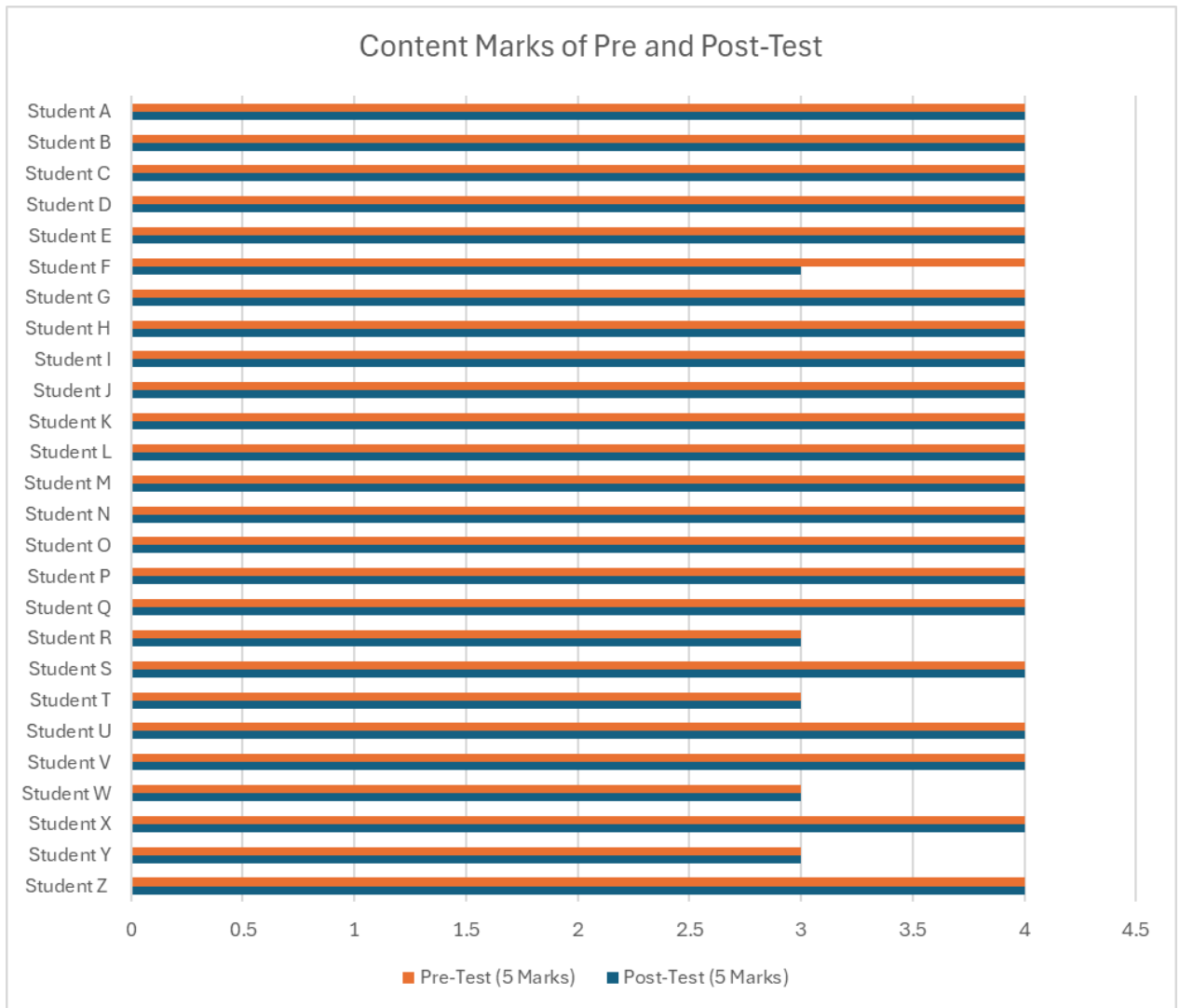
Students' content, communicative achievement, organization, and language marks from both the pre and post-tests are shown in the bar graph, with scores out of five for each. The main instrument for assessing the students' formal email writing abilities was the marking rubric that the Form 4 English school instructor gave for this study. Clear criteria were given in this rubric, which evaluated important elements like grammar, tone, structure, clarity, and general coherence. The rubric's adherence to this uniform framework guaranteed uniformity and objectivity in assessing the students' performance,

enabling a thorough assessment of the Quizizz intervention's efficacy in enhancing formal email writing abilities. The content marks are assessed based on whether the content written is relevant to the task and target reader is fully informed. Communicative achievement is marked based on the text written by students who communicate straightforward ideas using conventions of the communicative task reasonably appropriately. Organization marks are evaluated by marking simple connectors and a limited number of cohesive devices appropriately. Finally, language is marked based on the uses of basic vocabulary, and grammatical forms with a good degree of control, while even though there are errors, there is still meaning to the text.

The scores are shown on the X-axis, while the students are listed (from Student A to Student Z) on the Y-axis. Every student has two bars: the pre-test score is shown by the orange bar, and the post-test score is shown by the blue bar. For practically all students, the orange bars from the pre-test and the blue bars from the post-test are consistently higher or equal, demonstrating an overall improvement of the four criteria following the intervention.

#### 4.1.2 Content Marks of Pre and Post-Test

The bar graph below presents data on the Content Marks of Pre and Post-Test by clearly illustrating the changes in performances before and after the intervention of Quizizz:



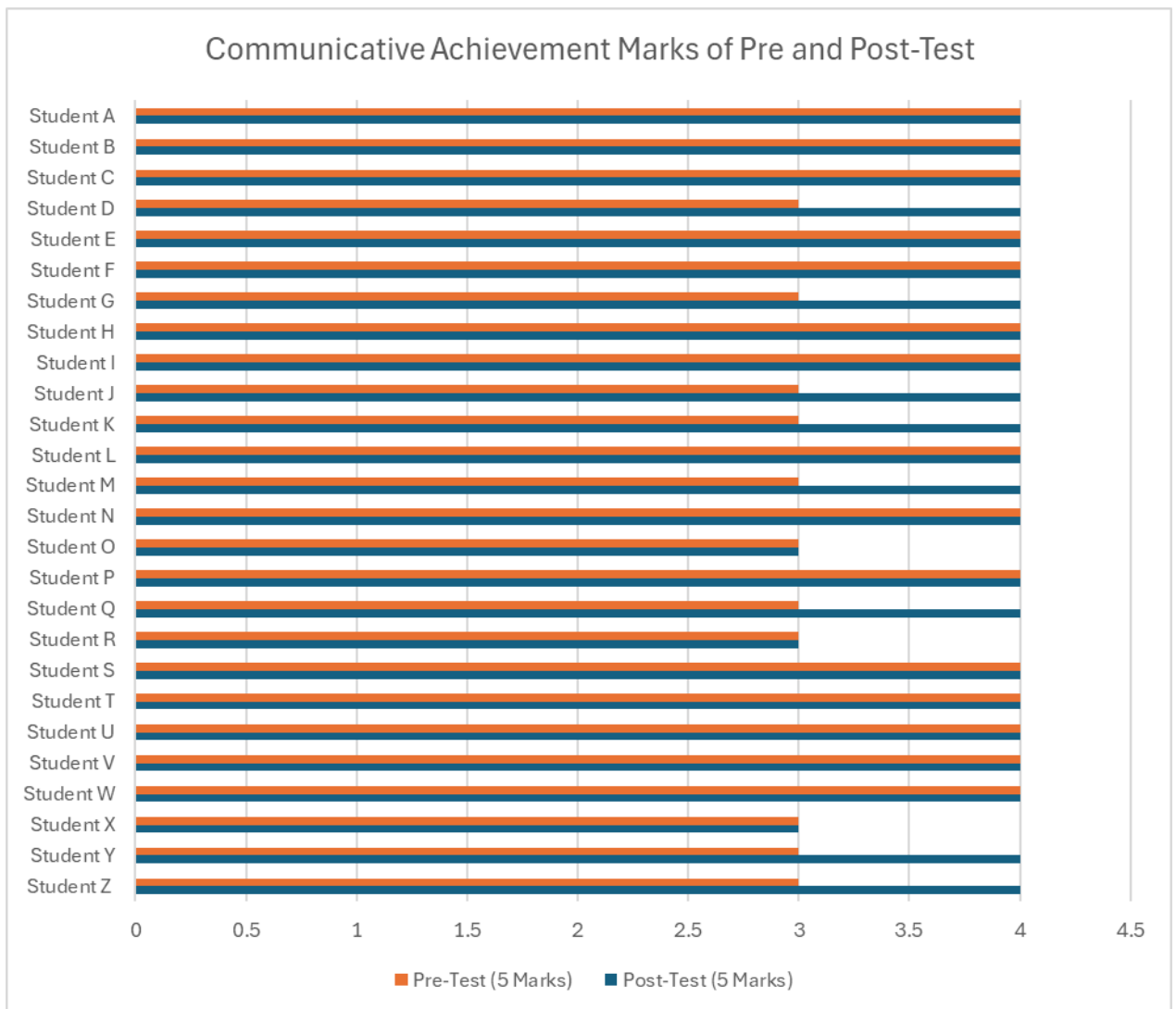
**Figure 4.1.2 Content Marks of Pre and Post-Test**

Notably, all students have no changes to their scores after the pre – and post-test. However, Student F's marks are the only differences in her scores where her post-test content marks decrease to three of five although her pre-test

marks are four. Her marks decrease because her paragraphs are shorter and lack of main points and elaboration from the text. In general, the graph indicates that most students' formal email content marks are the same except for Student F because of the intervention.

#### 4.1.3 Communicative Achievement Marks of Pre and Post-Test

The bar graph below presents data on the Communicative Achievement Marks of Pre and Post-Test by clearly illustrating the changes in performances before and after the intervention of Quizizz:

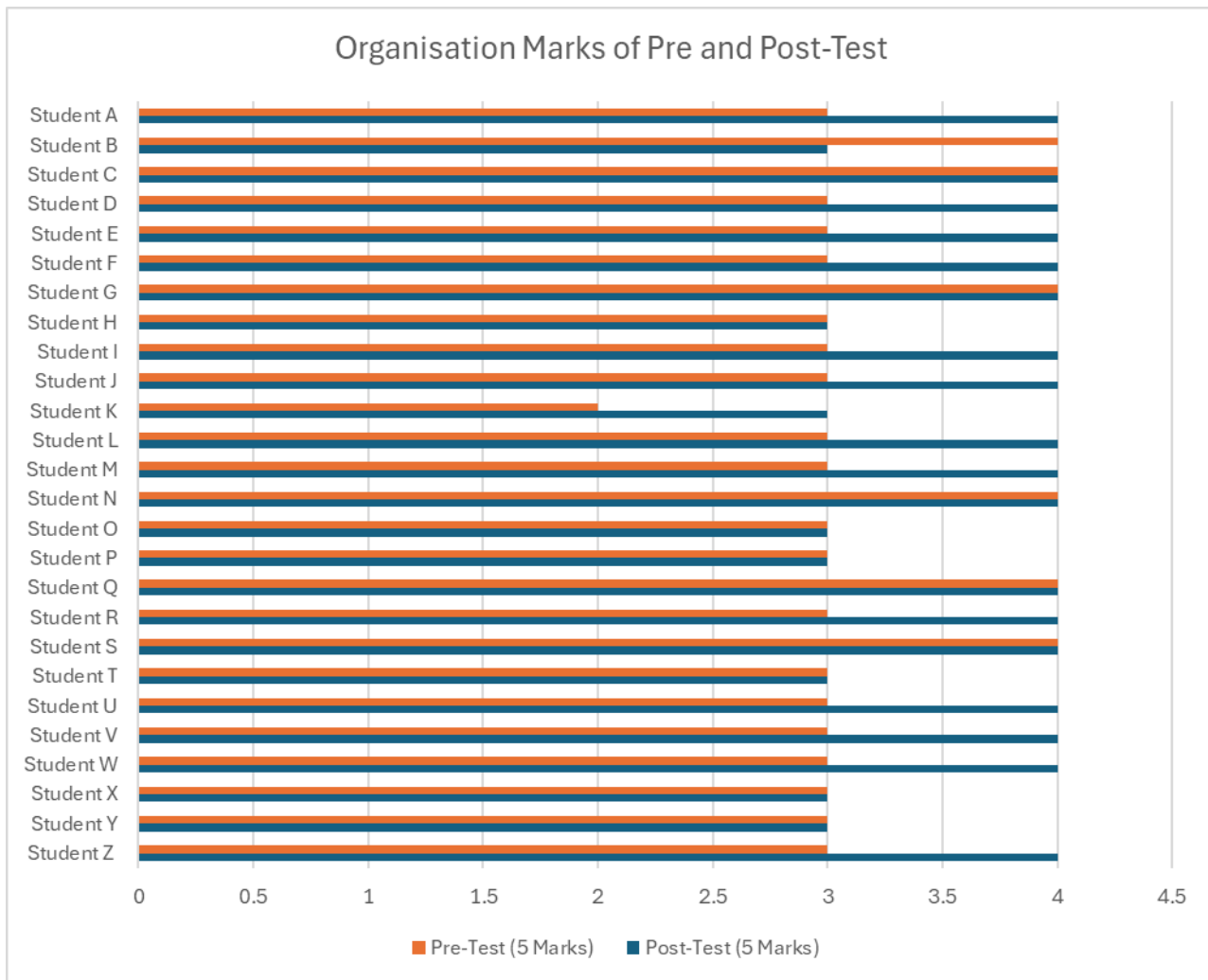


### **Figure 4.1.3 Communicative Achievement Marks of Pre and Post-Test**

Certain students, namely Students D, G, J, K, M, Q, Y, and Z exhibit notable improvements in their post-test results, indicating a noteworthy enhancement in their communication proficiency by three to four marks out of five marks. Eighteen out of twenty-six students got similar scores on the pre- and post-tests indicating little to no improvement for other students. Eight out of twenty-six students showed persistent development, indicating that the intervention had a beneficial effect on their communicative proficiency in formal email writing.

#### **4.1.4 Organisation Marks of Pre and Post-Test**

The bar graph below presents data on the Organisation Marks of Pre and Post-Test by clearly illustrating the changes in performances before and after the intervention of Quizizz:



**Figure 4.1.4 Organisation Marks of Pre and Post-Test**

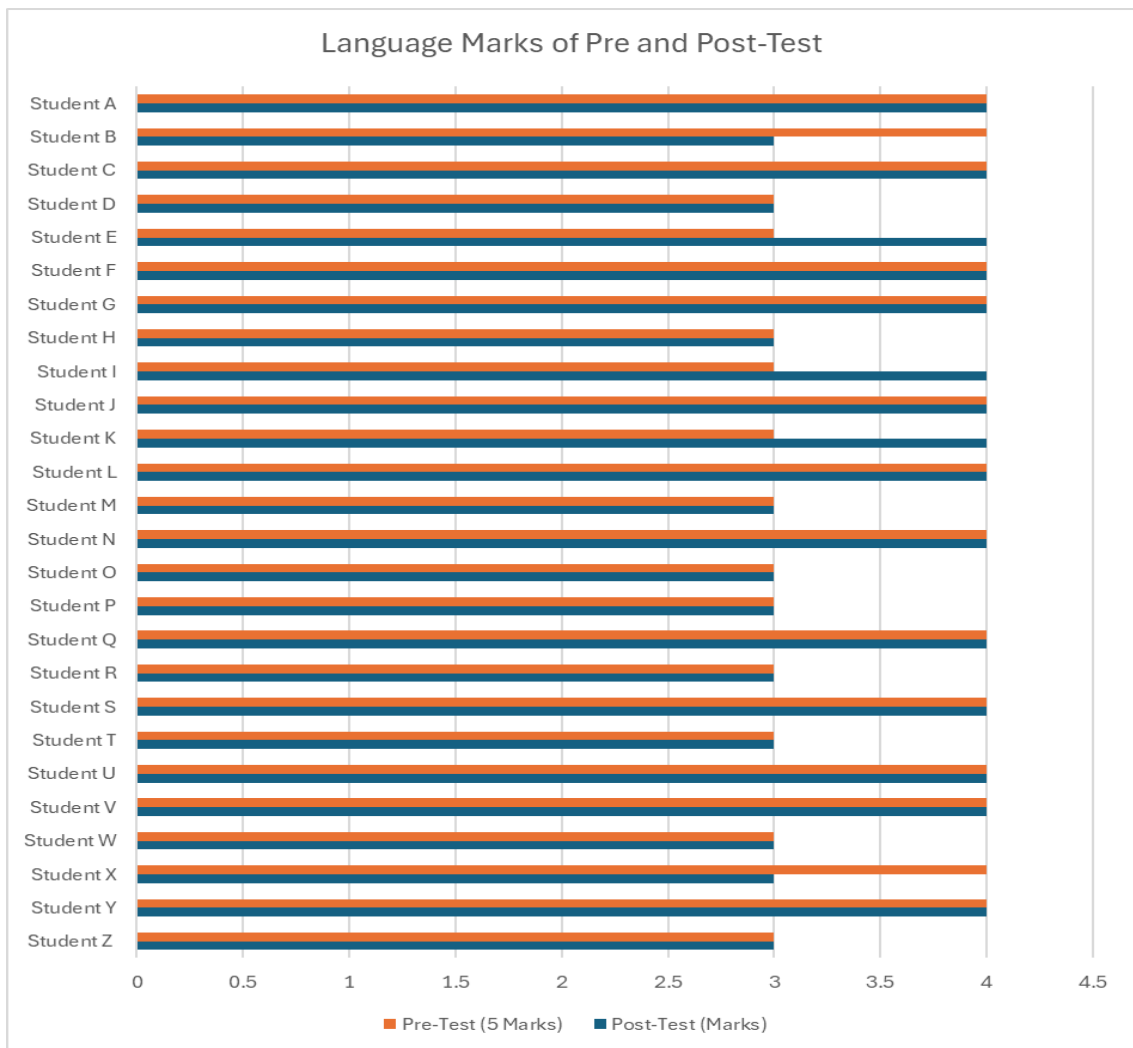
There is a noticeable improvement in post-test results for certain students, namely Student A, D, E, F, I, J, K, L, M, R, U, V, W, and Z suggesting noteworthy growth. A small number of students, including Students C, G, H, N, O, P, S, T, X, and Y, exhibit little to no change between the pre-and post-tests, suggesting that the intervention had little effect on their ability to organize their thoughts. However, Student B is the only student who has a decrease from 4 marks to 3 marks because he rushed to complete his test made him forgot to divide his points into separate paragraphs. For many



students, the graph shows that the intervention was successful in improving the structured nature of their formal email writing.

#### 4.1.5 Language Marks of Pre and Post-Test

The bar graph below presents data on the Language Marks of Pre and Post-Test by clearly illustrating the changes in performances before and after the intervention of Quizizz:



**Figure 4.1.5 Language Marks of Pre and Post-Test**

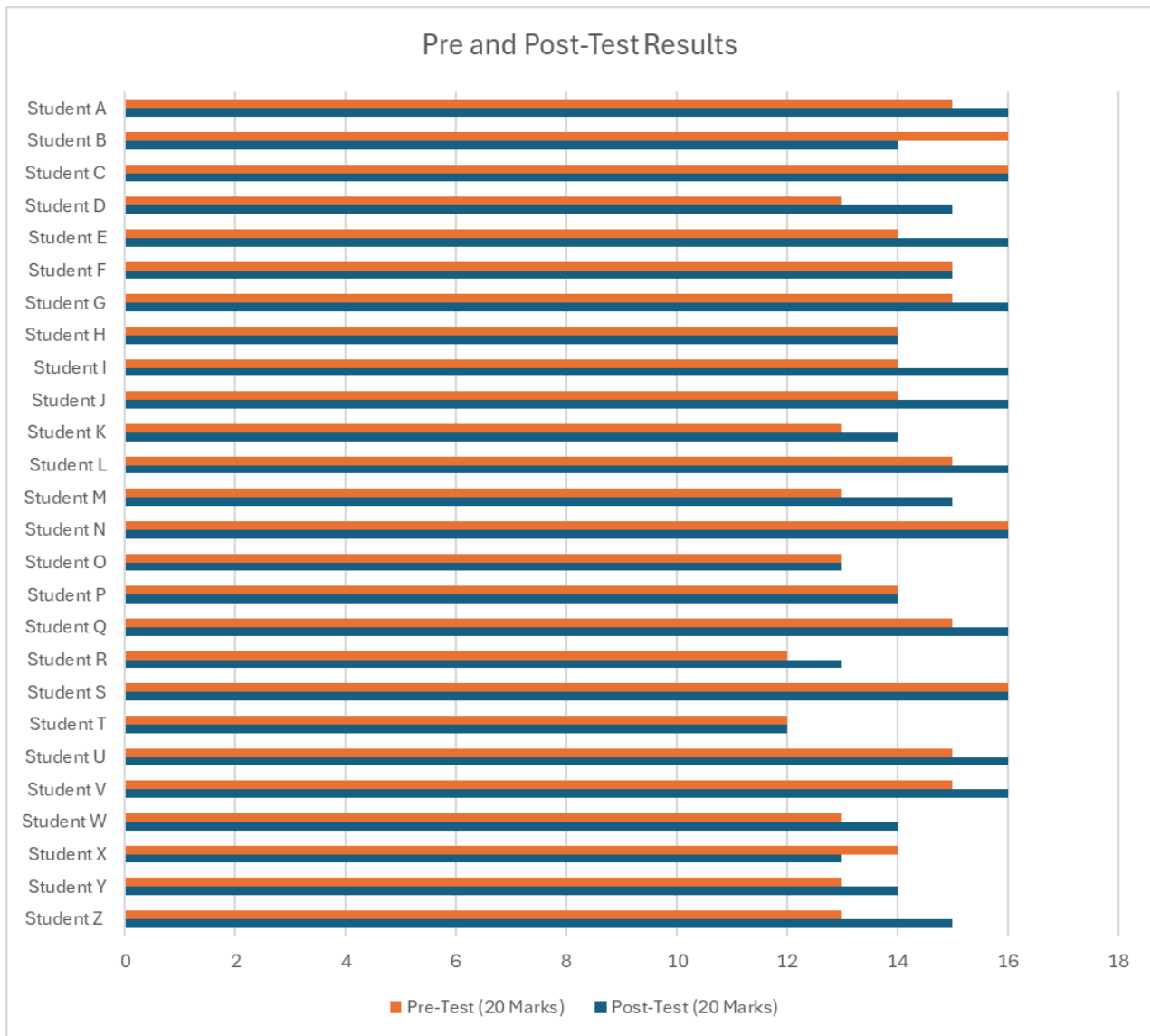
Several pupils, including Students E, I, and K demonstrate a discernible enhancement in their post-test results, signifying noteworthy advancements

in their language proficiency. A large number of students, such as Students A, C, D, F, G, H, J, L, M, N, O, P, Q, R, S, T, U, V, W, Y, and Z had post-test results that were either marginally higher than or comparable to their pre-test results, indicating that the intervention had less of an effect on their language marks. Unfortunately, Students B and X had lower marks from four to three marks out of five marks which shows that the intervention might not be their suitable learning strategy.

Overall, the graph shows a positive trend in language competency, with the minority of students demonstrating at least some progress. This highlights how well the intervention worked to increase language proficiency in professional email writing.

#### **4.1.6 Pre and Post-Test Results**

The bar graph below presents data on the Pre and Post-Test Results by clearly illustrating the changes in performances before and after the intervention of Quizizz:



**Figure 4.1.6 Pre and Post-Test Results**

The "Pre and Post-Test Results" bar graph shows how student performance was before and after an instructional intervention. Two colors are used to represent each student's scores: orange for the pre-test and blue for the post-test. A maximum score of 20 marks is achievable. The graph highlights variations in student performance by clearly differentiating the two groups of data.

Overall, the graph shows that most students saw an improvement in their post-test scores over their pre-test results. Students like D, E, I, J, K, M, R, W, Y, and Z showed notable improvements, increasing their scores by multiple points, indicating that they benefited greatly from the intervention. However, students such as A, G, L, Q, U, and V who had already demonstrated strong performance in the pre-test, only little improvement in the post-test, suggesting that their high performance was consistent.

Each student has improved to a different degree, though. Some demonstrated more significant gains than others, which may have been caused by variations in individual learning styles, past knowledge, or level of involvement with the subject matter. Many students demonstrated knowledge or skill acquisition because of the experience, as seen by the post-tests' overall trend of rising scores, which shows the beneficial effects of the educational activity or intervention. Additionally, there is little to no difference in the pre-and post-test results for Students C, F, H, N, O, P, S, and T, indicating that the intervention had minimal impact on their capacity for mental organization. However, Students B and X have lower post-test marks compared to their pre-test marks.

Overall, it is possible to credit the improvement in organization scores following the post-test to the Quizizz intervention's success in enhancing students' comprehension and application of cohesive devices and basic connectors. Quizizz probably gave students repeated practice and immediate feedback by including them in interactive quizzes, which made it easier for them to understand the significance of organizing their work more logically

and clearly. Students' ability to utilize cohesive devices and basic connectors in their professional email writing improved because of their regular exposure to organizational approaches; this is shown in the significant improvement in their post-test results.

In conclusion, the bar charts demonstrate the positive impact of the Quizizz intervention on students' professional email writing skills. The visual comparison between the pre-test and post-test scores across the four criteria—content, communicative achievement, organization, and language—shows a consistent improvement for nearly all students. The increase in post-test scores, represented by the blue bars, indicates that the intervention effectively enhanced students' ability to write emails with relevant content, appropriate communication, better organization, and more controlled use of vocabulary and grammar. Overall, the data confirms the success of the intervention in improving students' professional email writing abilities.

#### **4.2 Interview Analysis for Research Objective 2**

The purpose of this second research goal is to find out how enthusiastic and committed high school students are about using the internet technology Quizizz for writing assignments. Understanding students' motivational and emotional reactions to digital tools is essential for optimizing their use in the classroom as these tools become more commonplace. The goal of this study is to determine how Quizizz affects students' commitment to developing their writing skills and their enthusiasm for writing by examining their participation levels, attitudes, and feedback gathered from observations and

interviews. The results will offer insightful information about how interactive online learning tools affect students' writing practices in terms of motivation. The transcription of interviews with three students that were done after they took part in the email writing intervention's pre- and post-test stages is the first step in the data analysis process. Each interview lasted approximately 20 minutes, during which 4 students were interviewed as a group with a total of 5 open-ended questions during the pre-test interview and 3 open-ended questions after the post-test with the same 4 students designed to elicit detailed responses about their experiences. The purpose of these interviews was to learn more about the students' opinions, experiences, and comments regarding using Quizizz to improve their formal email writing abilities. Important topics that are directly relevant to the main research focus—finding out how well Quizizz helps secondary school students write professional emails—rose to the surface after closely examining the transcribed interviews. These constructs, which include “Prior Knowledge”, “Learning Objectives”, “Areas of Difficulty”, “Preparation Strategies”, “Preferred Learning Strategies”, “Effectiveness of the Intervention”, “Effective Study Resources and Techniques”, and “Areas Needing Additional Support”, will be explored in depth to provide insights into how Quizizz influenced the students' writing performance and overall learning experience.

#### 4.2.1. Prior Knowledge

The construct examines how well the students comprehended and recalled the material covered in the pre-test, gauging how much of it they were able to recall or comprehend at the time of the interview. The theme of the answer is "knowledge development". Student B emphasizes how their past understanding of email formatting and helpful exam advice is helping them prepare for an important exam in the future.

*"...I learned about the format of an email, and I gained a lot of useful tips on how to score on the upcoming exam that we have to take in the upcoming two years,"*

(Student B, Paragraph 3, Line 2 and 3)

This illustrates a focus on learning useful abilities and techniques that will improve their capacity to excel in impending academic obstacles. By claiming to have "learned about the format of an email" and "gained a lot of useful tips," the student highlights that they are putting theory into practice in addition to taking in knowledge to improve their abilities. The reference to the "upcoming exam" suggests that the knowledge and abilities they have acquired are specially designed to support them in upcoming evaluations, demonstrating a strong link between the educational process and its importance to their long-term academic achievement. This shows that the student is aware of how the newly learned skills will help them overcome upcoming challenges in their academic career, including tests.

#### 4.2.2 Learning Objectives

This construct delves into the individual objectives or aspirations of the students for the course or intervention, specifically concerning the subjects they were evaluated on during the pretest. It seeks to comprehend the goals and areas of improvement that the students have for themselves as they move through the intervention or course. The theme is centered around "commitment to academic excellence". Student C states that they want to improve their writing abilities by paying more attention to grammar and reducing spelling errors.

*"...I am determined to write with better grammar and less mistakes, for example, spelling mistakes,"*

(Student C, Paragraph 4, Line 3 and 4)

This shows a dedication to writing with more clarity and to meeting better standards for written communication. By resolving to "write with better grammar and less mistakes," the student makes it apparent that improving the precision and clarity of their writing is their main objective. This emphasis on reducing mistakes and perfecting language demonstrates a desire to adhere to stricter requirements for written communication, guaranteeing that their work is more accurate and formal. The student's understanding of the value of clear, error-free writing and their commitment to keep becoming better at these things are evident in the quote.

Based on Student D's response, he reflects a commitment to "enhancing writing quality" by setting specific learning objectives for improving email



communication. He has identified a clear goal to develop skills in writing better and more readable emails, demonstrating a focus on refining their writing techniques to achieve clearer, more effective communication.

*“...I have given myself a goal to get better at writing email and writing a more readable email,”*

(Student D, Paragraph 5, Line 1)

This intention highlights their dedication to improving the overall quality and impact of their written correspondence. Establishing clear objectives such as "writing a more readable email" and "becoming better at writing emails." This emphasis on both increasing readability and technical proficiency shows a clear purpose to compose emails more effectively while also making sure the reader finds the content interesting and easy to understand. The student demonstrates a proactive attitude to writing improvement by establishing this personal objective, with a focus on improving the clarity, effectiveness, and suitability of their letter for the intended audience. This demonstrates their dedication to raising the bar for written communication and strengthening the impact of their messaging.

#### **4.2.3 Areas of Difficulty**

This construct focuses on pinpointing the subjects or ideas that pre-test takers found difficult or perplexing. It attempts to draw attention to areas where pupils might require more assistance, explanation, or focused intervention. The theme of the response is “writing difficulty”. Student 1 notes that they have trouble remembering grammar standards and that they have trouble

understanding word limitations. Their reaction makes clear the necessity to strengthen grammatical knowledge and enhance understanding of writing norms.

*"...I find the word limit hard to understand as the question doesn't state it clearly and I would find the grammar hard to remember so I'll try to work on that,"*

(Student A, Paragraph 6, Line 3 and 4)

This shows that they are conscious of the areas in which they are weak and that they are determined to overcome these obstacles to improve their writing skills. Through their admission that they "find the word limit hard to understand" and "the grammar hard to remember," the student pinpoints certain difficulties they have when writing. This self-awareness is essential for development since it shows them where they are aware of the things that require work. Additionally, their resolve to tackle these challenges is demonstrated by their proactive attitude and "I'll try to work on that" comment. The student's dedication to resolving these issues shows a genuine desire to advance their writing abilities and produce better work.

Based on Student B's response, the theme of the response is "lack of originality" which shows he is having trouble coming up with original material and organizing emails in a way that makes sense. This indicates that there is room for improvement in terms of producing unique and captivating written content as well as more efficiently and methodically arranging communications.

*"...The writing of creative content is my deficiency and also I lack a better format of email,"*

(Student B, Paragraph 8, Line 1)

The response points out areas in which they believe they are lacking and emphasizes the need to work on these areas to improve their writing ability. The student demonstrates a good grasp of where they fall short in their writing abilities, particularly in "the writing of creative content" and their capacity to employ a "better format of email." This self-evaluation highlights the need for targeted development in email writing's creative and structural components. By admitting these weaknesses, the student shows that they are aware of what needs to be improved to improve their writing overall and that they are willing to work on these areas to become more proficient.

#### **4.2.4 Preparation Strategies**

This construct examines the strategies and tactics that students generally employ to get ready for tests, including their study plans, methodologies, and general approaches to information retention. The response centers around the theme of "strategic exam preparation." Through the analysis of previous exam papers, Student 4 presents a well-defined plan for enhancing their performance in the forthcoming SPM. Through examining past question formats, they want to become acquainted with the structure of the test and pinpoint important topics to concentrate on.

*“...I would go on to read past exam papers to get a better understanding on how the question was asked and try to work from there to score on the upcoming SPM.”*

(Student D, Paragraph 9, Line 2 and 3)

This strategy shows a logical methodology to improve their comprehension and increase their exam success percentage through focused preparation. The student is concentrating on a specific approach of preparation when they decide to "read past exam papers," which enables them to become familiar with the format of the questions and the types of responses that are required. Through reflective practice, they can recognize important trends and areas of concentration in addition to improving their understanding of exam forms. "Try to work from there to score on the upcoming SPM" expresses their intention to use the knowledge they have obtained to the fullest, indicating a deliberate and systematic study strategy meant to enhance their test scores.

Based on Student A's response, his central theme is "targeted revision." He intends to get ready by going over earlier classes again and adding instructional videos—specifically, those made by YouTuber Mr. Yang—to their study. This tactic demonstrates a thorough approach to reaffirming their comprehension of the subject matter by going over previous work and looking for new information from internet sources.

*“...About me, I will do some revision about the previous work that they've done in the lesson and also I will reveal some of the English teaching videos such as the Mr. Yang the YouTuber.”*

(Student A, Paragraph 10, Line 1 and 2)

It shows that they want to use a variety of learning resources to improve their teaching methods and reinforce their knowledge. With plans to "watch English teaching videos such as Mr. Yang the YouTuber" and "do some revision about the previous work," the student shows initiative in their pursuit of skill improvement. Their desire to learn from a variety of sources, which can offer fresh perspectives and methods, is shown in their combination of going over previous courses and looking at outside teaching resources. It emphasizes their goal of broadening their approach to teaching to guarantee that they keep developing and getting better as a teacher.

#### **4.2.5 Preferred Learning Strategies**

This construct seeks to identify the precise techniques or strategies that learners find most comfortable or successful when interacting with new material, assisting in the understanding of their learning preferences and methodologies. The response centers upon the theme of "visual learning and contextual understanding." Student D indicates that to enhance their understanding of conversational English, they prefer to study visually by viewing videos, especially those with English subtitles. This method demonstrates how dependent they are on visual aids and real-world situations to understand linguistic intricacies, suggesting that knowledge presented in a visually appealing and useful framework is simpler for them to acquire and remember.

*“...I would prefer visual learning. I would prefer watching videos using English subtitles that help me get a better understanding of how a conversation works within”*

(Student D, Paragraph 12, Line 1 and 2)

Their approach places a strong emphasis on the value of observing language in use to improve comprehension and communication abilities. In stating that "watching videos with English subtitles" is what she would want to do, the student emphasizes the importance of visual aids for learning how discussions work. By using this method, students may see and hear language in use, which can help them understand subtleties and the dynamics of conversations. This method places a major emphasis on the advantages of interactive, context-rich learning experiences for improving communication skills and language proficiency.

#### **4.2.6 Effectiveness of the Intervention**

To determine how the Quizizz intervention affected the students' learning and comprehension, this theme examines the students' self-assessed understanding of the material after they participated in it. Student C's key theme is "impactful digital learning tools." The student emphasizes how Quizizz has been a very useful immersive study tool that has aided their learning process. This answer suggests that the platform's interactive features have improved users' engagement and retention of material, making it an invaluable resource for them as they pursue their educational goals.

*"...Quizizz is very immersive and has helped me through a lot of studying"*

(Student C, Paragraph 1, Line 1)

The response emphasizes how technology-driven interventions have a favorable impact on students' study habits and general academic achievement. The student highlights Quizizz's engaging features by calling it "very immersive," which probably makes studying more fun and interactive. The statement "helped me through a lot of studying" implies that the tool has aided in their education by making it simpler for them to take in and remember knowledge. This suggests that using technology improves focus and engagement and helps with more efficient studying, which improves academic results.

#### **4.2.7 Effective Study Resources and Techniques**

This construct delves into the strategies, instruments, or materials that students utilized to prepare for the post-test following their involvement with the Quizizz intervention. It illuminates the elements of the educational process that were most advantageous for their study routine. The response focuses on the theme of "enhanced email skills." Student 1 admits that taking part in interventions that are focused on quizzes has greatly improved their capacity to finish email chores. This response implies that the quizzes provide focused practice and reinforcement, resulting in an improved comprehension of the specifications and organization of email writing.

*"...After taking part in the quizzes intervention, I'm pretty sure my comprehension of completing an email task has enhanced"*

(Student A, Paragraph 2, Line 1 and 2)

The response illustrates how employing interactive study tools to hone abilities can increase students' performance to a discernible degree. A definite benefit of using these tools is demonstrated by the student's assurance that their "comprehension of completing an email task has enhanced" following their participation in the quiz intervention. The quiz's interactive format probably allowed for interesting practice and quick feedback, which improved the student's comprehension and application of the abilities required for email jobs. This illustrates how these kinds of technologies, which actively include students in their learning process and reinforce their comprehension through practical application, can result in obvious performance improvements.

Based on Student D's response, it centers on the concept of "email mastery." The fact that Student D is confident in their ability to write clear, correct emails suggests that they have mastered this competence.

*"...I've mastered the expertness of composing an email. Now I'm more than just capable of writing a good and correct email"*

(Student D, Paragraph 3, Line 1 and 2)

This response demonstrates their tremendous development and self-assurance in their abilities, highlighting the usefulness of their study tools and strategies in reaching a high degree of competency in email writing. By declaring that they are now "more than just capable of writing a good and correct email" and that they have "mastered the expertness of composing an email," the student exhibits a high degree of expertise and confidence in their abilities. This self-evaluation shows how successful their study techniques



and resources were, which undoubtedly helped them have a solid grasp of email composing. The fact that the student acknowledged their progress shows how using focused learning tools and resources may result in significant gains and high levels of competency in particular areas.

#### **4.2.8 Areas Needing Additional Support**

This construct aims to highlight persistent issues or places where students feel they need more in-depth training by identifying English language abilities or concepts that they feel need further help or clarification. The response centers around the theme of "perceived self-sufficiency." The claim that Student 2 doesn't need any further help with English lesson skills indicates a high level of confidence in their present aptitude.

*"...For me, I don't think there's any English lesson skills"*

(Student B, Paragraph 5, Line 2)

This response suggests that they believe they have the information and abilities needed to succeed in their English studies. It might, however, also suggest that they overestimate their level of competence or are unaware of possible areas for improvement. This assumption may be the result of an underestimation of the continuous need for skill improvement or a lack of knowledge about the breadth of skills needed. Although the student's confidence is impressive, it also indicates that they need to continuously evaluate themselves and be willing to learn new things and improve their English.

### **4.3 Conclusion**

The change in insights from the pre-test to the post-test shows how much the Quizizz intervention improved things. To improve their writing and exam preparation, students first determined where they needed to make improvements and established clear targets. Students reported significant improvements in their email writing abilities and a greater sense of competence following the intervention. Quizizz's immersive feature was praised in particular for helping users comprehend and remember the content better. Even with this advancement, a few students indicated that they thought they were self-sufficient, indicating that they could still need to continue reflecting and perhaps improve their abilities. Overall, the intervention showed a strong advantage in raising confidence and performance levels among students, highlighting the importance of technology-driven learning resources in educational settings.

**Mapping of Themes to Students' Responses:**

<b>Pre-Test Questions</b>	
<b>Interview Question 1:</b> <b>What information about the subject or topic covered in the pre-test do you presently know?</b>	
<b>Theme</b>	<b>Text from Transcriptions</b>
Theme 1:  Knowledge Development	Student B:  "...I learned about the format of an email, and I gained a lot of useful tips on how to score on the upcoming exam that we have to take in the upcoming two years,"
<b>Interview Question 2:</b> <b>Considering the material from the pre-test, what goals do you have for this course or intervention?</b>	
Theme 2:  Commitment to Academic Excellence	Student C:  "...I am determined to write with better grammar and less mistakes, for example, spelling mistakes,"
Theme 3:  Enhancing Writing Quality	Student D:  "...I have given myself a goal to get better at writing email and writing a more readable email,"
<b>Interview Question 3:</b> <b>Which pre-test topics or regions stand out to you as particularly difficult or unclear?</b>	

<p>Theme 4:</p> <p>Writing Difficulty</p>	<p>Student A:</p> <p>"...I find the word limit hard to understand as the question doesn't state it clearly and I would find the grammar hard to remember so I'll try to work on that,"</p>
<p>Theme 5:</p> <p>Lack of Originality</p>	<p>Student B:</p> <p>"...The writing of creative content is my deficiency and also I lack a better format of email,"</p>
<p><b>Interview Question 4:</b></p> <p><b>How do you usually go about studying or getting ready for exams such as the pre-test?</b></p>	
<p>Theme 6:</p> <p>Strategic Exam Preparation</p>	<p>Student D:</p> <p>"...I would go on to read past exam papers to get a better understanding on how the question was asked and try to work from there to score on the upcoming SPM."</p>
<p>Theme 7:</p> <p>Targeted Revision</p>	<p>Student A:</p> <p>"...About me, I will do some revision about the previous work that they've done in the lesson and also I will reveal some of the English teaching videos such as the Mr. Yang the YouTuber."</p>
<p><b>Interview Question 5:</b></p>	

<b>Before starting the next learning activities, could you share your preferred learning strategies or approaches?</b>	
Theme 8: Visual Learning and Contextual Understanding	Student D: “...I would prefer visual learning. I would prefer watching videos using English subtitles that help me get a better understanding of how a conversation works within”
<b>Post-Test Questions</b>	
<b>Interview Question 1:</b> <b>Do you think that after taking part in the Quizziz intervention, your comprehension of the subject has improved?</b>	
Theme 1: Impactful Digital Learning Tool	Student C: "...Quizzizz is very immersive and has helped me through a lot of studying"
<b>Interview Question 2:</b> <b>After utilizing Quizziz, which techniques or resources did you find most useful for getting ready for the post-test?</b>	
Theme 2: Enhanced Email Skills	Student A: "...After taking part in the quizzes intervention, I'm pretty sure my comprehension of completing an email task has enhanced"
Theme 3:	Student D:

Email Mastery	"...I've mastered the expertness of composing an email. Now I'm more than just capable of writing a good and correct email"
<p><b>Interview Question 3:</b></p> <p><b>Are there any English lesson skills (reading, listening, speaking) or ideas that you still feel want further help or explanation?</b></p>	
<p>Theme 4:</p> <p>Perceived Self-Sufficiency</p>	<p>Student B:</p> <p>"...For me, I don't think there's any English lesson skills"</p>

## CHAPTER 5

### DISCUSSION AND RECOMMENDATION

#### 5.0 Introduction

The outcomes and data analysis will be covered in detail in this last project, with an emphasis on comparing the results to earlier research and answering the first and second study objectives. The investigation will look at whether using Quizizz, with its engaging and gamified components, helps secondary school pupils become better formal email writers. Through a comparison of the study's results with earlier research, the conversation will appraise Quizizz's efficacy within this learning environment and determine how effectively it achieves the stated goals of improving students' writing skills.

#### 5.1 Discussion on Research Objective 1

The first research objective of this project is to examine how using the interactive online learning platform Quizizz affects secondary school students' ability to compose formal emails with better compositional quality. The results imply that Quizizz's gamified and interactive features can greatly increase students' motivation and engagement, which will improve their comprehension and use of formal writing conventions. According to Williams and Beam (2019), teachers and students found technology to be stimulating, which increased student participation and engagement in writing assignments.

In addition, Quizizz's individualized learning pathways and instant feedback have been shown to facilitate active learning and self-assessment, which may

accelerate the acquisition of skills. According to Maarof et al. (2011), one significant conclusion for ESL writing is that, while many students believe instructor feedback to be more useful, peer criticism from peers who have received the necessary training can be a valuable tool for encouraging ESL writers. These findings provide credence to the notion that incorporating platforms such as Quizizz into the curriculum can serve as an effective means of bridging the gap between traditional and modern teaching methods, while also providing a dynamic means of enhancing formal email writing abilities. By incorporating contemporary educational technology, students participate more actively in the learning process, which promotes creativity, critical thinking, and a deeper comprehension of the subject matter (Rong, 2023). The idea of a gamified system encourages users to become more interactive and connected by facilitating peer-based feedback with social learning activities and collaborative learning cultures (Zainuddin et al., 2020).

## **5.2 Discussion on Research Objective 2**

The secondary school students' level of interest and dedication when utilizing Quizizz for writing assignments is the subject of the second research objective. According to the investigation, Quizizz's gamified and interactive features greatly increase students' enthusiasm, which in turn makes writing more fun and engaging. When students find the learning process enjoyable and fulfilling, they are more inclined to devote time and energy to their writing, which in turn leads to an increase in engagement. According to Zainuddin et al. (2020), The popularity of digital games in the classroom has aimed to substantiate the benefits of gamification, which include increased



motivation, engagement, and social influence as well as the opportunity for students to engage in immersive learning.

Furthermore, Quizizz's competitive features and immediate feedback seem to strengthen students' resolve to get better at writing since they push themselves to do better on each try. However, according to Cagiltay et al. (2015), although members of the competition group were more devoted to answering the game's questions than members of the control group, there was no noticeable variance in the groups' overall reading times for the explanations and accuracy. The platform's ability to inspire that kind of enthusiasm and commitment raises the possibility that incorporating Quizizz into the curriculum could result in long-term gains in students' writing skills. According to researchers, an effective teaching method should aim to make pupils feel at ease and ensure they are excited and having fun while learning, rather than to make things tough (Zainuddin et al., 2020).

## **5.3 Implication of Research**

### **5.3.1 The Use of Technology in Teaching**

Student's ability to write emails more effectively has been demonstrated using technology, especially sites like Quizizz, which is essential for success in the SPM exam. According to preliminary research on TEL usage, students who use more technology also tend to be more motivated, so those who are intrinsically motivated may also be more driven to look for opportunities to explore their interests, possibly through TEL (Dunn & Kennedy, 2019). With its entertaining and gamified learning methodology, Quizizz encourages

students to practice frequently and get feedback right away. According to Opitz et al. (2011), alternative rules are mostly disregarded when feedback is given right away, but delayed feedback makes alternative rules more likely to be taken into consideration (Opitz et al., 2011).

Students can concentrate on topics, such as language, structure, and clarity—all crucial elements of well-written emails—with the aid of this interactive environment. By simulating exam conditions and providing targeted practice, Quizizz enhances students' comprehension and mastery of the email format, helping them to perform better in both classroom assessments and high-stakes exams like the SPM. According to Mohamad et al. (2018), the opportunity for students to edit and resubmit assignments promotes a growth mindset and continuous improvement, while the use of rewards, progress tracking, and interactive challenges encourages active student participation and deeper understanding (Mohamad et al., 2018). Furthermore, students can improve their writing and steer clear of typical traps in real time by using the quick feedback feature, which ultimately raises their chances of passing the SPM.

The statement "Quizizz is very immersive and has helped me through a lot of studying" reflects how Student C feels the Quizizz intervention has improved their understanding of the material. This immediately adds to our understanding of the function of interactive digital tools in education, especially how engaging platforms can result in better learning outcomes. Gamification is a technique that can be used to support the achievement of learning outcomes by changing student engagement states rather than just

behaviors and attitudes (Rivera & Garden, 2021). A measurable result of a student's engagement across affective, cognitive, and behavioral domains is the achievement of learning outcomes (Rivera & Garden, 2021).

The student's reference to Quizizz's "immersive" qualities implies that the interactive and captivating elements of the platform were crucial in establishing a productive learning environment, bolstering the notion that active engagement with gamified learning can enhance understanding and retention of the content. The student's description of Quizizz as "immersive" implies that the interactive and captivating elements of the platform were crucial in establishing a productive learning environment, bolstering the notion that active engagement with gamified learning can enhance understanding and retention of the content. According to Petrovic-Dziedzic (2019), two of the three issues raised—students' unwillingness to repeatedly retrieve material and their inability to assess the success of their retrieval attempts accurately—might be resolved by a novel approach that applies gamification principles to encourage students to engage in repeated retrieval by taking online tests and receiving automated feedback.

Furthermore, through active participation in the quizzes, the student was able to reinforce their understanding and think critically about how digital tools can improve the quality and enjoyment of learning. According to Dicheva et al. (2019), when people engage in activities that give them a sense of competence (the capacity to carry out the behavior effectively), relatedness (the ability to form social connections with others), and autonomy (the ability to make their own decisions), they are more likely to experience self-

determined types of motivation. This encouraging response adds to the expanding body of research showing how gamified learning tactics may have a major impact on student performance and understanding.

It also shows how platforms like Quizizz can improve student engagement and learning objectives. According to Figueroa-Flores (2016), through the creation of dynamic, problem-solving environments that support experiential learning, boost motivation, encourage healthy competition, and reinforce critical 21st-century skills like decision-making and collaboration, gamification and game-based learning (GBL) have a substantial positive impact on student performance and comprehension.

### **5.3.2 Improve Teaching and Learning**

In the current digital era, email writing instruction needs to be improved since successful communication is becoming more and more crucial for both career and academic achievement. Many of them work as high-level professionals or consultants for their organizations, and they are all required to write formal reports that are sent to clients or the company's upper management (Zhu, 2004). Teaching students how to write emails with organization, clarity, and professionalism fosters the development of important skills like tone, organization, and clarity—all of which are necessary in various real-world situations. Writing in a way that addresses these questions requires the use of fundamental writing techniques that readers are accustomed to, which are also vitally important and challenging to achieve given the circumstances that online instructors frequently find themselves in (Ragan & White, 2001).

Engaging students in the learning process using interactive tools and tactics, such as digital platforms and real-world activities, can provide them with firsthand experience and help them develop a deeper grasp of good email communication. According to Lanctot and Duxbury (2022), the important email scale has two items that refer to time (implying urgency) without providing any context or explanation of how the email's content could be significant: "A time-sensitive message" and "A message that explicitly states, in the subject line that a reply or deliverable is required by a certain date". Teachers may give children critical life skills that go beyond the classroom by emphasizing email writing improvement, preparing them for challenges in the classroom and beyond. According to Bouchrika et al. (2019), the remarkable popularity and momentum of video games, which have a solid foundation in various psychological theories and behavioral motivational models, is fueling the process of gamifying educational systems.

When comparing the pre- and post-test results, it is evident that the intervention enhanced the students' ability to write emails. By lowering the cognitive demands of writing, learners were given supportive procedures that simultaneously improved the quality of their thought processes and their ability to self-monitor (Tsirirotakis et al., 2020). The organization that has undergone the largest changes is the one where the scores have increased. According to Dynan and Cate (2009), students consistently showed a strong preference for structure, with course evaluations and comments being significantly more positive in the structured setting but there is also limited evidence linking regular structured writing and assessment activities to improvements in student performance at higher-order learning levels. This

could indicate that the students have not committed the email drafting format to memory.

Conversely, the linguistic component only marginally improved. This implies that although the students' technical proficiency has increased, they could still want additional help in maintaining a formal email tone. According to Aull (2015), establishes and upholds an objective tone and formal style while adhering to the discipline's norms and conventions; [with] occasional excursions into unduly colloquial language. Overall, the bar graph demonstrates that the intervention had a measurable positive impact on students' email writing abilities, with content demonstrating the largest rise. Students who participated in the gamified writing group demonstrated notable gains in several writing-related domains, such as accuracy, syntax, morphology, and fluency, particular, the participants' writing significantly improved in both domains (Zhihao & Zhonggen, 2022). These findings suggest that Quizizz is the best solution for enhancing teaching and learning. Because of Quizizz's engaging nature, learning environments are undoubtedly improved, and students perform better in class because they are more driven to learn and outperform their peers (Lim & Yunus, 2021).

Overall, the bar graph demonstrates that the intervention had a measurable positive impact on students' email writing abilities, with grammar and organization seeing the greatest gains. The technical aspects of email writing were significantly improved by the intervention, according to these data; however, tone and style may require additional attention in subsequent training sessions.

### 5.3.3 Improve Pedagogical Skills

To provide students with the effective communication skills they need for academic, professional, and personal contexts, it is imperative to enhance the pedagogical skills of teachers, particularly about email writing. According to Strobl et al. (2019), language-related feedback is particularly prevalent in tools intended to assist L2 writers, though it is not exclusive to them. These tools target a variety of features, including word choice (3/10), sentence fluency or length (3/10), spelling and grammar (6/10), style (2/10), clarity of expression (2/10), and voice (2/10). Since emails are now the main form of official communication, instructors should implement tactics that stress tone, clarity, and professionalism in addition to teaching the technical components of email writing.

Teachers can give more meaningful and interesting training by creating a structured strategy that incorporates feedback-driven learning, real-world examples, and interactive courses. According to Xue et al. (2023), peer feedback from students has several educational advantages for academic writing such as enhancing students' communication skills, promoting meaningful peer interactions, keeping students deeply involved in the learning process, and providing fresh insights into writing. Teachers may help students write coherent, purposeful, and grammatically correct emails by improving their teaching strategies. This will help students be ready to communicate effectively in a variety of settings.

The responses, "I have given myself a goal to get better at writing email and writing a more readable email," and "I am determined to write with better

grammar and fewer mistakes, for example, spelling mistakes," are in clear alignment with the theme of learning objectives. Through the course or intervention, the student seeks to reduce spelling mistakes and increase grammar accuracy. According to McCarthy et al. (2022), there isn't much empirical research evaluating whether spelling and grammar checkers enhance overall writing quality, despite the expanding collection of spell and grammar checkers available in several languages and the widespread belief that corrective feedback is essential for well-written work. They have defined clear, attainable goals for themselves, as students assigned to a process goal with progress feedback performed noticeably better in both experiments than students assigned to a general goal or a product goal (Jansen et al., 2024). These goals demonstrate that the student has evaluated their initial performance and determined where they need to improve. By using feedback to provide performance information, assessment for learning is a pedagogical approach that aims to improve student engagement and learning, then be used to support learning and modify teaching strategies (Parr & Timperley, 2010). Moreover, the focus on creating readable emails underscores a broader objective of enhancing communication clarity. According to Smith (1990), writing must stop being a directed process because, once it is, students may be more willing to take chances to express personal ideas and opinions because they know they can identify and fix their own mistakes. Writing should become an audience-directed communication act. By setting these learning objectives and aiming to become more skilled in email writing as the course goes on, the student demonstrates a proactive approach to their development. "Goal conferences," in which instructors assisted students in



creating semester-long goals or assessed them, represented an institutional goal of individualized instruction for students (Eckstein, 2013). This commitment to goals is a critical phase in their growth as professional email writers and demonstrates a keen understanding of the areas requiring focused work.

These answers demonstrate a methodical approach to exam preparation, where the student uses a range of resources to improve their understanding and level of readiness. Exam content is anticipated and answering strategies are honed by the student by going over previous exam papers and being acquainted with the format and style of questions.

Additionally, the student's commitment to revising past work indicates that they value reaffirming their learning and solidifying their grasp of fundamental concepts. According to Riddell (2015), the study tests the notion that a teacher's capacity to deliver high-quality written feedback for learning is a crucial aspect of teacher practice in writing by analyzing its relationship to student writing progress and also defines the elements of response that are likely to make it effective to this concept of assessment and feedback for learning.

## **5.4 Limitation of Research**

### **5.4.1 Time Constraints**

There is a chance that using Quizizz as an intervention could be time-consuming. It's possible that using Quizizz activities in class will take up important time that could be used for other educational activities. Additionally, students may need more time to complete the quizzes, particularly if they need to get acquainted with the platform or troubleshoot any technological issues. This may lead to an overall increase in the amount of time required to carry out the intervention, making it difficult to incorporate into a typical school timetable.

### **5.4.2 ICT Equipment Availability**

One potential solution to the problem of ICT equipment not being available in classrooms is to organize Quizizz. A reliable internet connection and access to PCs, tablets, or cellphones are prerequisites for Quizizz's efficacy. Implementing Quizizz can be difficult in schools with old or insufficient technology of this kind. If there aren't enough devices or there are connectivity problems, students can have trouble accessing the platform, which could limit their capacity to fully engage in the intervention. This lack of access to essential technologies may limit the Quizizz intervention's effectiveness and impact, as well as worsen educational disparities among students with different degrees of access to ICT resources.

### **5.4.3 Lack of Support from ICT Technicians**

The possible absence of assistance from ICT technicians who work as instructors in schools is what motivated Quizizz to be conducted as an intervention. Technical know-how is frequently needed for the implementation and upkeep of interactive digital tools like Quizizz, particularly for diagnosing software problems and making sure existing systems are properly integrated. These difficulties can become serious in schools with a shortage of ICT support personnel or digitally savvy teachers. Insufficient assistance may cause problems configuring and administering the Quizizz platform, which may lead to technical problems interfering with the learning process. Insufficient support can impede the seamless implementation of the intervention and diminish its overall efficacy, as educators may encounter technical challenges in the absence of adequate guidance.

### **5.4.4 Student Participation and Engagement**

The risk associated with using Quizizz as an intervention is low student engagement and involvement. Despite Quizizz's interactive and captivating design, not every student will find this method to be effective. Some students may be unwilling to take part because they are not familiar with the platform, are not motivated, or they have personal preferences for alternative teaching strategies. Quizizz implementation requires active participation, and this lack of engagement may reduce the intervention's effectiveness. Incomplete data

on the platform's impact and a hindrance to the attainment of the intended learning outcomes can result from disengaged or inconsistent pupils.

## **5.5 Recommendation for Future Research**

### **5.5.1 Longer Time for Intervention**

Future studies could concentrate on improving quiz design and implementation to address the time-consuming aspect of utilizing Quizizz as an intervention and more effectively incorporate it into the academic schedule. This entails creating Quizizz activities that are more efficient in terms of setup, completion, and troubleshooting time. Students could spend less time acclimating to the platform and finishing the activities if brief quizzes that effectively target learning objectives and have user-friendly interfaces were designed. This strategy would make it possible for Quizizz to be successfully incorporated into the academic program without taking up a sizable amount of time from other learning activities.

### **5.5.2 Online Self-Study Homework**

Subsequent investigations may concentrate on creating and evaluating enhanced quiz designs for Quizizz to tackle the laborious aspect of the intervention. Research might specifically investigate designing brief, focused tests with easy-to-use interfaces that reduce setup, completion, and troubleshooting time. Through a comprehensive analysis of various Quizizz forms and designs, experts were able to determine the most effective ways to incorporate the app without adversely affecting the amount of time allotted for other educational pursuits.

### **5.5.3 Learning Technical Skills**

Subsequent studies may examine the creation and execution of focused professional development initiatives for educators to improve their ICT proficiency and technical assistance abilities. Schools may enhance the overall implementation of these interventions by providing educators with the skills and tools they need to manage and troubleshoot digital technologies like Quizizz. These courses might concentrate on useful abilities for setting up and managing online environments, handling typical technological problems, and seamlessly incorporating technology into the curriculum. Targeted training aimed at improving ICT assistance could lessen the difficulties caused by the lack of specialized ICT specialists and increase the efficacy of digital interventions in the classroom.

### **5.5.4 Rewards for Participation**

Subsequent studies may examine methods for raising student involvement and engagement in Quizizz activities. This can entail looking into various strategies to improve the platform's usability and appeal to a wider variety of pupils. Studies might look at ways to incorporate motivating components like gamification features and prizes to increase student involvement, or how to customize Quizizz content to match students' interests and learning preferences. Furthermore, studies can concentrate on recognizing and resolving obstacles to involvement, such offering orientation sessions to acquaint students with the system or integrating comments from them to enhance the user experience. Future studies can assist maximize Quizizz's

efficacy as an educational intervention and guarantee greater student involvement by creating and evaluating these tactics.

## **5.6 Conclusion**

To sum up, the research conducted for the Final Year Project showed encouraging results about Quizizz's ability to help secondary school students write more formal emails. Pre- and post-tests were used in the methodology, and Quizizz was included as a gamified tool to increase student involvement. The participants, who were secondary school students, actively participated in Quizizz exercises designed to reinforce formal email writing fundamentals like syntax, structure, tone, and clarity. Pre- and post-test data analysis showed notable gains, especially in grammar and organization, but certain aspects, like tone and style, still require development. These results imply that Quizizz is a useful intervention for improving students' formal email technical writing abilities, which makes it a good approach for educational tactics in the future.

## REFERENCES

- Amanjuck. (2020, September 13). *What is an English Language Learner? | USC Rossier*. USC-MAT. <https://rossieronline.usc.edu/blog/english-language-learners/>
- Aull, L. (2015). Connecting writing and language in assessment: Examining style, tone, and argument in the U.S. Common Core standards and in exemplary student writing. *Assessing Writing*, 24, 59–73. <https://doi.org/10.1016/j.asw.2015.03.002>
- Beardsley, M., Albó, L., Aragón, P., & Hernández-Leo, D. (2021). Emergency education effects on teacher abilities and motivation to use digital technologies. *British Journal of Educational Technology*. <https://doi.org/10.1111/bjet.13101>
- Bergdahl, N., Nouri, J., Fors, U., & Knutsson, O. (2020). Engagement, disengagement and performance when learning with technologies in upper secondary school. *Computers & Education*, 149, 103783. <https://doi.org/10.1016/j.compedu.2019.103783>
- Bouchrika, I., Harrati, N., Wanick, V., & Wills, G. (2019). Exploring the impact of gamification on student engagement and involvement with e-learning systems. *Interactive Learning Environments*, 29(8), 1244–1257. <https://doi.org/10.1080/10494820.2019.1623267>
- BOZKURT, A., & ATAİZİ, M. (2015). English 2.0: Learning and Acquisition of English in the Networked Globe with Connectivist Approach. *Contemporary Educational Technology*, 6(2), 155-168.
- Cagiltay, N. E., Ozcelik, E., & Ozcelik, N. S. (2015). The effect of competition on learning in games. *Computers & Education*, 87, 35–41. <https://doi.org/10.1016/j.compedu.2015.04.001>
- Dawawi, S. N. A., & Yamat, H. (2022). Identifying Problems in Writing among Year 2 Pupils in a Malaysian Primary School. *Journal of English Language Teaching and Applied Linguistics*, 4(2), 140–150. <https://doi.org/10.32996/jeltal.2022.4.2.13>
- Degirmenci, R. (2021). The Use of Quizizz in Language Learning and Teaching from the Teachers' and Students' Perspectives: A Literature Review. *Language Education and Technology (LET Journal)*, 1(1), 1-11.
- Dicheva, D., Irwin, K., & Dichev, C. (2019). Exploring learners experience of gamified practicing: for learning or for fun? *International Journal of Serious Games*, 6(3), 5–21. <https://doi.org/10.17083/ijsg.v6i3.299>
- Dunn, T., & Kennedy, M. (2019). Technology Enhanced Learning in higher education; motivations, engagement and academic achievement. *Computers & Education*, 137, 104–113. <https://doi.org/10.1016/j.compedu.2019.04.004>
- Dynan, L., & Cate, T. (2009). The impact of writing assignments on student learning: Should writing assignments be structured or unstructured? *International Review of Economics Education*, 8(1), 64–86. [https://doi.org/10.1016/s1477-3880\(15\)30078-5](https://doi.org/10.1016/s1477-3880(15)30078-5)
- Eckstein, G. (2013). Implementing and evaluating a writing conference program for international L2 writers across language proficiency levels. *Journal of Second Language Writing*, 22(3), 231–239. <https://doi.org/10.1016/j.jslw.2013.03.001>
- Eckstein, G. (2013). Implementing and evaluating a writing conference program for international L2 writers across language proficiency levels. *Journal of Second Language Writing*, 22(3), 231–239. <https://doi.org/10.1016/j.jslw.2013.03.001>
- Figueroa-Flores, J. F. (2016). Gamification and Game-Based Learning: Two strategies for the 21st century learner. *World Journal of Educational Research*, 3(2), 507. <https://doi.org/10.22158/wjer.v3n2p507>

- Firmin, M. W., & Genesi, D. J. (2013). History and implementation of classroom technology. *Procedia - Social and Behavioral Sciences*, 93, 1603–1617. <https://doi.org/10.1016/j.sbspro.2013.10.089>
- Graham, S., Bollinger, A., Olson, C. B., D'Aoust, C., MacArthur, C. A., McCutchen, D., & Olinghouse, N. G. (2012). Teaching Elementary School Students to Be Effective Writers: A Practice Guide. NCEE 2012-4058. *EDUCATOR'S PRACTICE GUIDE*. <https://files.eric.ed.gov/fulltext/ED533112.pdf>
- H, L. (2023, October 18). *How to do thematic analysis — Delve*. Delve. <https://delvetool.com/blog/thematicanalysis>
- Han, Y., & Xu, Y. (2019). The development of student feedback literacy: the influences of teacher feedback on peer feedback. *Assessment & Evaluation in Higher Education*, 45(5), 680–696. <https://doi.org/10.1080/02602938.2019.1689545>
- Harris, A. D., McGregor, J. C., Perencevich, E. N., Furuno, J. P., Zhu, J., Peterson, D., & Finkelstein, J. (2006). The use and Interpretation of Quasi-Experimental Studies in Medical Informatics. *Journal of the American Medical Informatics Association*, 13(1), 16–23. <https://doi.org/10.1197/jamia.m1749>
- Jansen, T., Meyer, J., Fleckenstein, J., Horbach, A., Keller, S., & Möller, J. (2024). Individualizing goal-setting interventions using automated writing evaluation to support secondary school students' text revisions. *Learning and Instruction*, 89, 101847. <https://doi.org/10.1016/j.learninstruc.2023.101847>
- Jeffrey, L., Milne, J., Suddaby, G., & Higgins, A. (2014). Blended Learning: How teachers balance the blend of online and classroom components. *Journal of Information Technology Education*, 13, 121–140. <https://doi.org/10.28945/1968>
- Kapur, R. (2018). Pedagogical practices. *ResearchGate*. [https://www.researchgate.net/publication/323794548\\_Pedagogical\\_Practices](https://www.researchgate.net/publication/323794548_Pedagogical_Practices)
- Kropf, D. C. (2013). Connectivism: 21st Century's New Learning Theory. *European Journal of Open, Distance and e-Learning*, 16(2). <https://eric.ed.gov/?id=EJ1017519>
- Lanctot, A., & Duxbury, L. (2022). Measurement of perceived importance and urgency of email: An Employees' perspective. *Journal of Computer-Mediated Communication*, 27(2). <https://doi.org/10.1093/jcmc/zmac001>
- Lim, T. M., & Yunus, M. M. (2021). Teachers' Perception towards the Use of Quizizz in the Teaching and Learning of English: A Systematic Review. *Sustainability*, 13(11), 6436. <https://doi.org/10.3390/su13116436>
- Lim, T. M., & Yunus, M. M. (2021). Teachers' Perception towards the Use of Quizizz in the Teaching and Learning of English: A Systematic Review. *Sustainability*, 13(11), 6436. <https://doi.org/10.3390/su13116436>
- Maarof, N., Yamat, H., & Li, K. L. (2011). Role of Teacher, Peer and Teacher-Peer Feedback in Enhancing ESL Students' Writing. *World Applied Sciences Journal*. [http://www.idosi.org/wasj/wasj15\(IPLL\)11/6.pdf](http://www.idosi.org/wasj/wasj15(IPLL)11/6.pdf)
- McCarthy, K. S., Roscoe, R. D., Allen, L. K., Likens, A. D., & McNamara, D. S. (2022). Automated writing evaluation: Does spelling and grammar feedback support high-quality writing and revision? *Assessing Writing*, 52, 100608. <https://doi.org/10.1016/j.asw.2022.100608>
- Mohamad, S. N. M., Safwana Sazali, N. S., & Mohd Salleh, M. A. (2018). Gamification Approach in Education to Increase Learning Engagement. *International Journal of Humanities Arts and Social Sciences*, 4(1). <https://doi.org/10.20469/ijhss.4.10003-1>
- Mohammedeen, E. A., Shehata, G. M., & Ali, A. B. (2023). The Effect of a Connectivism - Based program on developing secondary school students' communicative writing



- skills. *Sohag University International Journal of Educational Research (SUIJER) (Print)*, 7(7), 95–121. <https://doi.org/10.21608/suijer.2023.283015>
- Opitz, B., Ferdinand, N. K., & Mecklinger, A. (2011). Timing matters: The impact of immediate and delayed feedback on Artificial Language learning. *Frontiers in Human Neuroscience*, 5. <https://doi.org/10.3389/fnhum.2011.00008>
- Parr, J. M., & Timperley, H. S. (2010). Feedback to writing, assessment for teaching and learning and student progress. *Assessing Writing*, 15(2), 68–85. <https://doi.org/10.1016/j.asw.2010.05.004>
- Petrovic-Dziedz, M. (2019). Gamifying online tests to promote Retrieval-Based learning. *The International Review of Research in Open and Distributed Learning*, 20(2). <https://doi.org/10.19173/irrodl.v20i2.3812>
- Pheng, K. T., Hashim, H., & Sulaiman, N. A. (2021). The use of technology in teaching of writing among Malaysian ESL secondary school teachers. *Arab World English Journal*, 7(1), 314–330. <https://doi.org/10.24093/awej/call7.22>
- Pheng, K. T., Hashim, H., & Sulaiman, N. A. (2021). The use of technology in teaching of writing among Malaysian ESL secondary school teachers. *Arab World English Journal*, 7(1), 314–330. <https://doi.org/10.24093/awej/call7.22>
- Quizizz Co-Founders: Deepak Joy Cheenath and Ankit Gupta | ETEC 522. (2020, February 2). <https://virtual.educ.ubc.ca/wp/etec522/2020/02/02/quizizz-co-founders-deepak-joy-cheenath-and-ankit-gupta/#:~:text=Deepak%20Joy%20Cheenath%20and%20Ankit%20Gupta%20co%2Dfounded%20the%20game,focusing%20on%20becoming%20edtech%20creators>
- Ragan, T. J., & White, P. R. (2001). What we have here is a failure to communicate: the criticality of writing in online instruction. *Computers & Composition/Computers and Composition*, 18(4), 399–409. [https://doi.org/10.1016/s8755-4615\(01\)00071-8](https://doi.org/10.1016/s8755-4615(01)00071-8)
- Rivera, E. S., & Garden, C. L. P. (2021). Gamification for student engagement: a framework. *Journal of Further and Higher Education*, 45(7), 999–1012. <https://doi.org/10.1080/0309877x.2021.1875201>
- Rong, R. (2023). Research on the combination of modern educational technology and PIPA performance teaching. *Curriculum and Teaching Methodology*, 6(12). <https://doi.org/10.23977/curtm.2023.061219>
- Smith, K. L. (1990). Collaborative and interactive writing for increasing communication skills. *Hispania*, 73(1), 77. <https://doi.org/10.2307/342962>
- Sozudogru, O., Altınay, M., Dağlı, G., Altınay, Z., & Altınay, F. (2019). Examination of connectivist theory in English language learning. *Campus-wide Information Systems*, 36(4), 354–363. <https://doi.org/10.1108/ijilt-02-2019-0018>
- Strobl, C., Ailhaud, E., Benetos, K., Devitt, A., Kruse, O., Proske, A., & Rapp, C. (2019). Digital support for academic writing: A review of technologies and pedagogies. *Computers & Education*, 131, 33–48. <https://doi.org/10.1016/j.compedu.2018.12.005>
- Tsiriotakis, I. K., Grünke, M., Spantidakis, I., Vassilaki, E., & Stavrou, N. a. M. (2020). The impact of an explicit writing intervention on EFL students' short story writing. *Frontiers in Education*, 5. <https://doi.org/10.3389/feduc.2020.565213>
- Whang, Y., & Wendler-Shaw, P. D. (2021). Writing letters and emails in English: correspondence for the editorial office. *Science Editing*, 8(2), 186–192. <https://doi.org/10.6087/kcse.254>
- Williams, C., & Beam, S. (2019). Technology and writing: Review of research. *Computers & Education*, 128, 227–242. <https://doi.org/10.1016/j.compedu.2018.09.024>
- Williams, C., & Beam, S. (2019). Technology and writing: Review of research. *Computers & Education*, 128, 227–242. <https://doi.org/10.1016/j.compedu.2018.09.024>

- Williams, K. (2023, October 20). What is SPSS? Definition, Features, Types, and Use Cases. *SurveySparrow*. <https://surveysparrow.com/blog/what-is-spss/#section1>
- Xue, S., Yang, Y., Du, J., & Liu, F. (2023). Multi-layered e-feedback anxiety: An action research study among Chinese learners using peer feedback activities in an academic writing course. *Frontiers in Psychology*, *14*. <https://doi.org/10.3389/fpsyg.2023.1062517>
- Zainuddin, Z., Chu, S. K. W., Shujahat, M., & Perera, C. J. (2020). The impact of gamification on learning and instruction: A systematic review of empirical evidence. *Educational Research Review*, *30*, 100326. <https://doi.org/10.1016/j.edurev.2020.100326>
- Zhihao, Z., & Zhonggen, Y. (2022). The impact of gamification on the Time-Limited Writing performance of English majors. *Education Research International*, *2022*, 1–11. <https://doi.org/10.1155/2022/4650166>
- Zhu, W. (2004). Faculty views on the importance of writing, the nature of academic writing, and teaching and responding to writing in the disciplines. *Journal of Second Language Writing*, *13*(1), 29–48. <https://doi.org/10.1016/j.jslw.2004.04.004>

## **APPENDIX**

### **APPENDIX A**

#### **Pre and Post Test (Quasi Experimental)**

##### **Exam Overview:**

Time allotted: The exam will take fifteen minutes to finish.

Source Material: Your exercise book or textbook will be the source of the questions. Become familiar with the material that these materials cover.

##### **Before Exam Begin:**

Read Prompt Carefully: Give each question a thorough read over the course of a few minutes.

Pay close attention to the details and the context that are offered.

Recognise the Situation: Every question aims to gauge your proficiency in handling a certain situation. Prior to drafting your response, make sure you comprehend the context.

##### **Final Reminders:**

Timing management: Use your time effectively. To guarantee that you finish within the allotted time, schedule the amount of time you will spend on each question.

Examine Your Work: If you have the time, go over your answers to make sure they are accurate, comprehensive, and clear.

Depending on where the question is modified from, the marking scheme will be taken from the practice book or textbook.

The test scores will be awarded according to how well the formal email was composed (pre and post-test) and sent as follows:

##### **Scoring Criteria (Compositional Quality):**

Coherence: Your answer should make sense and be simple to understand.

Language Proficiency: Use suitable terminology and sentence structures to demonstrate your command of the language.

Formality: Communicate in a businesslike or professional manner by maintaining a formal tone.

Relevance: Make sure your email properly responds to the prompt and has a clear connection to the situation that was provided.

## **APPENDIX B**

### **Pre-Test Interview Questions:**

#### **Basic Information:**

What information about the subject or topic covered in the pre-test do you presently know?

#### **Anticipations:**

Considering the material from the pre-test, what goals do you have for this course or intervention?

#### **Problems:**

Which pre-test topics or regions stand out to you as particularly difficult or unclear?

#### **Study Routines:**

How do you usually go about studying or getting ready for exams such as the pre-test?

#### **Preferences for Learning:**

Before starting the next learning activities, could you share your preferred learning strategies or approaches?

### **Post-Test (After Quizziz Intervention) Interview Questions:**

#### **Observed Enhancement:**

Do you think that after taking part in the Quizziz intervention, your comprehension of the subject has improved?

#### **Successful Techniques:**

After utilising Quizziz, which techniques or resources did you find most useful for getting ready for the post-test?

#### **Areas Needing Additional Assistance:**

Are there any English lesson skills (reading, listening, speaking) or ideas that you still feel want further help or explanation?

#### **Comments Regarding Quizziz:**

How do you feel about Quizziz being used as a teaching tool? What effect did it have on your educational process?

The goal of the questions is to get comprehensive answers from every participant. The purpose of these questions is to investigate the students' comprehension levels, opinions on the Quizziz intervention, and any changes in their knowledge that they may have noticed between the pre- and post-tests. To provide a thorough overview of the users' experiences, the interview questions are purposefully broad in the beginning. As time goes on, they become more focused, covering topics like the usefulness of Quizziz, difficulties encountered, and areas that may be improved. The tool also includes suggestions to help participants think back on their learning preferences and techniques during the intervention time.

## **APPENDIX C**

### **Pre-Test and Post Test Lesson Plan**

#### **Introduction and Reading Instructions (5 minutes):**

The exam is introduced, and students have five minutes to read and comprehend the instructions in their entirety. Stress how crucial it is to understand the background and specifications of every inquiry.

#### **Reading and Analyzing Prompts (5 minutes):**

Give pupils five minutes to read and consider the formal email scenarios' suggestions. They have this much time to process the information and background offered in each inquiry.

#### **Composing Formal Emails (15 minutes):**

Give students fifteen minutes, or most of the time, to actively draft their answers to the formal email situations. Urge students to keep their emails official, well-structured, and relevant to the circumstances at hand. They should also use language that is suitable.

#### **Reviewing and Editing (3 minutes):**

Give students three minutes to go over and make edits to their written replies. They may use this time to ensure that their official emails are accurate, comprehensive, and clear. To polish their work before submitting it, this stage is essential.

#### **Submission and Closing (2 minutes):**

Allocate the final two minutes for students to turn in their finished exam papers. This is the moment to wrap up the testing session and give any instructions that may be needed for turning in the written replies.

## **APPENDIX D**

### **Intervention Lesson Plan**

#### **Objective:**

Enhance students' proficiency in composing high-quality formal emails through interactive learning with Quizizz.

#### **Materials Needed:**

ICT room with internet access.

Projector or smartboard for displaying Quizizz questions.

Computers provided in the ICT.

#### **Lesson Plan:**

##### **Introduction (5 minutes):**

Introduce the subject of formal email writing in brief.

Describe the intervention's goal: to use Quizizz to enhance compositional quality.

Describe the benefits of having expert email writing abilities in different situations.

##### **Accessing Quizizz (2 minutes):**

Teach students how to use their smartphones to access Quizizz.

Give the URL or Quizizz code for the practice question set.

##### **Quizizz Session (15 minutes):**

Start the Quizizz session, then use the projector to present the questions.

Students should be urged to thoroughly consider each question and select the best answer.



Given enough time to carefully analyse each issue.

**Real-Time Feedback (5 minutes):**

Give immediate feedback following each Quizizz question, outlining the right and wrong responses.

Provide further details about the formal email writing quality.

**Discussion (3 minutes):**

Start a quick conversation on the main ideas and techniques for enhancing formal email writing.

Students should be encouraged to clarify things or ask inquiries.

**Closing and Summary (2 minutes):**

Write a summary of the main ideas discussed in the intervention.

Stress the value of using the lessons learnt in real-world email writing situations.

**Note:**

- Make sure the classroom is engaging and encouraging.
- Observe how involved the students are in the Quizizz session.
- Positive reinforcement is a good way to promote involvement.
- Give them further references or resources to help them learn more.

**APPENDIX E**

**Lesson Plan: Conducting Pre and Post-Quizizz Intervention Interviews**

**Objective:**

Four students will be interviewed in groups for fifteen to twenty minutes to get relevant information about their knowledge both before and after the Quizizz intervention.

**Materials Needed:**

Classroom setting.

Smartphone for audio recording.

Thematic Analysis software for transcription.

Pre- and post-test results.

**Lesson Plan:**

**Introduction (2 minutes):**

As you greet the students, give them a quick explanation of the group interview's goal.

Stress the significance of their observations in figuring out how the Quizizz intervention affected their learning.

**Discussion on Understanding (3 minutes):**

Before the Quizizz intervention, start by asking open-ended questions on their general comprehension of formal email writing.

Invite students to talk about their experiences, difficulties, and any apparent gains in their comprehension.

**Focus on Pre- and Post-Tests (5 minutes):**

Talk about certain subjects from the pre- and post-tests that have to do with professional email writing.

Examine how their approach to these subjects was affected by the Quizizz intervention.

Permit students to consider how well Quizizz meets their educational needs.

**Audio Recording and Verbal Agreement (2 minutes):**

Make sure the audio recording procedure is pleasant for the pupils.

Get each student's verbal consent to participate, then record the interview for accuracy.

**Group Discussion (5 minutes):**

Lead a conversation in the group and invite students to contribute ideas, answer one another's ideas, and offer further information.

Ask follow-up questions to learn more about areas of the Quizizz intervention depending on their answers.

**Closing and Acknowledgment (2 minutes):**

List the main topics that were covered in the interview.

Thank them for their involvement and important contributions to the research.

**Transcription Process (1 minute):**

Give a brief explanation of how transcription is done using Thematic Analysis software.

Stress the value of maintaining one's privacy and abiding by data protection regulations.

**Conclusion (2 minutes):**

Acknowledge the time and participation of the pupils.

Make any next stages in the research process clear.

**Note:**

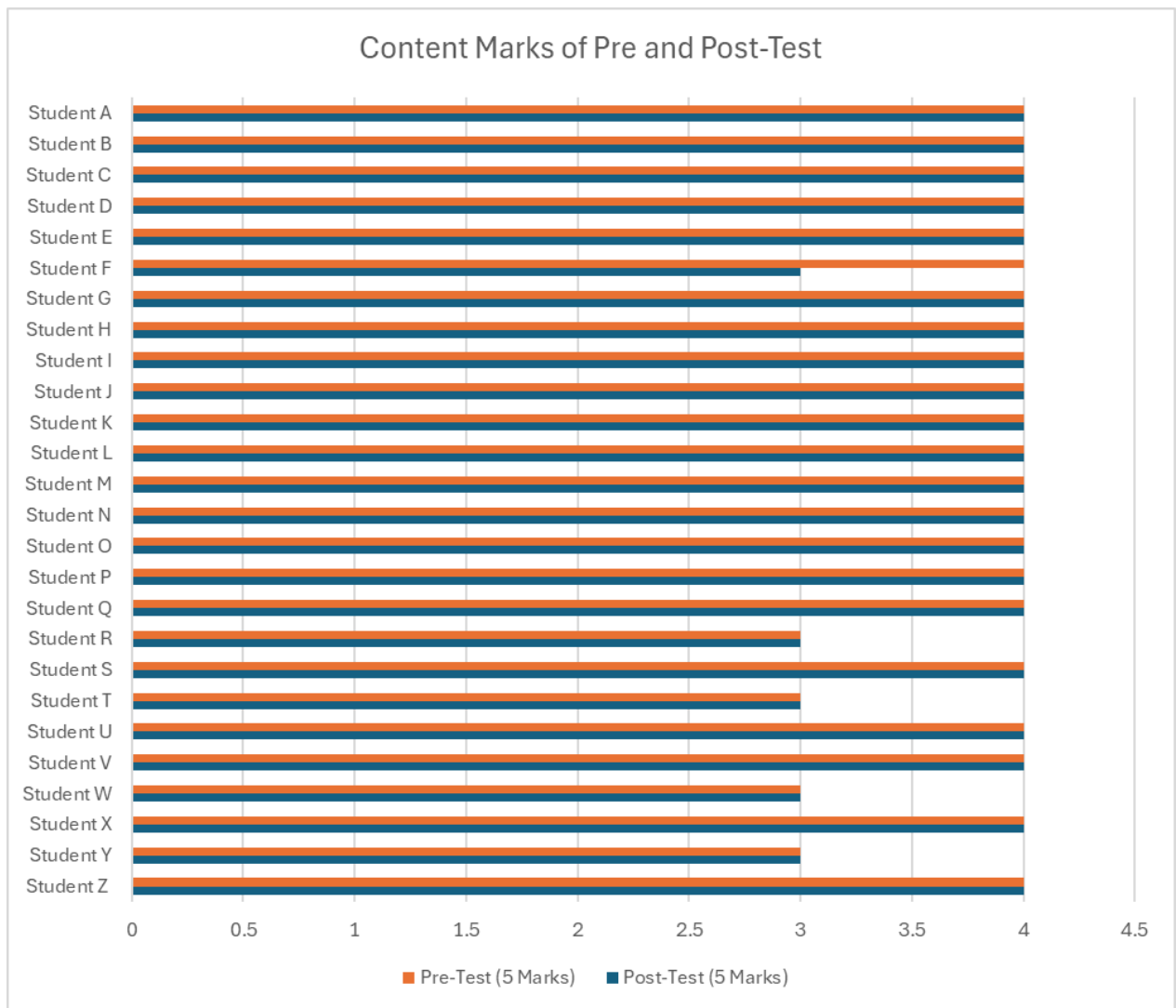
- Keep in mind that there are time limits, and make sure that every student participates fairly.
- Sustain an impartial and supportive demeanour to promote candid dialogue.
- Give ethical issues a priority, making sure that students' permission, privacy, and data are protected.

## APPENDIX F

SCORE	CONTENT	COMMUNICATIVE ACHIEVEMENT	ORGANISATION	LANGUAGE
5	All content is relevant to the task.  Target reader is fully informed.	Produces a text that communicates straightforward ideas using the conventions of the communicative task reasonably appropriately.	Uses simple connectors and a limited number of cohesive devices appropriately.	Uses basic vocabulary appropriately.  Uses simple grammatical forms with a good degree of control.  While errors are noticeable, meaning can still be determined.
4	<b>Performance shares features of Scores 3 and 5</b>			
3	Minor irrelevances and/or omissions may be present.  Target reader is on the whole informed.	Produces a text that communicates simple ideas in simple ways.	Text is connected using basic, high frequency connectors.	Uses basic vocabulary reasonably.  Uses simple grammatical forms with some degree of control.  Errors may impede meaning at times.
2	<b>Performance shares features of Scores 1 and 3</b>			
1	Irrelevances and/or misinterpretation of the task may be present.  Target reader is minimally informed.	Produces isolated short units about simple and concrete matters, not always communicating successfully.	Production unlikely to be connected, though punctuation and simple connectors (e.g. and) may be used on occasion.	Produces basic vocabulary of isolated words and phrases.  Produces few simple grammatical forms with only limited control.
0	Content is totally irrelevant. Target reader is not informed.	<b>Performance below Score 1</b>		

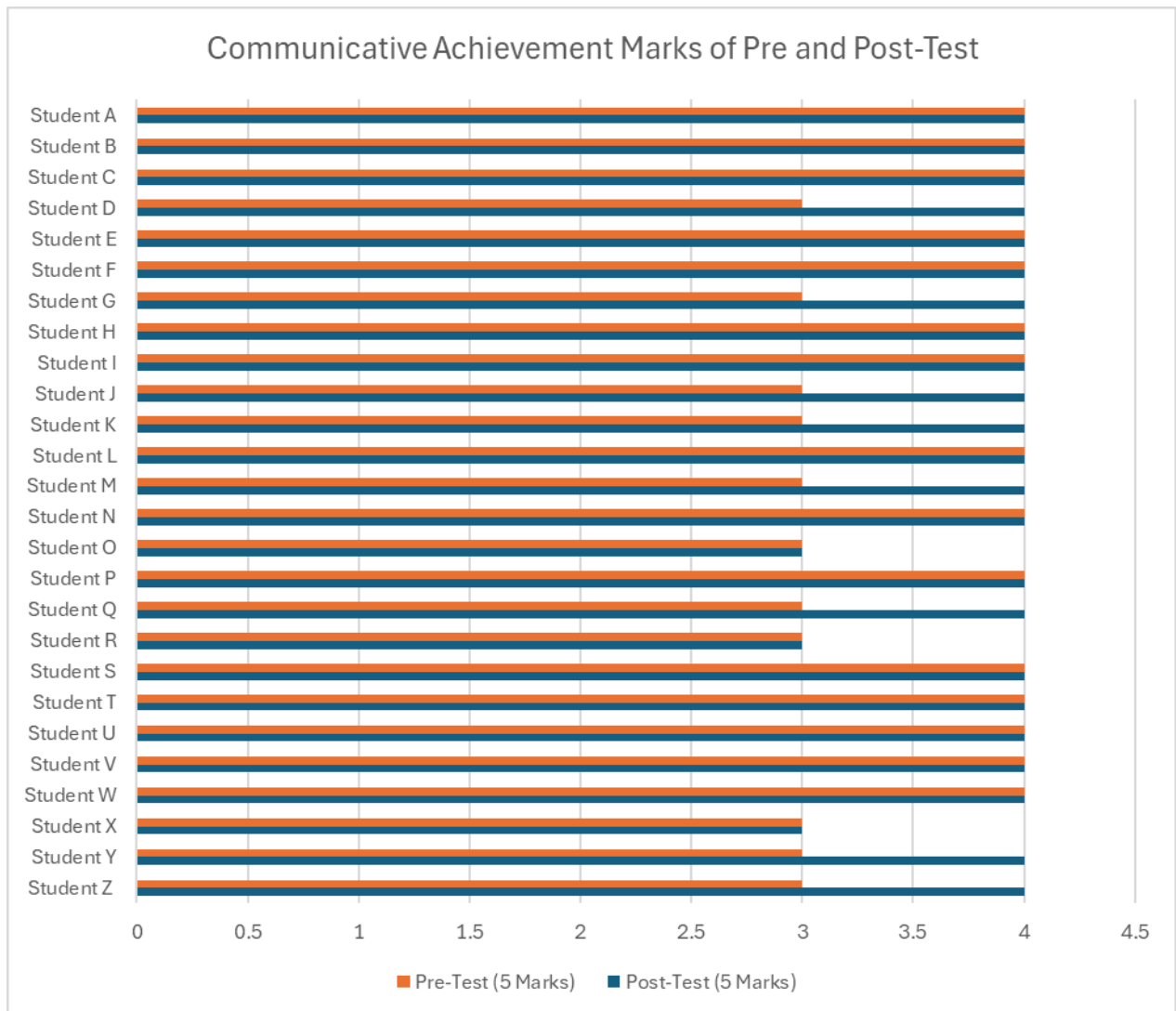
### Marking Rubric of Email Writing

## APPENDIX G



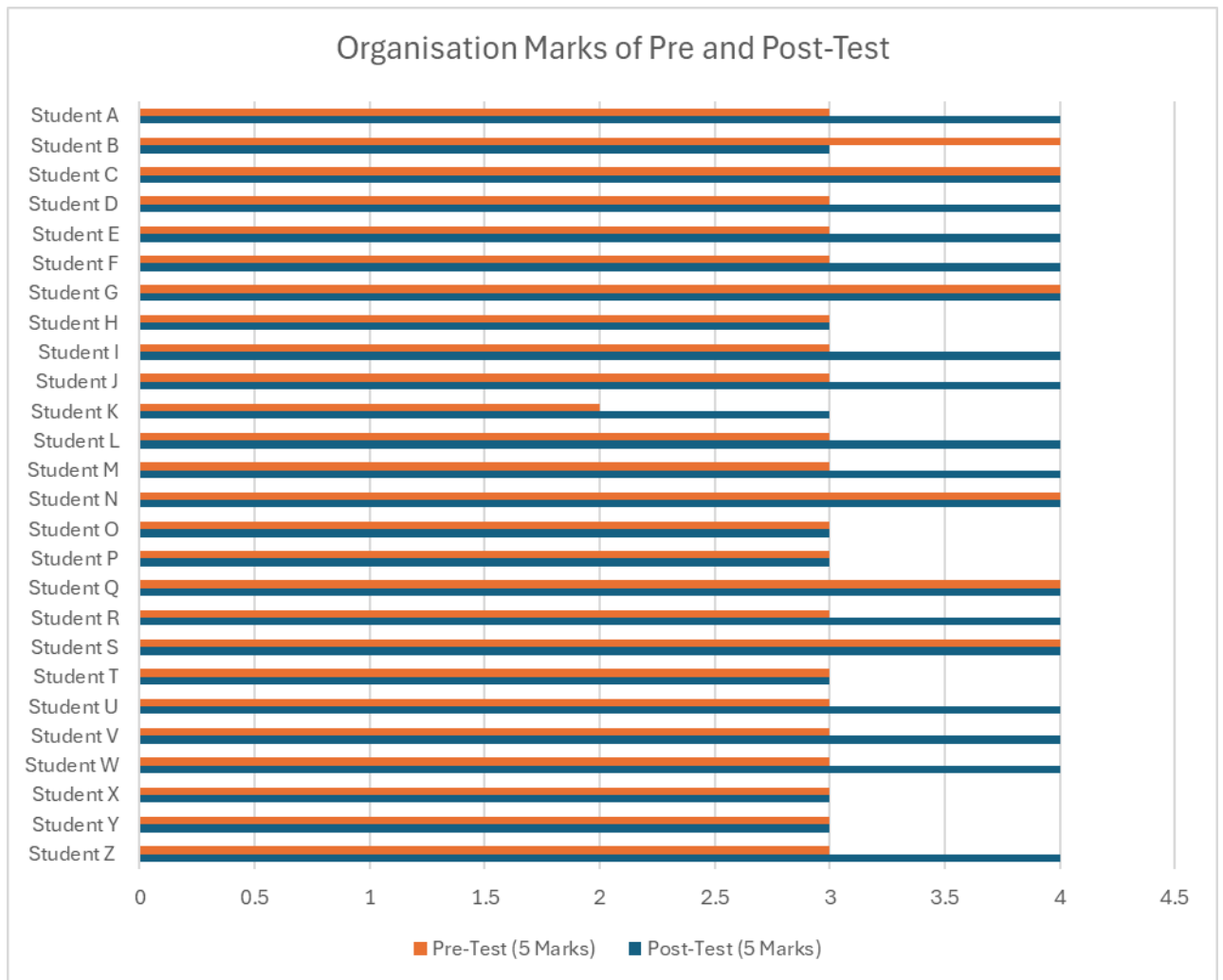
**Figure 4.1.2 Content Marks of Pre and Post-Test**

## APPENDIX H



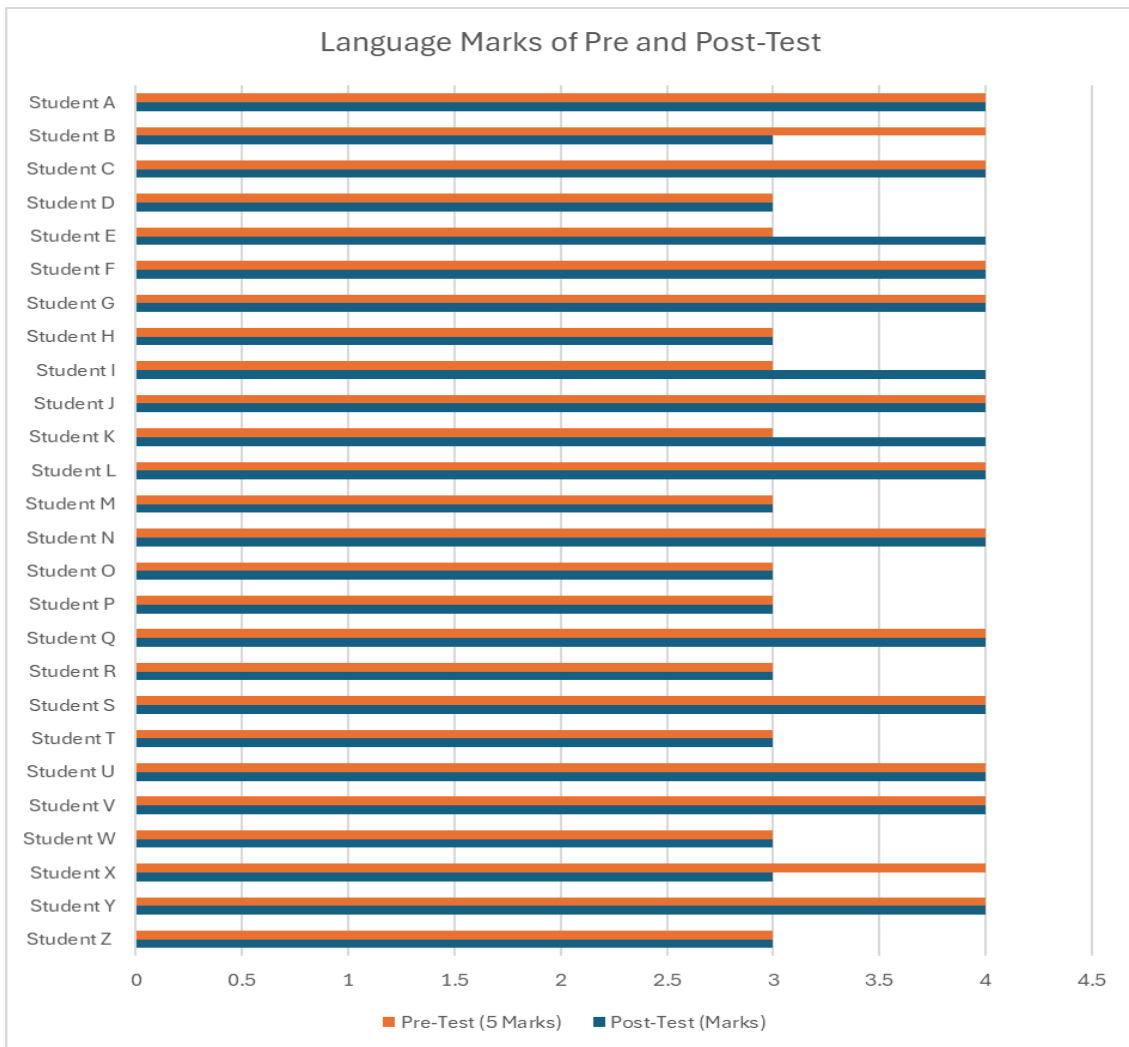
**Figure 4.1.3 Communicative Achievement Marks of Pre and Post-Test**

## APENDIX I



**Figure 4.1.4 Organisation Marks of Pre and Post-Test**

## APPENDIX J



**Figure 4.1.5 Language Marks of Pre and Post-Test**



## APPENDIX K

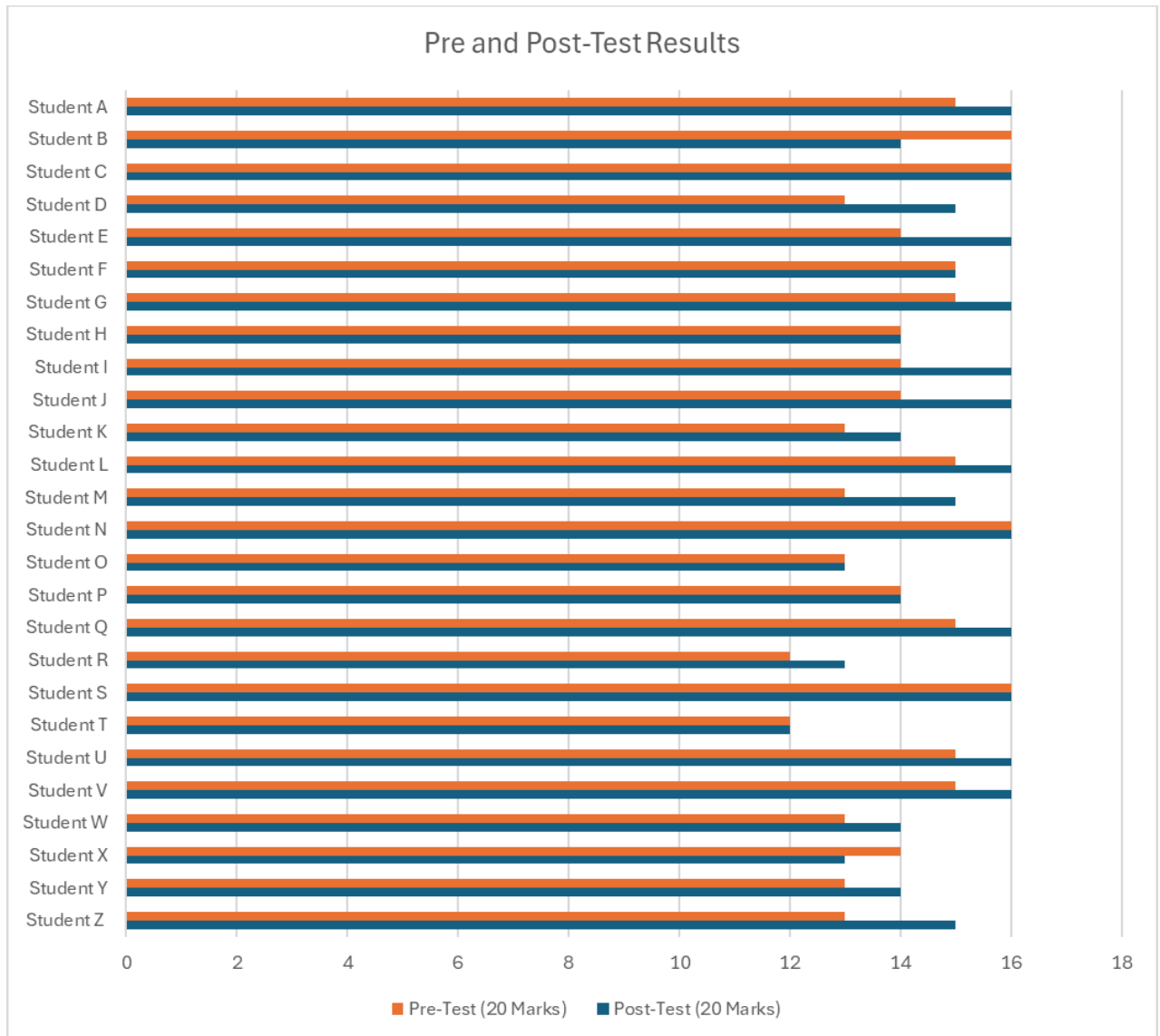


Figure 4.1.6 Pre and Post-Test Results

## APPENDIX L

### Mapping of Themes to Students' Responses:

<b>Pre-Test Questions</b>	
<b>Interview Question 1:</b>	
<b>What information about the subject or topic covered in the pre-test do you presently know?</b>	
<b>Theme</b>	<b>Text from Transcriptions</b>
Theme 1: Knowledge Development	Student B: "...I learned about the format of an email, and I gained a lot of useful tips on how to score on the upcoming exam that we have to take in the upcoming two years,"
<b>Interview Question 2:</b>	
<b>Considering the material from the pre-test, what goals do you have for this course or intervention?</b>	
Theme 2: Commitment to Academic Excellence	Student C: "...I am determined to write with better grammar and less mistakes, for example, spelling mistakes,"
Theme 3: Enhancing Writing Quality	Student D: "...I have given myself a goal to get better at writing email and writing a more readable email,"
<b>Interview Question 3:</b>	
<b>Which pre-test topics or regions stand out to you as particularly difficult or unclear?</b>	
Theme 4: Writing Difficulty	Student A:

	<p>“...I find the word limit hard to understand as the question doesn't state it clearly and I would find the grammar hard to remember so I'll try to work on that,”</p>
<p>Theme 5: Lack of Originality</p>	<p>Student B: “...The writing of creative content is my deficiency and also I lack a better format of email,”</p>
<p><b>Interview Question 4:</b> <b>How do you usually go about studying or getting ready for exams such as the pre-test?</b></p>	
<p>Theme 6: Strategic Exam Preparation</p>	<p>Student D: “...I would go on to read past exam papers to get a better understanding on how the question was asked and try to work from there to score on the upcoming SPM.”</p>
<p>Theme 7: Targeted Revision</p>	<p>Student A: “...About me, I will do some revision about the previous work that they've done in the lesson and also I will reveal some of the English teaching videos such as the Mr. Yang the YouTuber.”</p>
<p><b>Interview Question 5:</b> <b>Before starting the next learning activities, could you share your preferred learning strategies or approaches?</b></p>	
<p>Theme 8: Visual Learning and Contextual Understanding</p>	<p>Student D: “...I would prefer visual learning. I would prefer watching videos using English subtitles that help</p>

	me get a better understanding of how a conversation works within”
<b>Post-Test Questions</b>	
<b>Interview Question 1:</b>	
<b>Do you think that after taking part in the Quizziz intervention, your comprehension of the subject has improved?</b>	
Theme 1: Impactful Digital Learning Tool	Student C: "...Quizzizz is very immersive and has helped me through a lot of studying"
<b>Interview Question 2:</b>	
<b>After utilizing Quizziz, which techniques or resources did you find most useful for getting ready for the post-test?</b>	
Theme 2: Enhanced Email Skills	Student A: "...After taking part in the quizzes intervention, I'm pretty sure my comprehension of completing an email task has enhanced"
Theme 3: Email Mastery	Student D: "...I've mastered the expertness of composing an email. Now I'm more than just capable of writing a good and correct email"
<b>Interview Question 3:</b>	
<b>Are there any English lesson skills (reading, listening, speaking) or ideas that you still feel want further help or explanation?</b>	
Theme 4: Perceived Self-Sufficiency	Student B: "...For me, I don't think there's any English lesson skills"