Facultad de
Ciencias Sociales y Humanísticas

THESIS

"AUDIO-VISUAL AND TEXT-BASED FEEDBACK IN WRITING COMPETENCY: EXPERIMENTAL STUDY"

Previa a la obtención del Título de:

MASTER OF RESEARCH IN ECONOMIC SCIENCES

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Guayaquil - Ecuador

2022

ACKNOWLEDGEMENT

I thank God for his love and mercy that allowed me to complete this valuable life project.

To my beloved family for all their support throughout this stage.

To my teachers for imparting their knowledge with discipline and faithful dedication to the academy.

To my great project tutor, MA. TEFL. Karen Yambay de Armijos, for being my guide in this part of my educational process.

Thanks to the Escuela Superior Politécnica del Litoral for allowing me to train as a professional of excellence.

VIVIANA THALIA HUACHIZACA PUGO

DEDICATION

To my great father Francisco (✞) and my small family for being the fundamental pillar of my life and supporting me in my decisions.

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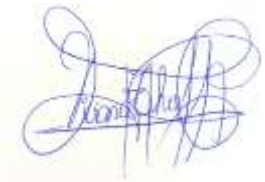

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ABSTRACT

A Foreign language knowledge, combined with formal schooling and other cognitive skills, could promote economic development in the current world. Writing skills in the acquisition of English as a foreign language (EFL) is valuable, and it needs tools for enhancing students, such as providing feedback. This quasi-experimental study explored the effectiveness of audio-visual feedback plus written feedback (AVF + WF) on undergraduate students to encourage students' revision and improvement of their writing pieces versus only receiving written feedback in the EFL online classroom. The study uses the estimator Difference in Difference (DiD) comparing a treated and control group in two different periods a pre-and post-test under the application of 6 treatment sessions, plus a student's perception survey at the end of the treatment. These empirical results suggest relevant information using multimodal feedback. The treated group showed higher improvement rates in the content of a paragraph between drafts, first and last, than students in the control group. Results also denoted that getting a combination of audio-visual and written feedback had a statistically effect on categories of mechanics ($p = .000$) and the use of transition words ($p = .003$). While preceding studies on audio or video feedback have only used student insights of the feedback, this research has helped contribute empirical data through quasi-experimental measuring effectiveness of feedback in online learning environments.

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ABBREVIATIONS

EFL	English as a Foreign Language
EPI	English proficiency Index
HDI	Human Development Index
GNI	Gross National Index
FDI	Foreign Direct Investment
AVF	Audio-Visual Feedback
WF	Written Feedback
CLIL	Content and Language Integrated Learning
ELL	English Language Learning
CES	Higher Education Council (CES, acronym in Spanish)
CEFR	Common European Framework Reference
EPL	English Proficiency Level
RCT	Randomized Control
ATE	Average Treatment Effect
DiD	Differences-in-differences
EVA	Entorno Virtual de Aprendizaje
BERA	British Educational Research Association

AUDIO-VISUAL AND TEXT-BASED FEEDBACK IN WRITING COMPETENCY: EXPERIMENTAL STUDY

1. INTRODUCTION

In the current global economy, a person's or team's ability simplifies the access to information, and these abilities work alongside knowledge of English as a lingua franca. People worldwide face the challenge of learning English, since current labor markets demand English language ability. Thus, English as a Foreign Language (EFL) is not just a topic; it is already a skill (Chen et al., 2020) because English-speaking countries are widely involved in the international economy (Hejazi & Ma, 2011). Moreover, English proficiency affects economic development and activities, which constitute physical capital, technology accumulation, political stability, and worthy government (Kim, & Lee, 2011). In this regard, salary is another economic indicator affected by the English proficiency Index (EPI) (Di Paolo & Tansel, 2015).

According to McCormick (2013), there is a positive correlation between gross national income (GNI) per capita and the human development index (HDI) and EPI developed by Education First (Tibus & Bendulo, 2018). According to this author, the job market has positive correlation with the relative salary premium which is about 30% higher in OECD countries. Furthermore, Chen et al. (2020) analyzed the contribution of international language proficiency in an aggregate aspect because they formulated a U-shaped curve and conducted a pragmatic study based on the EPI. The results revealed the effect on growth is negative at first and then turns positive by an increase in EPI. Hence, it demonstrates that two-way feedback causality occurs between worldwide language expertise and output growth.

Moreover, Lee (2012) found an effect of English proficiency on economic growth. For instance, the author provided evidence that states with high levels of English proficiency for the number of inhabitants are expected to grow faster. Therefore, English proficiency can be considered a factor of human capital. Similarly, Di Paolo & Tansel (2015) analyzed the case of Turkey of the return to foreign language skills. They found positive wages returns to English and Russian proficiency since these languages increased with the level of competence compared with French, German, and Indian. In this regard, English language proficiency may positively affect economic development (Hanushek, & Woessmann, 2020). Consequently, one of the most

relevant factors in social, economic, and political discussions is education because knowledge capital or aggregate skills have a crucial role.

Foreign language knowledge, combined with certified schooling and other intellectual skills (Hanushek & Woessmann, 2008), could propel economic development in the current world (Seargeant & Erling, 2011). The relevance of foreign languages is an indispensable fact. Moreover, the economic charge of EFL has increased worldwide trade, tourists' entrances, foreign direct investment (FDI), and research and development (R&D) activities that have made a contribution to the social and economic progress (Lee, 2012, Fidrmuc & Fidrmuc, 2016; Fidrmuc, 2012; Oh et al., 2011).

In addition, EFL has fostered the countries status because many manuals, journals, software, and machinery information are written in English (Lee, 2012; Keller, 2002). Thus, acquiring EFL requires the practice of productive and receptive skills (Sharma, 2015). Nowadays, online teaching strategies have hugely helped EFL learners. When dealing with writing skills, valuable means for enhancing them is providing feedback to students (Bitchener, 2012). For instance, Golkova and Hubackova (2014) claimed that providing feedback improves the skills and acquiring a second language. However, this strategy has become challenging and neglected in EFL teaching (Vattøy, 2020). Thus, EFL teachers must revise the feedback to help students accomplish skills accurately with an appropriate level of proficiency in the second language by using suitable ways (Sato & Lyster, 2012).

When EFL teachers analyze the students' language level or the meaning of the written message, they observe how students face trouble completing a task satisfactorily, specifically with coherence and cohesion (Ahmed, 2010). Precisely, interaction through diverse types of social media seems to affect the learners' mind setting and leads them to informal language (Greenhow & Lewin, 2016). Consequently, learners transfer informal language features to formal writing assignments; for that reason, EFL learners require a good level of knowledge to use the language correctly (Alhusban, 2016).

Therefore, a vital issue is the type of feedback provided to learners writing tasks. Merry and Orsmong (2008) claimed that students are becoming less comfortable processing, acting on,

and including feedback as part of their learning process. Moreover, teachers have considered feedback a time-consuming activity with little or no effect (Carless et al, 2006). However, the remote condition might be an opportunity to change learners' and teachers' minds about feedback, and it could also be considered an advantage for teachers. Specifically, higher educational practitioners should look for other means of providing feedback (Whittle et al., 2020; Iglesias-Pradas et al., 2021).

Accordingly, audio feedback is an option because it is more personalized than other types of feedback and contributes to an understanding of social incidence and teacher closeness (Oomen-Early et al., 2008; Moore and Wallace, 2012). It also takes less time for the teacher than written feedback. Lunt and Curran (2010) affirm that, as a rigorous estimate, one minute of audio comment is alike of providing six minutes of written feedback. Nonetheless, Morris and Chiwa (2016) stated that it might not save much time if you consider the time taken to upload audio files. Hence, teachers could use the current technological apps to provide feedback. The audio feedback can be complemented by written feedback. In short, the use of authentic audio feedback and recorded videos (RA+RV) could be excellent means to provide feedback along with written feedback (WF) (Grigoryan, 2017).

Consequently, due to the importance of higher education, as a source of improvements and thus economic growth (Hanushek, 2016), this study aimed to determine quantitively the difference and effectiveness of providing audio-visual feedback plus written feedback (AVF + WF) vs. written feedback (WF) on undergraduate students in EFL online classrooms with the use of parametric methods to get specific results regarding writing skill in virtual learning environments. Moreover, it was an opportunity to combine traditional qualitative studies in EFL teaching-learning with quantitative methods using statistical and econometric analysis and consequently get a rigorous foundation with demonstrable evidence and the required validity.

Difference-in-difference (DiD) method is related to econometrics analysis which helps to get reliable data and results from comparing in two different moments. Moreover, it is relevant to study feedback since it is the best way to improve this skill for writing tasks and students' development; therefore, it will optimize the teaching time. Hence, the present empirical study

provides relevant information on Ecuador's EFL proficiency and policymakers to promote economic growth since the EFL proficiency might positively impact that economic indicator.

The general structure of the study takes the form of four chapters covering this introductory chapter, chapter two includes methodology, model details, variable constructions, and data source material. The empirical results and analyses seem in Chapter 3, and finally, Section 4 completes the study.

2. LITERATURE REVIEW

2.1. Language skills and economies

Scholars have demonstrated that cognitive skills complement economic institutions' quality and language skills affect economics, Therefore, they claimed that significant structural changes are required in schooling institutions. Education is related to earning income distribution and economic growth because it increases human capital inherent in the labor force promoting labor productivity (Hanusheck & Woessmann, 2008). For instance, Garrouste (2008) uses the economics of language and the economics of education to research the outcomes to language skills considering language capabilities as relevant parts of human capital.

Similarly, education fosters the innovative capacity of the economy as theories of endogenous growth (Howitt, 2010). Education makes the diffusion and transmission of knowledge more manageable, and it facilitates the successful implementation of new technologies addressed to promote economic growth (Sacco & Segre, 2009; Pan; et al., 2016). Moreover, McManus et al. (1983) found that English language skills positively and strongly affect Hispanic wage differences by relating the measure of English language proficiency to assimilation-related variables attributed to ethnicity, national origin, and time in the United States.

Furthermore, Seargeant & Erling (2013) mentioned that governments encourage teaching and studying English as an International language to promote national prosperity and economic development because it dominates global communication such as business, technology, science, and academia. Also, Erling (2014) has researched the link between quality

education and economic development. She agreed with Permani (2009) that growth in educated workers' competitiveness results in higher incomes and higher economic development.

In this regard, Hawkes & Ugur (2012) found that outstanding education and sills standards enabled higher productivity and output in the economy. On the other hand, Hanushek & Woessmann (2008) noted that school, teachers, and materials for learners contribute to the development and quality education. Likewise, Permani (2009) inserted other measures to sustain investment in education such as encouraging foreign direct investment and technology, keeping macroeconomic steadiness, rising effective regulation, implementing a clear financial system, and evolving effective and deferential authority (Permani, 2009:16).

Additionally, Lee (2012) affirms that English proficiency is part of human capital, and affects economic growth. However, this growth also depends on economic institutions, stability, and certainty to encourage accumulated knowledge, especially in Latin American and African countries. Concerning this, Chiswick & Miller (2002) showed the importance of English language fluency because immigrants in the USA, who were fluent, benefited from higher earnings. Thus, language skills are acquired expecting incrementation in earnings. However, the most relevant finding is that language skills complement other forms of human capital such as total labor market experience and citizen participation.

Di Paolo & Tansel (2015) reported that acquiring foreign languages competencies signifies a beneficial investment in the labor commerce in Turkey, and the country fosters competencies in foreign languages for current and future generations. Hence, the Turkish economy has supported proficiency in English and, to a slighter range, French and German. Furthermore, scholars have developed the English Proficiency Index (EPI), which has become one of the guides to explain the advantages of the English language such as access to much information, a diverse network, and more job opportunities (EF Education First, 2021). Hence, a rise in a country's English proficiency index (EPI) is linked to more entrance to both elementary knowledge and information, mean years of schooling, and employment chances. Consequently, EPI is valuable, because educated individuals with virtuous English language proficiency might have better labor chances and incomes. The researchers claimed that improving English language

proficiency demands initiatives and proactive actions (Tibus & Bendulo, 2018; McCornick, 2013; Chen et al., 2020).

2.2. Learning English as an economic motivation

Nowadays, English is a lingua franca that makes a convincing contribution to sustainable international development for advanced and emerging economies. For that reason, it is needed in public education systems to push stability, employability, and prosperity. Hence, all kinds of workers, such as investors, academics, politicians, and schoolchildren create opportunities through English. Indeed, it facilitates dialogue and builds peacekeeping and conflict resolution (Council, 2013).

Council (2018) affirmed that English will still be the dominant language in Europe in 2025 since European authorities recognize its relevance for cross-border exchange and international competitors. Therefore, European countries have inserted edifying policies and measures to improve English proficiency among their population. For instance, Spain is implementing bilingual education programs and Italy uses Content and Language Integrated Learning (CLIL) where teaching for subjects is carried out using English.

At the macro level, English is global because China and India, which are important economies worldwide, already use this language. Thus, English proficiency is essential since individuals recognize its value for securing or advancing in their employment. Additionally, the demand for refresher courses may increase. For example, mature markets see short, sharp courses from adults who need English for a specific job or family reasons (Council, 2018).

Lee (2012) has mentioned that publications about innovations or discoveries have a special status when written in English since they reach audiences and obtain recognition worldwide. Hence, people who master English will gain access to new knowledge. Olney (2017) claimed that the worldwide range of the English language gives a benefit to native English speakers. He studied this fact for economics professionals and found that their impact is noticeable because they have an appropriate writing quality on academic publishing in top

economic journals. For instance, 2.5% of economist native speakers are graded 100 spots more than non-native ones.

Moreover, Lifrieri (2005) studied motivation and socioeconomic aspects and found that learners showed positive attitudes towards learning English since they could attain present and future goals in Argentina, South America. In this regard, Cronquist y Fiszbein (2017) claimed that Latin America needs English Language Learning (ELL) policy and programs to expand English proficiency levels. For instance, schools cannot provide high-quality English classes, while; private academies and ELL centers cannot conciliate for deficiencies within formal schooling.

In Indonesia, Lamb (2007) found that social context and individuals' view of English in their future explain their positive attitudes toward the language and their expectations of economic success. In addition, an Iranian study researched by Mehrpour & Vojdani (2012) affirmed that technological, sociological, and scientific aspects formed or increased the globalization of EFL learners' motivation. In brief, the information mentioned above shows how EFL learning impacted economics and education.

In the analysis on how EFL learning has a positive economic motivation, Khansir et al. (2016) found that socioeconomic factor positively correlates with motivation in EFL learning. Moreover, the authors revealed a robust relationship between socio-economic position and incentive in EFL learning. Similarly, Attamimi and Rahim (2011) carried out a quantitative and qualitative study that confirmed a high relationship among parental occupation, cultural capital, and the Yemeni students' motivation to learn English.

2.3. The demand for EFL proficiency in Ecuador

In Ecuador, the Higher Education Council (CES, acronym in Spanish) issued the Academic Regime Regulation and its article 80 indicates that students at the technological level, the sample group of the present study, must reach A2 English level based on the Common European Framework Reference (CEFR). In this regard, undergraduate students must reach A2 EFL proficiency level since the Education development plan considers it a key element.

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Council (2015) conducted a study in Ecuador and affirmed that several reforms were implemented to reach critical goals; such as closing private institutions due to low accreditation standards, required B2 level teachers, offering numerous scholarships, including a structure of national standards and declaring, managing to higher quality and equity in education, and a systematic incrementation of GDP for education spending up. In addition, Council (2015) affirmed that 61% of students are likely to learn English during their undergraduate study; and, 78% of Ecuadorian employers feel that English is a relevant skill for managers, directors, and top senior executives in a company.

Furthermore, the English Proficiency Index (EPI) developed by Education First published that Ecuador has a significantly low proficiency index, and its position has decreased from eighty-first in 2019 to the ninety-third place of one hundred countries in 2020. Moreover, Auquilla & Fernández (2017) conducted a quantitative study in Ecuador and discovered poor EFL proficiency because students struggled with writing, reading, and listening EFL skills.

Additionally, Vaillant & Rodriguez (2018) affirmed that the productive sector dynamism and development are necessary to generate employment when they studied the UNESCO plans. Therefore, it is significant to foster specific competencies, such as an English proficiency level, necessary for decent employment and entrepreneurship to promote inclusive economic growth that connects higher superior technological education with appropriate productive abilities (Vaillant & Rodriguez, 2018).

2.4. Feedback

Feedback is a strategy to reinforce students' knowledge and it could be provided as information by a representative such as a teacher, peer, book, parent, and self-experience which are concerned with the learners' performance and understanding (Brookhart, 2017; Hattie and Timperley, 2007). Additionally, feedback can be provided in different ways; and with various perspectives. Moreover, high-quality feedback has proved to be effective on students' learning and attainment (Rodway-Dyer et al., 2011). Literature states that effective feedback should have some characteristics which involve time, precision, thoroughness, and construction (Roothooft, 2014; Yang, 2016; Alvira, 2016).

Similarly, some studies affirm that familiar material to students lets them connect the new information to what acquired knowledge. Consequently, the performance criterion can take less effort (Gilakjani & Ahmadi, 2011; Nation & Meara, 2010). In brief, feedback leads learners towards extra practice and effort.

2.5. Types of feedback

Oral, written, and peer are the types of feedback depending on their application. First, oral feedback is defined by Jonsson (2013) as the spoken correction for improving the students' performance. Thus, it can be given in different ways by using proper tones and language to foster the student's development. Indeed, oral feedback can complement written feedback in EFL settings. Second, written feedback helps learners improve language use (Jonsson, 2013). In addition, asking questions, re-formulating, commenting on students' understanding, locating and correcting students' errors, and motivating students may improve student outcomes and assignments. Third, peer feedback occurs during the interaction with another partner, and it provides advice or constructive criticism about the partner's work for correcting tasks and improving a skill (Yang, Badger & Yu, 2006). Finally, corrective feedback is the most common type of feedback, and it includes information to learners about errors in utterances (Wei & Cao, 2020). This type of feedback can move from one agent to another during the learning process and they rely on the types of feedback and the mean of transmission (Bostanci & Seven, 2018).

2.6. Feedback for the writing skill

Writing a good piece takes time, different grammar features, and requires organization of ideas, coherence, and extra vocabulary (Hinkel, 2003). Writing implies the use of higher-order thinking that increases students' knowledge and develops their criteria (Ganapathy & Kaur, 2014). However, assessing mechanical aspects includes some problems with punctuation, grammar, topic sentences, and supporting sentences (Duncan, 2007; Alharbi, 2019). Thus, students must have a guide to avoiding losing the written task direction. Therefore, they do not produce poor assignments (Crook et al.,2012).

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Feedback can be given in written form by comments about a piece of writing, and it focuses on students' strengths and weaknesses based on a well-organized coverage of scales or checklists (Zhan, 2016). Written feedback helps learners to a long-term acquisition of the foreign language of specific linguistics features (Ferris, 2010). It can be effective for teachers because to practice perfectionism by replicating written tasks and assignments Oral and written feedback has resulted in effective and practical improvements in writing skills. (Wei & Cao, 2020).

2.7. Writing competency in EFL learning

EFL learning has four different skills which are the most promoted when pupils are learning an EFL. Writing is a productive skill because students are able to produce messages and express ideas through words, sentences and clauses in a piece of writing. Paragraph is the biggest step when students start writing since the combination of many paragraphs may create an essay (Folse, et al., 2020).

According to Folse et al. (2020) all paragraphs include features to make it a good one. First, paragraphs have a topic sentence where the main idea is stated. Regularly this is located in the first line and gives the reader an idea of what the paragraph is about. Next, all sentences within the paragraph must be connected and go around the topic sentence. And lastly, paragraphs ought to be closed with a concluding sentence that states the main idea again. Even a key word or phrase may appear in this last part, and this can come from the topic sentence.

In addition, Grigoryan (2017) suggested a rating rubric to check a piece of writing where she mentioned the use of different parameters to analyze and check writing competency. Some of them are task fulfillments, content, organization, purpose, audience, and mechanics. This last one can be understood as the usage of sentence completeness, structure, variety, word choice, punctuation, and capital letters (Folse et al., 2020).

2.8. Audio-visual feedback

Currently, technologies allow different strategies with students in higher education settings. Thus, in the EFL context, strategies can enhance basic language skills. For example, audio-visual feedback has emerged to boost writing (Bakla, 2020). According to the effective

results of Bakla (2020), written, audio and screencast feedback in Google Drive enhance students' writing tasks. Thus, audio-visual feedback is a relevant alternative as it focuses on conveying meaning increasing students' motivation (Tajallizadeh Khob & Rabi, 2014). In addition, Ali (2016) found that most students perceived audio-visual feedback as positive for straightforward, personal, specific, supportive, multimodal, constructive, and engaging. Moreover, this feedback is more information-rich; and clarifies learners' drafts because of its conferencing and multimodality (Özkul & Ortactepe, 2017).

2.9. Real Audio-video Feedback

The value of video feedback has raised significant interest in research (Henderson & Philips, 2015). It has been demonstrated that video feedback on writing tasks is more impactful than written feedback for EFL learners because of the former's conferencing and multimodality characteristics (Özkul & Ortactepe, 2017). A relevant feature is audio that helps to overcome problems with written feedback regarding the quality, detail, and timing (Lunt & Curran, 2010). In addition, the use of different software and technological tools helps to address the feedback process in EFL teaching. For instance, screen capture; or recording plus voice comments promote more accessible feedback and draw students' attention (Mann, 2015).

Nowadays, teachers and students use free software to create and share asynchronously online video recordings. The real audio-video feedback aims to edit and comment on documents checked on a computer screen (Seror, 2012) and check students' mistakes or errors based on a topic, level, content, organization, mechanics, and task fulfillment (Grigorgryan, 2017). According to Seror (2012), online digital contexts are increasing the real audio-videos' impact on EFL teaching and learning since these recordings are low-cost, intuitive, and time-. These are the vast advantages of video recordings over the typical limitations in traditional feedback approaches. Indeed, video recordings facilitate checking learners' errors by using written comments, rubrics, and correction codes enhanced by audio-visual feedback with the aid of multimedia, and normalize the feedback procedure as in conferencing (Stannard, 2008; Thompson and Lee, 2012).

Furthermore, video feedback encourages students' enjoyment since it provides visual material to complement the written one (Bakla, 2020; Crook et al., 2012). In addition, students' perceptions about video feedback are positive (Seror, 2012), and it is considered useful in fostering students' commitment with writing in and outside the class (Seror, 2013).

2.10. Video recording: Screencasting

Many researchers have explored paper-based, oral, audiotaped, digitally written, digital audio, and other types of feedback (Boswood & Dwyer, 1996). Thus, electronic feedback was incorporated (Tuzi, 2004). One relevant type of combination of feedback was the audiotaped and written comments that were found greater than written only comments (Huang, 2000). Additionally, Bictchener, Young, & Cameron (2005) added a five-minute conference to Written feedback for improving specific grammar corrections.

Furthermore, screencasting became a new tool for real feedback because it combines audio and video recording that could be played in a browser (Edwards, Dujardin & Williams, 2012). For instance, Jing, Screencast-O-Matic, screen recording software allows recording what the screen projects and the instructor's voice and written works (Bakla, 2017; Grigorgryan, 2017; Ali, 2016). When instructors use screencasting, they can comment or highlight specific segments of student writing. Thus, screencasting faces an improvement over audio feedback, written feedback, and face-to-face writing conferences (Backla, 2017; Ali, 2016). These recorded videos are commonly shared using web-based tools, which permit learners to check feedback as many times as desired. However, Lee (2017) mentions that screencasts also have limitations; although they rise social presence, they decline the probable pressure produced by face-to-face conferences. Bakla (2017) also mentions that the teacher-student's communication may be reduced if they do not plan a follow-up screencast, written or audio interaction, but it could get high quality since they interact freely (Harper et al., 2018) or create a learning community (Mathieson, 2012).

3. Data and Methodology

3.1. Methodology

The research methodology addressed the positivist paradigm and the quantitative approach as it was an experimental study (Creswell & Guetterman, 2019). The method was Randomized Control Trial (RCT) which established independence between the potential outcomes and the treatment standing and allowed to deduce the Average Treatment Effect (ATE) (Kim & Steiner, 2016).

Schwerdt & Woessmann (2020) have shown that several empirical methods help to answer causal questions in the Economics of Education. They collected explicit randomization and quasi-experimental identification strategies based on observational data. The use of panel data is well built as observational units between two moments of observation or points in time, and at different grades. Differences-in-differences (DiD) is one approach that attempts to control for unobserved variables (Schwerdt & Woessmann, 2020).

In this study, the students were randomized and arranged by groups to avoid endogeneity in the variables. Hence, each group of students took the whole class' audio-visual and written feedback because if we had provided individual feedback, it would have produced a causality between the task and the students' performance (Mora & Reggio, 2019). This random assignment guaranteed that both types of feedback (audio-visual and text-based) were together - Z- independent of the potential fulfillment scores Yi (0) and Yi (1).

Under the independence assumption, the belonged unconditional expectations of the potential outcomes were revealed as conditional expectations (Parkes & Fletcher, 2017):

$$E[Y_i(1)] = E[Y_i(1) \mid Z_i = 1]$$

$$E[Y_i(0)] = E[Y_i(0) \mid Z_i = 0]$$

Besides, we could substitute the potential treatment outcome with the observed outcome since the potential treatment outcomes were observed for the experimental group,

$$E[Y_i(1) \mid Z_i = 1] = E[Y_i \mid Z_i = 1]$$

$$E[Y_i(0) \mid Z_i = 0] = E[Y_i \mid Z_i = 0]$$

Thus, the ATE was expressed in apellation of observable quantities instead of potential outcomes, equal to an identified ATE:

$$ATE = E[Y_i(1)] - E[Y_i(0)] = E[Y_i \mid Z_i = 1] - E[Y_i \mid Z_i = 0]$$

For this purpose, two differences were necessary for the estimation over time, for instance, the differences in completion between the beginning and the end of the semester. Next, cross-sectional differences were used between treated students and non-treated students. Hence, students who received written-audio real feedback could improve their writing skills versus those who only received written feedback.

Difference and Difference (DiD) methods identify causal effects by considering the variation in outcomes pre-and post-involvement, for the treatment and control groups (O'Neill et al., 2016; Bertrand et al. 2004). Therefore, DiD takes two differences between group means in a specific way. The first step takes the difference between the means before and after the treatment for both groups separately. The second one is the difference of the difference obtained in the first step. The identification strategy of DiD assumes that the group-specific tendencies in the difference between groups would be the same in non-existence of treatment. In the contra factual case, the treatment group would have experienced a similar trend to the control group (Schwerdt & Woessmann, 2020).

In education policies or practices, according to Schwerdt & Woessmann (2020), the DiD approach is satisfactory to estimate the causal effect of sharp changes because it offers policy-makers with important information.

The central assumption in DiD estimation is that the average outcomes for the treated and control groups might have come after parallel trends over time in the absence of treatment. Regarding this assumption, the averages of the time-invariant unobserved variables can differ between groups, assuming that their effects do not change over time (Abadie, 2005). Also, this Difference-in-Difference approach runs for any changes due to the tests themselves, thus separating the effect of the upgraded ability (Dendir et al., 2019).

Moreover, since this research includes pre and post-test for the treatment and control groups, a Diff-in-Diff can be implemented to control pre-existing differences between groups and neutralize the selection bias (Mora & Reggio, 2019). There were two periods of time t = 0, a baseline (or pre-treatment) data was conducted in three groups j. Then, baseline data, at t=1, some other three groups (in a nonrandom manner) were treated. Thus, the post-treatment test was conducted with both types of groups.

The diff-in-diff estimator DiD was given by:

$$DD = (T_1 - C_1) - (T_0 - C_0)$$

$$= [E(Y_{j1}^T|T) - E(Y_{j1}^C|C) - E(Y_{j0}^C|T) - E(Y_{j0}^C|T)$$

$$= [E(Y_{j1}^T|T) - E(Y_{j0}^C|C) - E(Y_{j1}^C|T) - E(Y_{j0}^C|T)$$

$$= (T_1 - T_0) - (C_1 - C_0)$$

The typical DID estimator was usually from a linear parametric model (Abadie, 2005). he regression counterpart to obtain DiD was given by

$$Y_j = \alpha + \beta T_j + \gamma t_j + \delta(T * t) + u_j \qquad (1)$$

where T was treated group and t was time. Also, T was equal to 1 if the students received Audio-Visual and Text-based feedback whereas it was equal to 0 if students belonged to the control group, while j represent individuals who were treated by groups j. And, t was equal to 1 if the periods are post-treatment and 0 when it was pre-treatment (Cook & Campbell, 1979). In the same way, Y measure the effect of the effectivity of the treatment in the regression.

Therefore, the results allowed the analysis and response of the research question about the effectiveness of this double provision of online feedback on a written task for EFL learners. Additionally, this provided reliable quantitative insights into EFL educational settings.

3.2. Setting

The setting of this study is a technological institute in Loja, Ecuador. The institute is one of the largest education providers in the South of Ecuador called Zone 7 (Loja, El Oro, and Machala provinces). The sample comprises students enrolled in 7 undergraduate technological professional careers.

The experiment took place during the English class periods which were seven weeks. The institute manages three different shifts in face-to-face classes. However, due to the Covid pandemic, online classes were the new norm. Hence, students had to complete two hours of synchronous classes and two hours of asynchronous activities. In this regard, teachers created videos and writing tasks that were a solid practical and theoretical component of the course.

A total of 123 students were part of the study. Fifty-eight students were in the treatment group and the remaining number was in the control group. In this part, the selection of students was not random because this quasi-experimental study requires to use of groups as part of the variables to be treated, consequently, Difference-in-difference is the best technique to apply (Lechner, 2011).

Hence, the treated and control group were considered in such a way that they have similar course levels and several students. Data was collected from six courses whose English proficiency level was A1 and A2 according to Common European Framework Reference (CEFR) for languages.

3.3. Data collection

Before the execution of the study, the undergraduate students signed informed consents to accept the participation. This data collection process comprised gathering information such as sex, age range, and teaching session using a Google Form (Appendix 1). The second step was to define the students' proficiency level according to CEFR. Thus, all students took the online Cambridge University Press exam, free proficiency test. The students completed the questions and obtained scores according to their English level summarized in Table 1.

Table 1.

English Level of Treated and Control Group.

Level-CEFR	Treated group	Control group
A1	52	52
A2	26	19
B1	4	3
B2	1	0
TOTAL	83	74

Note. Scores obtained from the Cambridge online test (https://www.cambridgeenglish.org/test-your-english/general-english/)

The third stage included a pre-and post-test and a questionnaire. The writing pre-test was given to the experimental and control groups at the beginning of April. Then, the participants took an equivalent form of the test (post-test) and the questionnaire in the middle of June.

The pre and post-test tasks for the experimental and control groups were to write by hand an expository paragraph about topics related to the course content and upload it to Entorno Virtual de Aprendizaje (EVA) Platform. The score for the assignment was ten marks. For instance, the English 1 course wrote a short paragraph about their family, English 2 wrote about healthy habits, and English 3 about favorite childhood memories. The topics were taken from the courses' textbooks "Interchange Intro A, Intro B, and 2A". The number of words for each paragraph goes around 60 and 80 words (Appendix 2). The word length between A1 and A2 level goes around 80 and 100 words per task, respectively, which is considered in a standard test such as Pearson PTE and Trinity ISE Foundation (Konrad et al., 2018), as well as the proved students' level (Table 1).

Furthermore, for the tasks' revision, the author adopted a coding scheme from Grigoryan (2017) and Cho and MacArthur (2010) to compare the difference in the revisions of the experimental and control group (Appendix 3). The treatment consisted of real audio-visual

and written feedback provided to the treatment group, while the control group received written feedback on their written assignments. The treatment group received a combination of two feedbacks: audio-visual on the Google meet platform and written feedback. All the sessions were recorded and uploaded to ESPOL OneDrive because this could allow video and provide information about the participants who watched the video and the date. It was the best tool to control that students check the video. In addition, after each audio-visual and written feedback, students must take a short lesson in Kahoot to make sure that they watch the video consciously.

Once the video was on OneDrive, the sharing link was copied and pasted to the EVA Platform where students had instant and easy access. Additionally, the teacher used Screencast-O-Matic asynchronously to check general students' mistakes in their written tasks and those links were also uploaded to YouTube to create direct access, and that link was posted on a resource of EVA (Appendix 4). Hence, the teacher raised awareness of written accuracy.

The treatment took six weeks. Each week was planned based on the students' mistakes in their written tasks. Hence, each treated group received a mini-lesson about different topics that encouraged students to improve their writing skills in a paragraph (Appendix 5). All the mini-lessons were guided by the Rubric and the Standard Criterion proposed by Folse, et al. (2020). In their book about writing skill, considering an appropriate time into the class in real audio and video.

On the other hand, the control group only received the written feedback in a Word file with some suggestions and comments considering the most significant mistakes. These files were also uploaded to OneDrive to control the number of students who accessed the document and time; and then, the sharing link was pasted on EVA. Although the control group did not take the lesson during the treatment, it received all the recorded videos with the audio-visual feedback and the end of the treatment to assure an ethical research principle (British Educational Research Association [BERA], 2018).

After the treatment, each group of students take the post-test, where the task was similar to the first one. The students wrote an expository paragraph by hand, about 60 to 80 words, on a specific topic according to their course level; uploaded it to the EVA platform, and obtained a

grade. 17.45% of treated students left the process because they did not comply appropriately. In addition, some students quit the study cycle and the participants of the treated group were fewer. Hence, the study started with 157 students and ended with 123 students.

The data was collected and tabulated, separating them into the treated and control group and considering time, pre and post-test to measure the impact of the real audio-video and written feedback versus written feedback only.

4. RESULTS

The present study outcomes are summed up in the following tables and graphs showing detailed estimations. The treated and control group were analyzed in different moments of the study with a pre and post-test. In the beginning, the author obtained relevant information such as gender, age, students' interest in learning English, occupation, and schedule.

Table 2

Sample sum up

Characteristics	Detailed	Number	Percentages (%)
Gender	Females	42	32.55
	Males	87	67.44
Age	18-21	56	43.41
	22-45	73	56.58
Interest in English	Yes	107	82.94
	No	22	17.05
Occupation	Study	51	39.54
	Study-work	78	60.46
Schedule	Morning	55	42.63
	Evening weekdays	24	18.61
	Weekends	50	38.76

Note. Information obtained from the informed consent.

Most of the students were males (67.44%). Also, 56.58% of them are 22 to 45 years old because they study at a Superior Institute. Consequently, 60.46% are students who work and study in this institution. The students' occupation is crucial because it shows the possible condition that students could have for dedicating time to academic activities.

In addition, most of them study at weekends and evenings from Monday to Friday which is related to their labor condition. Furthermore, Table 2 shows many students like English but there is a small number who dislike it.

The data reflect an appropriate balance between treated and control groups. Table 3 shows that 118 students belong to a treated group, while 128 are in the control group. Although the control group number of students is higher, it favors a better comparison.

Table 3

Treated and control group gender

Group	Female	Male	Total
Treated	34	84	**118**
Control	34	94	**128**

Note. Collected data.

The DID estimator is given by:

$$Y_j = \alpha + \beta T_j + \gamma t_j + \delta(T * t) + u_j \qquad (2)$$

It was not necessary to incorporate fixed effects to the model, such as gender and age because they do not contribute to the model due to a multicollinearity problem.

Moreover, Table 4 shows the estimation plus their level of significance which allows determining the effectiveness of the treatment in this study. The results in the estimation were estimated considering different parameters of good writing for a paragraph. According to Grigoryan (2017), the rubric is divided into different criteria.

The first criterion, task fulfillment contains overall task fulfillment, compliance with task guidelines; the organization criterion examines paragraph focus and transitions; purpose, audience, and content criteria consider overall content, paragraph development, main idea and supporting details; and mechanics (Appendix 3). Therefore, each criterion measures the effectiveness of the real audio-video plus written feedback versus the written feedback.

Most of the estimations are positive but not significant. For instance, the first criterion, overall task fulfillment, shows that the treatment has, on average, higher effectiveness of 0.1851 per paragraph compared with the non-treated group.

The effectiveness of the treatment has positive and significant results on the use of transitions words and mechanics without fixed effects. It means that the real audio-video feedback plus the written feedback has a real effect on students writing compared with the non-treated group on average. Also, using mini-lessons as part of the treatment has a positive effect on students' performance by writing paragraphs.

An additional measure was considered taking into account the mean of all grades in each parameter. The result shows an effect of 0.517, in general, at 5% of significance level, which supports the use of audio-video feedback plus the written feedback for the treatment lessons to students in higher education.

Table 4

DiD Estimations

Rubric Criteria	DiD	P-value*
Fulfillment	0.18511	0.493
	(0.26984)	
Compliance	0.19359	0.469
	(0.26695)	
Content	0.46689	0.089
	(0.27356)	
Development	0.49046	0.079
	(0.27836)	
Main idea	0.39671	0.155
	(0.27811)	
Support details	0.37976	0.173
	(0.2776)	
Focus	0.39539	0.161
	(0.2814)	
Transitions	0.82123	0.003**
	(0.27459)	
Purpose	0.50873	0.053
	(0.26130)	
Audience	0.47351	0.066
	(0.25631)	
Mechanics	0.920286	0.000**
	(0.23904)	

Note. Results from the quantitative analysis in statistical data software.

* These are the values that represent the level of significance (per-value) for each estimate.

** Significant values at a significance level of less than 5%.

4.1. Survey's Results

4.1.1. Students' perceptions about real audio-video feedback and written feedback

At the end of the treatment, a short survey was adapted from treated groups (Appendix 7) in English-Spanish to collect students' perceptions of the treatment during those six weeks. Questions 1, 2, and 3 have a different Likert scale from 1 to 5. Moreover, yes/no questions 4 and affirmative statements 5,6, and 7 inquired about the applied procedures during the real audio-

video feedback and written feedback in videos treatment. The first part demonstrates that many students express positive perception of the feedback. The questions were "How would you rate getting real audio and recorded videos plus written feedback versus getting written feedback?", "Was Real audio helpful in the provision of feedback?", and "Were Written commentaries helpful in the provision of feedback?".

Table 5.

Students' perception of the feedback.

How would you rate getting real audio and recorded videos plus written feedback versus getting written feedback?		
Category	**Frequency**	**Percentage**
Useless	1	2%
Moderately useful	11	20%
Highly Useful	19	35%
Useful	24	44%
Total	**55**	**100%**

Note. The first question of the survey at the end of the treatment.

Table 5 shows that most students find useful real audio and recorded videos plus written feedback. This perception is supportive of the study since it is the crucial topic for the analysis and the impact of students' perceptions.

Table 6.

Students' perception of the feedback about real audio.

Was real audio helpful in providing feedback?		
Category	**Frequency**	**Percentage**
Slighlty helpful	1	2%
Moderately helpful	3	5%
Helpful	11	20%
Very helpful	19	36%
Completely helfpul	21	39%
Total	**54**	**100%**

Note. The second question of the survey at the end of the treatment.

Moreover, Table 6 includes students' perception five-point Likert scale about how helpful they find real audio. In this aspect, students rate it highly from medium and above, which means that more than 50% of students consider it as much necessary as the study pretends to. An essential perception about in providing feedback, according to the results, is attributed to its usefulness.

Furthermore, table 7 summarizes the number of students who find valuable written commentaries for providing feedback. Almost all students, 96%, consider that the written comments were helpful. This perception was noticeable during the lesson and the real audio meetings because students ask more information about commentaries when they did not understand them. The written commentaries can include general suggestions. Therefore, students feel confident to read them.

Table 7.

Students' perception of the feedback about written commentaries.

Were written commentaries helpful in the provision of feedback?		
Category	**Frequency**	**Percentage**
Low	1	2%
Lower moderate	1	2%
Moderate	10	18%
Highly moderate	24	44%
High	19	35%
Total	**54**	**100%**

Note. The third question of the survey at the end of the treatment.

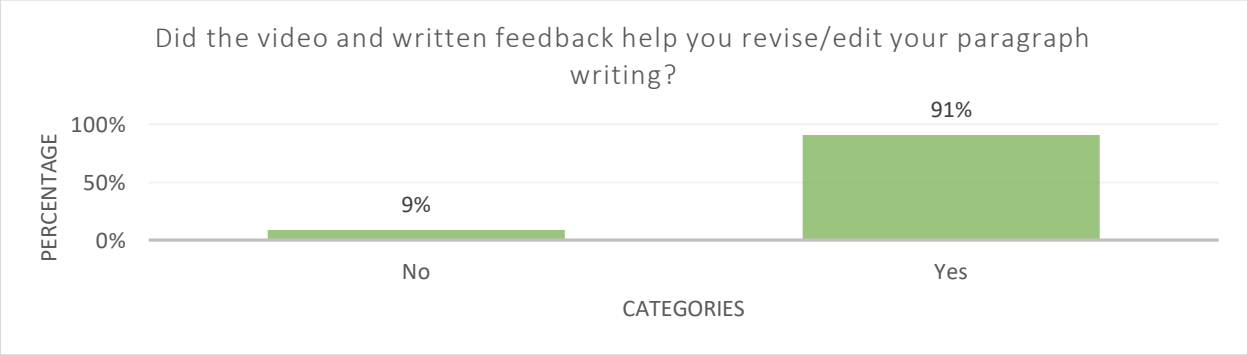
Regarding, these three graphs, few students show their inconformity with this treatment, and this could be a result of the task's necessity that students had to watch the video fully, complete a short task to confirm they have watched the video, and take a lesson on Kahoot. Thus, students have felt overwhelmed with these tasks when most of them study and work.

4.1.2. Students' attitudes towards real audio-video feedback and written feedback.

The following yes/no questions and statements refer to students' attitudes towards audio-video and written feedback in the treatment. In the beginning, Graph 1, explains how the combination of video and written feedback help students to improve their pieces of writing; most of them confirm it. Hence, the use of videos was a convenient way to reach students' attention and interest for checking and redoing their assignments because they have free access to them and could work at individual rhythm.

Graph 1.

Students' perception of the feedback about video and written feedback

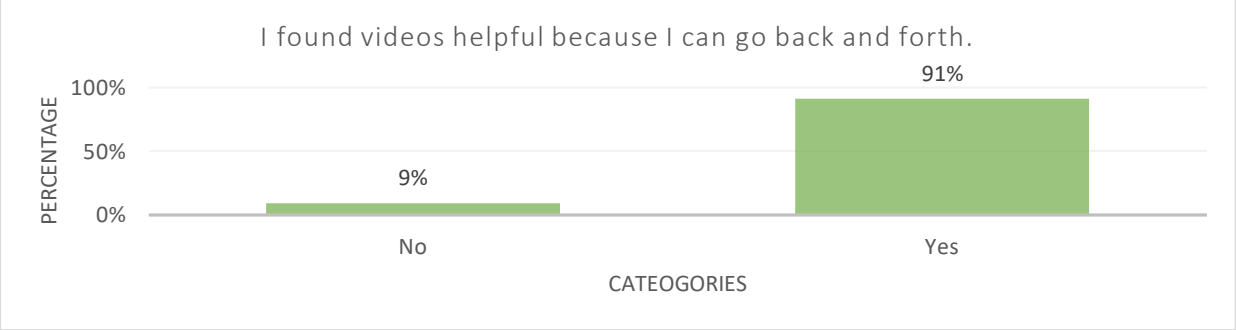


Note. Fourth question in the students' survey.

Graph 2 also shows that students succeeded in playing the videos when they watched them because they took the time to check carefully; Thus, the videos were useful.

Graph 2.

Students' perception of the feedback.

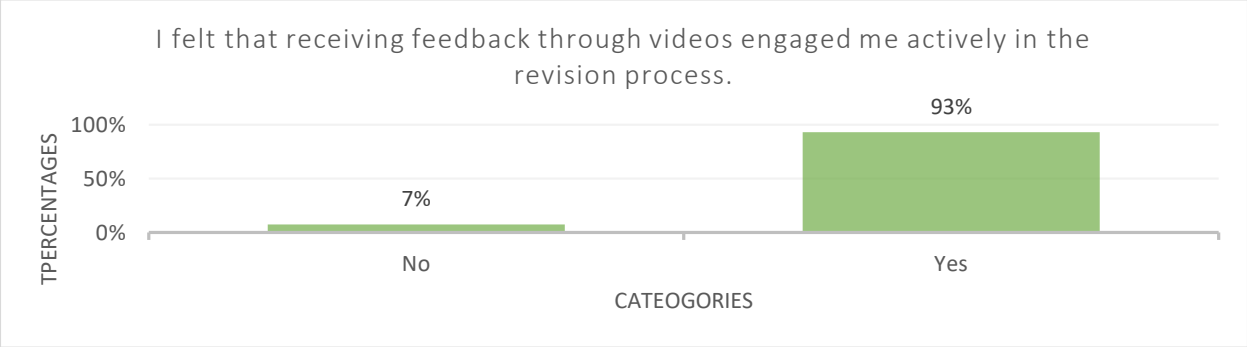


Note. Fifth question in the students' survey.

Furthermore, the number of students disagree that receiving feedback through videos engaged them actively increases in question six. One reason may be the necessity of the revision process that they had to do while they watched the video. This process could be tedious or tiring when students developed the activities at night or after they received classes, worked all day, or belonged to the Saturday schedule. However, 93% continue considering the videos a suitable tool for getting feedback.

Graph 3.

Students' perception of the feedback.



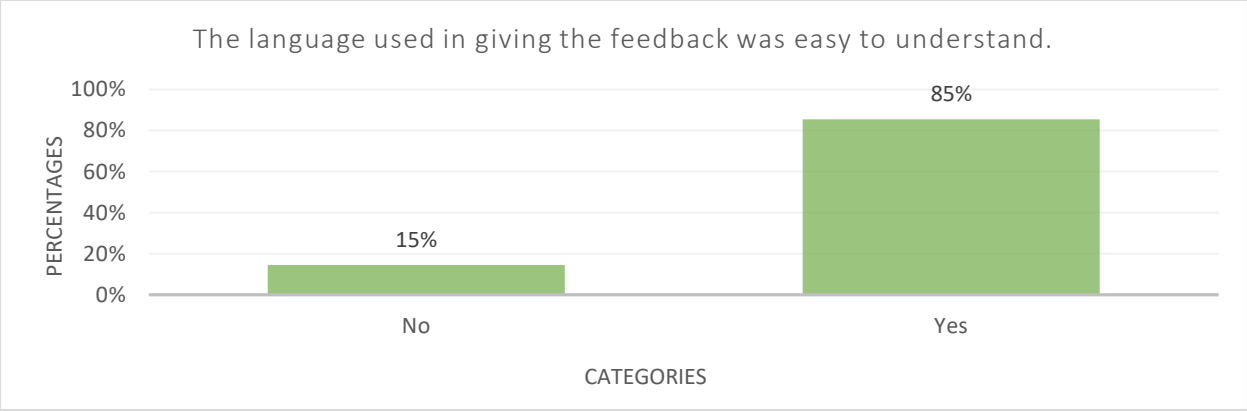
Note. The sixth question in the students' survey.

The final question, graph 4, inquired about the whether the language of the videos was understandable or not. 15% of students indicated that the language was not easy to understand. The problem with this response is that not all students were at the same level, even they are in an A1, it can be lower than others, therefore the understanding of an English speech can be difficult for them.

It is important to mention that the vocabulary and language were basic, and speak slowly; apart from that, every English explanation works together as a visual aid for being clearer and specific with corrections. However, the remaining 85% of students in the treatment group consider the language understandable.

Graph 4.

Students' perception of the feedback.



Note. Fifth question in the students' survey.

The responses confirmed the means, tools and techniques were well guided in the process. The students who disagree matched the number of students who rated the treatment low. The survey was the final step of the intervention. All the data are relevant for the study to conclude and provide recommendations to undergraduate professors who aim to promote EFL writing.

5. DISCUSSION

This research sought to answer the research questions by identifying the following themes to discuss the results. The parametric method helps to determine quantitively the provision of audio-visual feedback plus written feedback in EFL online classrooms. The aim was to confirm that the treatment has real effectiveness regarding writing skills in virtual learning environments for undergraduate students in higher education.

The DiD estimation requires the application of treatment to test this feedback's effectiveness. This empirical data was probed for the pedagogical usefulness and Grigoryan, (2017). The provision of audio-visual feedback plus written feedback as a tool to engage students in better writing skills impacts some relevant parameters considered in writing, such as mechanics and the improvement of the organization, specifically about the use of transition

words. If we separately analyze some parameters of writing a good piece after receiving the treatment, it is effective but not significant in the results. However, appropriate mechanics and transition words promoted a well-done paragraph for students in A1 and A2 level of EFL.

Regarding the first research question, there is a difference when undergraduate students receive audio-visual and written feedback versus written feedback in their written performance but not at all. It improves their writing accuracy regarding specifically the mechanics in a piece of writing and the inclusion of transitions words when students develop supporting ideas in a paragraph. Moreover, the mini-lessons content during the treatment included writing accuracy topics for a paragraph about all aspects. Students' reception of content that addressed these writing subcategories may have been significant because these sub-categories referred to the use of English in real contexts. For instance, correct punctuation marking and the smooth movement of the ideas within the paragraph was also essential. A significant number of undergraduate students deal with the troubles mentioned above. For instance, Nuruzzaman et al. (2018) and Alharbi (2019) found that Saudi EFL students face these common errors. Also, teachers must endure the remote teaching circumstances (Iglesias-Pradas et al., 2021).

Personal differences could explain this finding among students because some dislike English or have not had contact with the writing skill before, so they miss practicing. This situation was also found by Toba et al., (2019) who declared that apart from limited knowledge of writing aspects, personal reasons influence students' problems for writing. In addition, the use of this feedback requires the revision process while they watched the video. This process could be tedious or tiring when students developed the activities at night or after they received classes, or worked all day. However, based on the results of survey, most of the students considered that the treatment was appropriate. The results corroborated students' perceptions and complemented the quantitative analysis. And although the researcher carefully selected simple vocabulary and a slow speed in speech, this response may obey the mixed English levels in the treatment group. Some students had an A1, which is basic. Therefore, understanding the video could have been a bit difficult for them. Moreover, the visual aid of the video specified the corrections needed.

Likewise, the second research question focused on audio-visual and written feedback versus written feedback that undergraduate students received on their written tasks. There is a statistically significant effect that the DiD estimator measured showed in Table 3. According to the Standard Rating rubric (Appendix 3), it was found for two categories. These results agree with Grigoryan (2017) results about a statistically effect on categories of content ($p = .08$) and final draft quality ($p=0.6$). Moreover, the present findings are more intensely studied, and the p-value is lower for both significative findings, mechanics, and the use of transition words ($p=0.003$, $p=000$). The treatment affects students' writing using technological tools to achieve writing skills in an online environment. Hence, it supports students to improve mechanics and organization of the paragraph.

The treatment has short- and long-term effects. First, students gained new knowledge for improving their accuracy at writing an academic or non-academic assignment in English. Their achievement would increase their performance in EFL learning in the following levels. Second, Hanushek & Woessmann (2020) mentioned that these cognitive skills of the population are robustly linked to long-run economic growth because these students gain extra practice of the language, which may play an essential role in their professional lives. If students continue studying and reaching higher educational levels, this knowledge will benefit in various aspects.

Therefore, there will be professionals with better EFL writing cognitive skills standards compared with students who did not receive this type of content in their academic preparation. Thus, the labor market would receive new professionals with improved skills that benefit the economic growth within different economic activities such as foreign trade (Fidrmuc & Fidrmuc, 2016; Oh, et al., 2011). This was also demonstrated also by Chen et al., (2020), between international language proficiency and output growth, in non-English-speaking countries referring to two-way feedback causality. Furthermore, English proficiency is directly related to the economic development positively (Kim & Lee, 2011), especially in Asia and Europe (Lee, 2012).

Furthermore, the participants of the present study would benefit from a high salary and better working conditions when they apply for a private job in the companies of their

specialization since English as a second language is considered plus for employments applications. Di Paolo & Tansel (2015) also mentioned the positive earnings returns to proficiency in English for the Turkey population. Moreover, the access to information that this group of people can have, allows the business field's economic condition to reach new knowledge regarding processes and practices in developed countries. The English language is the primary language to share the knowledge and new discoveries. As Tibus & Bendulo (2018) suggested, an intensification in a country's EPI is directly linked with more access to both basic knowledge and information; and deploying global strategies (Hezaji & Ma, 2011).

Limitations and Future Research

This study was carried out during the remote teaching-learning mode changes in education due to the COVID-19 pandemic. Moreover, obtaining and maintaining the sample size was a challenge since participants dropped the treatment for different circumstances such economic resources for studying in a private institute. The present study considered students from different English levels and tutors, and it was challenging to keep them motivated, even though they knew the importance of scoring each activity. Thus, this study finished with less students. However, those issues were overwhelming. Future research can focus on the study on different skills development on online circumstances by combining more than one type of feedback to enhance students English. Additionally, this study can be replicated for blended learning programs.

Finally, this study achieved its goal and demonstrated qualitatively and quantitatively how combining audio-visual plus written feedback to students and help to improve their pieces of writing. EFL teachers can benefit from the findings of the current study and apply them in online programs, and remote learning.

6. CONCLUSIONS AND RECOMMENDATIONS

The applied technique, DiD, helps analyze the causal effect of a nonrandom intervention. The method allows to work and compare two groups in different moments, measuring the effectiveness of the provision of a treatment to a group and compared those

outcomes with a control group on one of the most important skills in EFL learning, as writing. This study determines quantitatively and qualitatively the difference and effectiveness of providing AVF + WF vs. WF on undergraduate students in EFL online classrooms with the use of DiD, and the results contribute to the literature as well as some researchers have done in previous studies.

This technique demonstrates how the academic and educational studies can be explained by empirical information using experimental studies. Also, the results agree with previous studies such as Grigoryan (2017), Dendir (2019) and Dendir at al., (2019) who have demonstrated before how the use of a specific treatment has a positive and significant effect in students in learning environments.

Quantitatively, the results indicate that a specific treatment as provision of a type of feedback to writing skills benefit student and their development, therefore their performance in EFL. The results claim that the use of AVF + WF is advantageous for students at higher Education in developing their writing skills through technological tools in virtual classrooms. This study achieved its goal and demonstrated qualitatively and quantitatively how a treatment, the combination of AVF + WF to students help improve their pieces of writing specifically in the mechanics of a piece of writing, which means the use of punctuation, capitalization and spelling. In addition, the treatment impacts the improvement of the organization, specifically about the use of transitions words in a paragraph that students are able to produce. Therefore, the treatment has an effect on students' writing using technological tools to achieve writing skill in an online environment. Hence, EFL teachers can benefit from the findings of the present study and apply them in online programs, and remote learning in order to improve their teaching practice.

Moreover, this study is a contribution to the literature that policymakers can consider regarding education and economics of education since it is noticeable that writing skill benefit students on higher education who is the people that will become the largest labor force in the country in few years; and EFL will continue being lingua franca to access to information, research works and thus the tool to take fully capitalize on national and global opportunities.

Furthermore, it complements some previous papers where authors as Chen et al. (2020), have shown the importance of causality between worldwide language expertise and output growth.

Future research studies may focus on explaining the use of a treatment to the other three skills and their development in online circumstances by combining more than one type of feedback to enhance students' English. Additionally, this study can be replicated for blended learning programs which are gaining more importance currently, thus generating a contribution to new systems of learning and their processes of learning.

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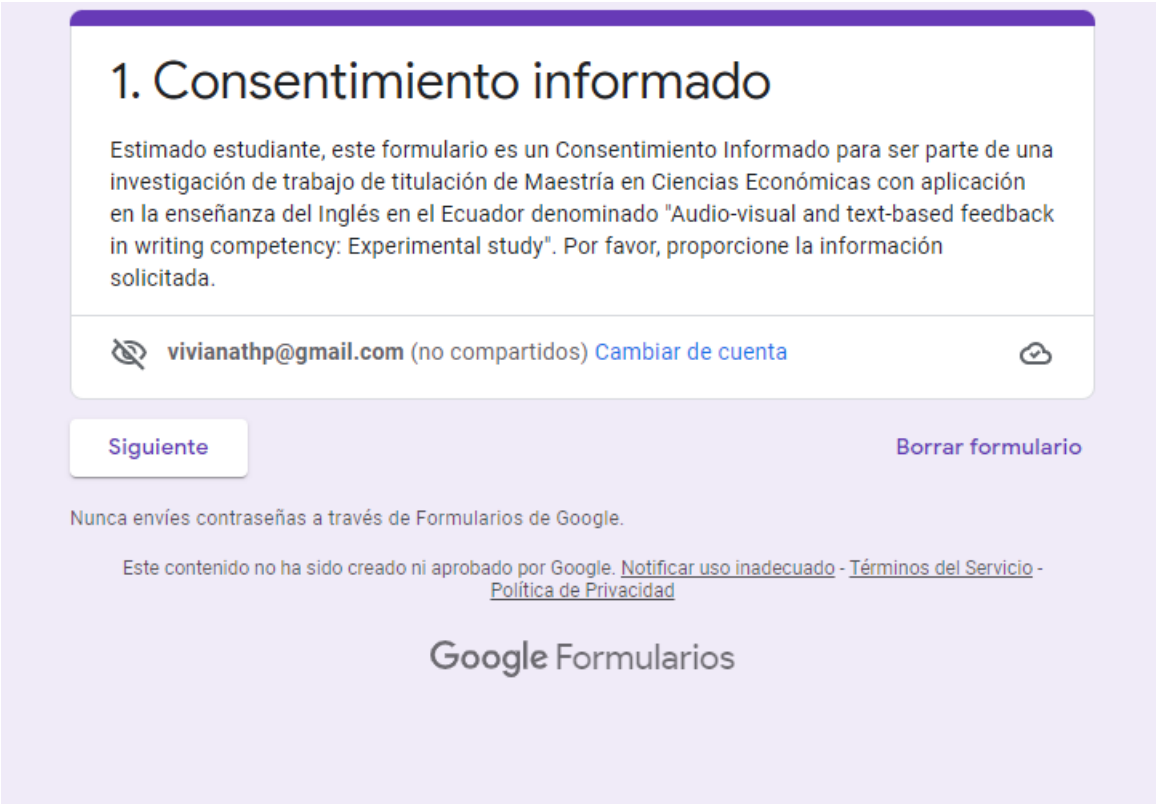
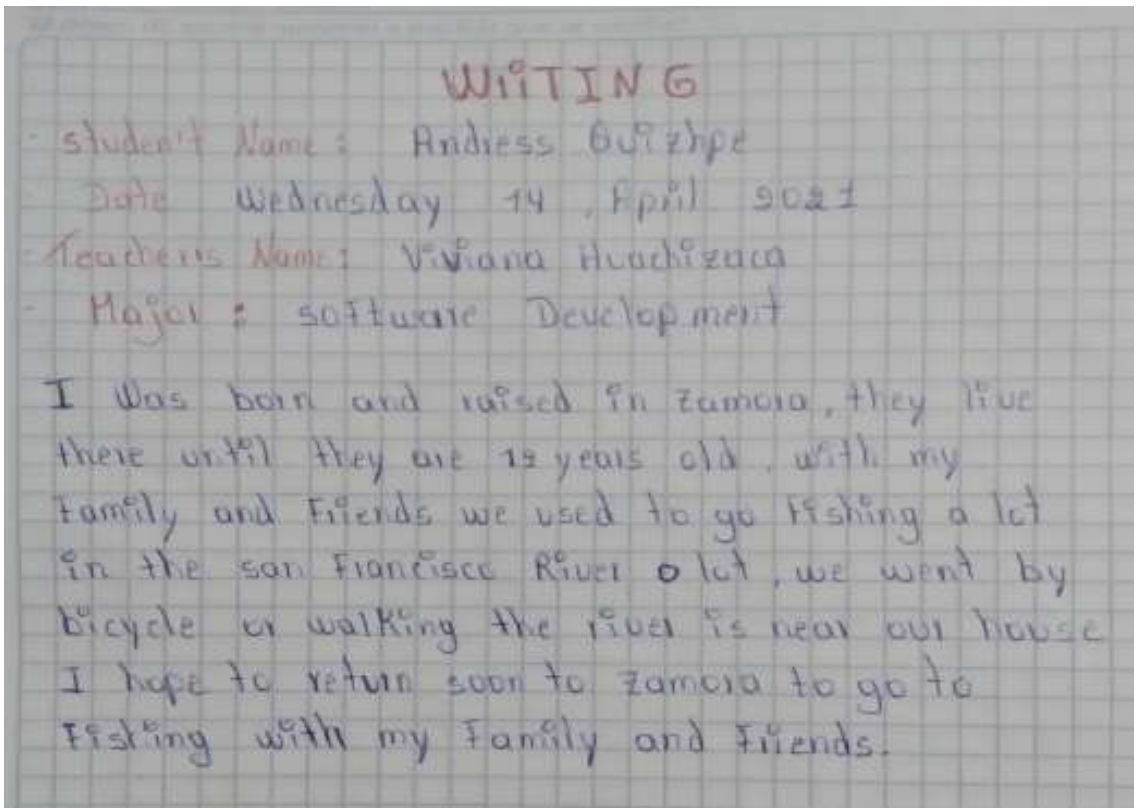
8. APPENDIX

Appendix 1: Informed consent.



AUDIO-VISUAL AND TEXT-BASED FEEDBACK IN WRITING COMPETENCY: EXPERIMENTAL STUDY

Appendix 2: Example of students' writing by hand.



WRITING

Student Name: Andress Burbe

Date Wednesday 14, April 2021

Teachers Name: Viviana Huachizaca

Major: Software Development

I Was born and raised in Zamora, they live there until they are 12 years old, with my family and Friends we used to go fishing a lot in the san Francisco River a lot, we went by bicycle or walking the river is near our house I hope to return soon to Zamora to go to fishing with my family and friends.

AUDIO-VISUAL AND TEXT-BASED FEEDBACK IN WRITING COMPETENCY: EXPERIMENTAL STUDY

Appendix 3: Standard Rating rubric

		5=Outstanding / Excellent A	4= Strong / Very good B	3= Developing / Average /Adequate / satisfactory C	2=needs extensive revision / Poor / Minimal D	1=not present / Failing F
	A **OVERAL TASK FULLFIMENT**	Paragraph fully accomplishes the task of supporting an opinion/argument by presenting a unifying theme or main idea without tangents; paragraph stays completely focused on topic and task.	Paragraph mostly accomplishes the task of supporting an opinion/argument by presenting a unifying theme or main idea without tangents; paragraph stays mostly focused on topic and task; may include minor tangents.	Paragraph somewhat accomplishes the task of supporting an opinion/argument by presenting a unifying theme or main idea without tangents; paragraph stays somewhat focused on topic and task; may include major tangents.	Paragraph minimally accomplishes the task of supporting an opinion/argument by presenting a unifying theme or main idea; paragraph may often lose focus ineffectively.	The essay fails to accomplish the task of supporting an opinion/argument by presenting a unifying theme or main idea; paragraph may be too brief or too repetitive to stablish or maintain a focus.

AUDIO-VISUAL AND TEXT-BASED FEEDBACK IN WRITING COMPETENCY: EXPERIMENTAL STUDY

TASK FULLFIMENT	**B** **COMPLIANCE WITH TASK GUIDELINESS**	All assignment directions are followed: • 60-80 words. • Use of topic sentence, at least three relevant supporting details and concluding sentence. • Use capital letters.	Most assignment directions are followed with some minor errors. • 60-80 words. • Use of topic sentence, at least three supporting details and concluding sentence (contain weak supporting details). • Use capital letters.	Assignment directions generally followed with major errors: • Paragraph is less than 60 words. • Paragraph may not include 1 – 2 relevant parts topic sentences, supporting details and concluding sentence. • Capital letters include frequent and obvious errors.	Few directions are followed: • Paragraph is less than 60 words. • Paragraph may not include at least 2 relevant parts topic sentences, supporting details and concluding sentence. • Fail using capital letters with proper nouns.	Assignment directions are not followed: • Paragraph may not in the required form • Paragraph may be far below assignment requirements. • Fail completely using capital letters.

		5=Outstanding / Excellent **A**	**4= Strong / Very good** **B**	**3= Developing / Average /Adequate / satisfactory** **C**	**2=needs extensive revision / Poor / Minimal** **D**	**1=not present / Failing** **F**
	A **OVERALL CONTENT**	Paragraph includes thorough, relevant and complete ideas; provides relevant information or sufficient supporting facts and details that fully develop the topic.	Paragraph includes mostly relevant ideas; includes sufficient information with more than adequate supporting facts and details that develop the topic (in minor instances, details may not be fully develop).	Paragraph includes adequate amount of relevant ideas to address the task; some ideas are not fully developed with sufficient facts and details.	The writing includes few/minimal relevant ideas; ideas may lack development or include little information/partial facts and details insufficient to develop the topic.	The writing includes very few relevant ideas; includes little information with very few or no facts and details to develop the topic; may have facts and details that do not relate to topic.

CONTENT	**B** **PARAGRAPH DEVELOPMENT**	All paragraph is fully developed with sufficient supporting ideas and details.	Most of the paragraph is fully developed with sufficient supporting ideas and details; 1-2 ideas may need further development.	Most paragraph is somewhat developed but need additional ideas and supporting details.	Most paragraph is minimally developed; they may express an idea but lack sufficient explanations and illustrations to develop their points.	Almost all the paragraph lack development; they may be too long, too short, or generally unclear.
	C **MAIN IDEA**	Paragraph contains a strong, original, and focused main idea that fully responds to assignment prompt.	Paragraph contains a mostly appropriate main idea that responds to assignment prompt, but may be formulaic or generic.	Paragraph contains a main idea that adequately addresses assignment prompt, some components of prompt, such as originality or argumentation may be weak.	Paragraph contains a thesis that minimally addresses assignment prompt: main idea my be vague, may be a statement of fact, or otherwise inappropriate for an argumentative essay.	Paragraph lacks a main idea or may display an attempt at a theses statement that fails to address the assignment prompt.
	D **SUPPORTING DETAILS**	All ideas are effectively and consistently used to support the main ideas; effective use of signal phrases and connection)	Most ideas are effectively used to support main ideas; may contain 1-2 instances of rough awkward attempts at integration	Ideas are adequately used to support main ideas; 2-3 instances with weak or unclear integration.	Ideas are inadequately or inconsistently used to support main idea; most ideas are weak or unclear.	Failure to use ideas to support the main idea.

		5=Outstanding / Excellent **A**	**4= Strong / Very good** **B**	**3= Developing / Average /Adequate / satisfactory** **C**	**2=needs extensive revision / Poor / Minimal** **D**	**1=not present / Failing** **F**
	A	All paragraph focus on a main idea. And maintain a clear focus on their main idea.	Most paragraph focus on the main idea; 1-2 sentences may not	Paragraph somewhat focus on a main idea; 2-3 sentences may not consistently maintain	Paragraphs maintain a minimal focus on a main idea; most sentences may be weak	Paragraph is not focused around a main idea; sentences are

	PARAGRAPH FOCUS		maintain strong focus on the main idea.	focus on the main idea	and not maintain focus on the main idea	extremely weak or missing.
ORGANIZATION **Pat. & sentence level**	**B** **USE OF TRANSITIONS**	Consistent use of smooth transition or cohesive devices between ideas, and sentences.	Transition/cohesive devices between ideas, sentences generally enhance meaning of text, minor errors in transition use may be present	Demonstrates some attempt at use of transition/cohesive devices; transitions between sentences may be weak or absent.	Demonstrates a partial attempt at use of transition/cohesive devices; transitions between sentences may consistently be weak or absent.	No disenable attempt at use of transitions/cohesive devices.
PURPOSE		Paragraph clearly, effectively, and consistently remains focused on a specific purpose established in the beginning.	Paragraph remains mostly focused on a specific purpose established in the beginning, may have minor lapses in maintaining focus in relation to purpose.	Paragraph shows some focus on a purpose for writing, purpose may not be established or not be clearly articulated.	Paragraphs shows minimal focus on a purpose for writing largely unclear, focus on purpose extremely weak or inconsistent.	Paragraph lacks sense of purpose.
		5=Outstanding / Excellent **A**	**4= Strong / Very good** **B**	**3= Developing / Average /Adequate / satisfactory** **C**	**2=needs extensive revision / Poor / Minimal** **D**	**1=not present / Failing** **F**
AUDIENCE		Writing demonstrates a strong sense of audience; consistently uses tone and style appropriate for an academic audience.	Writing generally demonstrate a sense of audience; uses tone and style mostly appropriate for an academic audience.	Writing demonstrates some sentence of audience; occasionally uses tone and style not appropriate for an academic audience.	Writing demonstrates minimal consideration of audience needs; frequent use of tone and style inappropriate for an academic audience.	Paragraph is not written with an academic audience in mind.

MECHANICS		Demonstrates mastery over the basics in sentence completeness, structure, variety, word choice, and punctuation.	Displays good control over mechanics, although some areas may still need sentence level revision.	Mechanics are an area of concern. There may be recurring sentence fragments, comma splices, word usage errors, or redundant clauses.	Generally, lacks control over mechanics and contains excessive proofreading errors or has habitual problems with subject-verb errors, sentence fragments or punctuation.	No use of appropriate grammar, vocabulary, spelling, and punctuation.

AUDIO-VISUAL AND TEXT-BASED FEEDBACK IN WRITING COMPETENCY: EXPERIMENTAL STUDY

Revision coding scheme

Category/ subcategory	Acronym	Definition
Category: surface change		
Simple repair	**Sr**	Mechanical changes in spelling or grammar, simple word change, deletion, addition or movement of few words; [meaning/content not affected]
Example		Before: Szybek further supports the claim that *everyday knowledge aid saids* in scientific knowledge as he states. After: Szybek further supports the claim that *specific contexts aid* in scientific knowledge as he states.
Category: Micro-level meaning change		
Complex repair	**Cr**	Fixing points by deletion or changing existing points in a sentence or paragraph level.
Example		Before: While there are contestants to the idea that scientific knowledge may be gained *from everyday locations*, many argue that it is the human interactions and the ordinary, everyday life experiences. After: While there are contestants to the idea that scientific knowledge may be gained *in different magnitudes, depending on the context of the situation*, many argue that it is the human interactions and the ordinary, everyday life experiences.
Extended content	**Ec**	Elaboration and/or justification of an existing point or example.
Example		Before: … is used for the non-knowledge-rich context because it does not necessarily encourage scientific thinking. After: … is used for the non-knowledge-rich context because it does not necessarily encourage scientific thinking. *While it non-scientific conversation can occur in a museum and scientific conversation can occur in a coffee house, this study is designed to determine if the rate of scientific conversation will differ between the two contexts.*
Deleted extended content	**Dec**	Deletion of an elaboration and/or justification of an existing point or example [may include taking out supporting details that are vague or irrelevant or just not appropriate for a paragraph; the point remains but supporting materials are taken out]
Example		Before: to determine treatment, the paramedic needs to have strong communication skills to quickly and accurately obtain different patients' medical history. *Having a complete medical history can determine what treatment may need to be given*.

		After: to determine treatment, the paramedic needs to have strong communication skills to quickly and accurately obtain different patients 'medical history.
Category: Macro-level meaning change		
New content	**Nc**	New points, including entire new paragraphs.
Example		Before: No prior content exists. After: *A topic that is a never-ending battle for some scientists. And what does scientific knowledge ultimately lead to?* *Scientific conversation!*
Deleted content	**Dc**	Deleting topic sentences, existing points (e.g. deleting a paragraph that is unrelated to the thesis or main argument)
Example		Before: *Sometimes the tone of paramedics' voice or body language is all that needs to change. If a paramedic approaches a smail child with a loud voice, the child is more than likely going to become frightened.* After: Content does not exist.
Organization	**O**	Changes to, addition of and deletion of headers; movement of a point of paragraph; change to or deletion of connectives/transitional phrases. [addition, movement, or change in idea expressed in thesis, topic sentence or conclusing sentence*]
Example 1		Before: (No title) After: *Is there a difference between adult and Juvenile learning?*
Example 2		Before: classes are too big. Students do not get enough individual attentions. After: classes are too big. *As a result,* students do not get enough individual attention.

AUDIO-VISUAL AND TEXT-BASED FEEDBACK IN WRITING COMPETENCY: EXPERIMENTAL STUDY

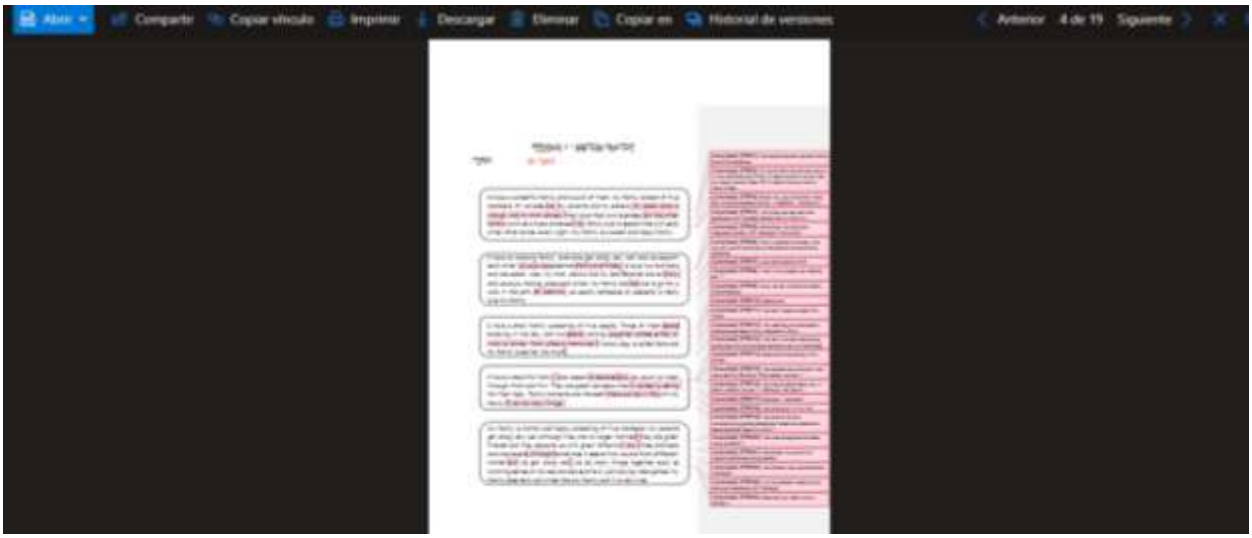
REVISION CODING SCHEME

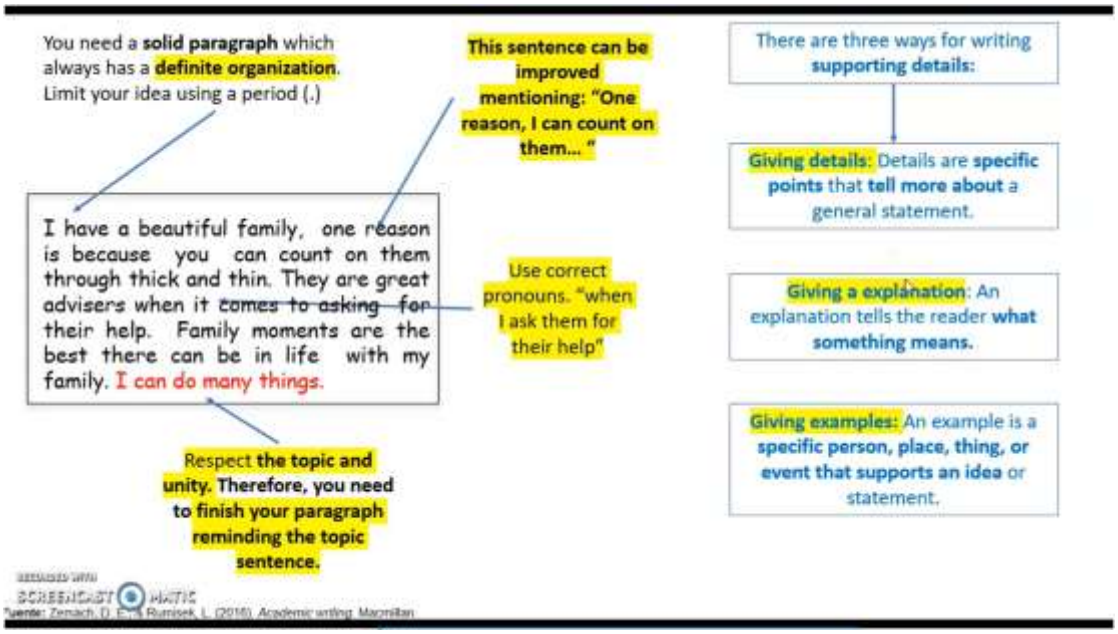
Subcategory	Definition
Category: Surface changes Simple repair Before After	**Mechanical changes in spelling or grammar; simple word change; deletion or addition of one or two words.** *Szybek further supports the claim that everyday knowledge aid saids in scientific knowledge as he states.* *Szybek further supports the claim that specific contexts aid in scientific knowledge as he states.*
Category: Micro-level meaning change Complex repair Before After **Extended content** Before after	**Fixing points by deletion or changing existing points in a sentence or paragraph level.** While there are contestants to the idea that scientific knowledge may be gained from everyday locations, many argue that it is the human interactions and the ordinary, everyday life experiences. While there are contestants to the idea that scientific knowledge may be gained in different magnitudes, depending on the context of the situation, many argue that it is the human interactions and the ordinary, everyday life experiences. **Elaboration and/or justification of an existing point or example.** .is used for the non-knowledge-rich context because it does not necessarily encourage scientific thinking. .is used for the non-knowledge-rich context because it does not necessarily encourage scientific thinking. **While it non-scientific conversation can occur in a museum and scientific conversation can occur in a coffee house, this study is designed to determine if the rate of scientific conversation will differ between the two contexts.**
Category: Macro-level meaning change New content Before After	**New points, including entire new paragraphs.** No prior content exists. A topic that is a never-ending battle for some scientists. And what does scientific knowledge ultimately lead to? Scientific conversation! Organization Changes to, addition of and deletion of headers; movement of a point of paragraph; change to or deletion of connectives/transitional phrases.

	(No title) Is There a Difference Between Adult and Juvenile Learning?
Category: Reference **Adding supportive materials** Before After **Changing supportive materials**	**Addition of tables, figures, figure captions, and references, including footnotes and citations.** …the way in which adults form hypotheses ...the way in which adults form hypotheses (Schauble, 1996). **Changing supportive materials Changes to and/or movement of tables, figures, figure captions, and references, including footnotes and citations.**

AUDIO-VISUAL AND TEXT-BASED FEEDBACK IN WRITING COMPETENCY: EXPERIMENTAL STUDY

Appendix 4: Evidence of the uploaded videos for real audio-video feedback plus written feedback.





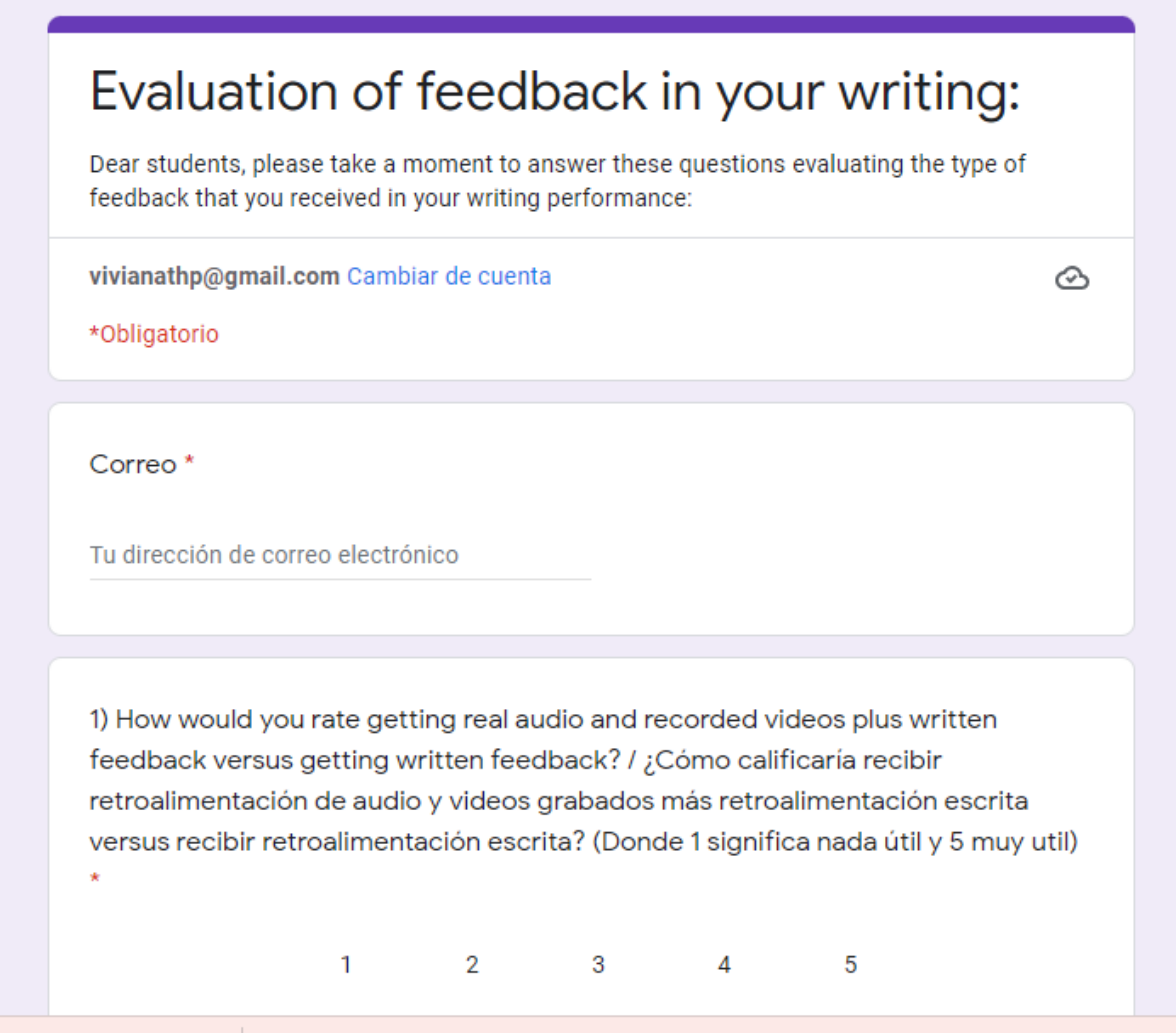
AUDIO-VISUAL AND TEXT-BASED FEEDBACK IN WRITING COMPETENCY: EXPERIMENTAL STUDY

Appendix 5: Planning for treatment.

PLANNING MINI-LESSONS			
DATES	**ACTIVITY**	**TOPICS OF LESSONS**	**TIME (Minutes)**
March 29th – April 2nd	Proficiency Test		40
Abril 5th – April 10th	Review how to write a short paragraph.	Fast instructions	20
April 12th – April 17th PRE-TEST	Se toma el ***pre test***, solicitando escribir un párrafo basándose en un tema ya conocido por el grupo acorde al libro.		60
April 19th – April 24th Week 1	Class 1	What is a sentence, and a paragraph.	20
April 26th – May 1st Week 2	Class 2	Combining sentences.	20
May 3rd – May 8th Week 3	Class 3	Mechanics	20
May 10th – May 15th Week 4	Class 4	Transitions Words	20
May 17th – May 22nd Week 5	Class 5	Th estructure of a paragraph	20
May 24th – May 29th Week 6	Class 6	Pre-writing: draft	20
May 31st – June 5th **POST TEST**	Post-test.		60

AUDIO-VISUAL AND TEXT-BASED FEEDBACK IN WRITING COMPETENCY: EXPERIMENTAL STUDY

Appendix 6: Treated students' perception survey



Evaluation of feedback in your writing:

Dear students, please take a moment to answer these questions evaluating the type of feedback that you received in your writing performance:

vivianathp@gmail.com Cambiar de cuenta

*Obligatorio

Correo *

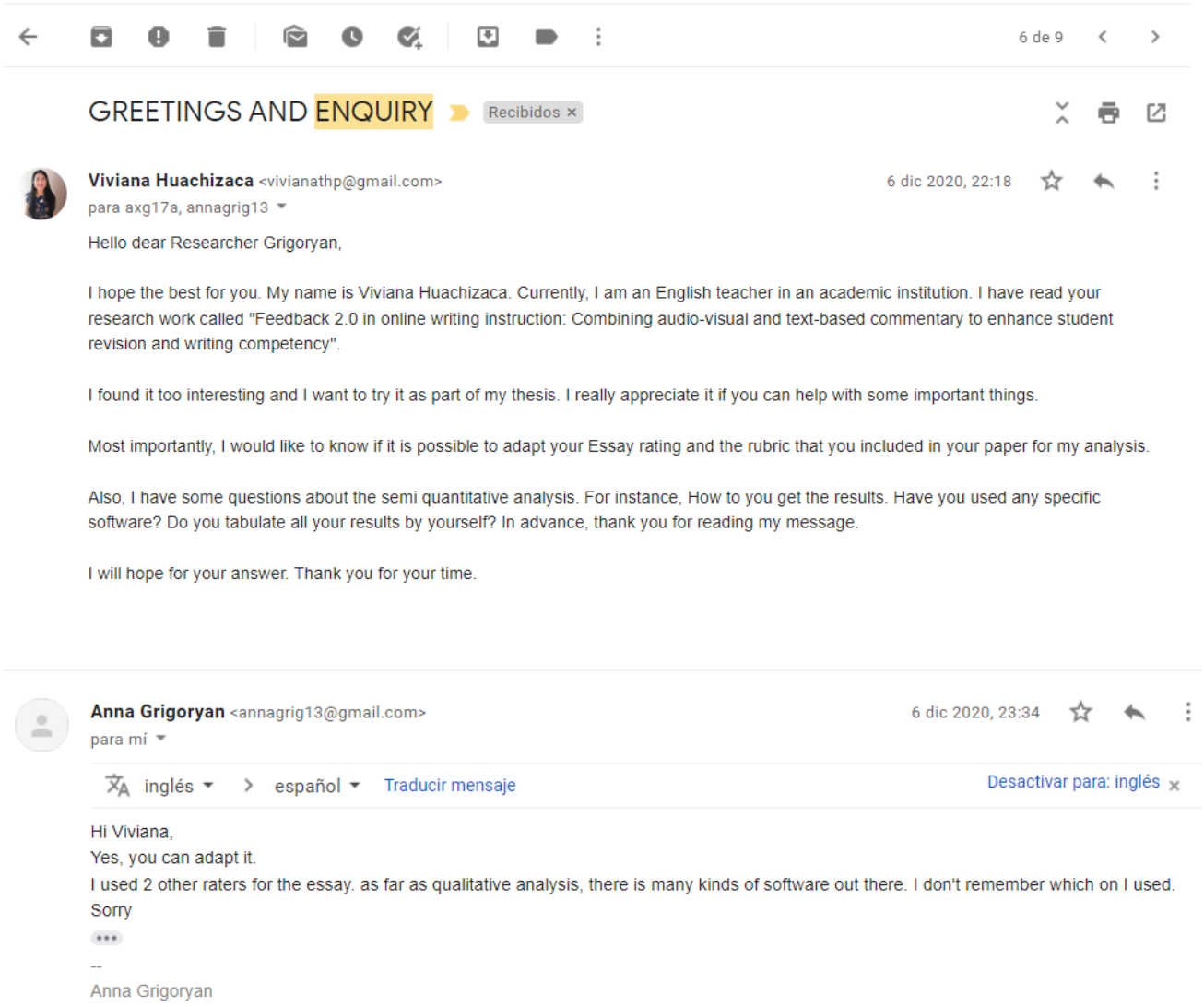
Tu dirección de correo electrónico

1) How would you rate getting real audio and recorded videos plus written feedback versus getting written feedback? / ¿Cómo calificaría recibir retroalimentación de audio y videos grabados más retroalimentación escrita versus recibir retroalimentación escrita? (Donde 1 significa nada útil y 5 muy util) *

1 2 3 4 5

AUDIO-VISUAL AND TEXT-BASED FEEDBACK IN WRITING COMPETENCY: EXPERIMENTAL STUDY

Appendix 7: Author permission



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GREETINGS AND ENQUIRY Recibidos ×

Viviana Huachizaca <vivianathp@gmail.com> 6 dic 2020, 22:18
para axg17a, annagrig13

Hello dear Researcher Grigoryan,

I hope the best for you. My name is Viviana Huachizaca. Currently, I am an English teacher in an academic institution. I have read your research work called "Feedback 2.0 in online writing instruction: Combining audio-visual and text-based commentary to enhance student revision and writing competency".

I found it too interesting and I want to try it as part of my thesis. I really appreciate it if you can help with some important things.

Most importantly, I would like to know if it is possible to adapt your Essay rating and the rubric that you included in your paper for my analysis.

Also, I have some questions about the semi quantitative analysis. For instance, How to you get the results. Have you used any specific software? Do you tabulate all your results by yourself? In advance, thank you for reading my message.

I will hope for your answer. Thank you for your time.

Anna Grigoryan <annagrig13@gmail.com> 6 dic 2020, 23:34
para mí

inglés > español Traducir mensaje Desactivar para: inglés ×

Hi Viviana,
Yes, you can adapt it.
I used 2 other raters for the essay. as far as qualitative analysis, there is many kinds of software out there. I don't remember which on I used.
Sorry
•••
--
Anna Grigoryan