IRSTI 20.01.47 **DOI 10.47649/vau.26.v80.i1.10**
UDC 372.863

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HIGH SCHOOL STUDENTS' RECEPTIVITY TO FEEDBACK AND PERCEPTIONS OF AUTOMATED WRITING EVALUATION TOOLS IN LATIN AMERICA

Abstract

This study explores the receptivity of high school students in Latin America to Feedback, particularly in the context of learning English as a foreign language. It investigates how students perceive and respond to feedback, focusing on the use of Automated Writing Evaluation (AWE) tools. The purpose of the article is to study the susceptibility of Latin American high school students to feedback when learning English as a foreign language, including an assessment of their attitude to automated written work verification tools (AWE). The research addresses gaps in the literature by examining a largely overlooked population—high school students in Latin America—and by analyzing students' perceptions of AWE tools and their receptivity to feedback. The study employs a mixed-methods approach, combining quantitative data from questionnaires and qualitative insights from three open-ended questionnaire items. Key findings reveal that students are receptive to feedback but do not engage behaviorally with it. Although they have a positive attitude toward and perception of AWE tools, their use is low. Students generally prefer personalized feedback from teachers over automated tools, though there is potential to improve the effectiveness and acceptance of AWE tools. The study found no statistically significant differences in feedback receptivity based on age, gender, or language proficiency, with negligible effect sizes across all comparisons.

Keywords: Feedback Receptivity, Automated Writing Evaluation, English as a Foreign Language, Feedback Mechanisms, Writing Skills Development

Introduction

Feedback is a critical component of learning, particularly for developing writing skills in English as a foreign language (EFL). Traditionally, research on feedback has focused on the provider or the content of the feedback itself. However, recent studies have shifted attention to the recipient, emphasizing the importance of understanding how learners perceive, process, and respond to feedback. This shift is particularly relevant in the context of technological advancements, such as Automated Writing Evaluation (AWE) tools.

Despite the growing use of AWE tools, there is limited research on how students, especially high school students in Latin America, perceive and interact with these tools. This study aims to fill this gap by exploring high school students' receptivity to feedback and examining how their perceptions of AWE tools influence that receptivity. The research also seeks to identify differences in feedback receptivity based on demographic factors such as age, gender, and language proficiency. By addressing these questions, this study introduces a novel methodological and population-based contribution to the field. Unlike previous research that has predominantly focused on university populations in Europe or Asia, this study provides empirical evidence from high school students in Latin America, a demographic group that is significantly underrepresented in the feedback receptivity literature. Furthermore, it differentiates itself by shifting the focus from the mere effectiveness of Automated Writing Evaluation (AWE) tools to the learner's psychological and behavioral receptivity when interacting with these technologies. This approach enables a deeper understanding of why students may accept or reject automated suggestions, bridging the gap between technological availability and actual student engagement in developing contexts.

Literature review

Feedback is a recognized key aspect of learning and development in general, and specifically of improving written production in English as a foreign language [1–3]. For years, the focus of feedback studies has been on the feedback provider or on the message and its manner of presentation. It is only recently that research has begun to show interest in the perspective of the feedback recipient. A review of the literature reveals that previous research has addressed the

receptivity or acceptance of feedback by learners of English as a foreign language from various perspectives and in different aspects.

There are studies focused on the literacy of feedback [4–6]. In the case of Winstone et al. [6], the authors, through a systematic review, focus on identifying factors influencing learners' agentic engagement. Other studies have examined the effects of feedback from tools and teachers on EFL text production [7–9]. Likewise, some studies examine learners' perceptions of the feedback they receive [10–12]. Nevertheless, these studies focus on students from higher education or from the United States, Asia, or Europe, leaving out high school and Latin American students.

Feedback, in general terms and for this research, is understood as all those actions carried out to provide information about the performance of an activity. Such actions are usually performed by an external agent, such as a teacher, a peer, or a tool [13]. They can be experienced in different educational contexts, both formal and non-formal. Feedback is observed from a socio-cognitive perspective. It is a cognitive process, as it involves students reflecting on their performance based on the information received, correcting their mistakes, and restructuring their language in the case of language learning. It is social because it is a practice that takes place within a sociocultural context that includes the beliefs, knowledge, and experiences of both the person providing the feedback and the person receiving it, in this case, the student.

Over the last decade, various elements influencing the effectiveness of feedback in the learning process have been identified, leading to the development of different models of feedback processing. Across different proposals and research, it is observed that among the elements that influence feedback processing are individual characteristics such as age, language proficiency, and personality [14-15], as well as contextual variables: type of activity, time, and learning environment. There is evidence that the effectiveness of feedback largely depends on the learner's involvement with it, i.e., doing something with it [16].

Among these multiple factors, different authors propose receptivity as a characteristic that influences the use of feedback [17]; this quality refers to individual differences in students' willingness to accept feedback. As background, the work where the Receptivity to Instructional Feedback (RIF) instrument is developed and used [18], and the model of Lipnevich and Smith [19], these works confirm the existence of 4 factors of receptivity to feedback: attitudes based on previous experiences (the liking for feedback), instrumental attitudes (the perception of the usefulness of feedback), cognitive involvement (the understanding of feedback) and behavioral involvement (actions in response to feedback) to feedback.

There are still gaps in the research on feedback. In particular, there is a notable population gap; the study of feedback reception among high school students in Latin America has been relatively underexplored. Recent research has shown interest in students' perspectives on receiving feedback [20]. However, they are studies in secondary education or university and postgraduate education contexts, leaving out upper secondary or baccalaureate students. In addition, authors Lipnevich and Lopera-Oquendo confirm the lack of studies on receptivity in other populations outside Europe and Asia, as well as at different school levels. They have explored only a sample at the secondary level in Singapore and another sample at the higher education level in New Zealand. Finally, a methodological gap is observed: most of the research found is quantitative, focusing on surveys and the effectiveness of the tools, and there is a lack of qualitative or mixed studies that examine how students interact with the tool and why they accept or reject its suggestions.

Also, despite the increasing use of technological tools to support written production, there is a knowledge gap in this area, as the receptivity and response to feedback has been little explored in relation to the use of automated writing evaluation (AWE) tools which in turn give way to automatic corrective writing feedback which refers to the use of AWE tools to receive feedback on different aspects of their written production such as grammar, style, cohesion, among others [21]. The increased use of these tools in language learning and written production in general has led to an interest in further research on them and their effects; as other authors note [22], the use of AWE in Feedback has been shown to have a positive impact on learners' written production, studies of

the use of different AWE and Translation Machines as tools for learning and improving written production in English as a foreign language are found [23-24].

To date, studies have begun to explore feedback and its relationship with other indicators, such as student grades, performance, and the use of strategies [25]. Some studies focused on the effect of Feedback via AWE and artificial intelligence on students' perception of using these tools [26]. However, to the knowledge of this literature review, there are no studies that analyze foreign language learners' perception and use of AWE and their receptivity to feedback, and their possible relationships, as well as the possible relationship of learner receptivity to other data on their individual characteristics and context such as age, language level, grade level, and use of technological tools. This work also contributes to exploring a population often overlooked in research: high school students and students from Latin America.

Thus, this study seeks to expand knowledge of feedback receptivity by examining technologies that can provide feedback, addressing population gaps in how high school students perceive, process, and respond to feedback. The findings will aid the effective implementation of AWE as a language-learning tool by fostering more effective pedagogical strategies. Additionally, this research provides empirical evidence relevant to language teachers, AWE designers and developers, and the field of feedback research in general.

Objectives and research questions

This research is the first stage of a more extensive study that works in two stages to fulfill two purposes. In this first stage, we seek to explore high school students' receptivity to feedback and determine whether there is a significant difference by gender or age. Additionally, to explore students' perceptions of using technological tools to receive feedback.

Specific objectives

OP1: To assess students' receptivity to feedback.

OP2: To determine if there are significant differences in students' receptivity to feedback by gender, age, or language level.

OP3: To explore students' perception of the use of AWE to receive feedback.

Research questions

RQ1: What is the receptivity of high school students to feedback?

RQ2: Are there significant differences by gender, age, or language level in the feedback receptivity of the students?

RQ3: What are students' perceptions of using AWE to receive feedback?

Materials and methods of research

This study employed a mixed-methods research design, which enabled the integration of quantitative and qualitative data to achieve a more comprehensive understanding of the phenomenon under investigation. Quantitative data were collected via an online questionnaire administered via Google Forms, a widely used tool for efficiently collecting large-scale responses [27]. Qualitative data were obtained through three open-ended questions set in the same questionnaire in the last section, allowing for a deeper exploration of their perceptions and experiences. This methodological strategy ensured data triangulation and strengthened the validity of the findings by capturing both generalizable patterns and individual insights about the feedback received.

Participants and procedure

In this study, the N = 609 students are enrolled in four public high schools in the University of Guadalajara, Jalisco, Mexico (High Schools 7, 12, 14, and TSU-CUCEA). The participating high schools are part of the state's largest high school system. The students were from the same type of high school, and their ages ranged from 15 to 18. Among the participants, 302 identified themselves as female, 294 as male, and 13 preferred not to share their gender (PNS).

Data were collected online over two weeks. In the first week, data were obtained from three schools; in the second week, the four high schools were involved due to administrative issues. Participation was voluntary; the first instrument included a section with the consent form and an explanation of the study procedures, and participants provided their consent on the same form. In

addition, to ensure the participants' privacy, no names were requested in the questionnaires, thus ensuring anonymous and voluntary participation.

Instruments

The instrument is a questionnaire to assess perception and use of technological tools to receive feedback. It consists of five sections: demographic data (DD), receptivity to feedback (RIF), previous experience with technological tools (EPT), expectations and attitudes toward AWE tools (ERA), and open-ended questions (ERH).

The demographic data section collects the data on: age, gender, perceived level of language proficiency, and current grade in high school.

The RIF section contains 24 items adapted from the Receptivity to Instructional Feedback (RIF) instrument [28], previously validated with university students and high school students in Singapore. The ERA section contains 5 items assessing expectations and attitudes toward AWE tools. All Likert-scale items use a five-point scale, and reliability was validated across the 29 Likert items (RIF + ERA) using a Cronbach's Alpha coefficient of .919 (Table 1), indicating appropriate internal consistency. The instrument was also subjected to a content validation process to ensure the adequacy and clarity of each item.

Table 1- Reliability statistics

Reliability statistics		
Cronbach's Alpha	Cronbach's alpha based on standardized items	N of items
919	925	29
Note: Author's calculations		

The correlation matrix identifies significant relationships between variables, offering insights into how different factors interact within the study's context. For example, it can reveal whether higher scores in one variable (e.g., receptivity to feedback) are associated with higher or lower scores in another (e.g., perception of AWE tools). The results of the correlation analysis are presented in Figure 1, where statistically significant correlations are highlighted to facilitate interpretation. The values in the matrix range from -1 (negative correlation), 0 (no correlation) and +1 (positive correlation).

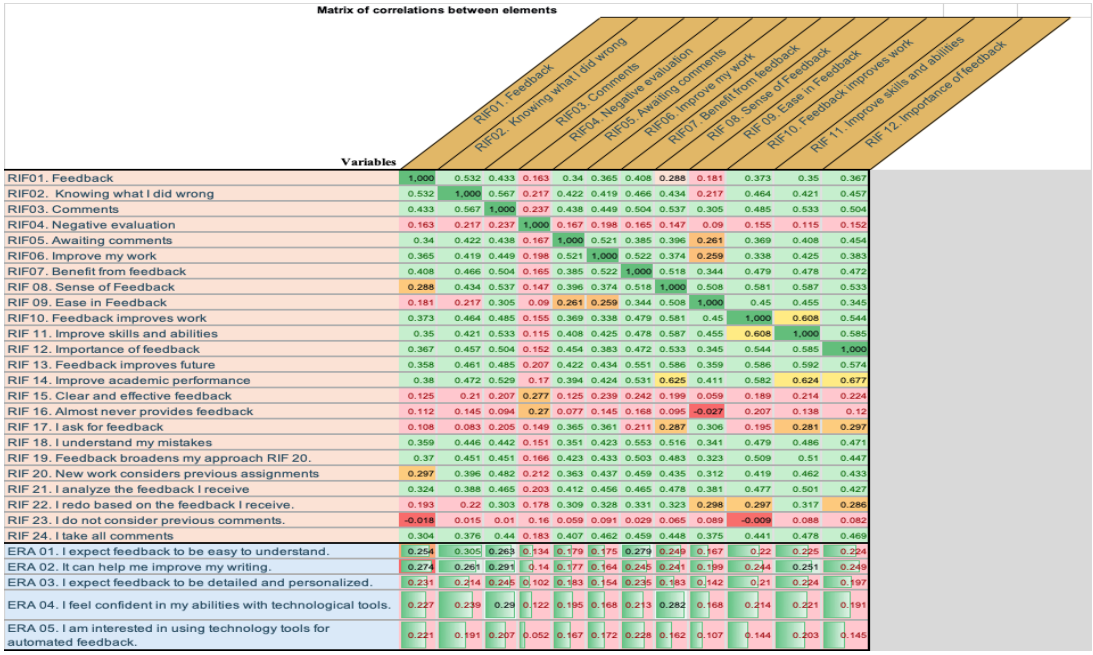

Figure 1- Matrix of correlation coefficients

Note: Author's calculations

The EPT section includes items on previous experience with technological tools, covering frequency of use, tools previously used, and perceived utility. The EPT section items were not included in the reliability analysis as they measure frequency and type of tool use rather than attitudes on a Likert scale. The final section (ERH) includes three open-ended questions designed to capture students' expectations, experiences, and concerns regarding AWE tools: (ERH 01) What do you expect to obtain from an automated feedback tool?; (ERH 02) If you have previously used technological tools to receive feedback, how useful have they been and why?; and (ERH 03) Is there anything that concerns you or that you find counterproductive about automated feedback? All 609 participants responded to ERH 01, while 594 responded to ERH 02 and 583 to ERH 03; the lower response rates on the latter two items reflect their optional framing in the online form.

The open-ended questions aim to deepen participants' perspectives and reflections on their experiences with AWE tools, complementing the quantitative data obtained from the standardized sections of the same instrument. This combination was designed to capture the participants' (students/actors) experiences and perceptions about feedback mediation in learning and their potential use of the tools.

Data analysis plan

A mixed-methods approach was used for data analysis [29]. Quantitative data were analyzed using R and SPSS, beginning with data preparation that included cleaning and coding. Descriptive statistics were then generated to summarize the variables. Following this, a correlation analysis was conducted to explore the relationships and patterns within the data. For the qualitative data gathered from the three open-ended questions (ERH 01–03), an inductive thematic analysis was conducted following a multi-stage coding process [30]. First, open thematic coding was conducted by reading all responses to identify meaningful units of sense and assign descriptive codes to relevant text segments. Second, axial coding was applied to group initial codes into broader thematic categories linked to the dimensions of the instrument [31]. Third, recurring subtopics were delimited within each category based on semantic patterns. Fourth, representative textual quotations were selected to exemplify common and singular participant perceptions. Finally, analytical interpretation was carried out considering the context of the study and its research objectives. To ensure coding consistency, all members of the research team collaboratively reviewed the codes generated during the analysis. Codes were discussed and refined iteratively until full agreement was reached among all coders, following a consensus-based approach [32]

To answer RQ1, what is the receptivity of high school students to feedback? The descriptive analysis of the data obtained in the RIF was carried out. Also, following the technical manual of the RIF instrument [33], the analysis of students' receptivity was carried out by means of direct scoring (simple scores) following the formula indicated by the authors and shown in Figure 1.

Experiential Attitudes = (RIF01 + RIF02 + RIF03 + RIF04* + RIF05 + RIF06) / 6

Cognitive Engagement = (RIF07 + RIF08 + RIF09 + RIF10) /4

Instrumental Attitudes = (RIF11 + RIF12 + RIF13 + RIF14 + RIF15*)/ 5

Behavioral Engagement = (RIF 16* + RIF017 + RIF18 + RIF19 + RIF20 + RIF21 + RIF22 + RIF 23* + RIF24)/ 9

* *For items in "reversed coded"*

Figure 1- Analysis of students' receptivity formula

Note: Adapted from RIF instrument (Lipnevish and Lopera-Oquendo, 2022)

About RQ2: Are there significant differences by gender, age, or language level in the feedback receptivity of the students? A one-way ANOVA test was conducted to compare feedback receptivity among groups defined by gender, age, and level of language proficiency. Additionally, a correlation analysis was conducted between demographic data and receptivity.

To answer RQ3: What is the students' perception of the use of AWE to receive feedback? Descriptive statistics were performed on the questionnaire of previous experience and perception of the use of AWE to receive feedback. Factor analysis was conducted to analyse the principal components of the questionnaire to explore its overall structure. Finally, the qualitative coding process—described above—was conducted using Atlas.ti; results are reported in the RQ3 section

Results and their discussion

To examine RQ1, what is the receptivity of high school students to feedback? We follow the technical manual of the RIF instrument created by Lipnevish and Lopera-Oquendo (2022), as shown in Figure 1. Scores under 3 indicate weaker receptivity to feedback by students, while scores greater than 3 indicate stronger receptivity to feedback regarding attitudes and behaviors towards feedback.

Following these steps, we obtained the mean and standard deviation of the global receptivity and the four dimensions (Table 3). Table 3 shows that the students have a global receptivity to feedback of 3.59 with a standard deviation of 0.51, indicating moderate to high receptivity to feedback with low variability. This suggests that the participants share a similar perception of feedback.

Table 2- Standard deviation of the global receptivity and the four dimensions

Dimension	Average	Standard Deviation
Global receptivity	3.59	0.51
Experiential attitudes	3.60	0.61
Cognitive engagement	3.83	0.68
Instrumental attitudes	3.61	0.58
Behavioral engagement	3.48	0.55
Note: Author's calculations		

The dimensions of experiential and instrumental attitudes of the students show that students have a moderate to high receptivity to feedback with means of 3.60 and 3.61 and standard deviations of .61 and .58; this shows some variability. The dimensions of cognitive engagement and behavioral engagement have interesting results. We can see a higher mean in cognitive engagement, which indicates that the students actively process feedback to improve their writing. However, the standard deviation in this dimension is also higher at .68, indicating more variability in students' cognitive engagement. In addition, behavioral engagement has the lowest score, 3.48, with some variability, as the standard deviation of .55 shows; this suggests that although students might engage cognitively with feedback, they might not implement it or respond actively. This may be consistent with the high school feedback context, where grades are typically assigned without opportunities for resubmission, which limits students' motivation to act on feedback.

About RQ2: Are there significant differences by gender, age, or language level in the feedback receptivity of the students? The one-way ANOVA (Figure 2) revealed no statistically significant differences in global feedback receptivity by age ($F(3, 605) = 0.749$, $p = .524$, $\eta^2 = .004$), gender ($F(2, 606) = 0.000$, $p = .994$, $\eta^2 = .000$), or perceived language proficiency ($F(6, 602) = 0.924$, $p = .475$, $\eta^2 = .009$). Effect sizes were negligible across all three comparisons, indicating that demographic variables do not meaningfully differentiate students' receptivity to feedback.

The heatmap enables the visual representation of correlation matrices, using colors to indicate the strength of relationships between variables (Figure 3) shows the acceptance of feedback action in a relationship with age.

About RQ3: What is the students' perception of the use of AWE to receive feedback? This data was retrieved from the questionnaire and split into three dimensions: frequency and previous experience with AWE, perception of the utility of AWE, and expectations and attitudes about AWE (Table 2-3). There is a section of open-ended questions where qualitative data was gathered about expectations, attitudes and perceptions about the use of AWE. Also, there is a section of questions with a scale of 5 points. From the analysis, and following the same interpretive convention applied to the RIF instrument, scores below 3 indicate limited use or negative perception of AWE, while scores above 3 indicate positive perception.

ANOVA: AGE

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*	*η²*	*Effect size*
Between Groups	0.51271207	3	0.17090402	0.74809366	0.52372739	2.6196305	.004	Negligible
Within Groups	138.213889	605	0.22845271					
Total	138.726601	608						

ANOVA: GENDER

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*	*η²*	*Effect size*
Between Groups	0.00336247	2	0.00168123	0.00563101	0.99438487	3.01059046	.000	Negligible
Within Groups	180.931538	606	0.29856689					
Total	180.9349	608						

ANOVA: LANGUAGE PROFICIENCY PERCEIVED

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*	*η²*	*Effect size*
Between Groups	1.48537876	6	0.24756313	0.92648022	0.4752276	2.11362356	.009	Negligible
Within Groups	160.859346	602	0.26720822					
Total	162.344725	608						

Note: Author's calculations

Figure 2 - ANOVA results by Age, Gender and Language Proficiency Perceived

Note: Author's calculations

According to the table, there is a low use of AWE with a score of 2.48, which is lower than 3, and a moderate variability as the standard deviation of .88 shows. Adding to this conclusion, "Have you previously used automated feedback (AWE) systems in your English writing?" has the lowest score at 1.00, indicating this limited use.

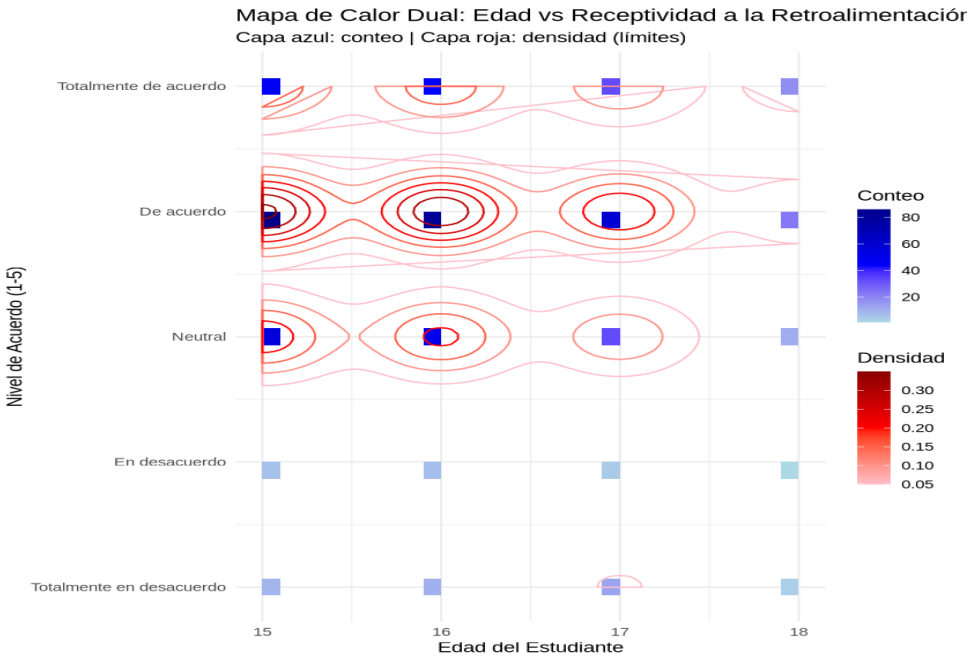

Figure 3 - Heatmap relation age vs feedback receptivity (1 to 5).

Note: Author's calculations

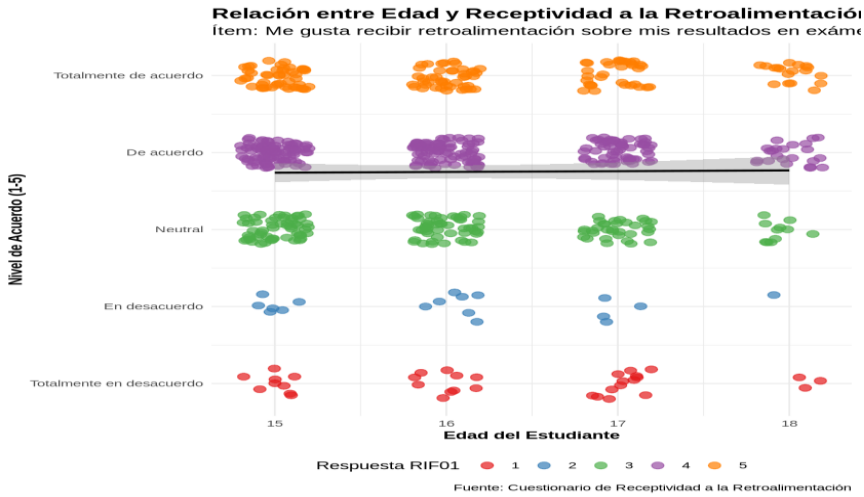

Figure 4 - Heatmap relation age vs feedback receptivity (1 to 5)
Note: Author's calculations

On the other hand, there is a positive perception of utility, along with positive expectations and attitudes, as evidenced by scores higher than three and moderate variability. In a closer look at items, we can see that questions about usefulness and confidence in automated feedback have moderate scores, such as "I think automated feedback can help me improve my writing", with 3.73.

Table 3 - Frequency and previous experience with AWE, perception of the utility of AWE, and expectations and attitudes about AWE

Dimention	Average	Standard deviation
Frequency of use	2.48	0.88
perception of utility	3.68	0.81
expectations, perceptions and attitudes	3.64	0.86
Note: Author's calculations		

This might indicate that there are certain situations in which students do not use the AWE, despite having a positive perception of its utility. This might lead to the necessity of showing students which AWE tools are available and how to use them effectively to maximize their learning benefits (Figure 5).

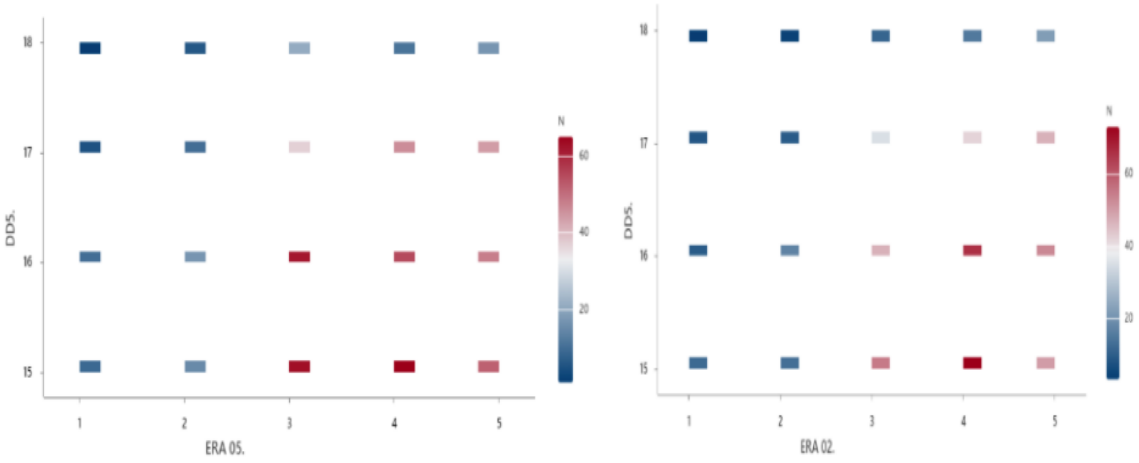

Figure 5 - Positive perception of feedback and use of AWE (ERA 05 vs ERA 02)
Note: Author's calculations

The positive perception and the openness to use it are confirmed by the qualitative data gathered in the three open-ended questions from the questionnaire and the questions about the tools they have used. The participants who already had an approach with intelligent tools to work on their texts in English mentioned having used proofreaders such as Word and Google, as well as the use of Chat GPT, Grammarly and Google Translate, showing that they are somewhat familiar with the AWE Tools. Also, in the three open-ended questions, the students expressed more commonly that they identify the AWE tools as helpful, something that saves time, gives easy corrections, and helps them to identify and correct their writing mistakes. Additionally, the students stated that they believed the teacher's support was necessary to learn how to use the AWE and understand the corrections made by it.

In the Sankey diagram and the word cloud (figure 5), we can see how the emerging themes are related to the benefits of the AWEs that the students identify, how they see it as a different way to learn and improve their abilities and a way to get an evaluation of their work. Both diagrams showed the frequency of key terms in the discourse. Among the codes with more groundedness, we find the codes related to the fact that AWE tools provide adequate and easy answers (50), help to identify and correct errors (50), help to improve skills and knowledge (58), are a different way of learning (44), and are a source of information (33).

In the negative aspects or barriers of Feedback by AWE tools, the categories that emerged are: the participants observe that they do not always understand their use; they consider that to get more out of them, they require the support of the teacher, either to learn how to use them or to understand the suggestions made by the tool. They also note that it is possible that the tools only provide them with answers and that there is less dedication on the part of the student. They also recognize that the tools may not be practical or reliable.

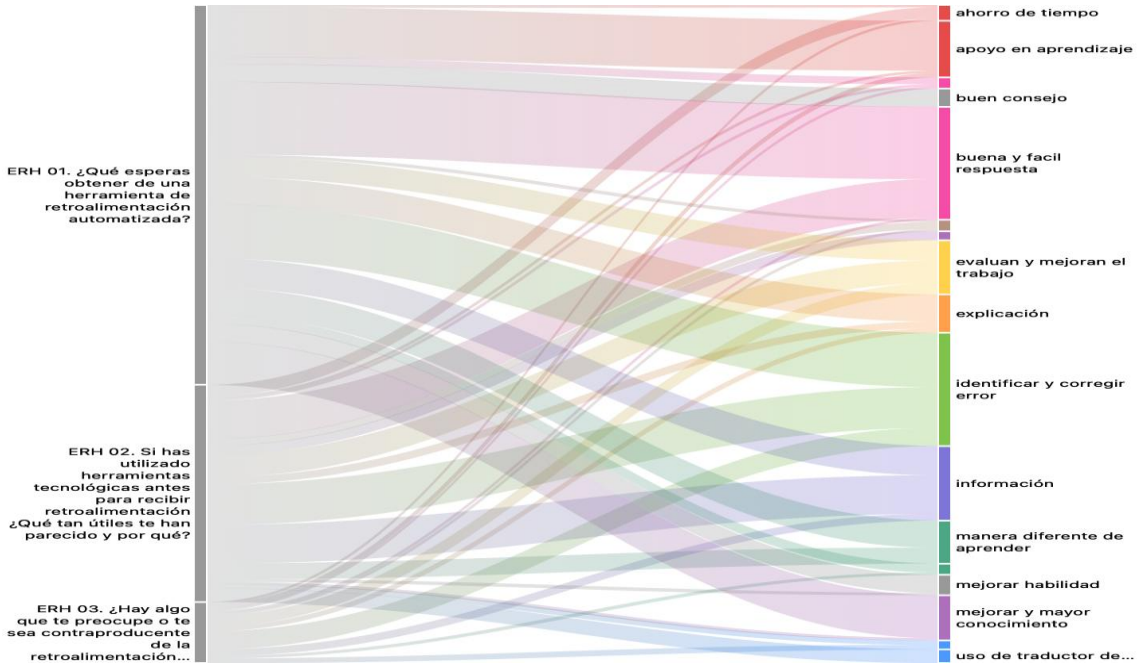

Figure 6 - Sankey diagram and the word cloud (in Spanish)

Note: Author's calculations

The usefulness that participants expressed about the use of feedback tools is centered on the speed of the result. However, they state that although it solves the problem at the time, they do not understand the error or learn from it. This might be linked to the concerns expressed by participants when using the tools. Such concerns range from fear of failing, not learning, unreliable tools, having errors, and getting used to using the tool to perform their activities instead of doing it themselves.

Student expectations regarding automated feedback can be summarized in three categories: (1) Usefulness, participants hope to improve aspects such as grammar while also seeking to understand errors to avoid repeating them; (2) Efficiency, participants look for quick, precise, and effective tools that provide correct information with explanations of errors; and (3) Constructive feedback, participants prefer productive, improvement-oriented feedback over mere criticism.

Table 4 - Thematic Analysis of Open-Ended Responses: Codes, Categories and Themes

Theme	***Category***	***Subcategory***	***Quote***	***Initial codes***
Positive expectations and perceptions	Usefulness	Error correction and identification	"It helps me to know my errors so next time I can do better" "To correct mistakes in my English homework"	Identifies errors, corrects errors, improves work, helps with how to do it.
		Information and response quality	"It helps me to reflect on my work; it is clear and fast" "It has easy and short explanations" "It is very useful because it helps me to give meaning to my sentences"	Good and easy answers, clear information, improves meaning and coherence
	Efficiency	Speed and accessibility	"I like fast and efficient feedback so I can improve my work in real time" "it saves time, and you can work in the moment"	Saves time, free access, always available, use at the moment.
	Constructive feedback	Learning and development	"I have used it to learn vocabulary and double-check my work" "It shows different ways to do my activities, to give me tips to improve and learn, and I hope to get better grades"	Support for learning, improve knowledge, improve skills, different ways of learning, explanation, advice, improves grades.
Concerns and perceive barriers	Concerns and risks	Passive use and tool dependency	"You get used to it, and you stop thinking by yourself"	Passive use, tool does all the work, not checking the answers, trust blindly, technology dependency.
		Distrust and skepticism	"Sometimes the answers are unclear or have another meaning"	Unreliable tools, not always useful, tools make mistakes.
		Difficulty of use	"Sometimes I don't understand anything" "It is very difficult to use, and it would take too much time to learn how to use it"	Difficulty understanding the tool, difficulty understanding the explanation, difficulty in how to use it.
Note: Participant responses were originally collected in Spanish. Quotations have been translated into English by the research team for reporting purposes. Minor spelling variations in original responses have been preserved or corrected for readability.				

The qualitative analysis revealed a consistent pattern of concerns and perceived barriers among participants, which can be synthesized into the themes of passive engagement, technological dependency, and a marked absence of expectations. As detailed in Table 5, some participants exhibited a passive stance toward the feedback process, either by expressing a lack of specific expectations or by anticipating that the automated tool would perform the entirety of the cognitive task, providing direct answers rather than developmental guidance. This sense of dependency is further reflected in responses characterized by a lack of substantive engagement,

where participants provided minimal or non-committal input, indicating a potential disconnect between the students' perceptions and the intended pedagogical purpose of automated feedback tools

The context of high schools and the type of high school where students are inserted is a space with classrooms with large numbers of students, from 40 to 60 students per group, where feedback is usually given in a general way in the exams. The input to their activities, such as projects, is by platform, receiving feedback at the same time as the grade and without the opportunity to correct their work and resubmit it. Likewise, the evaluation is not usually immediate, which can have an impact on behavioral engagement and, in general, on the poor behavioral response of students to feedback. On the other hand, recognizing the use of tools as a quick and accessible way to receive feedback and with a positive perception of it opens the opportunity for students to be exposed to structured activities with such tools and teacher guidance. The AWE becomes an option for the student to receive timely feedback on their work and improve it before final delivery. They can also be a tool for different learning strategies inside and outside the classroom. This is reflected not only in the qualitative data but also in questions related to the clarity and effectiveness of feedback, which have lower scores, such as "Feedback on tests and exercises is not always clear and effective," with a score of 3.40.

The results indicate that while participants exhibit moderate to high receptivity toward receiving feedback, this interest does not consistently translate into proactive engagement. The highest average score (M = 4.20) was recorded for the statement, "I am interested in knowing what I did wrong on a test or task completed," highlighting a strong diagnostic desire for detailed feedback. In contrast, overall behavioral engagement—referring to the actual actions taken after receiving feedback—yielded a significantly lower mean (M = 3.48). This discrepancy may stem from a systemic lack of time and dedicated pedagogical spaces to process and act upon the information received. As Mayordomo et al. suggest, the integration of resubmission opportunities is essential to foster meaningful engagement with feedback.

The radar/spider plot graphic shows a global view of the participants' receptivity to feedback and AWE perceptions. To summarize the main results and findings, we are able to see the low frequency of use of AWE tools from the students, the positive attitudes towards them and the receptivity to feedback; also, we can see the stronger cognitive engagement of the students in comparison with lower behavioral engagement. There is an opportunity to improve the clarity and effectiveness of technology tools, as well as to increase their use and acceptance among students, thereby increasing behavioral engagement and global feedback receptivity (Figure 7).

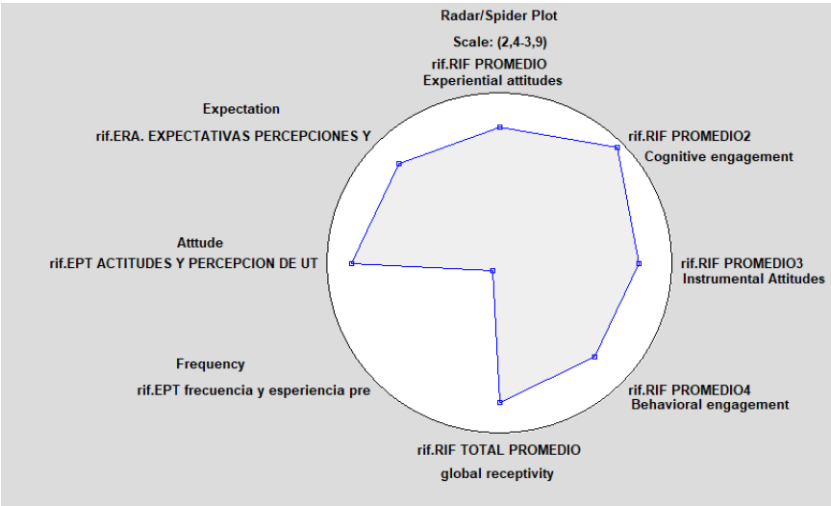

Figure 7 - Radar/Spider graphic

Note: Author's calculations

Furthermore, the comparatively low frequency of AWE use (M = 2.48) stands in stark contrast to the high overall receptivity scores (M = 3.59). This gap suggests a persistent preference for personalized, human-mediated feedback, a trend consistent with findings in similar EFL contexts. Although students maintain positive perceptions of automated tools, their actual integration remains marginal; notably, the lowest score (M = 1.00) corresponds to previous experience with AWE systems, indicating that these tools are not yet an established component of their learning practices.

Ultimately, these findings underscore that receptivity is a malleable construct that can be developed. To bridge the gap between receptivity and action, it is necessary to bolster students' feedback literacy. By implementing classroom strategies that explicitly teach how to navigate and utilize AWE tools, educators can transform automated feedback from a passive resource into an active driver of writing improvement.

Conclusions

Results of the data analysis show that students recognize and perceive the AWE tools as valuable tools to improve their writing in English and receive timely feedback, but there is a low frequency of use. Overall, the qualitative thematic analysis identified two overarching themes: positive expectations and perceptions (encompassing usefulness, efficiency, and preference for constructive feedback) and concerns and perceived barriers (including passive use, tool distrust, and difficulty of use). These findings confirm that students value feedback and recognize AWE tools as helpful, while also highlighting the need for structured teacher guidance These results concur with about the possible positive effect of this kind of feedback and the need to provide feedback training to the students.

On the other hand, according to the thematic analysis of the qualitative data, students expressed concern about the reliability of AWE tools and that they might not understand the corrections suggested by these tools or do not reflect on them. So, they expressed skepticism about the ability of AWE tools to provide such personalized feedback, though they acknowledged the potential benefits of these tools if improved. These perceptions support the need to implement a strategy to promote students' feedback literacy.

Ultimately, some students reported requiring teacher guidance to use these tools more effectively. This finding aligns with previous research that highlights the teacher's crucial role in technology-enhanced learning environments. It suggests that for tools like Automated Writing Evaluation (AWE) to serve as effective providers of personalized feedback, they must be integrated within a pedagogical strategy directed by the teacher, as proposed by.

This study was conducted as an exploratory first stage to assess the feasibility of integrating AWE tools into classroom practice and to develop strategies to assist in providing students with feedback considering the context of the high schools in the population where the study was conducted, where large groups and the design of the programs make it difficult for the student to receive personalized feedback from the teacher, and the opportunity to resubmit, the use of AWE tools permits the students to revise their work before the submission of it, according other authors the importance of feedback before the final submission increase the engagement of students. The study's results confirm the students' receptivity and desire to obtain feedback as support for their learning, as well as their positive perception and openness to receiving and using feedback from tools.

Finally, with the data collected, we can conclude that although students recognize the usefulness of the tools, their frequency of use is low (M = 2.48), a pattern consistent with the barriers identified in the thematic analysis: difficulty of use, concerns about tool reliability, and the risk of passive dependency (Table 5), these data support the importance of feedback literacy from the teacher and the student. These results confirm and guide the following steps in generating strategies for utilizing AWE tools in various activities under teacher guidance, and thus, in this second stage, confirm whether this activity promotes students' efficient use of AWE. Additionally, the findings contribute to understanding and exploring an underrepresented population, specifically high school students in Latin America, and emphasize the need for further research on feedback receptivity in diverse educational contexts, particularly among this population.

The primary limitation of this study relates to its sample distribution. Although the overall sample size was substantial, the proficiency-level groups were unbalanced, with an underrepresentation of students at higher levels. This skew likely reflects the natural concentration of high school students in basic proficiency tiers. Consequently, comparisons between categories should be interpreted with caution, as the statistical power may be limited for the smaller, high-proficiency groups. Future research could address this by employing a stratified sampling method to ensure a more evenly distributed sample. Also, applying statistical models specifically designed to handle unbalanced data could provide more robust comparisons. Additionally, the cross-sectional design of this study prevents causal inferences about the relationship between individual factors and feedback receptivity. Furthermore, the qualitative data were gathered through open-ended questionnaire items rather than in-depth interviews, which limits the depth of the insights obtained. Future research could employ longitudinal designs and richer qualitative methods to further explore these dimensions.

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ВОСПРИИМЧИВОСТЬ СТАРШЕКЛАССНИКОВ К ОБРАТНОЙ СВЯЗИ И ВОСПРИЯТИЕ АВТОМАТИЗИРОВАННЫХ ИНСТРУМЕНТОВ ОЦЕНКИ ПИСЬМЕННЫХ РАБОТ В ЛАТИНСКОЙ АМЕРИКЕ

Аннотация

В данном исследовании изучается восприимчивость старшеклассников в Латинской Америке к обратной связи, особенно в контексте изучения английского языка как иностранного. Цель статьи заключается в исследовании восприимчивости старшеклассников Латинской Америки к обратной связи при изучении английского языка как иностранного, включая оценку их отношения к автоматизированным инструментам проверки письменных работ (AWE). Исследуется, как учащиеся воспринимают обратную связь и реагируют на нее, с акцентом на использовании автоматизированных инструментов оценки письменных работ (AWE). Исследование восполняет пробелы в литературе, изучая группу населения, которая в значительной степени оставалась без внимания — старшеклассников в Латинской Америке — и анализируя восприятие учащимися инструментов AWE и их восприимчивость к обратной связи. В исследовании используется смешанный подход, сочетающий количественные данные из анкет и качественные данные из трех открытых вопросов анкеты. Ключевые результаты показывают, что учащиеся восприимчивы к обратной связи, но не проявляют к ней активного участия на поведенческом уровне. Хотя они положительно относятся к инструментам AWE и положительно их воспринимают, их использование происходит редко. Учащиеся в целом предпочитают персонализированную обратную связь от учителей автоматизированным инструментам, хотя существует потенциал для повышения эффективности и принятия инструментов AWE. Исследование не выявило статистически значимых различий в восприимчивости к обратной связи в зависимости от возраста, пола или уровня владения языком, при этом размеры эффекта были незначительными во всех сравнениях.

Ключевые слова: восприимчивость к обратной связи, автоматизированная оценка письменных работ, английский как иностранный язык, механизмы обратной связи, развитие навыков письма

ЛАТЫН АМЕРИКАСЫНДАҒЫ ЖОҒАРЫ МЕКТЕП ОҚУШЫЛАРЫНЫҢ АВТОМАТТАНДЫРЫЛҒАН ЖАЗУДЫ БАҒАЛАУ ҚҰРАЛДАРЫН ҚАБЫЛДАУЫ ЖӘНЕ ПІКІРЛЕРДІ ҚАБЫЛДАУЫ

Аннотация

Зерттеу Латын Америкасындағы орта мектеп оқушыларының кері байланысқа бейімділігін, әсіресе ағылшын тілін шет тілі ретінде үйрену контекстінде зерттейді. Мақаланың мақсаты: Латын Америкасы орта мектеп оқушыларының ағылшын тілін шет тілі ретінде үйрену кезінде кері байланысқа бейімділігін зерттеу, соның ішінде олардың жазбаша жұмысты тексерудің автоматтандырылған құралдарына (AWE)қатынасын бағалау. Ол автоматтандырылған жазуды бағалау (AWE) құралдарын пайдалануға назар аудара отырып, оқушылардың кері байланысты қалай қабылдайтынын және жауап беретінін зерттейді. Зерттеу негізінен назардан тыс қалған халықты (Латын Америкасындағы орта мектеп оқушылары) және оқушылардың AWE құралдарын қабылдауын және олардың кері байланысты қабылдауын талдау арқылы әдебиеттегі олқылықтарды қарастырады. Зерттеу сауалнамалардағы сандық деректер мен үш ашық сауалнама сұрақтарының сапалық деректерін біріктіретін аралас әдісті қолданады. Негізгі қорытындылар студенттердің кері байланысты қабылдайтынын, бірақ онымен мінез-құлық жағынан белсенді түрде араласпайтынын көрсетеді. Олар AWE құралдарына оң көзқараспен және оларды қабылдайтынымен, оларды пайдалану сирек кездеседі. Студенттер, әдетте, автоматтандырылған құралдарға қарағанда мұғалімдердің жекелендірілген кері байланысын жақсы көреді, дегенмен AWE құралдарының тиімділігін арттыру және қабылдау мүмкіндігі бар. Зерттеу жасына, жынысына немесе тілді меңгеруіне негізделген кері байланысты қабылдауда статистикалық маңызды айырмашылықтарды таппады, барлық салыстыруларда әсер мөлшері аз.

Негізгі сөздер: кері байланысты қабылдау, жазуды автоматтандырылған бағалау, ағылшын тілі шет тілі ретінде, кері байланыс механизмдері, жазу дағдыларын дамыту

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