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Improving English Writing Skills Using Social Support Slogans

Vladimir Román Gutiérrez-Huancayo*

Language Center, Universidad César Vallejo, Piura 13001, PERU

Abstract

This research aims to study English writing competencies in 88 students enrolled in three professional programs – production mechanics, automotive mechanics, and electrical engineering – from a public technological institute in Peru, after implementing a program of social support slogans. This research adopted a mixed-method design with the quantitative stage divided into three parts. The first stage determined the differences in English writing competences between the three student groups assigned based on their professional programs, and the second stage was to understand how these study groups differ according to their elements of divergent thinking. Finally, the last quantitative stage validated a model considering two constructs: program benefits (PB) and type of posters (KP). Meanwhile, the qualitative data was obtained using an open-ended survey distributed to these students. The results show that the medians are not statistically significant for writing competencies, based on the Kruskal-Wallis test (sig. 0.200). Second, the clustering results highlighted the originality, although three different conglomerates were formed. Third, an acceptable factorial structure was achieved for the proposed fit model (RMSEA 0.045; CFI 0.968; and TLI 0.957). Likewise, the data from the open-ended questionnaire was coded into writing improvement, social dimension and innovative activity. They valued the poster project for improving English writing while applying knowledge to issues such as workplace safety and energy saving. They also emphasized its innovative and creative nature. Poster design encouraged greater reading and analysis of English texts, supporting better writing, with outcomes linked to poster types: emotional, informational, companionship, or tangible.

Keywords: Creative posters, divergent thinking, social support, writing skills.

* Corresponding author, email: vgutierrezh@ucv.edu.pe

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1. INTRODUCTION

Peruvian students face many difficulties when writing a text in English, stemming from several factors. These factors include the English grammatical principles, which are very different from those of Spanish, and the use of traditional methods where only the teacher writes and produces written texts in English, resulting in a scenario where the student does not have the opportunity to write their own according to their interests and motivations (Gutiérrez-Huancayo, 2024; Jensen, 2005). Given this situation, various proposals have been formulated to ensure that students' English writing skills are developed and improved in a practical and fun way, with the explicit grammatical rule instruction not being a priority, but the production of contextualized texts is emphasized. In that sense, promoting the writing of small sentences and phrases that represent the students' thoughts, beliefs, and desires can be an approach to initiate the learning of English writing. Hayati et al. (2013) propose writing short sentences that carry a message, allowing the analysis of their meaning, such as idioms. According to Li and Schmitt (2009), using lexical phrases after learning specific vocabulary in the English language enables students to perform better in writing texts in English. This is accompanied by constant practice where the student is the center of the teaching-learning process. In this way, simple and practical methods are needed so that the student does not lose enthusiasm to start first and then keep writing later. In this study, I propose the use of slogans to facilitate this objective because they meet the criteria of contextual learning. Consequently, if a more significant effort is needed, teachers must use easy ways to measure their students' progress. One of these ways is through slogans. Slogans fulfill the criteria of contextual learning. First, a slogan is a part of the learning process of reflective writing, using the vocabulary that has been learned; on the other hand, short sentences are very common in a generation that uses them on social media; and finally, it is a part of a learning process that will lead us to write longer and more complex texts in the future (Clark & Dugdale, 2009; Rybaczewska et al., 2020).

On the other hand, social support encompasses various forms of mental and physical assistance provided to individuals to improve their well-being, as expressed in written slogans. Several studies have demonstrated that social support is crucial to the patient's recovery or awareness of occupational risks (Usta, 2012). The latter is associated with the present study. Ma et al. (2017) suggest that writing social support messages serves a dual purpose, i.e., helping neighbors and encouraging people to change their attitudes toward chronic and mortal diseases, daily pill use, healthy behaviors, water usage, and financial investment. This persuasive writing requires more than vast vocabulary, and it also requires writers to know the topic profoundly and to use text semantics to create coherent and clear paragraphs, which inspire and impact the readers.

The literature divides social support into four types. The first is emotional support, which consists of a hug or the simple act of listening attentively to another person, and this support is provided when emotions take precedence over logic. The second type is informational support, given by providing instructions or advice to individuals who consider the benefits they would gain by incorporating them into their daily actions (Huang et al., 2014). The third way to provide social support is through companionship, in which we follow up with someone to help them achieve their goals, improving their well-being and self-esteem. The fourth type of support is more tangible, in that the support is financial or something that has an immediate impact on a person (Wang et al., 2017).

Slogans, typically short and succinct statements accompanying an advertisement campaign, also find their place in social, caution, and suggestions posters, as well as protest demonstrations, where their design creativity and social impact meet. Writing them involves summarizing many innovative and revolutionary ideas and pieces of knowledge. This research initiates an exploration of the use of slogans in learning English for occupational purposes (EOP), offering a fresh perspective (Nor et al., 2021) and a significant opportunity to improve English grammar (Rizal et al., 2022). However, slogans are not always a relevant solution for learning to write, especially when learning to write a piece of academic writing, in that it should be challenging to summarize the extensive scientific literature in a couple of lines of text (Rudolph, 2024); nevertheless, for

our purposes, slogans represent an attractive social and subjective argumentation option (Kinneer et al., 2024); and additionally, slogans with a social component could be represented by these short phrases because they represent what people feel and think after a disaster or crisis by strongly drawing the attention of the public (Nelán et al., 2024). Regarding the latter, slogans have promoted using face masks during the COVID-19 pandemic (Smith & Higgins, 2022), avoiding car accidents on the road (Harasimczuk et al., 2021) and even caring for the planet (Zhu & Xie, 2011).

There have been several studies on the use of slogans for the use of personal protective equipment (PPE) (Threeton, 2016), the rational use of electricity (Rinkinen, 2013), and those that promote assertive behaviors in the automotive sector (Alnajjar & Toivonen, 2021). In addition, few research studies have been conducted to determine students' English writing competence improvement after using a poster design program with social support slogans. However, limited studies focused on students' performance in relation to the components of divergent thinking. On the other hand, few studies aim to create a fitted model that considers the program benefits (PB) and the kind of poster (KP). Finally, inadequate attempts have been dedicated to categorizing and analyzing students' viewpoints after implementing this social support program.

The present study involved students from three participating professional programs, i.e. production mechanics, automotive mechanics, and electrical engineering. They were all enrolled in an English writing course. To determine the difference in writing skills between students in one professional program and another, the participants are grouped based on their professional programs, resulting in three student groups. This grouping was necessary because understanding the difference in writing skills across different professional program ensures that relevant revisions to the teaching and learning activities can be made to achieve better learning outcome. In addition, factor analysis performed to inspect the data requires that the data are homogenous to reduce potential bias because the nature of one professional program is unique to another.

For systematicity of this study, specific research questions and hypotheses were developed to direct the current investigation and provide a framework for the analyses.

1. Is there a significant difference between the three students' groups in their writing skills?
2. What is the difference between the three groups of students according to the components of divergent learning?
3. Is the proposed fit model with PB and KP as constructs proper?
4. How do the students perceive learning writing by designing slogans?

Based on the research objectives formulated into the research questions, the study involves the positivist component for the first part, which is quantitative, and the interpretative component for the qualitative part. Therefore, the null hypotheses considered for the quantitative aspects of the research are as follows.

- H1: Writing skills are similar between the three student groups.
- H2: Considering the components of divergent learning, there is no significant difference between the cluster groups.
- H3: The proposed fit model with PB and KP as constructs is not proper.

2. METHODS

2.1 Sample and Sampling

A total of 88 students participated in the present study, and they belong to the professional fields of electricity (19), production mechanics (24), and automotive mechanics (45). They were enrolled in the English course at a public higher education institute in the city of Piura, in northern Peru. Their ages ranged from 18 to 22. Likewise, 87 (99%) were male, and only 1 (1%) was female, representing the unequal numbers of female students relative to the male counterparts in the department. All participants signed informed consent forms for publishing photos and results. The sample was selected using non-probabilistic convenience sampling technique. Thus, all students participated in the poster project as a part of their English writing course.

2.2 Design and Approach

The design chosen for the present work was experimental, specifically pre-experimental, meaning only one group was worked with. The first three objectives were considered for the quantitative approach, while the qualitative approach was used to analyze and categorize the students' viewpoints. The mixed method design was chosen because it is a model that covers the subject in a wide range of perspectives (Bracio & Szarucki, 2020).

2.3 Characteristics of the Poster Program

The present study was conducted between April and August 2023. First, the students agreed to participate in a program to create posters with social support messages. Therefore, in the second hour of the English writing course applied to the profession, the students individually designed posters which should be short but interesting to express suggestions and advice aimed at people's well-being. Each group of students decided on a theme; and thus, the students of the professional career in production mechanics likely chose to create posters that considered the proper use of personal protective equipment (PPE), while the students of the professional electrical engineering program developed themes related to energy saving. Likewise, the students of the professional automotive mechanics program developed topics on car maintenance. Finally, each poster was evaluated according to the English writing competency rubric.

2.4 Instrumentation

For the first part, the student-designed posters were evaluated using an English writing competency rubric. The rubric was based on Rezaei and Lovorn's (2010) approach, which incorporates four standards for proper writing: spelling, grammar, punctuation, and organization. Each of these criteria had points ranging from 1 (beginning level) to 5 (outstanding level). Once the total scores of each student were obtained, an investigation was conducted to determine if there was a significant difference in the performance of the slogans written by the three groups of students. For the second part, an instrument was considered to measure divergent thinking based on the theory of Runco (2004), which includes as fluency, elaboration, originality, and flexibility. For the third quantitative part, an adjusted model was proposed, based on a proposal by Baso and Amelia (2014), which mainly includes two constructs: the benefits of posters (PB) and the kind of poster (KP). To achieve this objective, the author designed a survey (Appendix) with 18 Likert-type questions ('5 = completely agree' to '1 = completely disagree'). This survey was administered to the students online through Google Forms. Likewise, this survey was designed in Spanish, the native language of the participants, to ensure that the participant's understanding of the survey item was as expected. The qualitative part involved categorizing responses to the open-ended question in this survey, following Hobbs and Green's (2025) proposal. This involves grouping points of view by similarity to form categories. When presenting the data, they are ordered in a table by the frequency with which they occur, and not by order of importance (Wilson et al., 2022).

2.5 Data Collection and Analyses

The data in the present study was collected at the end of the academic semester. Therefore, the evaluation of each poster developed individually by each student was considered. Around the same time, the students completed a survey designed to create the adjusted model and gather their final perception of the program.

For the statistical analysis of the first part of this study, it was investigated whether the final scores resulting from the evaluation of each poster followed a normal distribution. The aim was to determine the type of analysis, a parametric or non-parametric measure, that would allow us to determine whether there was a significant difference in writing competencies among the three groups of students. In this first part, the statistical program SPSS version 27 was used, and the

JASP program was used for the next part of this study. Thus, it was possible to determine the clusters resulting from the students' performance in designing their social support posters, measured from the perspective of divergent thinking. The SPSS program was first used to perform the statistical analysis of the third part of this study. Thus, data such as reliability through Cronbach's alpha, and data from exploratory factor analysis (EFA), such as KMO and Bartlett's test, were obtained. These data are valuable for measuring the feasibility of a subsequent adjusted model. The JASP program, which is a highly user-friendly tool for developing various inferential statistical models, was utilized to create the adjusted model, which, through confirmatory factor analysis (CFA), provided us with the adjusted model considering the aforementioned constructs. Regarding the qualitative part, the responses were categorized manually, considering the similarities in the students' viewpoints at the end of the developed program.

3. FINDINGS

3.1 Difference between Study Groups in Writing Proficiency

The results presented in this sub-section are divided into four parts, where the first three parts deal with the quantitative approach and the last part covers qualitative approach. Before the primary analyses, the normal distribution of the final scores of the three groups was inspected using the Kolmogorov-Smirnov due to the sample size of greater than 50, and the results are presented in Table 1.

Table 1. Test of normality.

Career	Statistics	df	Sig.
Electricity	0.251	19	0.003
Production mechanics	0.280	19	<0.001
Car mechanics	0.229	19	0.010

As in Table 1, the data does not follow a normal distribution (p -value < 0.05), allowing us to choose a non-parametric measure to determine if there is a significant difference in writing competencies among the three aforementioned groups of students. Therefore, the Kruskal-Wallis test was used for our purposes. The results of the calculation are shown in Table 2.

Table 2. Mean ranks of the three groups.

	Career	N	Mean rank
Writing skills	Electricity	19	36.05
	Production mechanics	24	48.96
	Car mechanics	45	45.69
	Total	88	

As observed in Table 2, there is a range of very similar means, which descriptively shows that the English writing competencies of the three groups participating in the present study are very similar. These results were compared using an inferential statistical analysis to test the research hypothesis. Table 3 presents the level of significance that helped to accept or reject the corresponding null hypothesis.

Table 3. The result of the Kruskal Wallis test.

	Writing skills
Kruskal- Wallis H	3.222
df	2
Asymp. Sig.	0.200

The result obtained in Table 3 shows no significant difference between the three groups of students (p -value > 0.005). Therefore, the null hypothesis is not rejected. This result means that

using social support posters to enhance writing skills had a similar effect on the mentioned students across all three groups of students.

3.2 Divergent Thinking of Study Groups

The second quantitative analysis used the cluster analysis to examine the three study groups. The aim was to determine the differences among the written criteria among groups. For this purpose, the 88 students were organized into four clusters, and the following results fit the model.

Table 4. Means clustering.

Clusters	N	R^2	AIC	BIC	Silhouette
4	88	0.578	178.690	218.330	0.500

Note. R^2 = R-squared, AIC = Akaike Information Criterion, BIC = Bayesian Information Criterion.

As shown in Table 4, R^2 is a moderate value (0.578), considering that values close to 1 are appropriate. AIC and BIC were the lowest among the previous models for these parts, with differences of -1.8 and 1, respectively. The Silhouette has an average score of 0.500, considering that scores close to 1 are the best results. The interpretation of these results is based on the theoretical proposals put forward by [Lezhnina and Kismihók \(2022\)](#) and [Rossbroich et al. \(2022\)](#).

Table 5. Cluster information.

Cluster	1	2	3	4
Size	22	11	49	6
Explained proportion within-cluster heterogeneity	0.104	0.233	0.567	0.126
Within the sum of squares	15.288	29.800	83.149	18.455

Table 5 reveals the best option that could have been generated for the clusters with 88 students although the first and fourth groups have few elements. Regarding the heterogeneity, we note that except for the third group, the rest have certain similarities regarding the components of divergent thinking. Likewise, the third group has a better dispersion in the results, revealing a higher variability in the products presented by each student. These results are visualized in Figure 1 for better clarity.

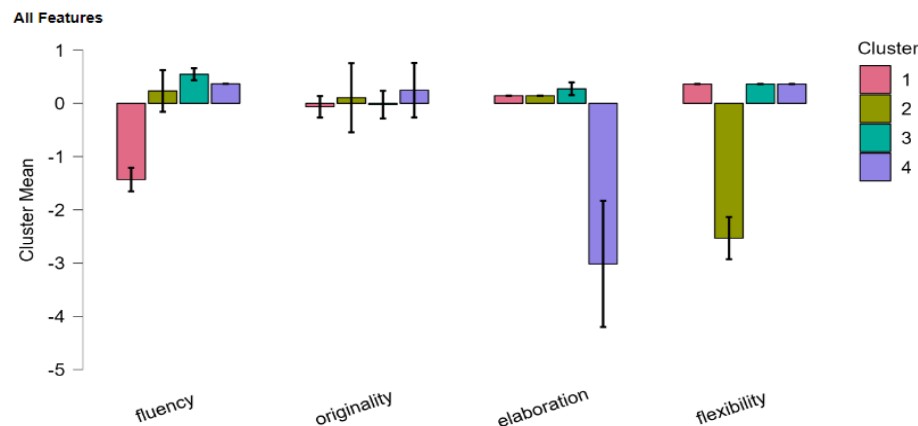


Figure 1. Cluster mean graphs according to divergent thinking.

This partitioning clustering considers the four components of divergent thinking. The first group has a low score in fluency; that is, it has few ideas, as reflected in a single idea for designing slogans. The second group needs better scores in flexibility, which means that this group could only produce a few ideas. The third group has four kinds of divergent thinking. For its part, the fourth group had a low score in elaboration; in other words, this group needed the skills to solve

real problems with abstract ideas. Also, all the groups demonstrated originality, meaning they were able to generate innovative ideas. Therefore, we can reject the corresponding null hypothesis: there is a significant difference in the clusters formed according to divergent thinking.

3.3 CFA Model

Specific measures, such as confidentiality and exploratory factor analysis (EFA), were considered before proceeding with further quantitative analyses, namely, designing an adjusted model. The EFA yielded a Cronbach's alpha was of 0.878, indicating that the formulated items are highly reliable. Likewise, conducting an EFA prior to the next step provides us with measures such as the KMO and Bartlett's test of 0.774 and a significance of <0.01 , allowing us to continue with the confirmatory factor analysis (CFA), whose measures are presented in Table 6.

Table 6. Model fit measures.

χ^2	df	χ^2/df	GFI	CFI	TLI	RMSEA	RMSEA Lower bound	RMSEA Upper bound	p
39.543	34	1.16	0.914	0.968	0.957	0.045	0.000	0.097	0.236

Note. χ^2 = Chi-square, df = degrees of freedom, p = probability, RMSEA = Root Mean Square Error of Approximation, CFI = Comparative Fit Index, TLI = Tucker Lewis Index.

Based on Table 6, most fit measures are within the criteria. For example, χ^2/df is under 3 (1.16), which shows an appropriate fit. This possibility is enhanced by GFI, CFI, and TLI, which should equal or greater than 0.90 in the three cases (0.914, 0.968, and 0.957, respectively). In addition to the aforementioned, RMSEA indicates a good fit when it is ≤ 0.05 ; in our study, it was 0.045. The p-value also complements the model's reliability, which is expected to be higher than 0.05; in this work, it was 0.236. The best model excluded items 5, 8, 11, 14, 15, 16, 17, and 18. According to the established criteria, we can reject the null hypothesis that states the fitted model is not adequate according to the fit measures.

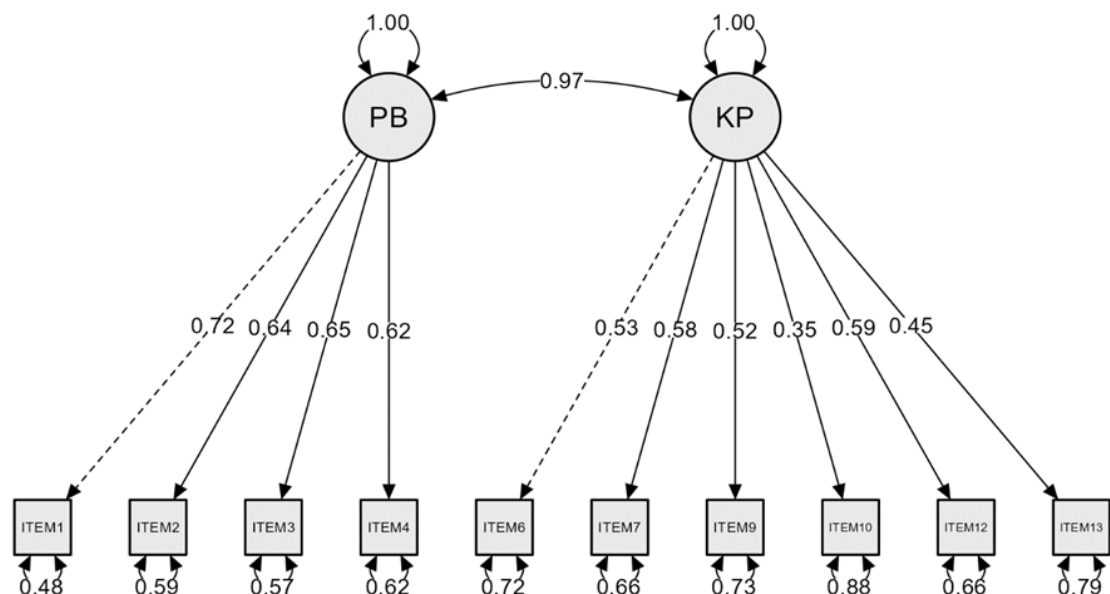


Figure 2. Model of social support slogans.

Figure 2 shows a strong correlation (0.97) between project benefits (PB) and kind of poster (KP). This correlation suggests that improving writing skills is closely related to the types of posters. In this study, therefore, there is a link between the qualities of the academic work created by students and the language proficiency they gained from the work (Gutiérrez-Huancayo, 2025).

Furthermore, before analyzing responses to the open-ended question on social support slogans, it is worth noting that most students created slogans which can be categorized into emotional (55), followed by informational (14), companionship (12), and tangible (7). Students were given freedom to create slogans related to the theoretical lessons. The samples of the slogans for each category are provided in Table 7.

Table 7. Slogans samples.

Poster	Meaning	Social support poster type
	The slogan is about caring for our hands using work gloves because our hands allow us to share special moments with loved ones.	Emotional
	The slogan seeks to inform the public about the importance of boots on the job for foot protection.	Informational
	The slogan refers to professional help in case your car has problems.	Companionship
	The slogan concerns electrical power saving, where your appliance could be your piggy bank.	Tangible

Table 8 categorizes the viewpoints of the students who participated in the social support poster project. They were manually grouped into three criteria. The first criterion is related to improving students' writing skills, the second criterion covers social dimensions, and the third one is related to innovative activity.

Table 8. Students' perceptions.

Criteria	Expressions
Written improvement	"In my opinion, the project we have completed helped us improve our performance in writing paragraphs in English. On the other hand, recording videos allows us to improve our diction and pronunciation in this language". (MP student 2) "I think that designing a poster with a slogan in English helped us learn how to write in English and at the same time develop our creativity". (MP student 4)

Table 8 continued...

	“This was an excellent idea (slogan project) because, in one way or another, we had to look for information and read texts that helped us a lot in writing, pronunciation, and increased creativity, and among other things, for our learning. Thank you”. (MP student 15) “The slogan project was a very dynamic and different option to improve our fluency in written English”. (MP student 22) “This project has helped me develop in my work and personal life since nowadays companies ask for experience in writing and reading English.” (CM student 18). “Thanks to this didactic unit, we learned vital English words. They will be handy in the future in our work field, especially in the products we use”. (E student 6) “This project has been perfect for learning English. I have learned to write more effective texts in English and generate ideas about the best use and saving of electrical energy in our household appliances”. (E student 10) “It was great to learn creatively. That was really writing slogans and creating very creative posters”. (MP student 7)
Social dimension	“It is essential to be safe at work. This can be spread through slogans. Each slogan should be clear, visual, and effective in reminding workers of the importance of using PPE and preventing workplace accidents”. (MP student 12) “It is crucial to wear the safety standards of personal protective equipment”. (MP student 16) “My opinion about the project I did on the design of posters for the use of PPE was about the importance of the appropriate use of clothing within the mechanics of production. Here, a user provides recommendations that must be observed and done inside and outside the workplace. At the end of the project, we could properly use personal protection elements that we use in our work area and thus have good personal protection”. (MP student 22) “The design project was perfect; it helped us improve and put our knowledge of safe work practices into practice while also learning English”. (CM student 12) “It is a very interesting way to make people aware of the good use of domestic electricity”. (E student 9) “It is a perfect project that will help us to raise awareness for energy savings”. (E student 16)
Innovative activity	“It was very didactic (slogan project); I had never done anything like this”. (MP student 6) “The slogan project was great because we used our creativity to design posters in a language other than our own”. (E student 10) “The slogan design project helped me improve and put into practice everything I learned in English”. (CM student 23)

Note. MP = Mechanics of production, E = Electricity; CM = Car Mechanics.

The first relates to written improvement, as many students emphasized that the activity helped them “improve [their] vocabulary”, “pronunciation and writing in English”, and “fluency in written English”. Several also mentioned that it required them to “look for information and read texts”, which they felt reinforced both their creativity and their language learning. Some pointed out that the project was not only “a very dynamic and different option” but also highly practical, since “companies ask for experience in writing and reading English”, making the skills they developed professionally relevant. Students also highlighted that the project “will be handy in the future in [their] work field”, showing that they perceived its long-term usefulness.

The second category reflects the social dimension of the project. Students saw the posters as a way to “raise awareness for energy savings”, promote “the good use of domestic electricity”, and remind others of “the importance of using PPE and preventing workplace accidents”. For them, the posters had to be “clear, visual, and effective” to fulfill their purpose, showing that they recognized the impact of their work beyond the classroom. Some expressed that the project “helped [them] improve and put [their] knowledge into practice”, linking the social purpose to the consolidation of their technical and academic skills. Others described the activity as “a very nice way to make people aware” of safety and sustainability issues, underlining its contribution to community well-being.

Finally, the third category highlights the project’s innovative character. Students described it as “very didactic”, something they had “never done” before, and appreciated the chance to “use [their] creativity to create posters with suggestions accompanied by images”. They considered it “a perfect project” because it combined creativity with meaningful application of knowledge. This sense of novelty motivated students to engage more actively, as the experience allowed them to merge classroom learning with real-life issues in ways they found unique and valuable.

4. DISCUSSION

The present research was motivated by four objectives. The first objective was to determine if there is a significant difference in English writing performance among the three groups of students. This objective is relevant because most young people like writing concise sentences with significant meaning. This situation is widespread nowadays, where their messages on social media, for example, are concise but have significant meaning (Van De Velde, 2024). In that sense, people can communicate fascinating and profound messages through short phrases (Rybaczewska et al., 2020). Additionally, it has been observed that the slogans were interesting for sharing information on preventive health, as they go directly to the central point (Salomon et al., 2005). Social slogans also positively promote healthy behaviors and lifestyles among young workers, which has led to their use in countless opportunities (Bailey et al., 2010). Zenklová (2007) explains that short expressions can have a robust social impact due to their easy reading and representation of people’s feelings. Therefore, they are easy to design, provided there is creativity and a specific theme.

The second aim sought to know the differences between the three study groups based on their divergent thinking components. For this purpose, the clustering process highlighted the originality component. This outcome is closely linked to the proposal that originality is the main feature of creativity (Runco, 2004); also, some studies consider fluency, elaboration, and flexibility essential components of divergent thinking (Silvia et al., 2008), but originality has special attention in studies where students have created slogans (Gatti et al., 2015). Finally, the use of short paragraphs or messages for EFL students fosters agreeable and cheerful writing learning, helping them to express their feelings, preferences, and concerns (Pobelo et al., 2019) at the same time that teachers provide individualized support (Popkewitz, 1980). The third quantitative part proposed a fit model, considering two constructs: program benefits (PB) and kind of posters (KP). The fit measures obtained met the standards that experts have established, which includes RMSEA (<0.05), GFI (>0.09), CFI (>0.09), and TLI (>0.09) (Beauducel & Wittmann, 2005). Our model meets the requirements, except for the number of samples used, which in this case was 88, but the ideal sample size to generate an accurate model should be larger than 200.

Finally, establishing the reasons why implementing programs that help students write short and concise sentences can overcome their writing difficulties includes the power to persuade others through the created message, also known as rhetoric (Bhowmik, 2021). On the other hand, a human being is a social being; thus, when allowed to write something, the theme will be about what surrounds them. Therefore, according to Helliwell and Putnam (2004), it is very likely that they will feel comfortable writing about their reality. According to Strayer (2012), an innovative activity that enables better writing in English is the combination of classroom activities with

technology. In fact, students in our study consider the activity as innovative because they have used computer programs to design their posters.

5. CONCLUSION

The results of the study show no significant differences in writing performance and students from the three professional programs could share in the social support posters. As for the second research question, there were differences in the clusters of students, considering the components of divergent thinking. Based on the results, the originality category is the only category that is similar across the four clusters. For the third research question, the adjusted model, which considers the constructs of poster benefits (BP) and kind poster (KP), is appropriate. Therefore, it can be concluded that designing a poster leads to reading more texts in English, better analyzing what has been read, and consequently writing more correctly. Likewise, this variable is closely related to the type of poster: emotional, informational, companionship, and tangible.

Finally, related to the last research question, it is concluded that the program has improved English writing skills for various reasons. First, the student feels comfortable completing a task where writing messages is related to their context, due to their condition as a social being. Therefore, it is suggested that future research take into account the emotions and feelings of students when learning a language different from their own. Additionally, the use of technology to design the poster makes this activity innovative and fun. Among the limitations of the present study is the limited number of participants, while more participants are necessary to conduct a CFA (greater than or equal to 200).

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APPENDIX

Table A1. Survey completed by students.

Item	Statement
1	The warning poster project has allowed me to improve my writing in English.
2	The warning sign project has motivated me to learn English.
3	The draft warning poster has allowed me to read more information in English.
4	The draft warning poster has reduced my fear of expressing my thoughts and feelings in English.
5	The draft warning poster provides information on personal protective equipment (PPE) components, how to use electricity rationally, and how to care for a car.
6	The draft warning poster has allowed me to express emotions related to using PPE, electricity, and car care.
7	The draft warning sign promotes the use of each PPE component, electricity savings, and options for keeping a car in good condition.
8	The draft warning poster has enabled me to enhance my professional vocabulary.
9	The warning sign project has improved my English grammar.
10	My confidence in writing in English has increased after designing my warning poster.
11	My anxiety about writing in English has diminished after designing my warning poster.
12	My ability to write innovatively has increased with the design of my warning poster.
13	I will continue to use the strategy of designing warning signs to further improve my English skills.
14	It is not difficult to design a warning poster in English.
15	The warning sign has a more significant impact when considering the feelings of the workers who can see it.
16	Considering the health effects of not using the EPP, I believe the warning sign has a more significant impact.
17	The warning sign has a more significant impact when I consider the physical help I can provide to the person who reads it.
18	The warning sign has a more significant impact when considering the social impact it could have on people who read it.