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# Collaborative Work: Transforming Text Production in Primary Children in Peru

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***Abstract***

*Collaborative work is a strategy that promotes student creativity and contributes to achieving more efficient text production. This study aimed to determine the effectiveness of collaborative work in the production of texts in primary school children in Peru. A quantitative approach was used with a quasi-experimental design. To analyze the effectiveness, the repeated measures ANOVA test was used. Data were collected through a text production test, evaluated with an analytical rubric, with a sample of 88 students. The results indicate that CT improved the communicative purpose ( Fpre /post=102.685; η2=0.544; p<0.001); coherence ( Fpre /post=73.156; η2=0.460; p<0.001); cohesion ( Fpre /post=59.591; η2=0.409; p<0.001); rhetorical figures ( Fpre /post=153.690; η2=0.641; p<0.001) and grammatical resources ( Fpre /post=78.518; p<0.001; η2=0.477). The effectiveness of collaborative work in the production of texts proved to be an effective strategy to significantly improve the quality and efficiency in the production of texts by primary students in Peru.*

***Keywords:*** *Learning, Creativity, Teaching, Children, Text Production, Collaborative Work.*

## INTRODUCTION

According to UNESCO, 86% of the world's population knows how to read and write, in contrast to 68% in 1979. Despite this progress, we still face a critical challenge; 250 million children in the world have not been able to acquire the necessary basic skills (UNESCO, 2022, 2023), which hinders the production of texts (Chacón et al., 2015). This gap in education is a global concern, as pointed out by the report, (OREAL/UNESCO, 2019)one of the most worrying aspects of the educational system worldwide is the difficulty that students face when writing texts (Zerva, 2023). According to the OREAL/UNESCO report in 19 countries, only 23% of students write according to the phases of text production (planning, textualization and revision) and 9% are capable of writing coherent and cohesive texts, which is relatively low for Latin America (OREALC/UNESCO, 2022).

The results of the international evaluation PISA 2018, carried out by the Organization for Economic Cooperation and Development (OECD, 2019)and the Office of Learning Quality Measurement (UMC, 2019), show results in the area of reading: an aspect that directly affects the writing, of the 79 participating countries, where 77% of primary school children reached at least level 2. However, the negative averages in reading are lower in Latin American countries, whose results were: Santiago de Chile 452 points, Uruguay 427 points, Costa Rica 426 points, Mexico 420 points, Brazil 413 points, Colombia 412 points, Argentina 402 points, Peru 401 points, Panama 377 points, and Dominican Republic 342 points. These tests show a problem in Latin American students, directly linked to the production of texts (Chura-Condori et al., 2022; Laureano et al., 2022; Valero-Ancco et al., 2023, 2024).

Another factor that further affects this problem is the arrival of COVID-19, which caused the greatest educational disruption in the century, increasing learning poverty by a third in low- and middle-income countries, and 70% of 10-year-old children cannot understand a written text (UNESCO, UNICEF y Banco Mundial, 2022).

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On the other hand, the results of the writing evaluation of the Regional Comparative and Explanatory Study (ERCE 2019) also show difficulties in writing texts at the regional level, applied in 16 countries in Latin America and the Caribbean to 3rd and 6th grade students. 6th grade of primary school in which three aspects were evaluated: the discursive domain it includes, communicative purpose and adaptation to the slogan, genre and register; the textual domain, which involves vocabulary; global coherence, sentence agreement and textual cohesion; and readability conventions such as spelling and punctuation, which obtained the following results: Argentina, leaders in vocabulary and coherence and deficient in readability; Brazil, they achieve textual dominance; Colombia, poor in spelling, but achieve a correct and coherent vocabulary; Costa Rica and Cuba, textual mastery and deficiencies in readability; Ecuador, deficient in the structure of the text. In the countries of El Salvador, Guatemala, Honduras, and Nicaragua, only 4 out of 10 students achieve a high level; in Mexico and Panama, deficient in coherence; Paraguay and Peru write coherent texts, but they have deficiencies in punctuation and adaptation to the genre. Dominican Republic, 13.7% achieve high performance in readability; and Uruguay deficient in discursive domain (EFE, 2022; UNESCO, 2022).

The main causes that hindered the production of texts were: the illogical disconnection of ideas, the inappropriate use of connectors and the disorganization or confusion of ideas (Chen y Cui, 2022; Siekmann et al., 2022), the absence of textual mechanisms such as the lack of adequate transition of words, ambiguous terms and repetition of excessive of words; poor and informal vocabulary and grammatical errors (Oliveira et al., 2023). These deficiencies in text production competence negatively impact academic performance, given that text production is a more difficult and complex academic skill that requires time and practice to improve (Rao, 2019). Therefore, effort is required in the student's cognitive and linguistic processes.(Akmese y Kanmaz, 2021; Dostal et al., 2021; UNESCO, 2022; Andersen et al., 2023).

The production of texts is considered a fundamental skill that has an impact in the educational, academic and work environment (Chan y Yamashita, 2022). Sixth grade primary school students face difficulties in mastering discourse, in relation to the adequacy of the communicative purpose, to the genre. According to (OREALC/UNESCO, 2022), only 50% of students manage to demonstrate the appropriate communicative purpose in their texts.

In text production, coherence involves maintaining a logical connection throughout the entire textual content, while cohesion is responsible for establishing the connection between sentences within the text (Chen & Cui, 2022). According to the report OREALC/UNESCO, (2022), it shows that 84% of students write texts coherently, and 30% cohesively. According to Carter & Hoffman (2023), they point out that the absence of coherence could generate greater uncertainty in the content or speeches. Furthermore, Siekmann et al. (2022)they point out that more than half of the students (56.2%) managed to develop coherence in the production of their texts.

The production of texts, being a fundamental capacity, is developed not only individually, but also in groups. The importance of collaborative work (CW) in the production of texts in children is framed in a series of cognitive, social and emotional benefits that facilitate not only the development of linguistic skills, but also the integral growth of the individual (Ari-Adco et al., 2024). From an educational and psychological perspective, CW stands as a pedagogical strategy that promotes collaborative learning and the development of essential communicative skills in childhood.

The CW in text production encourages cooperative learning, where children, through interaction and dialogue, share knowledge, ideas and experiences. This exchange fosters an environment of joint construction of knowledge, in which each member of the group contributes with their unique perspective, thus enriching the final product. Furthermore, team textual production allows children to develop metacognitive skills. When collaborating with their peers, children must negotiate meanings, resolve conflicts, and make collective decisions, which requires constant reflection on their own writing process and that of their peers (Ari-Adco et al., 2024). This type of critical and self-regulated reflection is essential for the development of competent and autonomous writers.

TC not only improves text production skills, but also encourages peer interaction and learning. The implementation of CW in the production of texts seeks to address the problem of study. Consequently, the

purpose of this study was to determine the effectiveness of collaborative work in the production of texts in primary school children in Peru.

## Theoretical Framework

According to OREALC/UNESCO (2022), text production is a skill that places a high demand on the cognitive process, since it requires the development of a detailed plan, to select the appropriate words and organize them in a coherent and cohesive manner (Akmese y Kanmaz, 2021; Chen & Cui, 2022; Dostal et al., 2021). Coherence is responsible for establishing a continuous "stream" of meaning throughout the paragraphs, so that the structure and thematic relationship intertwine and work together to improve the reader's understanding (Siekmann et al., 2022).

For, Plakans y Gebril (2017), the production of texts is a challenge for some students, since it is a rigorous process; To write high-quality texts, students must not only focus on spelling and grammar, but must also consider the organization of ideas and overall coherence. Furthermore, Siekmann et al. (2022), notes that lower-quality texts tend to show poor organization and coherence compared to high-quality texts, highlighting the relevance of structure and coherence to the overall quality of a text.

production and cohesion are closely related, since cohesion establishes the grammatical and lexical connection and is essential to maintain the unity of the text and provide a clear meaning and this is achieved through grammar and vocabulary, in order to avoid redundancy (Tanskanen, 2021; Thwaite et al., 2021).

Grammatical cohesion includes elements such as anaphora, cataphora and ellipsis. Anaphora establishes the relationship between a pronoun and its referent or antecedent, which is generally found in the same sentence or in a previous one within the text. Anaphora is essential, because it contributes to establishing and maintaining coherence in the production of texts (Giannakou, 2023). For its part, the cataphora refers to the anticipation of words that will be presented later in the text, while the ellipsis refers to the omission of verbal elements that can be easily understood from the context (for example: "The man is eating a tangerine and the woman [is eating] an apple", where the elements in brackets have been omitted) (Leivada et al., 2023; Parker, 2022).

Lexical cohesion also contributes to coherence by establishing links between the meaning and content of the text, which includes synonymy, cohesive chains, and repetitions or reiterations (Tanskanen, 2021). In addition, the use of connectors that link ideas also plays an important role in the cohesion of a text. So does the use of connectors that join ideas.

The production of texts and the use of literary figures go beyond simply adding additional levels of meaning, but also seek to convey qualities such as beauty, sophistication and impact in the text (Sukarini, 2022). These rhetorical figures modify the logic of language in order to stylistically embellish the textual content, although this process requires a cognitive operation (Ruiz, 2020). It includes rhetorical figures such as personification, which consists of attributing human characteristics, such as nature, intelligence or emotions, to inanimate objects or abstract concepts; for example, "the merciless cold", give human qualities to non-human elements to create a more vivid and expressive image in the production of texts. Hyperbole is used to attract the attention of the reader or listener and create an effect of emphasis or deliberate exaggeration in the production of texts; for example, "Virtues like the sands of the shore," exaggerates the number of virtues by comparing them to the abundance of sand on the shore, thus emphasizing the idea of a large number of virtues. Simile establishes a specific comparison between two different elements; for example, "It's like a fairy" is a simile, as it directly compares the person to a fairy and uses the word "like" to make the comparison and terms can be used; “like” or “looks like” (Barnden, 2023; Calafato & Simmonds, 2022a; Ruiz, 2020; Sukarini, 2022).

The production of texts and the use of grammatical resources allow us to enrich the beauty and aesthetics of the writings. These resources, such as hyperbaton, epithet and parallelism, are used to modify the structure of sentences in the text, in order to obtain greater expressiveness and rhythmic effect (Arriagada, 2020).

For example; Hyperbaton is the one who alters the syntactic order of the words in a sentence, in order to achieve stylistic effects. Epithet is what highlights the qualities of the noun that accompanies it, to give it a

qualifier or descriptive value. And parallelism is used to repeat similar words or structures in a sentence throughout the text.

## Collaborative Work (CW)

CW is an essential 21st century skill (Andersen y Rustad, 2022), due to its ability to drive innovation and improve the quality of results (Huang y Lajoie, 2023). UNESCO also emphasizes its importance, as we face significant challenges that require greater collaboration (UNESCO, 2022), and this involves promoting teacher-student interaction (Mackey et al., 2023). Therefore, in an interconnected and complex world, CT is essential; However, it is a challenge for education (León et al., 2023).

Despite the challenges, it promotes collaborative, active and efficient learning, stimulating critical thinking, open communication, problem solving and creativity (Blinkoff et al., 2023; Menacho, 2021; Yang, 2023). In that sense, it is an essential skill and key tool to address the challenges we face today (Park et al., 2023; Rivas & Saiz, 2023; Segura et al., 2023).

In this study, the CW skill was implemented as a strategy in text production, based on the Challenge Based Learning (CBL) and Collaborative Learning (CA) approach, which led to a significant improvement in text production.Previous research has shown that working collaboratively leads to better results, since skills, knowledge and resources are combined to achieve an efficient result. (Kahila et al., 2023;Kalantari et al., 2023). Therefore, CW becomes an essential competence in current and future education, involving the cognitive process (Petersen et al., 2023; Sjolie et al., 2021).

On the other hand, authors such as Kalmar et al. (2022); Sjolie et al. (2021), affirm that the skill of CT is fundamental in the production of texts, since it contributes to the development of production skills; However, despite its importance, CW in text production has received limited attention in literacy research, compared to reading (Andersen et al., 2022).

The advantages of CW in text production are significant and include improvements in communication, connection of ideas, productivity, critical thinking, creativity, motivation, and cooperative learning (Carney et al., 2019; Kim et al., 2021; Li & Mak, 2022; Martín-Sómer et al., 2023; Sjolie et al., 2021). This makes CW an alternative to optimize the quality of the texts (Kippin et al., 2021). In addition, it promotes the active participation of students in the production of texts, in order to obtain a better result as a whole (Jaramillo-Valencia & Quintero-Arrubla, 2021; Kalmar et al., 2022; Wong et al., 2021).

## Phases of Text Production

There are three essential phases in the production of texts: In the planning phase of the communicative situation, questions such as "What am I going to write?", "Why am I going to write?" are answered. and "Who am I going to write to?" That is, before starting to write the text, a writing plan is established that defines both the purpose and the recipient of the text.

The textualization phase, the first draft of the text is written following the plan previously established in the planning phase. Here, the author begins to capture his ideas in a textual format. Finally, in the review, editing and publication phase, a thorough review of the text is carried out. Aspects related to communicative purpose, coherence, cohesion, the use of rhetorical figures and grammatical resources are adjusted and improved.

# METHODOLOGY

The study is experimental, with a quasi-experimental design (Hernández-Sampieri, 2018). To evaluate the effectiveness of collaborative work in the production of texts, it consisted of comparing, evaluating and analyzing the results obtained from the Pre/post in both experimental and control groups. The repeated measures ANOVA test was used in IBM SPSS- V25.0. considering the following values; P=average, (performance scores). F=factor (there are significant differences between the measurement groups). P-value, $p<0.001$ (significance level). $\eta^2$=eta squared (effect size, and the magnitude of the differences).

According to the 2023 enrollment list, the student population of the Primary Educational Institution No. 70538 Caracoto of the V cycle was 88 students grouped into four sections. Indeed, in this study, the sample size was determined with intentional non-probability sampling. Consequently, the population and sample size was N=88 students. The experimental group (N=43) and control group (N=45).

Accordingly, the equivalence analysis was carried out on the enrollment record, where in the distribution by *gender*, it was observed that 51% n=45 were women and 49% n=43 were men. In relation to the *mother tongue* , 76% n=67 of students have Spanish as their mother tongue, 22% n=19 have Quechua and 2% n=2 Aymara. As seen in table 1.

**Table 1Equivalence analysis**

| Variable | N | % |
|---|---|---|
| Gender | | |
| Women | Four. Five | 51.10 |
| Male | 43 | 48.90 |
| Language | | |
| Castilian | 67 | 76.10 |
| Quechua | 19 | 21.60 |
| Aymara | 2 | 2.30 |
| Cluster | | |
| Control | Four. Five | 51.10 |
| Experimental | 43 | 48.90 |

**Note:** Own elaboration based on the data from the registration list of the V cycle, IEP N°70538 Caracoto.

The execution took place at the Primary Educational Institution N°70538 of Caracoto , Caracoto -Juliaca district , which is located between the coordinates: Latitude: 15° 34' 7" South and Longitude: 70° 6' 8" West, in the province of San Román Juliaca, department of Puno.

## Procedure

Authorization was obtained from the director to carry out the investigation. This lasted approximately three months, 19 sessions were held, each lasting 90 minutes, in both study groups. The CT treatment was applied to the experimental group. Coordinated with the teachers in charge to coordinate the execution schedule. The text production pretest was then administered to the 88 students individually. Subsequently, 19 learning sessions were applied in relation to the competence to write various types of texts in their mother tongue, based on the National Basic Education Curriculum (CNEB) Peru (MINEDU, 2016), and their abilities: adapt the text to the communicative situation, organize and develop ideas in a coherent and cohesive way, use conventions of written language in a relevant way and reflect and evaluate the form, content and context of the written text and the performances of the V cycle of primary level.

The first 3 sessions addressed the structure of the text and adequacy of the communicative situation and, in the third session in teams of 4 Est. they wrote their texts (communicative purpose factor). Sessions 4, 5 and 6 addressed the mechanisms of coherence, thematic relationship, absence of contradiction and precision, and in the sixth session in teams of 4 they wrote their texts (coherence factor). Sessions 7,8,9 and 10 addressed grammatical cohesion, lexicon and connectors, and in the tenth session in teams of 4 they wrote their texts (cohesion factor). In sessions 11, 12, 13 and 14 they addressed personification, hyperbole and simile, contextualized examples were provided to encourage imagination and creativity, and in the fourteenth session, in teams of 4 they wrote their texts (figures of speech factor). . In sessions 15,16,17 and 18 they addressed the hyperbaton, epithet and parallelism, and in the eighteenth session, in teams of 4 they wrote their texts (grammatical resources factor). In the last session, grouped into 4 teams, they wrote their texts applying everything they had learned and using the five factors mentioned. This collaborative work treatment was carried out in the experimental group.

In the control group, the 19 learning sessions were carried out, without the application of CT. The students wrote their texts individually. Finally, the text production posttest was administered, collaboratively, with teams of 4 students. A total of 22 teams were organized to compose texts.

## Instruments

The technique used in this study was observation, the instrument was rubrics to evaluate text production. The analytical rubric is a tool used in the evaluation of student performance through the analysis of its constituent elements with the purpose of deriving a grade (Gatica-Lara y Uribarren-Berrueta, 2013). Five rubrics were designed, with a total of eighteen items and evaluation criteria of 1,2,3 and 4 points, to evaluate the five factors; communicative purpose, global coherence, textual cohesion, use of rhetorical figures, and grammatical resources. Each of these rubrics were designed from the National Basic Education Curriculum (CNEB) Peru (MINEDU, 2016), and were used to evaluate both the pretest and posttest.

Rubric 1, for the communicative purpose factor (evaluated two items; the recipient and communicative purpose) with 4 criteria. Rubric 2, for the coherence factor (evaluated three items; thematic unity, absence of contradictions and precision of the text) with 4 criteria. Rubric 3, for the cohesion factor (evaluated seven items; grammatical cohesion (anaphora, cataphora, ellipsis), lexical and use of connectors) with 4 criteria. Rubric 4, for the rhetorical figures factor (evaluated three items; identifying personification, hyperbole or simile) with 4 criteria. Rubric 5, for the grammatical resources factor (evaluated three items; identifying the hyperbaton, epithet or parallelism) with 4 criteria.

The validity of the instrument was submitted to the consideration of three experts from the Faculty of Education Sciences, and Aikaen 's V was calculated, V=0.88, this result indicates that the instrument had good validity. The reliability of the instrument, Cronbach's Alpha value =0.827 with a sample of our pilot that was applied to before=15. This value is considered acceptable and suggests good internal consistency in the answers to the instrument's questions.

## RESULTS

An analysis was carried out in the repeated measures ANOVA test, to contrast the differences in the pre/post measurements in both experimental/control groups, in relation to the text production variable in its five factors.

**Table 2ANOVA Analysis of Repeated Measures on the Text Production Variable**

| Variable | Mean or average/standard deviation | | Factor | mean square | F | Pvalue | Power | $\eta^2$ |
|---|---|---|---|---|---|---|---|---|
| Communicative purpose in text production | Pretest 1.29±0.458 Group exp . 1.14±0.351 Group against 1.29±0.458 | Posttest 1.95±0.726 Group exp . 2.49±0.506 Group against 1.44±0.503 | Pre/post | 24,882 | 102,685 | ,000 | 1,000 | .544 |
| | | | Exp /with | 15,655 | 64,606 | ,000 | 1,000 | .429 |
| Global coherence in text production | Pretest 1.33±0.473 Group exp . 1.35±0.482 Group against 1.31±0.468 | Posttest 2.07±0.785 Group exp . 2.51±0.798 Group against 1.64±0.484 | Pre/post | 24,610 | 73,156 | ,000 | 1,000 | .460 |
| | | | Exp /with | 7,564 | 22,486 | ,000 | .997 | ,207 |
| Textual cohesion in text production | Pretest 1.34±0.477 Group exp . 1.42±0.499 Group against 1.27±0.447 | Posttest 2.01±0.766 Group exp . 2.42±0.794 Group against 1.62±0.490 | Pre/post | 20,202 | 59,591 | ,000 | 1,000 | .409 |
| | | | Exp /with | 4,566 | 13,468 | ,000 | .952 | .135 |
| Rhetorical figures in text production | Pretest 1.07±0.254 Group exp . 1.14±0.351 Group against 1.00±0.000 | Posttest 1.95±0.787 Group exp . 2.40±0.660 Group against 1.53±0.661 | Pre/post | 35,193 | 153,690 | ,000 | 1,000 | .641 |
| | | | Exp /with | 5,739 | 25,061 | ,000 | .999 | .226 |
| Grammatical resources in text production | Pretest 1.06±0.233 Group exp . 1.12±0.324 Group against 1.00±0.000 | Posttest 1.53±0.726 Group exp . 2.09±0.684 Group against 1.00±0.000 | Pre/post | 10,489 | 78,518 | ,000 | 1,000 | .477 |
| | | | Exp /with | 10,489 | 78,518 | ,000 | 1,000 | .477 |

**Note:** Description of the tests and performance averages used in the study.

The results of Table 2 show the effectiveness of the CW in the production of texts in its five factors. There is a significant difference between the pre/post measurements, both in the experimental/control group. Indeed, those students who wrote their texts collaboratively GE showed greater performance, given that they obtained higher scores than the pretest. As expected, the scores obtained in the pretest were lower than those obtained in the posttest, in all five factors. With a $P<0.001$ the differences are highly significant, which supports the effectiveness of the treatment.

These differences were found in all the factors detailed below:

According to Figure 1, the effectiveness of the CW significantly improved the communicative purpose of text production, where greater performance is observed, with higher scores in the post-test compared to the pre-test, $P_{pre}=1.29\pm0.458$; $P_{post}=1.95\pm0.726$, with a large effect size $F_{PRE/POST}=102.685$; $\eta^2=0.544$; $p<0.001$. These significant differences were evident when comparing the experimental/control group, also presenting a large effect size, $F_{P.COM}=64.606$; $\eta^2=0.429$; $p<0.001$. These results suggest that the CT significantly improved the production of texts, in criteria of communicative purpose and its adaptation to the recipient or context, this improvement was observed in the experimental group.

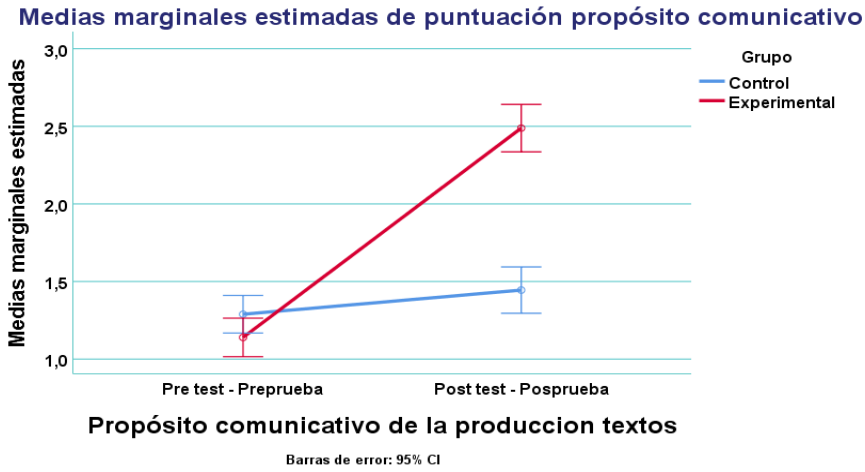


**Figure 1:** Visual analysis of the results of the communicative purpose factor

According to Figure 2, the effectiveness of the CW significantly improved the coherence of text production, where greater performance is observed, with higher scores in the post-test compared to the pre-test **,** $P_{pre}$ =1.33±0.473; $P_{post}$ =2.07± 0.785, with a large effect size $F_{PRE/POST}$ =73.156; $\eta^2$ =0.460; p<0.001. These significant differences were evident when comparing the experimental/control group, still presenting a large effect size, $F_{COH}$ =22.486; $\eta^2$ =0.207; p<0.001. These results suggest that CW significantly improved the production of texts in coherence criteria, with a thematic relationship, connecting ideas fluidly, without the absence of contradictions and confusion.

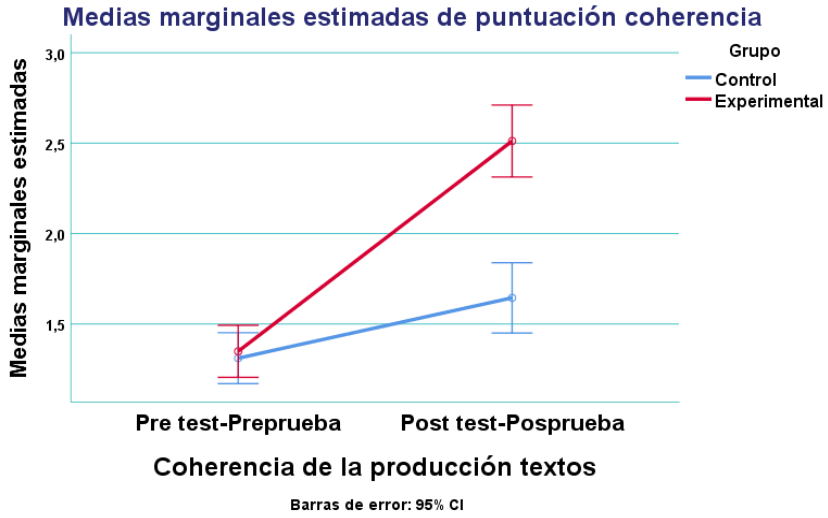


**Figure 2:** Visual analysis of the results of the coherence factor

According to Figure 3, the effectiveness of the CW significantly improved the cohesion of text production, where greater performance is observed, with higher scores in the post-test compared to the pre-test, $P_{pre}$ =1.34±0.477; $P_{post}$ =2.01±0.766, with a large effect size $F_{PRE/POST}$ =59.591; $\eta^2$ =0.409; p<0.001. These significant differences were evident when comparing the experimental/control group, still presenting a large effect size, $F_{COH}$ =13.468; $\eta^2$ =0.135; p<0.001. These results suggest that CT significantly improved the production of texts in cohesion criteria, where the presence of amphorae was observed, to refer to previously mentioned words, cataphoras, to anticipate words that will be said later and ellipses to omit words already mentioned, as well as also the use of synonyms, connectors such as "at the beginning", "now", "shortly", "then", "in addition", "after", "then", "later", "once", "finally", etc. that unite ideas with each other.

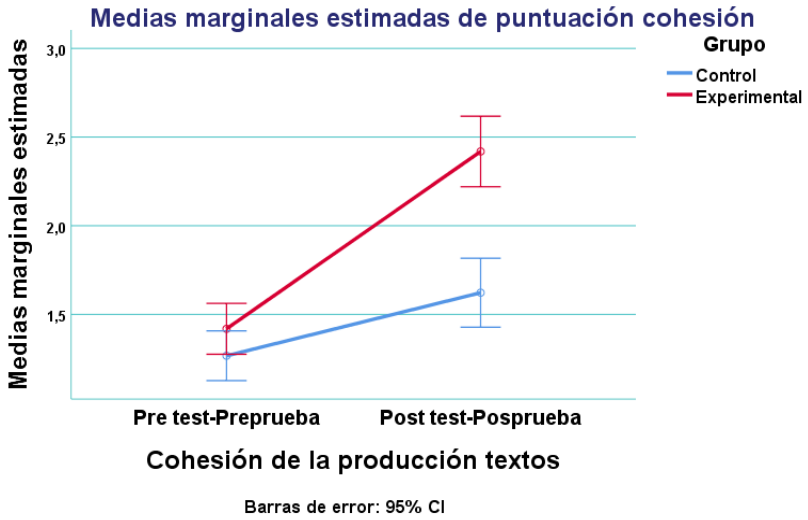


**Figure 3:** Visual analysis of the results of the cohesion factor

According to figure 4, the effectiveness of the CW significantly improved the rhetorical figures of text production, where greater performance is observed, with higher scores in the posttest compared to the pretest, $P_{pre}$ =1.07±0.254; $P_{post}$ =1.95±0.787, with a large effect size $F_{PRE/POST}$ = 153.690; $\eta^2$ =0.641; p<0.001. These significant differences were evident when comparing the experimental/control group, equally presenting a large effect size, $F_{F.RET}$ =25.061; $\eta^2$ =0.226; p<0.001. These results suggest that CT significantly improved the production of texts in criteria of rhetorical figures, where they attribute beings that do not have life (personification), altering the reality of the characters and scenarios (hyperbole) and for a more beautiful impression of the characters. , was compared through links "like" or "looks like" (simile), this improvement was observed in the experimental group.

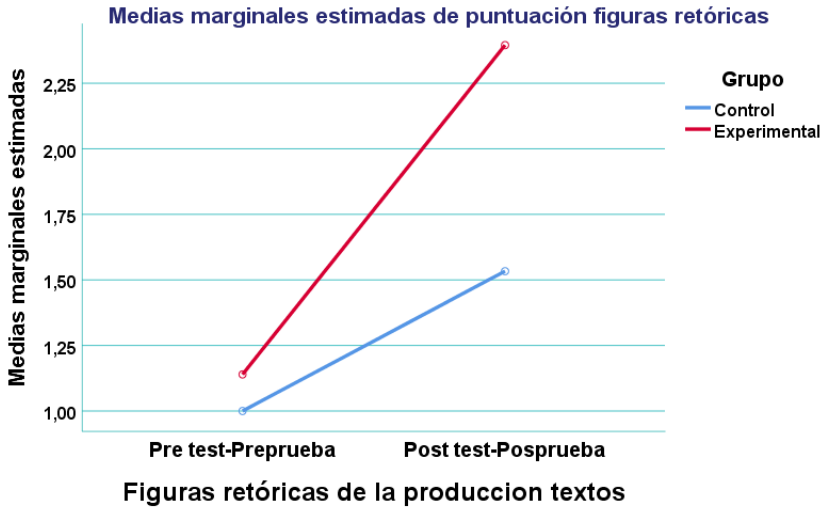


**Figure. 4:** Visual analysis of the results of the rhetorical figures factor

According to Figure 5, the effectiveness of the CW significantly improved the grammatical resources of text production, where greater performance is observed, with higher scores in the post-test compared to the pre-test, $P_{pre}$ =1.06±0.233; $P_{post}$ =1.53± 0.726, with a large effect size $F_{PRE/POST}$ =78.518; $\eta^2$ =0.477; p<0.001. These significant differences were evident when comparing the experimental/control group, also presenting a large effect size, $F_{R.GRA}$ =78.518; $\eta^2$ =0.477; p<0.001. These results suggest that the CW significantly improved the production of texts in criteria of grammatical resources, having an attractive style, altering the order of the

words in its sentences (hyperbaton), highlighting a characteristic quality of the nouns that accompanies it (epithet) and achieved in an enhancing and sequential rhythm (parallelism), this improvement was observed in the experimental group.

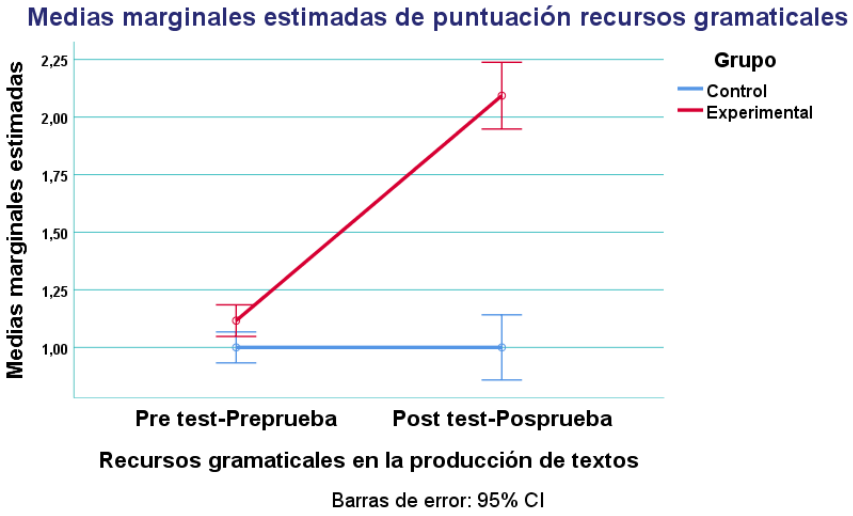


**Fig. 5:** Visual analysis of the results of the grammatical resources factor

## DISCUSSION

The objective of the study was to determine the effectiveness of collaborative work in the production of texts in primary school children in Peru. The results reveal that there is a significant improvement in the communicative purpose factor of text production as a result of the CW with a ( $\eta^2$ =0.544; p<0.001), and with higher scores in ( $P_{post}$ =1.95±0.726; p<0.001), compared to ( $P_{pre}$ =1.29±0.458; p<0.001), this suggests that there was a significant improvement in target, clearer purpose and accuracy in the texts produced by the students, i.e. those who received treatment demonstrated better adaptation to the context and recipient, thus achieving a clearer purpose, which draws the reader's attention. This improvement was evident in Posttest in the comparison with pretest, where deficiencies were observed in the consideration of context and recipient, as well as clarity of purpose.

It is relevant to highlight that the improvements are supported by the CNEB in the competition, write various types of texts; and capacity, adapts the text to the communicative situation, considers criteria such as purpose, recipient, content and theme (MINEDU, 2016). Furthermore, the recipient of a text is based on who the text is addressed to, since the reader participates in the construction of the text while reading it, even in stories where the author knows a lot about what he is writing (Tolins y Fox, 2014). Added to this study is research by Kahila et al. (2023)and Villarreal y Lázaro (2022), which demonstrate that collaborative production is essential both in our language and in a second language, since it motivates positively and leads to better results.

A significant improvement was also found in the coherence factor of text production as a result of the CW, with a ( $\eta^2$ =0.460; p<0.001), and with higher scores in ( $P_{post}$ =2.07±0.785; p< 0.001), compared to ( $P_{pre}$ = 1.33 ±0.473; p<0.001), this suggests that there was a significant improvement in the texts, with greater thematic coherence, the absence of contradictions and greater precision in the ideas in The texts produced by the students, that is, those who received treatment demonstrated in their texts a thematic relationship, connecting ideas in a fluid manner, avoiding contradictions and confusion.

The results are consistent with the findings by Chen y Cui (2022), they affirm that providing feedback as a team or in pairs is a method that significantly improves coherence and cohesion in the production of texts. It is also agreed with Siekmann et al. (2022), who point out that coherence and structure tend to improve towards the quality of text production. Therefore, students who enjoy writing tend to produce higher quality and coherent texts, since they look for opportunities to write and put more effort into it, this is key to achieving excellent

production (Rasteiro y Limpo, 2023). Furthermore, writing coherent texts requires the union of many ideas in the mind, the synthesis of information on the topic and the use of these ideas to create a logical message (Dostal et al., 2021).

Likewise, a significant improvement was found in the cohesion factor of text production as a result of the CW with a ($\eta^2$ =0.409; p<0.001), and with higher scores in ( $P_{post}$ = 2.01 ±0.766; p< 0.001) compared to ( $P_{pre}$ = 1.34 ±0.477; p<0.001), this supports and suggests a significant improvement in the texts, with greater grammatical cohesion, which includes anaphora, cataphora and ellipsis, lexical cohesion, synonymy, repetitions and cohesive chains, and greater use of connectors in the texts produced by the students, that is, those who received treatment demonstrated in their texts the use of grammatical cohesion such as anaphoras to refer to previously mentioned words, cataphoras to anticipate words that are mentioned later and ellipses to omit or eliminate words that have already been mentioned, they also improved by using synonyms and using connectors to join ideas and express the relationship between them. In this regard, Tanskanen (2021)he found that through an analysis of video comments, he demonstrated that lexical cohesion helps maintain coherence in shorter segments of the interaction. On the other hand, Oliveira et al. (2024)they confirm that cohesion is a key characteristic of a text that turns it into a unit of connection or thread of ideas, with the collaborative work method it is even more important to obtain a cohesive and coherent text. Consequently, it is relevant to highlight that both coherence and cohesion are two fundamental aspects to achieve effective writing and guarantee easy understanding of the text (Chen y Cui, 2022).

Furthermore, a significant improvement was found in the rhetorical figures factor of text production as a result of the CW with a ($\eta^2$ =0.641; p<0.001), and with higher scores in ( $P_{post}$ =1.95±0.787; p< 0.001), compared to ( $P_{pre}$ = 1.07 ±0.254; p<0.001), this suggests a significant improvement in the use of figures of speech in the texts produced by the students, with personification, hyperbole and simile. That is, those who received treatment demonstrated greater style and beauty in their texts, since they used personification to attribute human qualities or actions to beings or things that do not have life, they used hyperbole to alter or exaggerate reality in characters and settings. , and they used simile to create a more beautiful impression through comparisons, using links, "like" or "looks like" .

When producing their texts collaboratively, they used rhetorical figures, with which they improved, embellished, and enriched the expression of their texts. In this context, this study aligns with the results of Calafato y Simmonds (2022), who highlighted the importance of the appreciation of beauty in production, furthermore, they suggest that this appreciation positively influenced the scores of the participants in the text production competition, since whether when evaluating visual elements or text-based aspects. In agreement with Sukarini (2022), who states that these rhetorical figures (personification, simile and hyperbaton) play a crucial role in literary works, since their function is to take the literal level to the figurative level, thus enriching the production of texts through implicit meanings. Therefore, collaborative work and the use of literary or rhetorical figures improve competence in writing various types of texts, covering language conventions, as well as linguistic, cognitive and socio-emotional skills (Akmese y Kanmaz, 2021; Barnden, 2023; Ruiz, 2020; Sukarini, 2022; Zanchi et al., 2020).

Finally, it was found that there is a significant improvement in the grammatical resources factor of text production as a result of the CW with a ( $\eta^2$ =0.477; p<0.001) and with higher scores in ( $P_{post}$ =1.53±0.726; p<0.001), compared to ( $P_{pre}$ = 1.06 ±0.233; p<0.001), this suggests a significant improvement in the texts produced by the students, with the use of hyperbaton, epithet and parallelism that give a more expressive enhancing That is, those who received treatment demonstrated an attractive style in their texts, with the use of hyperbaton to alter or exchange the order of words in their sentences, they used the epithet to highlight a characteristic quality of a noun and they applied parallelism to achieve a rhythmic and sequential effect in his texts. Although there are no exhaustive studies on the use of grammatical resources in the production of texts, it is suggested that the innate talent of human beings and by working collaboratively efficiently improve the production of their texts, making it more expressive, characteristic and with enhanced rhythm (Arriagada, 2020). Furthermore, Gomes (2019), states that human beings have natural abilities to write and read texts throughout their lives, whether verbal or non-verbal.

## CONCLUSION

The effectiveness of collaborative work in text production proved to be an effective strategy to significantly improve the quality and efficiency of text production in primary education students in Peru. In the five factors evaluated: communicative purpose, coherence, cohesion, rhetorical figures and grammatical resources, notable improvements were observed compared to individual work.

The effectiveness of collaborative work effectively addressed deficiencies in communicative purpose, allowing texts to adapt more effectively to the context and recipient, thus achieving a clearer and more effective purpose. In addition, greater thematic coherence was promoted, eliminating contradictions and guaranteeing precision in ideas, which contributed to the production of coherent texts. Textual cohesion, both grammatical and lexical, was strengthened, with a more effective use of connectors that improved structure and communication.

The use of rhetorical figures, such as personification, hyperbole, and simile, enriched and embellished the stylistic effect in the students' texts. In addition, a more effective use of grammatical resources is encouraged, such as hyperbaton, epithet and parallelism, which highlighted expression and rhythm in the texts. This study suggests that collaborative work is a valuable tool to boost the quality of text production in primary school students, highlighting its positive impact on multiple aspects of writing.

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