


Inference and reading comprehension in university students

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ABSTRACT

Purpose: The objective of this research was to determine the relationship between inference and reading comprehension. We sought to verify the relationship between inductive and deductive inferences in the comprehensive reading of Daniel Alcides Carrión National University Peru students majoring in communication and literature.

Design/Methodology/Approach: The correlational-explanatory research design was used since the correlation of the study variables was sought through scientific and specifically analytical, deductive and interpretive methodology on a population of 104 and the probabilistic sample of 83 students. Similarly, a 20-item questionnaire was used through survey, observation and recording techniques to collect the information. Therefore, the research was developed using a basic quantitative approach.

Findings: The result of the study allowed us to obtain a correlation coefficient of 0.215 which was positive but moderate according to Spearman's Rho statistical statistician.

Conclusion: The process of inductive and deductive inferences is related to the reading comprehension of university students. Therefore, reading strategies must be implemented in university training institutions to develop inferences in a relevant way.

Practical Implications: The result of the study will allow university training centers to develop the inference process in the academic training of students.

Contribution to the Literature: Information is contributed about the theoretical underpinnings of inference and reading comprehension in this study.

Keywords: *Deductive inference, Inductive inference, Inference, Reading comprehension, Reading, Strategies.*

1. INTRODUCTION

An individual who cannot comprehend written texts is more likely to struggle in the social, economic and educational spheres. In these days of globalization and instant information, reading comprehension has become essential. From this perspective, it is urgent to seek solutions to the problem of reading comprehension. There are countless strategies designed to improve reading comprehension problems. Among the educational strategies, the development of inference is considered one of the relevant tools that allow university students to understand what they read. The goal of this study is to show how inference and reading comprehension in college students relate to each other beginning with the situation as stated. In this sense, the research question is formulated as follows: How is inference related to reading comprehension in university students?

The problem of reading comprehension begins in Peruvian Regular Basic Education (initial primary and secondary education) as demonstrated by the latest results of the PISA 2022 evaluation. The results obtained by Pisa 2022 show that only 5.9% of Peruvian students develop reading comprehension skills indicating that out of 100 students, only 6 are at the higher levels of reading. 50.4% of students are below level 2 which means that more than half of the students do not develop reading comprehension skills. This situation shows in its real dimension the problem of the competence of understanding written texts in the Peruvian school. Pisa evaluates 15-year-old students internationally, an evaluation that helps governments adopt measures to improve basic education which does not occur at the university level. In Peru, there are no statistics on this matter. There are isolated

investigations on the problem of reading comprehension that have not yet been considered as part of a total study that allows their generalization.

Table 1. PISA-2022 result (Peru).

| Reading 2022: Distribution of Peruvian students by performance levels | |
|--|------|
| Level 4, 5 and 6 Students develop more complex skills. They represent 5.9%. | |
| Level 3 Students identify information that is not easily accessible. They represent the meaning of multiple texts without clues about the organization of their content in texts of regular length, they make complex inferences to interpret the meaning of words and deduce their purpose and main idea and they carry out reflection tasks comparing and understanding unusual topics. They represent 16.6%. | |
| Level 6 | 0.0 |
| | 0.7 |
| Level 5 | 5.2 |
| Level 4 | 16.6 |
| Level 3 | 27.2 |
| Level 2 | 28.5 |
| Level 2b | 16.8 |
| Level 1b | 4.6 |
| Below from level 1b | 0.5 |
| Below level 2 Students who are below level 2 (50.4%) have poor performance. Specifically, level 1a students (28.5%) can perform tasks such as locating data in short texts and understanding the literal meaning of short sentences. Similarly, they deduce the central theme and purpose in everyday texts and establish simple connections between the information and their prior knowledge. | |

Note: [Ministry of Education \(2023\)](#).

Table 1 shows that 27.2% of Peruvian students are located at level 3, according to the PISA evaluation, since they only identify explicit data when reading a text without reaching what is implicit. Similarly, they do not correctly interpret or reflect on the text read.

There are plenty of reasons for the reading comprehension issue not just the teaching methods of teachers as in Peru; it is believed that the main problem is that teachers lack the necessary skills to teach reading. However, the causes identify the following aspects: pedagogical, cultural, social, economic, family and personal. [Ortiz and Álvarez \(2020\)](#) affirm that the family and educational context are relevant in promoting the reading habit. The school must encourage readings to develop not only creative thinking but also critical thinking. As [Bermúdez \(2023\)](#) states, “fiction offers an opportunity to open up to new worlds, thoughts, ways of understanding life ” and reality” (p. 117).

One of the great educational problems that Peru has is not having statistical information on the measurement of reading comprehension levels in university students. [Calderón-Ibáñez and Quijano-Peñuela \(2010\)](#) affirm that reading comprehension in universities becomes one of the relevant pillars in the acquisition of knowledge taking into account that reading at the university level is fundamental for the training of students. Reading in the university environment is a priority need. However, many university students present certain difficulties when it comes to understanding some texts. [Amador and Alarcón \(2003\)](#) whose findings were derived from the conducted survey suggested that a significant portion of university students show specific challenges when it comes to reading specific texts to students from the independent community.

The aspect of the economy is very important in the academic development of the inhabitants of the planet because it directly affects the various tasks of the human condition, reading being an important factor in human progress. Similarly, the OECD's program for international student assessment PISA in reading, mathematics and science assessment currently does not take into account some variables that differentiate academic performance in schools in middle-income countries ([Organization for Economic Cooperation and Development, 2017](#)). Furthermore, PISA's measurement of economic, social and cultural status does not accurately reflect poverty risk factors in relation to the educational level prevalent in low-income countries.

According to [García \(1993\)](#) understanding a text means establishing the meaning of each of the words in the text and interpreting the positions and intentions conveyed by the text.

[Mondaca and Quintana \(2013\)](#) affirm that Latin America has its own cultural identity that is observed in its education whose system imposes the local, so the teaching of reading has characteristics specific to each Latin American country.

[García-García, Arévalo, and Hernández \(2018\)](#) state that currently, basic education teachers believe that students understand what they read. However, this fact contradicts reality. Similarly, in the last three decades, research on reading comprehension has been increasing as stated by [Ramos-Navas-Parejo, Cáceres-Reche, Marín-Marín, and Rodríguez-Jiménez \(2021\)](#): "The acquisition of reading skills is essential in education. However, not all students acquire them" (p. 89). The contributions of different research on the topic have contributed to improving the problem of understanding texts. In this sense, it is hypothesized that inference is significantly related to reading comprehension in university students.

1.1. Inference

Inference is understood as mental processes that construct meanings not specified in the text from certain clues or help the reader to understand written texts before, during and after reading. Inferring is a mental action that leads to understanding the text because it is a necessity.

The inferences of constructionist theory develop new ideas from information and knowledge that are related to the data found in the text that the reader must interpret for a global understanding.

Inferences explain the issues implicit in the text and therefore, help find answers that do not seem to have them. Inference is extremely important during the reading process. The reader who does not make inferences is destined to fail in the reading activity.

Inference as a cognitive process is used in different fields of human knowledge as stated by [Ripoll \(2015\)](#). "The word inference is used in fields such as logic, statistics, linguistics or psychology but almost all of them take into account common ones that talk about forming a conclusion from the available information" (p. 108). Similarly, inferences develop skills to understand transitional texts as they help interpret mathematical and statistical data. In this regard, [Castelló \(2022\)](#) states that inferences in transitional texts allow statistical data to be transformed into descriptive comments. The cognitive dynamics of inference reveal the understanding of texts of diverse nature.

Inferring involves going one step beyond a possible answer. In this sense, according to specialized literature, there are three types of inferences: inductive, deductive and abductive.

Deductive ones allow the reader to reach logical conclusions while inductive ones also called pragmatic ones; there is the probability that the conclusions have a minimum margin of error. On the other hand, abductive inference was introduced by Peirce as the logic of science taking into account that abduction goes beyond the hypothesis since it better helps the information obtained.

1.2. Reading

Reading has become essential as it is not only necessary but also a prerequisite for those who cannot read or more importantly, do not comprehend what they are doing and are prone to failure. Illiterate is no longer someone who does not know how to read or write. Illiterate is today someone who knows how to read but does not understand what they have read and consequently causes a series of personal, academic and of course work problems.

[Quintero \(1985\)](#) states that the definition of reading is ambivalent and that reading a comic is not the same as reading a work by Miguel de Unamuno. Reading brings the reader closer to the text from different perspectives and prior knowledge that the reader has. The [National Council for Culture and the Arts \(2012\)](#) reader at the time of

reading means and signifies the text through the intellectual, emotional, linguistic and cultural relationships. Reading is a cognitive process in which the reader extracts explicit and implicit information to make sense of the text read for which he or she uses reading strategies and techniques. The act of reading implies understanding in this perspective if one reads correctly than the reading will also be correct. In relation to the act of reading and reading, [Ramírez \(2009\)](#) asserts that there are divergences and coincidences between scholars, researchers and thinkers as observed below:

Table 2. Contributions from thinkers.

| Thinkers | Reading |
|-------------------|--|
| Paulo Freire | With critical reading, you achieve an understanding of the text. |
| Roland Barthes | Reading is not deductive but associative. It links the text with other ideas. |
| Michel de Certeau | Reading is a social and cultural phenomenon; therefore, it is a cultural weapon. |
| Roberto Escarpit | Reading is an imbalance since it responds to human dissatisfaction. |
| Noah Jitrik | Reading generates results whose extent is unknown. |
| Roger Chartier | The readers' codes modify the initial text since reading is a set of interactions. |
| Jorge Larrosa | Reading is a nomadic experience, so its uncertainty cannot be reduced. |

Note: [Ramírez \(2009\)](#).

Table 2 shows the contributions of different thinkers regarding reading.

The objective of the act of reading is to understand the text and for this the execution of mental processes is essential.

Table 3. Reading action, according to mental processes.

| Mental processes | Behavior |
|----------------------|---|
| Perceptual process | Take into account the information for its corresponding processing. |
| Lexical process | Recognised the linguistic unit. |
| Relationship process | Relate the paragraphs of the text. |
| Syntactic process | Knowledge of the grammatical norm. |
| Semantic process | Interpret text messages. |

Note: [Zapata \(2017\)](#).

Table 3 presents the development of mental processes when reading a text taking into account the cognitive aspect as a tool of the reading action.

1.3. Reading Comprehension

Comprehension of texts involves the deployment of a series of cognitive, metacognitive and attitudinal strategies. Within the cognitive field, the development of inferences assumes a relevant role when it comes to reading comprehension because it is the element that allows us to discover the non-visible information found in the text. Texts always hide information that a good reader must discover with their acuity and using cognitive actions. The mental processes related to reading comprehension go beyond textual decoding. They involve mental processing of evocation, relationship, meaning, memory of pre-existing knowledge, hierarchy, synthesis, logical reasoning, abstraction, etc. For example, when university students read a text about Napoleon Bonaparte, students try to remember what they studied about Napoleon at school; that is, they activate their pre-existing knowledge in addition to mentally ranking the events of their lives. The reader's mind internally develops these and other cognitive processes. Cognitive actions that contribute to reading comprehension and should not be lost sight of that help readers make different types of inferences.

1.4. Inference and Reading Comprehension

[Leon \(2003\)](#) states that during reading inferences are constructive phenomena and when they are used after reading they become conjectures about what has been read. Inferring to understand texts is a good strategy, thus [González \(2007\)](#) cited in [Espinoza, Vargas, Orielle Taber De la Cruz, and Luna \(2021\)](#) states that “inference as a

strategy allows adding, substituting, integrating or omitting information necessary for the reader to assign coherence to the text, both local as well as global” (p. 1432). The inference complements the information that is supposedly missing from the text.

Inferring depends on the reader's ability to use a series of cognitive and metacognitive strategies that allow him or her to infer. Among the reading strategies, the development of inference is important because it allows you to control reading since it incorporates aspects such as prediction, memory, self-regulation, etc. into mental processes. Additionally, it helps readers construct meanings that are not directly presented in the text.

In Peruvian universities, inference is not taught since teaching is based on the idea that young people who apply and enter university arrive with prior knowledge of inference, a fact that reality denies because the majority of university students do not have that knowledge. The fact does not help the reading comprehension process. Therefore, the objective of the study was to determine the inference relationship in the reading comprehension of the students of the communication and literature major at the Daniel Alcides Carrión National University for which we sought to verify the correlation of deductive and inductive inference in the lecture.

2. MATERIALS AND METHODS

2.1. Design of the Investigation

This research is based on the quantitative approach due to its basic functional and correlational-explanatory design. The study's inference which is by definition aimed to establish the relationship between two categories or variables concerned the reader's comprehension. According to [Cohen and Gómez \(2019\)](#) designs are planned in advance to begin the research. In this sense, the design of the study was proposed as having as a reference framework the objectives and importance of the research through the corresponding dimensions and variables.

2.2. Population and Sample

The study population was 104 students from the communication and literature major at the Faculty of Educational Sciences of the Daniel Alcides Carrión National University whose sample of 83 students had knowledge about the objective of the study. The determined sample was probabilistic as indicated by [Hernández, Fernández, and Baptista \(2014\)](#) that “in probability samples, all elements of the population have the same possibility of being chosen” (p. 175).

2.3. Instrument

To collect information, a 20-item questionnaire was used as an instrument that involved both variables with their respective dimensions on the population and the respective sample. Experts validated this instrument and used Cronbach's alpha to assess its reliability with students who were not in the sample. The findings demonstrated that the inference instrument's reliability was 0.79 and the reading comprehension instrument's reliability was 0.82, both of which are between acceptable and good. During the process of applicability of the instrument, survey, observation and recording techniques were used which helped collect information in an organized manner.

2.4. Validity and Reliability Testing

The validity and reliability of the instrument were determined by the point biserial coefficient. According to [Medina Paredes, Ramírez Díaz, and Miranda \(2019\)](#), the reliability of the instrument with the point biserial coefficient is as follows:

It is a measure of the consistency of an item with the test as a whole and reflects the correlation between students' scores on a particular item and their scores on the entire test. The possible range for this indicator is -1 and 1. In other words, students with higher test scores are more inclined than those with lower test scores to answer an item correctly if there is a substantial positive relationship between the item and the test. If the correlation is negative, then students with lower scores will tend to answer the question correctly and it is likely that the item is defective (p. 110).

The Point Biserial Coefficient allows the questions to be related to the complete test, so its formula is the following:

$$r_{pbs} = \frac{\bar{X}_1 - \bar{X}}{\sigma_x} \sqrt{\frac{P}{1-P}}$$

Where

X_1 = Total rating of students who answered correctly.

X = It is the average of the grade.

σ_x = Represents the standard deviation of the sample.

P = Represents the difficulty index of the question.

3. RESULTS

The results obtained show the process of collecting, classifying and systematizing the data according to the following scales: 1 = totally disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree and 5 = totally agree; the same ones that are articulated to the objectives set out in this research.

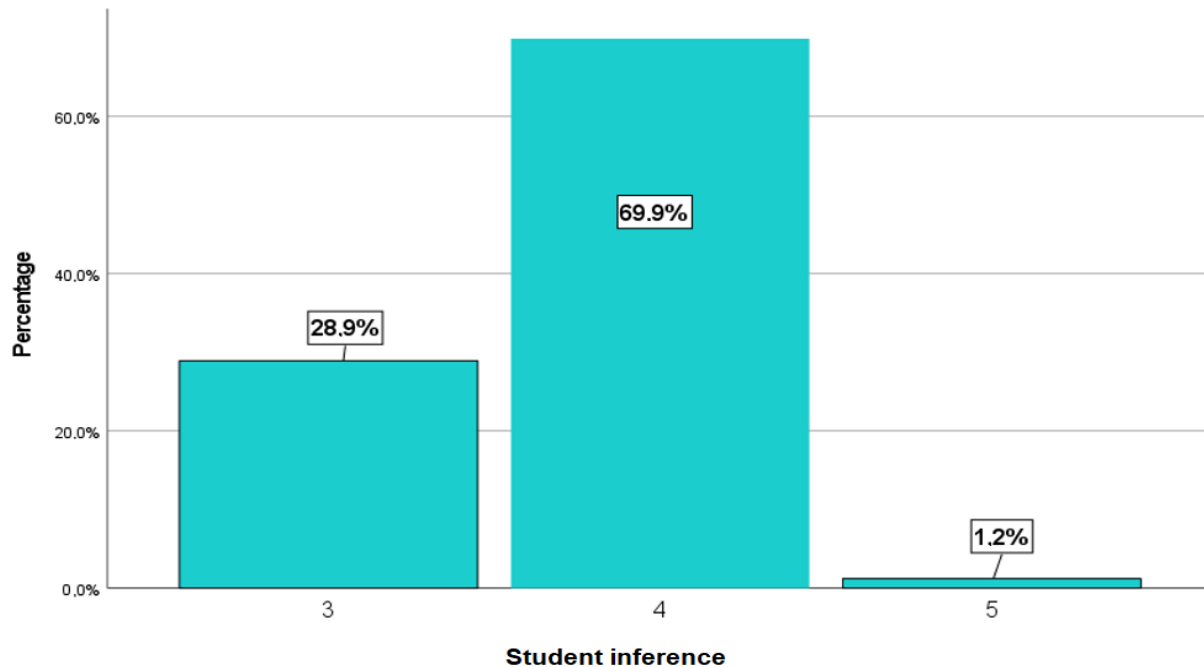


Figure 1. Inference variable.

Note: Results of the application of the research instrument

According to Figure 1, it can be seen that 28.9% of the total sample *neither agree nor disagree*, 69.9% *agree* and 1.2% *completely agree* with respect to the inference variable. These data show that the highest percentage of students make appropriate inferences when understanding a reading.

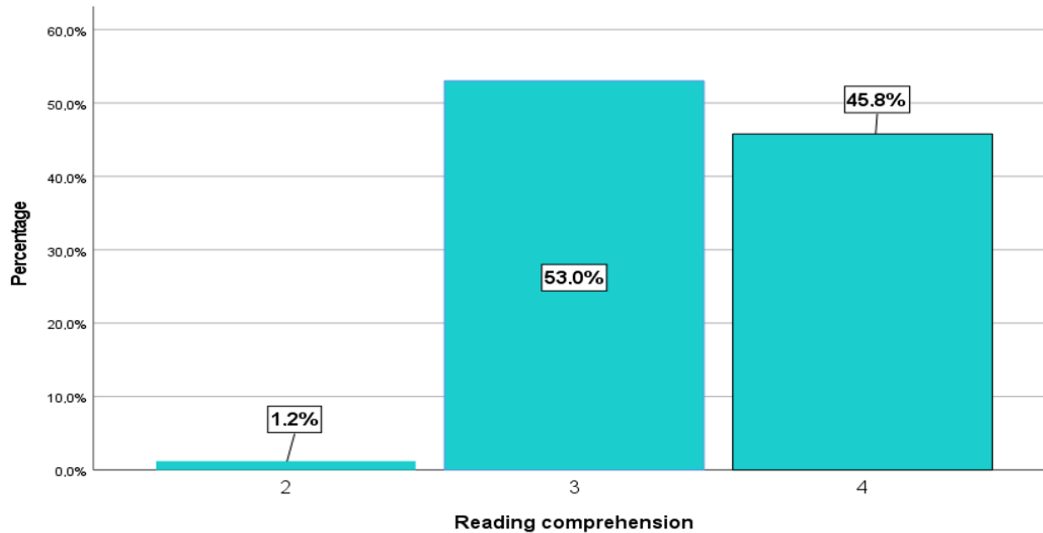


Figure 2. Reading comprehension variable.

Note: Results of the application of the research instrument.

According to [Figure 2](#), with respect to the reading comprehension variable, it can be seen that 1.2% of the total sample does not agree, 53.0% neither agree *nor disagree* and 45.8% agree. These data show that a large percentage of students understand reading.

3.1. Inferential Analysis

The results are shown below using inferential analysis to find out if the data follows a non-normal distribution or if it is not normally distributed.

3.2. Normality Test

We formulate the following hypotheses in order to conduct this test:

a. Stating the hypothesis:

Ho: The data has a normal distribution.

Ha: The data does not have a normal distribution.

b. Significant level:

The alpha significance level is equal to 5%.

c. Statistical test to use

The Kolmogorov-Smirnov test was used since the sample in this research is 83 which in turn is greater than 50.

d. Decision criterion

If $p \leq \alpha$, then Ho is rejected.

If $p > \alpha$, then Ho is accepted.

e. Administrative decision

From the processing of the results using SPSS version 27, it can be observed that p is equal to 0.01 which in turn is less than α , so Ho is rejected and we accept Ha which indicates that the data does not have a distribution, so it will be necessary to apply a non-parametric hypothesis test.

3.3. Hypothesis Evaluation

The inference is related to the reading comprehension of the students of the communication and literature major at the Daniel Alcides Carrión National University Peru.

The hypothesis test is detailed below.

For this purpose, it is determined to test the null descriptive hypothesis that the inference is not related to reading comprehension with a significance level of 0.05.

a. Stating the hypothesis:

- Ho = The inference has no relationship with the reading comprehension of the students of the communication and literature major at the Daniel Alcides Carrión National University Peru.
- Ha = The inference is related to the reading comprehension of the students of the communication and literature major at the Daniel Alcides Carrión National University Peru.

b. Significant level:

The alpha significance level is equal to 5%.

c. Statistical test to use

Spearman's rho test was used.

Table 4. Result of the correlation between inference and reading comprehension.

| Correlation | | | Inference | Reading comprehension |
|--------------|-----------------------|-------------------------|-----------|-----------------------|
| Lancer's Rho | Inference | Correlation coefficient | 1,000 | 0.215 * |
| | | Sig. (Unilateral) | . | 0.025 |
| | | North | 83 | 83 |
| | Reading comprehension | Correlation coefficient | 0.215 * | 1,000 |
| | | Sig. (Unilateral) | 0.025 | . |
| | | North | 83 | 83 |

Note: *. The correlation is significant at the 0.05 level (one-sided).
Results of the application of research instruments.

Table 4 presents the correlation between the study variables that is equal to 0.215 which shows a low positive relationship between inference and reading comprehension.

d. Decision criterion

The correlation coefficient between inference and reading comprehension is 0.215. This value is positive but moderate. Furthermore, p is equal to 0.025; it is less than 0.05 which allows Ho to be rejected.

e. Administrative decision

The null hypothesis should be rejected for statistical reasons resulting in the following conclusion: The inference is related to the reading comprehension of the students of the communication and literature major at the Daniel Alcides Carrión National University, Peru.

4. DISCUSSION AND RESULTS

Inferences are a fundamental part of human cognition and allow us to interpret reality (Escudero and León, 2004 cited in Cortes, Castañeda, and Daza (2019)). This quotation supports the study because inferences assist readers' comprehension of what is implied in written texts by leading their cognitive processes. As a result, the study's findings demonstrate the relationship between inferences and reading comprehension.

Making inferences to understand written texts is an important fact. According to Silva (2014) understand a text we need to generate appropriate inferences, that is, go beyond what is explicitly described in the text. Drawing conclusions from written texts is an important concept (p. 51). According to González (2017) the understanding of a text is achieved through the reader's reconstitution of the implicit information through inferences (p. 298). Therefore, the relationship between inferences and reading comprehension must be relevant as shown in this study. According to Cassany, Luna, and Sanz (2003) inference is the ability to comprehend an element of a text by

using the significance of the remainder. Similarly, the result obtained has a certain relationship with the conclusion of [Huárniz's \(2016\)](#) research which mentions that inference in its role as a learning strategy positively influences the achievement of text comprehension. Statements that confirm and validate this research.

Regarding the results according to the variables involved in the research, in the case of inference, 71.1% were able to obtain between agree and totally agree while in reading comprehension 45.8% also agreed. According to Spearman's Rho, $p = 0.025$ was obtained which corroborates the correlation that exists between the study variables. Therefore, the inference is related to the reading comprehension of the students of the communication and literature major at the Daniel Alcides Carrión National University.

[Duche, Montesionos, Rivas, and Siza \(2022\)](#) maintain that prior knowledge is important in the inference process to understand texts. In the same way, inferring as a mental activity links previous cultural background with the new knowledge acquired through reading which is why the personal knowledge of the reader is important. [Duche, Montesionos, Rivas, and Siza \(2022\)](#) conclusions contribute to the hypothesis of this research in the sense that there is a relationship between inference and reading comprehension.

It is not enough for university students to infer as a cognitive process to understand texts since inferring alone will not solve the problem of reading comprehension. There are series of strategies that help improve the problem from teaching action at the university through the family to political participation. In this regard, in the 1980s in the United States, the report of the *National Commission on Excellence in Education* (1983) cited in [Pérez \(2004\)](#) indicated that public education was inefficient. The report motivated educational authorities to propose improvement policies in the aspect of reading that had three axes of development: the cognitive part, the influence of the context and practice in class. The measures adopted helped raise the quality of reading in the United States. The participation of political and educational authorities allows us to achieve proposed objectives in education. A matter that is not evident in this investigation.

5. CONCLUSION

Deductive inference is related to reading comprehension from logic to linguistic definition as shown in [Figure 1](#) where 45.8% deduce adequately when understanding a reading.

Inductive inference is related to reading comprehension from logic to linguistic definition as shown in [Figure 2](#) where 45.8% and 1.2% agree and strongly agree that students induce appropriately when understanding a reading. Inference is related to reading comprehension as evidenced in [Table 2](#) with a value of 0.215 which means a positive but moderate correlation. Furthermore, p is equal to 0.025; it is less than 0.05 which demonstrates the relationship between inference and reading comprehension of communication and literature students at the Daniel Alcides Carrión National University.

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INSTITUTIONAL REVIEW BOARD STATEMENT

The Ethical Committee of the Evaluating Jury of the Daniel Alcides Carrión National University, Peru has granted approval for this study on 10 April 2023 (Ref. No. 0011-2021-DEPG-UNDAC).

TRANSPARENCY

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

COMPETING INTERESTS

The authors declare that they have no competing interests.

AUTHORS' CONTRIBUTIONS

All authors contributed equally to the conception and design of the study. All authors have read and agreed to the published version of the manuscript.

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REFERENCES

- Amador, K., & Alarcón, L. (2003). *Methodological proposal to evaluate reading comprehension in university students*. Retrieved from <http://www.filosofia.buap.mx/Graffylia/6/126>
- Bermúdez, M. (2023). Removing the word: Forms of censorship in children's literature 1. *Studies in Literary Theory*, 12(27), 113-124.
- Calderón-Ibáñez, A., & Quijano-Peñuela, J. (2010). Characteristics of reading comprehension in university students. *Estudios Socio-Jurídicos*, 12(1), 337-364.
- Cassany, D., Luna, M., & Sanz, G. (2003). *Teach language*. Barcelona: Grao.
- Castelló, M. (2022). Writing and identity in research contexts. *Literature and Linguistics*, 46, 29-59.
- Cohen, N., & Gómez, G. (2019). *Research methodology, why?: The production of data and designs*. Theseus. Retrieved from https://biblioteca.clacso.edu.ar/clacso/se/20190823024606/Metodologia_para_que.pdf
- Cortes, J. E., Castañeda, J. G., & Daza, J. (2019). *Reading comprehension of university students. Associated factors and mechanisms of action*. *Venezuelan Management Magazine*. Retrieved from <https://www.redalyc.org/journal/290/29060499015/html/>
- Duche, A., Montesionos, M., Rivas, A., & Siza, C. (2022). Inferential reading comprehension in university students. *Journal of Social Sciences* 28(6), 181-198.
- Espinoza, C. P. E., Vargas, M. I., Orielle Taber De la Cruz, Y., & Luna, A. E. L. (2021). Inference strategy in reading comprehension in high school students through virtual environments. *Horizontes Revista De Investigación En Ciencias De La Educación*, 5(21), 83-96.
- García-García, M., Arévalo, M., & Hernández, C. (2018). Reading comprehension and school performance. *Cuadernos De Lingüística Hispánica*, 32, 155-174. <https://doi.org/10.19053/0121053X.n32.2018.8126>
- García, E. G. (1993). Text comprehension: processing model and improvement strategies. *Didactics. Language and Literature*, 5, 87-114.
- González, C. M. (2017). Approach to the concept of inference from two models of understanding: The strategic model and the construction and integration model. *Literature and Linguistics*, 35, 297 - 314.
- Hernández, R., Fernández, C., & Baptista, P. (2014). *Investigation methodology*. México: Mc Graw Hill.
- Huárniz, M. (2016). *Inference as a learning strategy to achieve text comprehension in sixth grade primary school students of the educational institution 1057 UGEL 3 Lince*. Master's Thesis. Inca Garcilaso de la Vega University.
- Leon, J. A. (2003). *Knowledge and speech: Keys to infer and understand*. Madrid: Pyramid.
- Medina Paredes, J., Ramírez Díaz, M. H., & Miranda, I. (2019). Validity and reliability of an online test on the phenomena of reflection and refraction of sound. *Apertura*, 11(2), 104-121. <https://doi.org/10.32870/ap.v11n2.1622>
- Ministry of Education. (2023). *PUSA national results 2022*. Peru: Apprentice Quality Measurement Unit.
- Mondaca, C., & Quintana, T. (2013). Latin American culture and reading comprehension: Commentary and analysis of the text as a pedagogical resource. *Educational Theory Education and Culture in the Information Society*, 13(3), 49-66.
- National Council for Culture and the Arts. (2012). *The reading*. Paper presented at the Progreso Printing and Binding Workshops, SA de CV.
- Organization for Economic Cooperation and Development. (2017). *PISA assessment and analysis framework for development: Reading, mathematics and science*. Paris: OECD, Publications.
- Ortiz, R., & Álvarez, E. (2020). The definite article in Spanish at an early age: From deixis to reference. *RAEL: Electronic Journal of Applied Linguistics*, 18(1), 91-106.
- Pérez, J. (2004). *Reading comprehension at school*. Paper presented at the XVI FEPAL National Congress.
- Quintero, A. (1985). Towards a concept of reading. *Spanish Journal of Pedagogy*, 43(169), 561-582.
- Ramírez, L. E. M. (2009). What is reading? What is reading? *Investigación Bibliotecológica*, 23(47), 161-188. <https://doi.org/10.22201/iibi.0187358xp.2009.47.16961>
- Ramos-Navas-Parejo, M., Cáceres-Reche, M. P., Marín-Marín, J. A., & Rodríguez-Jiménez, C. (2021). The reading skills of primary education students at risk of social exclusion: Analysis of scientific production. *Información Tecnológica*, 32(3), 89-100. <https://doi.org/10.4067/s0718-07642021000300089>
- Ripoll, J. (2015). A classification of pragmatic inferences oriented to didactics. *Reading Research*, 4, 107-122. <https://doi.org/10.24310/revistaisl.vi4.10971>
- Silva, T. M. (2014). Study of reading comprehension in Latin America: The need for a comprehension-oriented perspective. *Innovación Educativa (México, DF)*, 14(64), 47-55.
- Zapata, D. (2017). *Attitudes towards reading and levels of reading comprehension*. Mexico: UNIT Digital Publishing.