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Perception of neurolinguistic programming in the teaching-learning process of high school students

Percepción de la programación neurolingüística en el proceso de enseñanza-aprendizaje de estudiantes de bachillerato

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Abstract

The objective of this study was to analyze the impact of Neuro-Linguistic Programming (NLP) on the teaching and learning of high school students at the Guillermo Durán Arcentales Educational Unit in Ecuador. This research was conducted using a mixed-method approach, with an explanatory scope and cross-sectional design. The sample consisted of 225 students, who were given a structured questionnaire, and two teachers, who were interviewed following a semi-structured guide. The quantitative data showed that a large majority of students felt an increase in motivation, comprehension, and the development of cognitive skills after the use of NLP strategies in class. In the qualitative sphere, teachers mentioned, among the advantages, the strengthening of emotional self-regulation and greater student involvement, although they also pointed out the limitation of not having specific training in NLP. The analysis carried out reveals that neurolinguistic programming has a significant influence in the field of education, extending its effects not only to cognitive strengthening, but also to the enrichment of students' affective and communicative dimensions. It is argued that its integration into the curriculum has benefits for the school climate, provided that teachers receive structured and sustained training. This study therefore contributes to the assessment of the educational potential of NLP and suggests complementary research paths that will enable its adaptation to a variety of teaching and learning environments.

Keywords: neurolinguistic programming, learning-teaching, pedagogical strategies.

Resumen

El presente estudio tuvo como objetivo analizar el impacto de la Programación Neurolingüística (PNL) sobre la enseñanza y el aprendizaje de jóvenes de bachillerato en la Unidad Educativa Guillermo Durán Arcentales, en Ecuador. La presente investigación se desarrolló bajo un enfoque mixto, con un alcance explicativo y diseño transversal. La muestra la formaron 225 estudiantes, a los que se les administró un cuestionario estructurado, y dos profesores, que fueron entrevistados siguiendo una guía semi-estructurada. Los datos cuantitativos

mostraron que una gran mayoría de los estudiantes sintieron un aumento en la motivación, en la comprensión y en el desarrollo de competencias cognitivas tras la utilización de estrategias de PNL en las clases. En el ámbito cualitativo, los profesores mencionaron, entre las ventajas, el fortalecimiento de la autorregulación emocional y una mayor implicación de los alumnos, aunque señalaron, a su vez, la limitación de no contar con formación específica en PNL. El análisis efectuado revela que la programación neurolingüística influye de manera significativa en el campo de la educación, extendiendo sus efectos no solo al fortalecimiento cognitivo, sino también al enriquecimiento de dimensiones afectivas y comunicativas del alumnado. Se sostiene que su integración en el currículo sedimenta beneficios en el clima escolar, con la condición de que el profesorado disponga de capacitación estructurada y sostenida. Este estudio, por ende, contribuye a la valoración del potencial didáctico de la PNL y sugiere rutas investigativas complementarias que permitan su adaptación a variados entornos de enseñanza y aprendizaje.

Palabras clave: programación neurolingüística, aprendizaje-enseñanza, estrategias pedagógicas.

Introduction

The methods of teaching and learning in schools have shifted towards more comprehensive approaches that consider the interplay between the mind, language, and emotions. In this context, Neuro-Linguistic Programming (NLP) has emerged as a valuable tool for enhancing these processes. As noted by Arjona et al. (2021) and Moreno Mojica (2016), NLP integrates important aspects of personal development, facilitating learning by altering the way we think, using language for reasoning, and regulating emotions.

Since its inception, NLP has had a significant impact on education. Its application in the classroom includes strategies such as linking emotions, modeling successful behaviors, and transforming limiting beliefs, which help students feel more motivated, confident, and capable of exercising greater self-control (Arjona et al., 2021; Diez, 2021). These practices have demonstrated positive outcomes in various areas, including language instruction, mathematics, and complex subjects, highlighting their versatility in the educational realm (Parrado, 2020; Riera and Romo, 2020).

The proposals of Piaget and Vygotsky regarding the relevance of language and social interaction in learning provide a solid theoretical foundation for the application of NLP in schools. According to Escobar et al. (2020) and Guerra (2020), thinking is enriched when articulated through meaningful forms of communication, an idea that aligns with the principles of NLP.

Therefore, the purpose of this study is to examine how NLP-based strategies influence the grades and emotional development of secondary school students, with the aim of offering new insights for improving teaching methods using more humane and effective approaches.

Methodology

This research was conducted using a mixed-methods approach, integrating quantitative and qualitative methods to gain a comprehensive understanding of the impact of NLP on teaching and learning processes among high school students. In terms of research level, an explanatory scope was established, analyzing potential relationships between the use of NLP and variables such as motivation, emotional control, and willingness to learn. A cross-sectional design was adopted, as data collection occurred at a single point following the application of NLP strategies.

In the quantitative phase, a questionnaire consisting of 65 items was administered to a sample of 225 students. The questionnaire, designed and validated by education specialists, aimed to assess dimensions related to logical thinking, emotional self-regulation, motivation, and teacher-student interaction. The information gathered was processed through descriptive statistical analyses, allowing for the identification of general trends in the responses.

In the qualitative phase, semi-structured interviews were conducted with two teachers from the institution, selected through purposive sampling. The interviews were guided by a series of open-ended questions that explored experiences, perceptions, and observations regarding the implementation of NLP in the classroom. The qualitative data were analyzed through thematic coding, identifying patterns and emerging categories related to educational dynamics and student behavior.

The study was carried out at the "Guillermo Durán Arcentales" Educational Unit, located in Milagro, Ecuador, during the 2024-2025 academic year. The study included 375 secondary students. A simple random sampling method was used to select 225 students, with an equal number from the 1st, 2nd, and 3rd years of high school (See Table 1). Additionally, two teachers who employed NLP were selected to provide relevant information for the study.

Table 1
Description of the sample (students and teachers).

Participating group	Quantity	Educational level / Position	Inclusion criteria
High school students	225	1st, 2nd, and 3rd year	Students enrolled in the 2024-2025 term who completed the survey
Interviewed teachers	2	Teachers at the institution	Teachers with direct classroom experience and willingness to participate

The quantitative instrument consisted of an online questionnaire assessing motivation, content comprehension, cognitive skill development, and classroom climate perception, containing 20 Likert-type items, conducted via Google Forms. In the qualitative approach, a semi-structured interview guide was developed for the teachers to collect in-depth narratives about the use, advantages, and challenges of NLP in the educational context.

The following inclusion criteria were defined: students enrolled in all three levels of secondary education and active teaching staff at the school during the 2024-2025 academic year. Participants who did not fully complete the instrument or expressed a desire not to participate were excluded.

From an ethical perspective, the voluntary nature of participation, anonymity, and confidentiality of information were protected. Participants were informed about the study's objectives and verbal consent was obtained prior to participation in accordance with relevant ethical guidelines for educational research.

One of the central limitations of the study lies in the design of a non-probability sampling, which notably restricts the extrapolation of conclusions to other institutions or diverse educational contexts. Additionally, as this study, due to its explanatory nature and cross-sectional approach, involves data recorded at a single moment, the emerging insights only illustrate relationships observed at that specific time without allowing for causal inferences that claim universal applicability. Furthermore, as this research represents a preliminary exploration of the use of NLP in classroom contexts, the information gathered should be interpreted within the premises of an initial analysis, and its findings are consequently considered entirely exploratory.

Results and discussion

The data derived from the questionnaire administered to 225 high school students at the Guillermo Durán Arcentales Educational Unit reveal positive results regarding the influence of Neuro-Linguistic Programming (NLP) on the teaching-learning process. Over ninety percent of respondents agreed, either partially or fully, with the statement that NLP practices enhanced their self-motivation, autonomous emotional self-regulation, effective communication with teachers, and the organization of the knowledge received.

Specifically, 95 percent of students reported that their inferential reasoning capacity had strengthened, while 96% noted significant progress in self-motivation and emotional self-control. These findings suggest that NLP, through techniques such as emotional anchoring, modeling, and cognitive reprogramming, promotes the integration of cognitive processes and the emotional sphere, facilitating a more systematic learning experience. This interpretation is supported by the results of Osorio Gómez et al. (2021), who argue that pedagogical discourses centered on perceptual experience and emotion have an immediate effect on the quality of learning and student engagement.

Moreover, 95% of students positively evaluated their interaction with teachers, providing evidence that suggests a shift in the communicational dynamics within the academic setting. This finding can be attributed to the application of NLP techniques aimed at establishing an empathetic, effective, and thus pedagogically relevant relationship between teachers and students. It is not surprising that Estupiñán Ricardo et al. (2016) point out that such relationships are critical determinants of academic success, fostering active participation and emotional commitment to the body of knowledge.

Consequently, the set of evaluated data suggests that systematic inclusion of NLP not only enhances affective dimensions such as motivation and self-regulation but also reinforces performance in critical thinking and

promotes the consolidation of a positive and collaborative learning environment. The magnitude of these academic and social repercussions indicates that NLP strategies should be valued as pedagogical tools with explicit justification in contemporary secondary education.

Table 2
Results of the survey administered to high school students

evaluated categories	strongly disagree	disagree	agree	strongly agree
Logical inference	2	5	45	48
Analogical reasoning	1	4	43	52
Internal conditions	3	6	40	51
External conditions	4	8	42	46
Emotional self-regulation	2	4	48	46
Self-motivation	1	3	46	50
Teacher communication	0	2	50	48
Student comprehension	1	4	47	48
Pedagogical strategies	2	5	44	49
Information management	1	4	45	50

In the qualitative approach, semi-structured interviews were conducted with two teachers from the institution. Both educators were convinced that NLP-derived techniques significantly increase student participation, their emotional disposition toward learning experiences, and communication. One teacher stated that students “approach topics more optimistically, and their anxiety regarding evaluations is largely alleviated.” Both highlighted the importance of emotional anchoring, visualization, perspective shifting, and modeling.

These perceptions, as described by Montañés and Rodríguez (2023), reflect the educational benefits of NLP, particularly in promoting empathy, respect, and positive communication in the classroom.

However, other limitations arose, such as the lack of formal educational training in NLP and insufficient institutional time for systematic application. These barriers were identified as significant challenges to the effective implementation of these strategies.

The combination of quantitative and qualitative data facilitates the evaluation of the effectiveness of NLP. The positive perceptions from both students and teachers support the potential of these techniques to transform educational dynamics, aligning with previous findings. Sanabria (2023) advocates for NLP to enhance students' intrapersonal skills, which are critical for holistic student development, while Romero and Barboza (2022) emphasize its advantages in constructivist and inclusive contexts.

Further studies complement these findings. Ávila Acevedo et al. (2024) noted that NLP fosters emotional self-regulation and conscious decision-making, while Morán Barrionuevo (2024) reported improvements in language learning through authentic communicative participation. Additionally, Avila-Nungaray (2025) highlighted NLP's capacity to enhance resilience among students from vulnerable backgrounds. Sanabria-Araya (2023) adds that it is effective in virtual environments due to the ease with which learning can be adapted to the individual. Nivela et al. (2017) assert that the cognitive impact is significantly greater in well-designed, structured, and student-centered digital environments.

The interviews with teachers corroborated this perspective, indicating greater student engagement with the material, increased empathy within the school climate, and more active participation. However, they emphasized the urgent need for specialized and ongoing training, as noted by Jiménez et al. (2022), who pointed out that a lack of systematic training tends to undermine the impact of these institutional strategies.

Although the study provided relevant information, one of its limitations was the use of a non-probability sampling method, as well as the lack of a larger sample and the study being conducted in a single institution. Nevertheless, these factors do not affect the internal validity of the study, which can serve as a foundation for future research seeking to more thoroughly verify the results.

Conclusions

This study demonstrates that the use of Neuro-Linguistic Programming (NLP) methods in the school setting significantly contributes to improving students' thinking processes, as well as their social and emotional skills. It appears that NLP transcends mere learning, strengthening teaching methods where students actively participate. These changes are reflected in how students self-motivate, manage their emotions, engage more in class, and how teachers perceive their classes more positively.

Through measurement and descriptive methods, it was evidenced that both students and teachers view NLP positively, indicating a shift in school relationships and how students experience learning. However, ongoing training and institutional support are still required for consistent and long-term implementation.

NLP is a useful, adaptable method that serves multiple purposes, adjusting to various situations. Such approaches are increasingly needed in contexts that seek inclusive and more humane education, demanding more from students.

Finally, this highlights the potential impact of NLP in other areas of the educational system, such as early childhood or higher education. This remains a relevant and underexplored topic that deserves greater attention in future research.

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