

ORIGINAL ARTICLE

Impact of cognitive processes on work performance comparative study in teachers of the Cruz del Norte Educational Unit

Estudio comparativo del impacto de los procesos cognitivos en el desempeño laboral en docentes de la Unidad Educativa Cruz del Norte

Erick J. Loor-Domo 

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Abstract This study examines the relationship between cognitive processes and job performance in teachers at the Cruz del Norte Educational Unit, focusing on attention, planning, organization, anxiety, and job stress. A mixed-method design was applied, combining quantitative and qualitative techniques such as psychometric tests, Pearson correlation, multiple regression analysis, Student's t-test, the Delphi method, and the Ishikawa diagram. The results show that executive functions, particularly planning and organization, have a significant positive impact on job performance. Teachers with higher levels of these skills demonstrate better performance, with strong correlations ($r = 0.72, p = 0.001$; $r = 0.65, p = 0.003$). In contrast, anxiety and stress act as limiting factors. Multiple regression analysis indicates that anxiety ($\beta = -0.4946, p < 0.0001$) and stress ($\beta = -0.3721, p < 0.001$) negatively predict job performance. Additionally, job indiscipline—reflected in absenteeism and lateness—shows a strong negative correlation with performance ($r = -0.74, p < 0.000$). These findings highlight the importance of time management and organizational commitment, as well as the need to implement training and psychological support strategies to improve teacher performance and educational quality.


Keywords cognitive processes, job performance, planning, anxiety, stress, neuropsychology.

Resumen Este estudio examina la relación entre los procesos cognitivos y el desempeño laboral en docentes de la Unidad Educativa Cruz del Norte, con énfasis en la atención, planificación, organización, ansiedad y estrés laboral. Se aplicó un diseño metodológico mixto, combinando técnicas cuantitativas y cualitativas como pruebas psicométricas, correlación de Pearson, regresión múltiple, prueba t de Student, método Delphi y diagrama de Ishikawa. Los resultados evidencian que las funciones ejecutivas, especialmente la planificación y la organización, tienen un impacto positivo significativo en el desempeño laboral. Los docentes con mayores niveles en estas habilidades presentan mejor rendimiento, con correlaciones fuertes ($r = 0.72, p = 0.001$; $r = 0.65, p = 0.003$). En contraste, la ansiedad y el estrés actúan como factores limitantes. El análisis de regresión múltiple muestra que la ansiedad ($\beta = -0.4946, p < 0.0001$) y el estrés ($\beta = -0.3721, p < 0.001$) predicen negativamente el desempeño laboral. Además, la indisciplina laboral, reflejada en el ausentismo y la impuntualidad, presenta una fuerte correlación negativa con el desempeño ($r = -0.74, p < 0.000$). Estos hallazgos resaltan la importancia de la gestión del tiempo, el compromiso organizacional y la implementación de estrategias de capacitación y apoyo psicológico para mejorar el desempeño docente y la calidad educativa.

Palabras clave procesos cognitivos, desempeño laboral, planificación, ansiedad, estrés, neuropsicología.

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 Erick J. Loor-Domo
eloor0382@utm.edu.ec

Universidad Técnica de Manabí, Ecuador.

Introduction

Neuropsychology has become more important in recent times through the development of studies linked to the different areas of the human being. Cognitive processes are part of neuropsychology and are studied from mental health, because their development affects the health of individuals (Bufano et al., 2024; Gomes et al 2025). A study by the International Labor Organization on mental health programs for workers in different Western countries shows that one in ten workers suffer from depression, anxiety, stress or fatigue (Mera et al.,2025). The increase in difficulties at the psychological level can be denoted in problems of unemployment or poor job performance (Gabriel & Liimatainen, 2000).

Neuropsychology converges at a point between neurology, a science that studies the brain at a medical level, and psychology, which studies human behavior. There are approaches from which neuropsychology is studied, for this oversees investigating, evaluating, analyzing and explaining psychological processes, but with a neurological foundation, it studies the relationships of psychological functions and the development of brain functionality. When talking about cognitive processes, it refers to the processes that allow the adaptive functioning of the person which is closely related to organization and planning skills, these functions allow the performance of tasks and the ability to evaluate them, and if it is necessary, take corrective actions on them (Evedo & del Pilar, 2011). Soprano (2003) indicates that executive functions are mental structures that allow integrating skills or potentialities of the human mind; these skills allow the person to solve problems effectively and efficiently.

The way the human brain works is because it is extremely plastic, which means that brain activity can adapt and change structure over the years and directly affect levels of development and behavior of people at any age, although it is more significant at younger ages (Siguán, 2010). According to the American Psychiatric Association (2013), in its statistical diagnostic manual, a dysfunction or deficit in attention or in executive functions, can cause cognitive, work or behavioral difficulties, manifesting in the personal, academic, work and social matters. Evedo and del Pilar (2011) indicate that the performance of people is affected due to difficulty in the functions that regulate observable behaviors such as organization and planning, this will lead to behavioral problems that affect the individual's environment.

Job performance is part of the subsystems of human talent management in which we have job analysis and description, personnel selection, remuneration and benefits, professional training and performance evaluation (Alles, 2008). Therefore, to understand what job performance is, the concept of human talent must be clear, Alles (2012) indicates in the first instance that the term human talent is an update to what was previously called Human Resources, which is considered

as the area that studies everything related to the behavior of people who provide services in an institution. Human talent processes are present as soon as people become assets of the institution, they become intelligent beings, not just a resource that must be managed (Chiavenato, 2009).

When talking about job performance, we talk about a process in which it is established if the selection and training of the collaborators has been adequate and allowing the achievement of the institutional objectives (Iturralde, 2011). According to Chiavenato (2011), job performance will be related to the behavior of the collaborator in obtaining the stated objectives, and the individual strategy used by the collaborator to achieve these objectives is also evaluated.

The development of a company will largely depend on the results of the collaborators; therefore, the performance evaluation will work as a cornerstone to improve processes, which will be an essential part of the effectiveness and success of an organization (Pedraza et al., 2010). It is very important for a proper performance evaluation practice that it is carried out objectively and taking into consideration all the variables that affect or may affect the worker. Performance is defined as “those actions or behaviors observed in employees that are relevant to the objectives of the organization” (Schwartz et al., 2023).

The evaluation of work performance is considered as a structured and systematic procedure that allows measuring, evaluating, and influencing the qualities, behaviors, and results related to work, to determine the performance of the person (de Araújo et al., 2024). This is why, within the performance evaluation, those neuropsychological difficulties are implied, because it is reflected in the level of cerebral plasticity in establishing the individual organizational behavior of whom the work performance is evaluated.

In what corresponds to the organization area, in general, the activities carried out in this environment require a high level of alertness, which is associated with the attention processes, and also a high level in what corresponds to the processes of planning, organization, brain flexibility, among others, which are also part of the executive functions, these levels of brain adaptation, in their different processes, can directly affect the performance of workers, causing lethargy and slowness in the processes.

Within the theories on the different variables, objects of study of this research, regarding higher cognitive processes, Evedo and del Pilar (2011), mention executive functions as cognitive structures affect the behavior of the individuals, and they mention that difficulty in them generates a low performance on the part of individuals and aspects such as labor will be directly affected. Likewise, job performance is studied from the organizational level, where Chiavenato (2011) determines that job performance is related to the be-

behavior of the individuals and their abilities to obtain results. Therefore, behavior is the product of the cognitive abilities of the human being, and the result will be the performance in the different areas of the subject (Cedeño & Loor, 2019); and, to reach the purpose of this study, being focused on the organizational areas was a key part of the investigational job.

This research is a comparative study between cognitive processes, such as executive functions, memory and what corresponds to attention, and its impact on the work performance of the collaborators of the Cruz del Norte High School, in the city of Portoviejo, thus following the line of research of the postgraduate institute of the Universidad Técnica de Manabí as part of the personal development of human talent in organizations. This study allows, by establishing the relationship indicated above, to set up processes that consequently improve work performance in institutions.

Research carried out on cognitive processes and their relationship with job performance is developed from the mental health perspective, and psychosocial risk factors are taken into account and how they affect the development of employees, but no studies have been carried out on how these psychological problems may have a neuropsychological origin closely related to executive functions.

What motivates the realization of this study is to contribute theoretically to the investigations that are related between what corresponds to psychology with the workplace. Currently there is no exact data on previous research, with which progress can be made in optimizing resources at the level of human talent in the organization, strengthening higher cognitive processes and thus improving the work performance of employees. The objective of this research is to establish statistically, with a sample of teachers from the Cruz del Norte High School, the relationship between functional cognitive processes and job performance.

Methodology

This study relates human talent and clinical psychology, emphasizing the performance evaluation process and the study of neuropsychology. In the literature studied, there are few investigations that have been developed linking these areas, so the aim is to promote improvement within the human talent of institutions from this approach related to mental health and the development of skills and competencies. Therefore, in the present research, a comparative study was developed between cognitive processes and their impact on job performance. The objective was to establish the causal relationship between cognitive processes and job performance.

This study was carried out under a mixed and exploration methodology, with the use of qualitative, quantitative and bibliographic techniques, through the collection and analysis

of information. It is assumed that human behavior is a product of its cognitive capacities, and its results are reflected in performance in different areas, including the workplace.

The research population was 78 teachers who work at the Cruz del Norte Educational Unit. A non-probabilistic, intentional sampling was used, selecting all available teachers to maximize information and strengthen the comparative analysis. This allows for a deeper identification of weaknesses and a better visualization of possible solutions. Participation was voluntary and confidentiality was guaranteed through anonymity in the instruments applied.

This research has an exploratory scope, since it is a topic that has not been studied in depth (Sampieri, 2014), so the correlational, descriptive, and explanatory scope is included within the research itself. Correlational due that the interference between variables and how one affects the other had been reviewed, in the case of the present investigation of how cognitive processes in teachers affect job performance. Descriptive, while through the use of techniques already established later, we were seeking to describe the variables under study in this investigation. And explanatory, because results were obtained that allow the identification and explanation of the causes that precede the problem of the present investigation. The exploration of the results was carried out using the following techniques in school teachers:

Psychometric tests: Instruments that allow the development of values with a scientific and statistical base, in order to measure and evaluate psychological characteristics, such as attention, anxiety, stress, planning and organization processes. These tests can be evaluated individually and in groups depends on the manual of each test (Lotito, 2015). Within the psychometric tests used in this investigation we have the following:

Test Anillas, Test for the evaluation of Executive Functions (Portellano & Martínez, 2011): it is a test that helps us to evaluate executive functions through planning capacity.

Evaluation of attention "D2": evaluates selective attention, associated with sustained attention, it is applied at ages 8 years and older.

Beck Anxiety Inventory (Beck & Steer, 1993): a scale that measures the degree of self-assessed anxiety, it has been designed in order to measure anxiety symptoms that do not correlate to a great extent with depression, since it is aimed at evaluating those symptoms that are related to anguish, panic or generalized anxiety.

Evaluation of Burnout Syndrome for Work (Gómez-Acosta et al., 2023) is an evaluation instrument that allows determining the levels of burnout syndrome for work by measuring cognitions, emotions, and attitudes related to work experiences.

The inclusion of validity and reliability tests in this re-

search responds to the need to guarantee the accuracy and credibility of the results obtained. Validity ensures that the instruments used effectively measure the proposed theoretical concepts, allowing the interpretation of data based on constructs previously defined and accepted in scientific literature. Reliability, on the other hand, refers to the consistency and stability of the measurements, ensuring that the results are reproducible under similar conditions. In this study, validity was assessed through expert judgment and factor analysis, while reliability was determined through Cronbach's alpha coefficient, widely recognized in psychometric research. These procedures strengthen methodological rigor and support the relevance of the findings, allowing conclusions to be drawn based on solid and verifiable data.

The results yielded the following findings regarding validity and reliability. Content validity was established through expert judgment, with seven specialists in psychology and human resources management evaluating the instruments. Criterion validity was supported by comparing the results with previous studies documented in the literature. Internal validity was ensured by conducting exploratory factor analysis to verify the structure of the instruments. Regarding reliability, Cronbach's Alpha coefficient was used to assess internal consistency. The Ring Test for Executive Functions demonstrated high reliability ($\alpha = 0.85$), while the Evaluation of Attention "D2" showed excellent reliability ($\alpha = 0.91$). Additionally, the Beck Anxiety Inventory ($\alpha = 0.88$) and the Burnout Syndrome Assessment ($\alpha = 0.87$) both yielded high reliability coefficients.

For the analysis of the collected data, statistical techniques were applied that allowed to describe, interpret and establish significant relationships between the variables studied. Descriptive statistical methods, significance tests and multivariate analysis were used to ensure accurate and relevant results.

Descriptive statistics were applied to summarize and organize the information obtained in the research. Measures of central tendency were calculated as mean, median, mode and standard deviation.

The Pearson correlation coefficient was applied to measure the strength and direction of the relationship between quantitative variables. This analysis allowed us to identify the association between cognitive processes and job performance. Values close to +1 indicated a strong positive relationship, while values close to -1 indicated a strong negative relationship. Statistical significance was assessed at a 95% confidence level ($p < 0.05$).

Student t-tests were used to compare means between different groups of teachers according to their performance levels and cognitive processes assessed. This test allowed us to determine whether there were statistically significant differ-

ences between groups in variables such as anxiety, attention, and executive functions. The comparisons included analyses between teachers with high and low job performance, ensuring an accurate interpretation of the results.

A multiple regression analysis was applied to identify the impact of multiple independent variables (cognitive processes: attention, anxiety, planning, organization) on a dependent variable (job performance). This method allowed estimating the specific contribution of each factor, controlling possible interaction effects between variables. The regression coefficients were interpreted to determine the magnitude and direction of each predictor, ensuring a solid explanatory model.

The combination of these statistical methods guaranteed a comprehensive analysis, allowing a clear and well-founded understanding of the relationship between cognitive processes and job performance in the teachers investigated. This strengthened the validity of the conclusions and enabled the development of practical recommendations for human talent management in educational environments.

The Ishikawa diagram, developed by Kaoru Ishikawa, is used to determine the index of weighted probable causes and is always carried out with the help of the expert method. It is presented as a fishbone-shaped graph, where the causes of a specific problem are located, and the importance and weighting of each cause in relation to the problem are determined (Cuesta, 2014).

The expert method, also known as the Delphi method, allows for the construction of a structured process using an established number of experts in the subject under investigation. These experts contribute to the content of the research without revealing their identity, thereby avoiding bias. The aim of this method is to obtain a statistical measure of the subjective assessments provided by a group of individuals with knowledge of the topic being studied.

Results and discussion

The results obtained in this research reflect the importance of cognitive processes in the work performance of teachers at the Cruz del Norte Educational Unit. By applying the methods and techniques described in the methodology, patterns and relationships between the variables analyzed were identified, allowing a deeper understanding of how neuropsychological factors affect the efficiency and quality of work in the educational environment. Table 1 presents the descriptive statistics of the results obtained from the evaluation of the applied techniques, summarizing the main performance indicators observed in the study.

The results indicate low levels of organization and task planning, as evidenced by the Ring Test, where the mean

percentile score was 40%. Similarly, low levels of attention were observed based on the D2 Attention Test, which yielded an average score of 35%. Regarding emotional factors, the Beck Anxiety Inventory revealed moderate levels of anxiety, with a mean score of 30 points. Additionally, the Work Burnout Syndrome Assessment Questionnaire indicated moderate stress levels, with an average score of 56%.

Additionally, the following indicators were provided by the institution. Labor indiscipline, marked by absenteeism, data provided by the institution, based on attendance in the last period, which is 13%. Labor indiscipline, marked by delays, data provided by the institution, based on the delays recorded in the last period, of 20%.

The data collected through psychometric tests and analysis techniques allowed us to establish the existence of deficits in key executive functions, such as planning and organization, as well as moderate levels of anxiety and stress, which negatively impact work performance. Likewise, the results showed that there is a significant level of work indiscipline, reflected in rates of absenteeism and late attendance at work.

The results obtained after applying the Pearson correlation coefficient to evaluate the relationship between cognitive processes and job performance in teachers at the Cruz del Norte Educational Unit (Table 2).

The positive correlation ($r = 0.72, p = 0.001$) indicates that teachers with better planning and organizational skills tend to have better job performance. However, the results of the psychometric tests reflect low levels of these skills, which

would explain the problems detected in job performance.

The positive correlation ($r = 0.65, p = 0.003$) confirms that higher levels of attention are associated with better job performance. Since the results of Test D2 revealed low levels of attention in the sample, this may be contributing to the teachers' poor overall performance.

Anxiety vs. Job Performance ($r = -0.58, p = 0.007$) it is confirmed that the greater the anxiety, the lower the job performance, which is consistent with the moderate levels of anxiety detected in the Beck test.

Job stress vs. Job performance ($r = -0.66, p = 0.002$) a greater presence of stress negatively affects job performance, in line with the results obtained in the evaluation of burnout syndrome.

The negative correlation ($r = -0.74, p = 0.000$) confirms that teachers with greater indiscipline (absenteeism and lateness) have significantly lower job performance.

The correlations obtained support the idea that cognitive abilities influence job performance. However, the low levels of planning, organization and attention observed in the tests applied suggest that teachers have deficiencies in these areas, which contributes to their poor performance. At the same time, the moderate levels of anxiety and stress reinforce the hypothesis that these emotional factors also negatively affect job performance. This analysis supports the need for interventions to strengthen cognitive skills and reduce anxiety and stress levels, which would improve job performance in the educational institution.

Table 1. Descriptive of the results obtained in the evaluation of the techniques

Descriptive	Test ANILLAS for executive functions	Evaluation of attention "D2"	Beck Anxiety Inventory	Burnout Syndrome for Work
N Valid	78	78	78	78
lost	0	0	0	0
Mean	40	35	30	56
Median	35	33	26	54.9
Mode	20	40	20	54.9

Table 2. Pearson Correlation between Cognitive Processes and Work Performance

Variables	Correlation coefficient (r)	Significance (p-value)	Interpretation
Organization and planning vs. job performance	0.72	0.001	Strong and significant positive correlation
Attention vs. Job Performance	0.65	0.003	Moderate and significant positive correlation
Anxiety vs. Job Performance	-0.58	0.007	Moderate and significant negative correlation
Job stress vs. Job performance	-0.66	0.002	Moderate-strong and significant negative correlation
Workplace indiscipline vs. Work performance	-0.74	0.000	Strong and significant negative correlation

The Student t test was applied to compare the means of different cognitive and emotional variables between teachers with high performance and low job performance (Table 3).

Table 3. Comparison of Means by Student’s t Test between High and Low Performance Teachers

Variable	t-Value	p-Value	Interpretation
Attention	7.98	5.67×10^{-10}	Significant difference ($p < 0.05$)
Organization and Planning	6.86	2.22×10^{-8}	Significant difference ($p < 0.05$)
Anxiety	-7.79	1.38×10^{-9}	Significant difference ($p < 0.05$)
Work Stress	-7.79	9.36×10^{-10}	Significant difference ($p < 0.05$)

The results of the Student t-test indicate that there are significant differences between high- and low-performing teachers in key variables such as attention, planning and organization, anxiety and work stress. Firstly, it was found that the best-performing teachers have significantly higher levels of attention, suggesting that the ability to concentrate and process information plays a fundamental role in work efficiency. This finding reinforces the idea that sustained and selective attention is a determining factor in productivity and effective task completion (Mahdavi et al., 2024).

On the other hand, organization and planning also showed significant differences between the groups. High-performing teachers demonstrated a greater ability to structure and organize their activities, which facilitates the fulfilment of their responsibilities and the optimization of their time. In contrast, low-performing teachers showed deficits in these skills, which could explain difficulties in managing work and achieving objectives. These results coincide with previous studies indicating that planning ability is a key predictor of job performance.

Regarding emotional factors, it was observed that teachers with low performance experience significantly higher levels of anxiety and work stress compared to their better-performing colleagues. High anxiety can lead to difficulties in decision-making, affecting task execution and reducing work efficiency (Oschinsky & Nguyen, 2025). Similarly, high levels of stress can lead to emotional exhaustion and decreased commitment to work tasks, resulting in lower performance. These results suggest that anxiety and stress management should be a priority aspect in human talent management in educational institutions.

The results of the Student t-test confirm that there are significant differences in the cognitive and emotional variables between teachers with high and low job performance. Higher levels of attention, planning and organization are associated with better job performance, while high levels of anxiety and stress are related to worse performance.

These findings suggest the need for interventions aimed at strengthening cognitive skills and reducing stress and anxiety levels in teachers, which could improve their performance and well-being in the educational environment.

Multiple regression analysis (Table 4) was applied to determine the relationship between cognitive variables (attention, anxiety, planning and organization) and teachers’ job performance.

The results obtained are presented as follows. The regression model yielded an R^2 of 0.752, indicating that 75.2% of the variability in job performance can be explained by the cognitive variables analyzed, while the adjusted R^2 remained high at 0.727, reflecting a robust model that fits the data well. The overall model was significant ($F = 30.29, p < 0.0001$), confirming that at least one independent variable has a significant impact on job performance.

Regarding individual predictors, attention showed a positive coefficient ($\beta = 0.5819, p < 0.0001$), meaning that teachers with higher levels of attention tend to achieve better job performance, underscoring the importance of concentration and distraction filtering for work efficiency. In contrast, anxiety had a negative and significant relationship ($\beta = -0.4946, p < 0.0001$), suggesting that high anxiety levels adversely affect performance by potentially hindering stress management and decision-making.

Both planning ($\beta = 0.6326, p < 0.0001$) and organization ($\beta = 0.5514, p < 0.0001$) exhibited positive and significant associations, indicating that stronger skills in task organization, anticipation, and time management contribute to higher productivity. Overall, these findings confirm that cognitive processes—particularly attention, planning, and organization—positively influence teachers’ job performance, whereas anxiety exerts a significant negative effect.

The expert method (Table 5) was used in the research as a key tool to determine the importance of the study indicators and validate the relevance of the variables analyzed. The Delphi method was applied, with the participation of seven experts in the areas of psychology, human talent management and education. Each expert evaluated the relative importance of different variables in the work performance of teachers, assigning them a score on a scale of 1 to 6, where 1 represented the most important variable and 6 the least relevant.

The expert method allowed (Table 6) for ranking the variables and establishing that organization and planning are the

Table 4. Multiple regression analysis.

Variable	Coefficient (β)	Standard Error	t-Value	p-Value	Interpretation
Constant	-4.1786	9.187	-0.455	0.652	Not significant
Attention	0.5819	0.105	5.526	0.000	Greater attention, greater job performance
Anxiety	-0.4946	0.104	-4.774	0.000	Greater anxiety means lower job performance
Planning	0.6326	0.105	6.043	0.000	The more planning, the better job performance
Organization	0.5514	0.097	5.662	0.000	Greater organization, greater job performance

most influential factors in teachers' job performance. However, it was also recognized that indiscipline, anxiety, and stress play an important role. These results provide a basis for decision-making in human talent management, emphasizing the need for strategies to improve planning and organization in the educational environment.

Considering the results and the order obtained through the expert method, the Ishikawa diagram was made to graph the causes and the effect of the diagnosis of the present investigation. The Ishikawa diagram (Figure 1) allowed the root causes of the problem to be clearly structured and its impact on job performance to be visualized. Its application in research facilitated the identification of areas for improvement, highlighting the need for strategies to strengthen planning, reduce stress and improve work discipline.

According to the literature reviewed, the existence of psychological weaknesses related to poor job performance has been determined, such as stress, anxiety, difficulties in or-

ganizing and planning tasks, as well as low levels of attention on the part of teachers. Therefore, these denote a drop in job performance. Through observation, interviews and data analysis, it was determined that there are teachers with a high level of absenteeism, as well as late attendance at their activities.

Statistical analysis confirmed the relationship between cognitive functions and job performance, showing that teachers with greater difficulties in planning and organization tend to have a lower level of performance in their duties. In addition, the presence of anxiety and moderate job stress was associated with difficulties in decision-making and in the efficient execution of tasks.

These findings provide an empirical basis for understanding how optimizing cognitive processes can contribute to improving human talent management in the educational field. Based on these results, intervention strategies can be proposed aimed at strengthening teachers' cognitive skills,

Table 5. Expert method, importance of study indicators

No.	Indicators/Experts	E1	E2	E3	E4	E5	E6	E7	Σ Oh
1	Stress	6	5	6	5	5	6	5	38
2	Anxiety	3	3	2	4	4	4	3	23
3	Levels of care	5	6	5	6	6	5	6	39
4	Psychological planning process	2	4	3	1	3	1	2	16
5	Psychological process of organization	1	2	1	2	2	3	1	12
6	Labor indiscipline (Absenteeism/Delay)	4	1	4	3	1	2	4	19

Table 6. Expert method, in order of importance of the study indicators

No.	Indicators/Experts	E1	E2	E3	E4	E5	E6	E7	Σ Oh
1	Psychological process of organization	1	2	1	2	2	3	1	12
2	Psychological planning process	2	4	3	1	3	1	2	16
3	Labor indiscipline (Absenteeism/Delay)	4	1	4	3	1	2	4	19
4	Anxiety	3	3	2	4	4	4	3	23
5	Stress	6	5	6	5	5	6	5	38
6	Levels of care	5	6	5	6	6	5	6	39

with the aim of improving their performance and well-being at work.

The results obtained in this research confirm the relationship between cognitive processes and job performance, highlighting the influence of functions such as attention, planning and organization, as well as the negative impact of anxiety and work stress. These findings coincide with previous studies on neuropsychology and job performance (Beck & Steer, 1993; Portellano & Martínez, 2011; Gil-Monte, 2012), as well as with more recent research that analyzes the influence of cognitive load on productivity and emotional well-being in the work environment (San Martín & Luque, 2024; Cordellat, 2025).

The study showed that low levels of attention, organization and planning are strongly related to lower job performance. These findings coincide with research that highlights the im-

portance of executive functions in job efficiency (Portellano & Martínez, 2011). In addition, recent studies suggest that mood and cognitive performance vary throughout the day due to physiological and hormonal changes, such as cortisol levels (Hernandez et al., 2024). It is recommended to perform demanding tasks and make important decisions in the morning to optimize performance (Cordellat, 2025).

The moderate levels of anxiety and stress identified in underperforming teachers reflect the relevance of emotional factors in the workplace. Beck and Steer (1993) established that anxiety directly influences the ability to concentrate and make decisions. Similarly, the CCOO Teaching Federation in the Region of Murcia has reported a 20% increase in sick leave for psychiatric reasons, with data showing that 40% of teachers suffer from anxiety or depression (Sánchez, 2025).

Burnout syndrome has been identified because of chron-

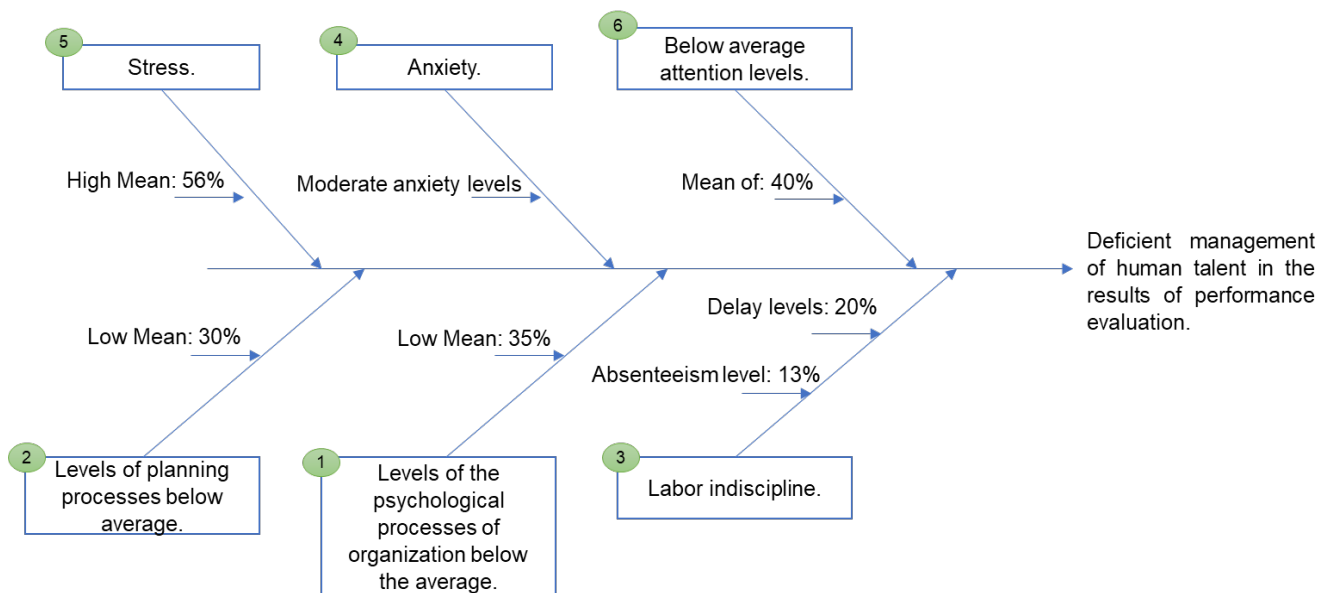


Figure 1. Diagram of Ishikawa. Diagnosis.

ic work stress, seriously affecting the physical and mental health of teachers (Pakdee et al., 2025). Recent research reinforces this idea, pointing out that emotional exhaustion impacts personality, self-esteem and work relationships (San Martín & Luque, 2024).

Another relevant finding of the research is the high rate of workplace indiscipline, reflected in absenteeism rates of 13% and lateness of 20%. The negative correlation between indiscipline and job performance suggests that the lack of commitment to work schedules and responsibilities significantly affects productivity. This phenomenon has been analyzed in various sectors, including the educational sector, where work overload and lack of professional recognition increase burnout among teachers (Farré, 2024).

Similarly, Gonçalves et al. (2025) concluded that the cognitive complexity of work tasks has a protective effect against cognitive decline, indicating that jobs requiring higher executive and attentional skills promote long-term cognitive resilience. Furthermore, Delaporte (2025) demonstrated that career paths characterized by job stability and mental stimulation predict better cognitive functioning in late adulthood. This type of longitudinal evidence supports the idea that promoting cognitively demanding work environments, such as teaching, can have cumulative benefits for mental performance and well-being.

The use of different statistical methods and qualitative techniques allowed us to strengthen the validity of the findings. Pearson's correlation confirmed the association between cognitive variables and job performance, while Stu-

dent's t- test showed significant differences between teachers with high and low performance in terms of attention, planning and organization. Multiple regression identified the specific weight of each variable in predicting job performance, highlighting the influence of planning and attention.

The use of the Delphi method allowed validating the importance of the indicators analyzed, highlighting that the experts identified organization and planning as the main factors influencing teacher performance. Finally, the Ishikawa Diagram helped to visually structure the causes of poor performance, highlighting the need for interventions to improve planning, reduce stress and promote work discipline.

The results of this research have important implications for the management of human talent in educational institutions. The identification of deficits in cognitive processes suggests the need for training in planning and organization skills to improve teacher performance. In addition, the detection of moderate levels of anxiety and stress highlights the importance of implementing emotional support and workplace well-being strategies.

From an organizational perspective, the findings support the need to design individualized training and follow-up programs that enhance teachers' cognitive abilities and minimize stress and anxiety factors in the work environment. An emerging approach to work management proposes the implementation of "quiet work rules," establishing clear norms to improve concentration and productivity, such as disabling unnecessary notifications and setting aside specific hours for uninterrupted concentration (Huffington Post, 2025).

The results of this study confirm the importance of cognitive processes in job performance and highlight the need for interventions to strengthen teachers' attention, planning, and organization. The negative impact of anxiety, stress, and work indiscipline is also highlighted, which reinforces the importance of addressing these factors from a comprehensive perspective in human talent management.

The combination of quantitative and qualitative methods allowed us to obtain a deep understanding of the variables analyzed, validating the relationship between neuropsychology, job performance and human talent management in the educational field. Based on these findings, the implementation of training, emotional well-being, and organizational discipline programs is recommended to optimize teacher performance and improve educational quality in the institution.

Conclusions

This study provides empirical evidence that cognitive processes—particularly executive functions such as attention, planning, and organization—are decisive factors in teachers'

job performance, while anxiety, work stress, and indiscipline significantly constrain effectiveness and work quality. Strong positive correlations were found between planning and performance ($r = 0.72$) and organization and performance ($r = 0.65$), confirming that deficiencies in these skills hinder task management and institutional goal attainment. Conversely, multiple regression analysis showed that anxiety and work stress are significant negative predictors of performance, and high levels of absenteeism and lateness were strongly associated with lower productivity. The mixed-methods approach, combining quantitative analysis with expert-based qualitative techniques, reinforced the robustness of these findings and identified planning and organization as the most influential determinants of performance. Overall, the results highlight the need for integrated human talent management strategies in education that strengthen executive skills through targeted training while simultaneously addressing stress, anxiety, and work discipline, in order to enhance teacher performance and improve educational quality.

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Conflicts of interest

The author declares that she has no conflicts of interest.

Author contributions

Erick J. Loor Domo: Conceptualization, data curation, formal analysis, investigation, methodology, supervision, validation, visualization, drafting the original manuscript and writing, review, and editing.

Data availability statement

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

Statement on the use of AI

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