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DETERMINATION OF LEADERSHIP STYLE, A NECESSITY IN HIGHER EDUCATION OF ZONGOLICA

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ABSTRACT

Background: Each organization requires a leader to help them achieve their goals; however, if the leadership is not used properly, it can lose authority, influence and legitimate power in an organization.

Objective: The present investigation has the objective of determining the instruments to evaluate the type of leadership of the teachers and to identify if there is a difference between the results of the leader and the collaborators.

Methodology: In the work, five methods are used to identify the type of leadership and personality, the methods applied were the authors Blake and Mounton, Lewin, Goleman and Boyatzis, Herrmann, Riso and Hudson.

Results and discussion: As a result, the leadership type scores were obtained and contrasted with the results obtained with the students.

Conclusions: It was concluded that there were no significant differences between the results.

INTRODUCTION

The current perception of leadership is the consequence of a series of changes in thought and research throughout history. In civilizations such as Egypt, Babylon, Israel, China, Greece and Rome, different emperors, patriarchs, strategists, philosophers, chefs and politicians have left lessons where they establish mechanisms to maintain order, peace, and democracy, however, having a system of rules It has not been enough to have a balance between achieving the objectives, without oppressing and having a state of tranquility (Estrada, 2007). When leadership is found in an organization, interpersonal relationships are improved by creating a healthy environment (Becerra, 2016). Besides, educational leadership improves student performance (Navarro, 2017).

There are multiple questionnaires, and research is that they have the purpose of describing the leadership style and personality through questionnaires with which they determine some characteristic (Antoni, Esnaola, & Rodríguez, 2017).

In the National Technological Institute of Mexico, higher-level teachers must have competencies in research, bonding, teaching, in addition to being part of the student's scaffolding advising on efforts. Therefore, developing leadership skills would facilitate communication with students and academic activities.

The Technological Superior of Zongolica has more than 120 teachers, who teach in five study programs, with different academic profiles, but the same purpose of transmitting knowledge, help build reasoning skills, communication, among others. However, not everyone has the same leadership skills.

Several studies show us how the type of leadership was identified; although not all of them perform a contrast between what was evaluated by the leader vs. the results obtained by his collaborators.

In a vehicle assembly company in Ecuador, the Kurt Lewin leadership test was applied to 205 people. It was concluded that there is a relationship between leadership styles and job performance (Torres, 2019).



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A study conducted in Iran on 68 patients, aimed to identify personality types using the Riso-Hudson Enneagram, which was useful in understanding the state of health responsibility and related behavior patterns among addicts to drugs (Saeidi, Amiri, Ahmadi, & Komasi, 2019).

In Ecuador, in the Aviation school, an evaluation of the type of leadership was carried out by the Black & Mounon Management Grid, to 47 officials, in which it was identified that there is a balance between people's needs and their integral satisfaction. It was identified that democratic leadership oriented to human talent without neglecting the quality and achievement of objectives impacts an organization (Wilfrido & Peñafiel, 2018).

A study was conducted in Ecuador to identify Leadership styles by Goleman, Boyatzis, and Mckee, to 7 supervisors and determine the type of dominant leadership (Ojeda, 2018).

In Peru, 347 directors were investigated; Benziger's profile was used, which has the purpose of identifying brain dominance (Cueva, 2018).

In Chile, research was conducted on leadership styles, organizational climate and quality of careers, in which they identified a negative correlation between quality and leadership Laissez-faire, on the contrary, there is a positive correlation between transformational leadership. The subjects of the study were 40 managers of higher institutions (Bernasconi & Rodríguez, 2018).

Leadership in higher education is oriented to the construction of social capital through the participation of academics in decision-making that helps collaborative empowerment (Žydzūnaitė, 2018).

Biesta (2015) mentions that university training not only seeks to empower through information; it is also necessary to develop attitudes and skills.

Another study indicates that work culture and organizational climate have a positive impact on academics and student learning (Ponnuswamy & Manohar, 2014).

The present investigation has the purpose of answering the questions: What instruments to use to evaluate a teacher? Are there significant differences between the results of the teacher and the students?

MATERIALS AND METHODS

The research is descriptive since it allows us to specify the essential properties and qualities of the study subject. The research design is transactional because a single data collection was performed, the research approach is mixed, and the type of sampling is not probabilistic.

The methods used in the research are questionnaires carried out by various authors to identify the types of leadership and describe their personality. Table 1 indicates the number of questions and the type of questions.

Table 1. Methods used to identify the type of leadership

Instrument Name	Author	Number of Items
Leadership Styles Test	Blake and Mounon	18 - Likert scale
Leadership Styles Test	Goleman and Boyatzis	60 - Presence and absence
Leadership Test	Lewin	33 - Presence and absence
Brain Dominance Test	Herrmann	16 - Presence and absence
Personality Enneagram	Riso Houdson	144 - Likert scale

A census will be carried out of the active students to which 42 students are taught in Table two to determine if there is a significant difference. The instruments to be applied are by Blake and Herrmann.



Table 2 Groups of participating students for comparison

Group	Man	Woman
2 BME semester	5	11
6 BME semester	3	4
8 BME semester	10	9

Bussines Managment's Engineering (BME)

RESULTS AND DISCUSSION

After applying the questionnaires, the individual results of each instrument are explained, then a joint analysis is carried out. Finally, a comparison is made with the results obtained by the students to verify the result or discuss it.

The result of the test of leadership styles from Blake to Mounton is shown in Table three.

Table 3 Test results of Blake and Mounton.

People	1	4	6	9	10	12	14	16	17	Total	(multiplied by 0.2)
	4	5	4	3	5	5	4	4	5	39	7.8
Task	2	3	5	7	8	11	13	15	18	Total	(multiplied by 0.2)
	5	5	3	3	2	4	4	3	4	31	6.2

People-centered	9	People-centered					Team leader			
	8									
	7									
	6	Indifferent					Bossy			
	5									
	4									
	3	Task-centered								
	2									
	1									
	1	2	3	4	5	6	7	8	9	

Derived from the Daniel Goleman and Boyatzis questionnaire, it was obtained that the type of leadership identified was Democratic - Visionary scores are shown in Table 4.



Table 4 Scores obtained from the Goleman & Boyatzis leadership test

Style	Total C. H.	Order of importance
Visionary	7	2
Tutorial	6	3
Affiliate	6	4
Democratic	8	1
Timotel	3	5
Authoritarian	1	6

In the Lewin questionnaire, it was determined that the predominant leadership style is the democratic one with the highest score, see Table 5.

Table 5 Lewin Test Score

Authoritarian	Democratic	Liberal
1	2	3
4	5	6
7	8	9
10	11	12
13	14	15
16	17	18
19	20	21
22	23	24
25	26	27
28	29	30
31	32	33
2	8	5

As a result of the brain dominance questionnaire, it was obtained that the lower-left hemisphere is the most developed one, it is characterized by being careful, orderly and structured, as a profession highlights the administration in figure one shows the result.

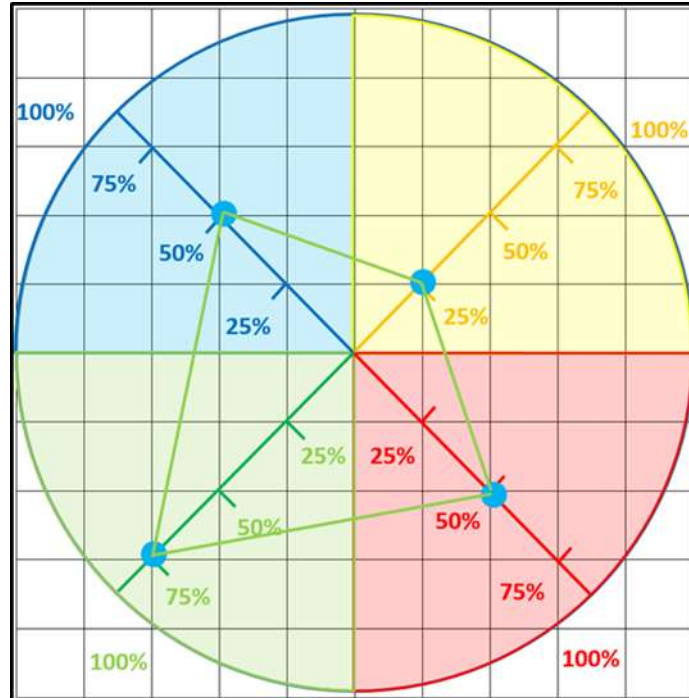


Figure 1 Herrmann brain dominance results

As a result of the Riso-Hudson test, it was identified that the eneatype that characterizes it is six, see Table 6, which is compromised, safety-oriented. They work until stressed while complaining about it. They are cautious and undecided. At their best, they are internally stable, self-confident, independent, and courageously support the weak and incapable.

Eneatipo	Score
I - Reformer	42
II - Helper	40
III - Winner	53
IV - Individualist	46
V - Researcher	50
VI - Loyal	56
VII - Enthusiast	54
VIII - Challenger	40
IX - The Peacemaker	55

As a general analysis of the different results in the Lewin and Goleman test co-reports that the type of leadership is democratic, that of Blake and Riso agrees that it focuses on tasks and people since they work hard and support the weak. In the profession that performs the characteristics determined by the Herrmann test, they agree to be careful, orderly, and with an administration profile.

After having applied the tests to students, half hypothesis tests were carried out with the result obtained from the teacher using the Minitab software to identify if there were significant differences; the results are shown in.

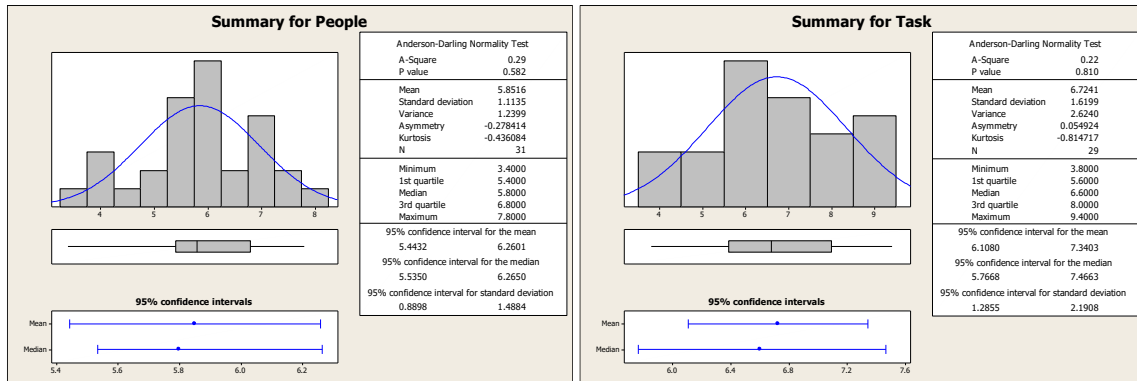


Figure 2 Hypothesis test for the average 1) People, 2) Tasks

For the test of means hypothesis, it was identified that there is no significant difference in the values of tasks, but there is a significant difference between the means of Person. However, even when there are differences, the type of leadership is the same Team Leader.

For the Herrmann brain dominance test, the scores of the application were obtained to the students; the eight most scored elements were those that were selected to determine the teacher's brain dominance type. Table seven shows the scores and descriptions.

Table 7 Results of the brain dominance test

Score	Description	Score	Description
20	Ser analítico	19	Planear
16	Ser administrativo	12	Manejar relaciones interpersonales
19	Conceptualizar	16	Habilidad para resolver problemas
18	Expresar ideas con facilidad	23	Ser innovador
13	Integrar conceptos	18	Facilidad para aprender y enseñar
6	Escribir con fluidez	17	Ser organizado
21	Facilitar lo técnico y manual	18	Manejar aspectos Creativos
15	Ejecutar	9	Manejar áreas financieras

As a result of the Herrmann test (Figure 3), it was determined that cerebral dominance is the right upper hemisphere, which is characterized by being experimental, conceptual, and visionary.

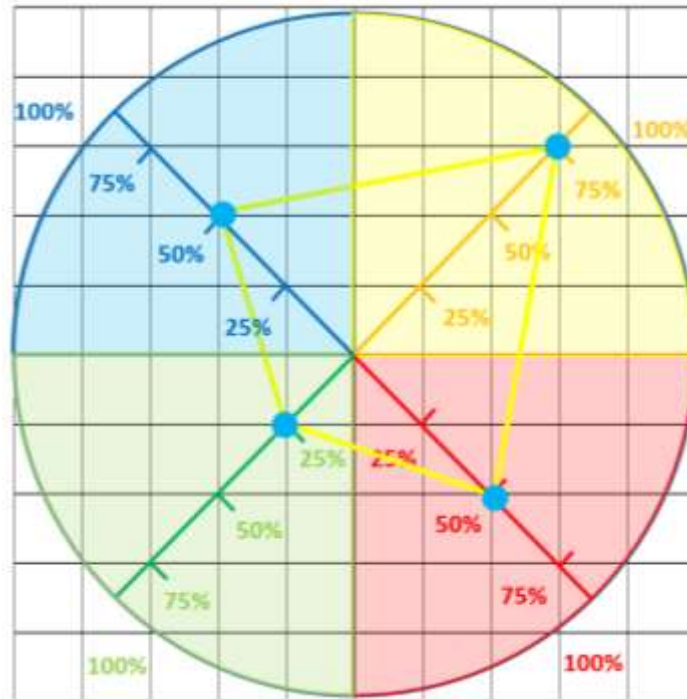


Figure 3 Results of the Herrmann Test

This result represents a difference with respect to the test answered by the teacher since according to the Ned Herrmann Quadrant Model, students consider him a strategist and the teacher is considered an organizer, however, the strategy and organization are associated only that the first is related to a long-term vision and the second is operational.

There are multiple works related to leadership in higher education in 2015, Pérez, Guarín and Romo analyzed nine studies with different methodologies, the objectives varied between assessing the type of leadership with respect to others and identifying the perception of students about leadership. However, in these, teachers or students are observed as subjects of study, hereby it was sought that the teacher self-examine and contrast the results with those of his students to reflect on the results and understand the differences. In response to the research question, the type of leadership was identified by identifying congruence between the results of the different instruments, on the other hand, there are significant differences between the results of the students and the teacher, however, although there are differences within of the characteristics identified by the same teacher. As indicated by Žydzūnaitė, (2018) to create social capital, it is necessary for academics to participate in decisions that help collaborative empowerment, which implies democratic, visionary and transformational leadership.

CONCLUSION

We found that the instruments presented are pertinent since they are easy to interpret, they are quick in their application, and the results can be contrasted as a feedback of the process of improvement of teacher skills at a higher level.

The objective of determining the type of leadership and comparing the results between the leader and his collaborators was met. It was concluded for the example, that there were no significant differences between the results.

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