

Impact of leadership styles in Virtual Education: A Review of the scientific literature

María del Rosario Quichca-Vilchez, Bachiller ³

¹ *Universidad Tecnológica del Perú UTP - (PE), Perú, Mariavilchezq@gmail.com*

Abstract-- The main objective of this research is to know the impact of leadership styles in virtual education at a global level, from 2020 to 2023. In addition, the situation generated by the pandemic is addressed, where challenges related to the management of digital tools, the lack of use of technology, the monotony in the sessions and the stress of mothers, among others, arose. The Methodology used was a literature review using the analytical, critical method of documentary collection, where 71 articles from the Scopus database were analyzed, a delimited search was carried out according to the purpose of the objectives. A search criterion was applied using filters for a more precise delimitation, such as temporality, subject area, language and IMRAD structure. In response to these challenges, it is expected to demonstrate the development of capabilities in leading teachers with the aim of fostering a motivating learning environment that encourages students to achieve true learning with educational quality, nowadays.

Keywords-- transformational leadership, transactional leadership, charismatic leadership, situational leadership, educational technology.

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I. INTRODUCTION

Given the lack of leadership styles at the educational level, educators are important protagonists in the field of education, therefore, due to the scientific-social proposal, research centers, databases, and libraries are asked to participate. To deepen the limitations, implications and depth of the problem since teachers are important protagonists in the field of education, because they administer it to support students with various strategies to obtain greater learning.

In 2021, the Peruvian State made a report to give greater detail about the global educational crisis, because it aims to recover learning, but along the way various systems have been seen around the world, with the aim of recovering learning and take advantage of the current time to achieve equity and effectiveness of learning, since it is not wanted for the current generation to have educational losses in their future capacity in channeling knowledge [1].

In the background we have various authors such who proposed motivating in teaching for professional development, where they obtained as a result, that intrinsic factors can motivate a teacher to feel a greater commitment to their teaching [2]. In this matter, analyzed a group of students where they saw the before with face-to-face classes and the after with remote classes, as a result it was obtained that, if the teacher motivates, interacts, demonstrates commitment, we can

generate better results in teaching [3]. Pointed out that many students, due to the pandemic, known as the health emergency, left in-person classes for virtuality, as a result, not all students were satisfied with the teaching, but the role of the teacher is essential to make the class be more effective [4].

In addition, the teacher's way of teaching is analyzed in greater depth in his teaching methodology. Decided to investigate the concepts and attitudes of teachers in their teaching, therefore, the results obtained showed that technology is very useful [5].

Investigated transformational and transactional leadership in student behavior, where greater understanding was obtained if innovative teaching is applied with leadership styles [6]. Analyzed the teaching-learning of educators with an educational model that allows technology to be accepted by students, as a result, there is still a regular percentage of students who continue to adapt to technologies [7]. Mentioned that the very rapid change in the educational field with teaching strategies has allowed the experience to be improved by replacing the in-person to virtual aspect [8].

This is because business education wants to increase profitability and decrease dropout. Therefore, the research problem answers to: How do leadership styles influence the virtual teaching process? Thus, justifying this research work is useful with relevant articles with scientific validity. In this way, leadership is considered as the influence one has with others by applying articulated strategies towards an objective [9]. Commented that leadership is being able to influence a group to achieve objectives [10]. Also, leadership is part of various studies that aim to cause impact and efficiency, given this the diverse information wants to meet all the challenges of the current time [11].

Commented that there are many sources with some confusing terminology and what it is looked for is simpler information [12]. The fundamental role of leaders is to help organizations improve their performance; achieving their goals, they will also be models for others, and when the leader involves others, the organization's policy highlights the innovation, which allows the stability of the collaborator, it is important, that leadership styles have been noted by academics due to a global business panorama, since the aim is to know the sustainable development that generates participation and well-being on the part of collaborators, so that the impact of authoritarian and laissez-faire leadership translates the term into "let it do" to measure employee prosperity [13].

For leadership, there are factors such as domains: extraversion, emotional stability, kindness, conscientiousness

and openness to experience, which are part of the personality model to be part of the leadership styles, with organizations being the ones that promote the well-being of the members. Good leadership encourages others to be more confident and innovative, with improved virtual learning and continued engagement.

For information support, leadership generates autonomous value with a participatory evaluation, they comment that leadership is fundamental in the role of those who manage education through philosophy to promote various institutional policies [14]. Refer to participatory leadership that aims to increase motivation with collaborators regarding their decisions [15]. See education as an important role with coaching tasks to develop a capacity in transformational leaders [16]. Supported the idea that transactional leadership is what measures the guarantee of the system and its policies to see the relationship between the leader and his collaborators [17].

In addition, this study will support the importance of virtual education, motivation and leadership styles at the higher level of universities in education at a global level. Likewise, it is predicted that the methodological implications will support new research in the educational sector to encourage creation, development and innovation. Given this, this work wishes to be very useful for a future time, to promote a spirit of analysis and observation. The general objective of this work is to know the impact of leadership styles in education, globally, 2020-2023, through a literature review. And the specific objectives are a) Contrast scientific articles that define leadership styles, and b) Review scientific articles that define leadership styles in education at a global level.

Leadership in the organizational context has been studied from various theoretical perspectives. Some of the most relevant theories include

Transformational Leadership Theory, which focuses on leaders' ability to inspire and motivate their followers toward exceptional performance. Transformational leaders promote change, innovation, and followers' personal development by setting clear goals, providing support, and fostering a climate of trust and cooperation [18, 19].

Support Theories for competencies: cognitive, procedural and attitudinal which contribute to directive management, so communication competencies, critical thinking, ethics, values, interpersonal skills, leadership and others are developed in the team [20, 21].

These theories provide a solid foundation for understanding different approaches to leadership and their effects on followers. By exploring these theories, one can gain a more complete understanding of how leaders influence organizations and how to adapt their leadership style to maximize effectiveness in various situations.

II. METHODOLOGY

The method applied in this research is a review of the scientific literature, which uses the critical analytical method

through the compilation of documents with proposals in education at a global level.

In this way, the study wishes to generate greater contribution to the problems presented (Avolio and Bass, 1995). Therefore, scientific research must delve deeper into analyzing studies to convert them into new knowledge. In this sense, characteristics of scientific validity must be analyzed, justified and synthesized, therefore, the library of the César Vallejo University and Myloft were used.

71 articles from Scopus were analyzed for the database search. A search criterion was applied using filters for a more precise delimitation. Firstly, a time range from 2020 to 2023 was established. Secondly, scientific articles that followed the IMRAD structure (introduction, methodology, results, discussion) were selected. These were excluded as an option. Finally, the articles that met the requirements related to the study variables were analyzed. This process revealed significant findings, contrasts in conclusions and formulation of relevant recommendations.

III. RESULTS AND DISCUSSION

The Scopus database was used in the search, for the leadership styles variable. A vision is then amplified towards a more personalized search. There were documents in English, Romanian and Spanish since they gave greater scope to the research as indicated in figure 1.

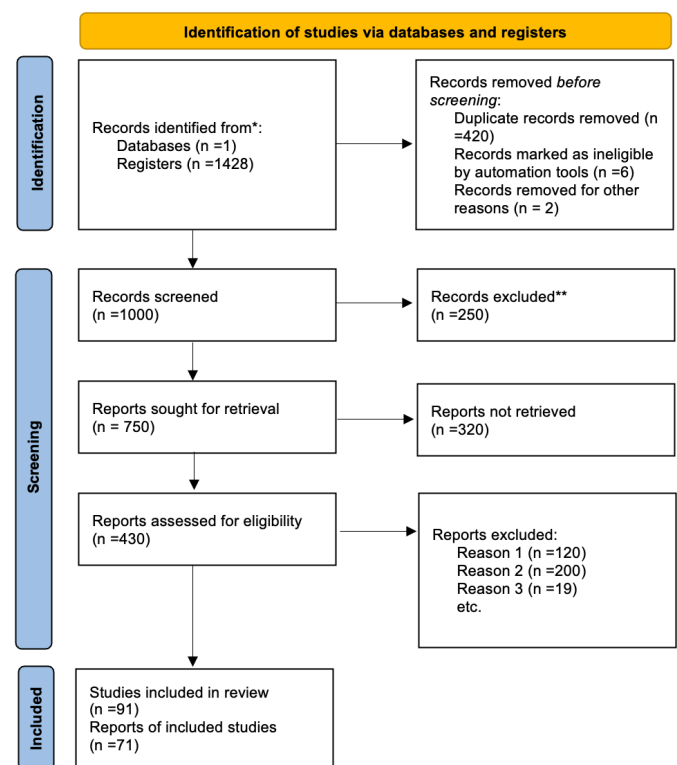


Fig. 1 PRISMA Diagram for the Scientific Literature Review Process.

of the most relevant and appropriate studies for analysis in the context of the Systematic Review (table I).



Regarding the analysis of the years of publication of the documents considered in the systematic review, 4 documents published in the year 2023, 17 documents in the year 2022, 23 documents in the year 2021, and 27 documents in the year 2020 were identified. These results show an equitable distribution of the selected studies during the last four years, which contributes to an updated and well-founded perspective on the research topic (table II).

TABLE II
SCIENTIFIC ARTICLES PER YEAR

Year	Documents
2023	4
2022	17
2021	23
2020	27

Regarding the analysis in Figure 4 of the international collaboration of authors, evidenced in the documents selected for the systematic review, a notable participation of researchers and groups from different countries could be seen. The existence of recognized prestige worldwide was confirmed. This phenomenon of global collaboration in research reflects the adoption of a multidisciplinary approach and an exchange of knowledge on a global scale, which enriches the quality and diversity of the studies considered in the systematic review.

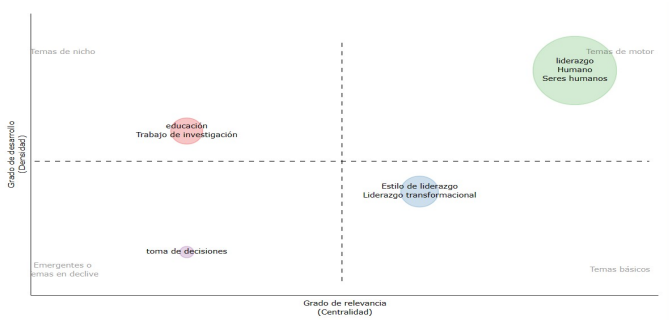


Intervalo de tiempo	Fuentes	Documentos	Tasa de crecimiento anual
2020:2023	53	71	-47.09 %
Autores	Autores de documentos de un solo autor	Coautoría Internacional	Coautores por documento
232	5	18.31 %	3.37
Palabras clave del autor (DE)	Referencias	Edad promedio del documento	Promedio de citas por documento
249	3627	2.03	2.803

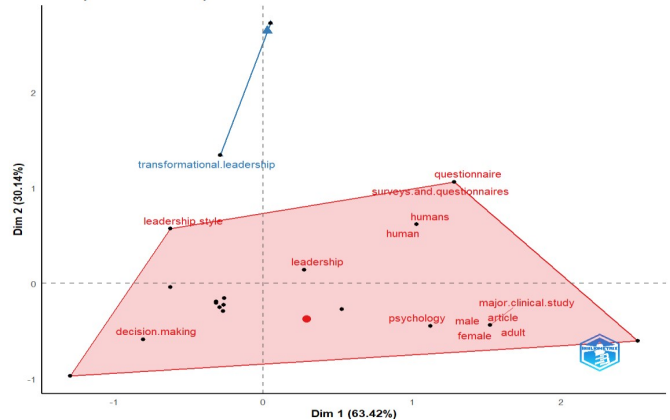
During the process of searching and selecting articles for the Systematic Review, key terms were used for Figure 6. These keywords were carefully chosen with the purpose of guaranteeing the inclusion of relevant studies that addressed the essential aspects related to the research topic.



During the Systematic Review process in Figure 7, it was possible to obtain an exhaustive thematic map that reflected the areas of greatest interest and focus in the scientific literature. Key themes were identified such as education, employment research, decision making, leadership style, transformational leadership, leadership and human beings. This thematic map allowed to visualize the interrelationships and connections between these concepts, as well as to discover the trends and patterns present in the relevant research. These results provided a deeper understanding of the most relevant and outstanding areas in the field of study.



In the Systematic Review regarding figure 8, various studies were found, which applied factor analysis to explore different dimensions and aspects related to transformational leadership, leadership style, decision making and leadership in general. Researchers used questionnaires and surveys as tools to collect data on these variables, analyzing the perspective of the individuals involved. Relevant articles were identified that addressed both men and women in psychology studies, and a specific focus was observed in research carried out on the adult population. Additionally, significant clinical studies were identified that thoroughly examined these issues.



Procedure as researchers, we carry out a Scientific Literature Review process following a systematic and rigorous approach. First, we carefully selected the information sources relevant to our study, including academic and scientific databases. We used specific search criteria to ensure we included relevant articles.

Once we had the sources selected, we carried out an exhaustive critical reading of the articles. During this process, we carefully examine the objectives, methodology, results and conclusions of each study. We also carefully consider the strengths and limitations of each research, evaluating its quality and relevance to our work.

As we progressed through the articles review, we began to identify recurring patterns and themes in the existing literature. This allowed us to gain a global understanding of the theories, approaches and findings related to our field of research.

In addition, we used organization and synthesis of information techniques. We grouped the articles by themes and established connections between them. When we found gaps in the literature or unanswered questions, we took notes and pointed out areas that required further investigation.

We prepared a detailed report of the Scientific Literature Review, presenting in a clear and coherent manner the main findings and trends identified. We also highlighted areas that needed further study and research.

This Scientific Literature Review process was essential to establish a solid foundation of knowledge in our field of study, understand the current state of research, and provide a comprehensive theoretical framework for our work.

Statistical analysis was carried out through a systematic and objective analysis of the data using descriptive and inferential statistics.

In the context of a Systematic Review we used SCOPUS, the statistical analysis is part of the process of summarizing the data extracted from the selected scientific articles. The main objective is to gain a deeper understanding of the results and trends in the scientific literature on the research topic.

First, a systematic data extraction was carried out, where the relevant information of the selected articles is identified and recorded. This implies considering both the variable and the characteristics of the studies such as design, sample size, country of origin, the variable of interest, the results and the measures of association or effect.

Once the data has been collected, a descriptive analysis was carried out to summarize and organize the information obtained. This involves presenting frequencies, percentages, measures of central tendency, and measures of dispersion, as appropriate.

In addition to descriptive analysis, more advanced statistical analysis techniques could be used, such as meta-analysis, if the data and selected studies allow it. Meta-analysis is a statistical technique that allows combining the results of multiple studies and calculating a joint estimate of the effect or association of interest. This provides a more accurate overview of the general results and conclusions in the scientific literature.

It is essential to keep in mind that the statistical analysis in a Systematic Review depends on the available data and the specific objectives of the research. Additionally, guidelines and best practices are followed in conducting the review, such as quality evaluation and risk of bias of the studies included. Ethical considerations were carried out following fundamental ethical principles, such as responsibility, transparency and truthfulness, to ensure the integrity of the content without making undue modifications.

On the other hand, Transactional Leadership Theory is based on the exchange between leaders and followers. Transactional leaders establish agreements with their followers, rewarding desired performance and correcting errors. This approach focuses on monitoring and achieving goals, using rewards and sanctions to motivate followers [18].

Furthermore, the Charismatic Leadership Theory highlights the importance of the personality and charismatic qualities of the leader. Charismatic leaders can inspire and motivate their followers by generating a sense of shared identity and purpose. This leadership style results in high levels of commitment and loyalty on the part of followers [19, 22].

Likewise, there are Relational Leadership Theories have evaluated the leader's relationship, which has generated a high impact at a professional level with greater retention. Refer to the theory of e-Leadership, which is the use of technology that influences communication networks, where goals are set to combine knowledge, whether through emails. Indicated that the self-determination theory influences man's behavior towards the interaction of knowledge with a peculiar style [3]. By practicing a good leadership style, it will make others feel valued and their behavior will be motivated [24].

Argued that leadership is a culture with achievement factors to be able to influence others and it is good to think about improving and innovating over time so that the company continues to exist towards quality [10]. That encouraging culture with ideas and responses makes the work environment more appropriate, generating commitment to innovation with a flexible style [25].

That human behavior is identified with two types: the external one, which is introjected and identified, and intrinsic motivation, which is intended to improve self-esteem for greater well-being, with less guilt [26]. There are various factors that aim to encourage others in search of a favorable result.

Finally, Situational Leadership Theory indicates that there is no universally effective leadership style. Instead, the most appropriate leadership style varies depending on the situation and the needs of the followers. Leaders must adapt their leadership approach to the circumstances and individual characteristics of followers to achieve optimal results [27].

IV. CONCLUSIONS

This Systematic Review anticipated various relevant results. First, it pursues an exhaustive identification and compilation of relevant studies within the specific research area. These studies will allow a solid and updated foundation of knowledge in relation to the topic addressed. A rigorous and critical analysis of the selected studies was carried out, in order to extract and synthesize the relevant information in a clear and precise manner. This made it possible to identify the patterns, trends and essential findings present in the scientific literature, as well as the points of convergence or discrepancy between the studies.

Likewise, a broad vision of the theories, approaches and methodologies used in the included studies was obtained, thus contributing to a more comprehensive understanding of the research topic.

Finally, existing gaps in current knowledge were identified, pointing out areas that require further research and

exploration, in addition, it provides recommendations for future studies and practices, with the aim of promoting the advancement of the field and improvement in informed decision making.

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