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# Pedagogical leadership: a review of the scientific literature in WOS and Scopus

Sofía Gamarra-Mendoza

Universidad San Ignacio de Loyola

Email: sgamarra@usil.edu.pe

ORCID: https://orcid.org/0000-0002-2297-3503

José Gregorio Brito-García

Universidad San Ignacio de Loyola

Email: jose.brito@epg.usil.pe

ORCID: https://orcid.org/0000-0001-8999-8126

## Abstract

Pedagogical leadership (PL) is crucial to a school's efficient and effective administration. Despite government efforts to devise education policies and reforms, there are still obstacles to closing the gaps in student learning outcomes through school leadership-led initiatives. This study assesses current knowledge regarding PL in school management (GE). To achieve this, a systematic review was conducted using bibliometric analysis, a quantitative methodology based on the publication of scientific literature in the Scopus and Web of Science (WOS) databases between 2018 and 2022. Applying methodological exclusion and inclusion criteria, 70 articles on PL were identified, and a qualitative analysis of a bibliographic review with bibliometric support was conducted. Studies indicate that the greater the empowerment of the pedagogical leadership of the school leadership, the greater its capacity to mobilize diverse training strategies to qualify teachers, and consequently, the higher the quality of student learning outcomes. A relationship between pedagogical leadership and the achievement of student learning outcomes is also established.

**Keywords:** schools, education, school capital, professional development, learning management, and lifelong learning.

## Introduction

Principals play a crucial role in developing pedagogical leadership and improving student and teacher learning. When a principal is empowered to exercise pedagogical leadership, favorable operational conditions for student learning and reflective spaces for collective teacher learning are created. Prior studies before 2018 have emphasized that pedagogical reflections center on the capacity of school leadership teams to enhance school management (Hallinger, 2003). In contrast, research confirms that principals are not only charged with this pedagogical leadership function but also with educational administration responsibilities (Aas & Paulsen, 2019). However, it is essential to recognize that principals operate in a highly complex environment where internal challenges frequently outweigh external obstacles within the school. In this sense, the principal's performance responds to various micro-contexts to address multiple tasks that define their function in various aspects of school administration.

Similarly, when direct actors embrace pedagogical leadership, it generates quality learning for students and teachers. It empowers school management processes based on efficiency and effectiveness by the leadership team, thereby enabling the mobilization and optimization of school resources and social capital. Due to this, the school, in addition to being a site of employment, becomes a space for collective learning, where everyone teaches and learns collaboratively. As a result, it enhances the professional competencies of serving educators. The review of studies emphasizes that the adoption and implementation of pedagogical leadership aims to strengthen school and teacher professional competencies, and entails fulfilling other administrative activities and community relations inherent to educational management in a complex context with numerous internal and external barriers. When properly exercised, pedagogical leadership enables the mobilization and optimization of school resources and social capital, transforming the school into a space for collective learning. Consequently, it is conceivable to formulate the following research questions based on this literature review: What is the contemporary condition of pedagogical leadership?

## Literature review

Hopkins and Stern (1996) identified the impact of managerial performance on teachers' pedagogical practices and the quality of student learning. The study employed the VAL-ED questionnaire, which comprises 72 items and six dimensions about learning objectives, curriculum, teaching quality, learning culture and collaboration, interaction and community relations, and accountability for school management outcomes. This study concludes that pedagogical leaders are responsible for ensuring the quality of learning and, consequently, should be evaluated based on their own pedagogical decisions, thereby promoting a learning-centered leadership.

Currently, schools require educational administrators with pedagogical leadership (PL) that strengthens teachers' pedagogical capacities through various strategies, including collaborative work, pedagogical forums, reflective dialogue, interleading groups, professional learning communities, and pedagogical advisory boards, among others (Gillingham, Eggleton, & Goodyear-Smith, 2020). Teachers frequently feel invaded when monitored by a pedagogical companion manager; however, research indicates that when constant monitoring is conducted from a pedagogical support perspective, teachers' pedagogical practice improves in an atmosphere of trust, reciprocity, and professional respect, and student learning increases. Therefore, PL must promote respect for human dignity, social skills, and active listening to ensure teachers and educational institution members are treated well (Pattiwael, 2019).

The management team's pedagogical leadership is essential for enhancing the pedagogical capacities of schools. The current literature on the subject predominates on studies about educational quality, school management, learning, and teacher training, particularly emphasizing enhancing academic quality (Ali, 2020). Nonetheless, several studies have demonstrated that educational practices in schools restrict the dialectic of the teaching-learning process. Frequently, teaching planning models are rigorous and constrained, resulting in a teacher-centered pedagogy with limited student participation in the classroom and the school's institutional life. Moreover, the mastery of disciplinary, pedagogical-didactic, and evaluative domains and processes does not permeate the constructive approach to enhancing learning (De Giuseppe & Corona, 2020).

When instructors are not given timely pedagogical support, the absence of pedagogical leadership demonstrates a behavioral and decontextualized orientation of formative processes. Additional studies have identified a lack of curriculum planning, collaborative culture, pedagogical support, pedagogical leadership, and ineffective strategies to reduce the risk of school exclusion (García-Carmona, Fuentes-Mayorga, & Rodríguez-García, 2021). The lack of data on the most fundamental aspect of school education, pedagogy, impedes the effectiveness of classroom or school administration development plans (Munastiwi & Puryono, 2021).

Recent studies have shown, thankfully, that pedagogical leadership is not the only solution and that other approaches, such as the principal's participation, democracy, and transformational leadership, can also have a positive impact on teaching practices based on the quality of student learning outcomes. Nonetheless, the distinguishing feature of these latter approaches is their emphasis on the participation of all students and the transformation of educational centers, thereby fostering an inclusive culture in disadvantaged contexts (Orosco et al., 2022). However, other studies on PL acknowledge its significance for enhancing school management outcomes and pedagogical advisory and autonomy. This necessitates granting educational institutions more independence to develop integrated practices in curriculum administration, professional development, innovation, etc.

In this regard, it is crucial to adopt a transformational pedagogical leadership that takes into account the various spheres of the educational community (such as teachers, students, and parents) to foster a school environment in which teachers not only learn but also teach, which entails promoting collective intelligence in the school. Alternatively, if the management team does not promote these good practices in school management, the educational institution will miss the opportunity to optimize the skills of its instructors and will continue to replicate traditional teaching-learning processes.

The arguments presented in 2018 justify the importance of pedagogical leadership on the management team's part in enhancing schools' pedagogical capabilities. However, current research indicates that school practices limit the dialectic of the teaching-learning process, and the absence of pedagogical leadership

can result in a behavioral and decontextualized orientation of formative processes. On the other hand, it has been shown that different leadership approaches, such as participative, democratic, and transformational leadership, can also positively impact teaching practices as measured by the quality of student learning outcomes. It is essential to adopt a transformational pedagogical leadership that considers the various spheres of the educational community to foster a school environment in which all teachers can learn and teach, which entails fostering collective intelligence in the school.

Pedagogical leadership in school administration is crucial in education, particularly in disadvantaged communities. The studies by Popa et al. (2020) provide valuable information on the necessary skills and strategies to enhance the quality of instruction in these vulnerable areas. Specifically, the teacher support approach proposed by Honig and Rainey (2019) can be an efficient alternative to conventional supervision. In contrast, school leadership in Chile concentrates on the effective implementation of the school curriculum, improving students' academic performance, implementing effective pedagogical strategies, and providing ongoing staff training (Mansilla et al., 2021). These pedagogical success criteria are essential for ensuring the country's education quality. In addition, Almanthari, Maulina, and Bruce's (2020) study emphasizes the challenges and significance of the intermediate level of the school system for the effective implementation of educational policies.

The reviewed studies emphasize the significance of pedagogical leadership in school administration to enhance the quality of instruction in socially disadvantaged areas and throughout the education system. In addition, they provide valuable information on the skills and strategies required for implementing effective pedagogical leadership, as well as the challenges of implementing educational policies at the intermediate level of the school system. The lack of clarity in the roles and responsibilities of the position, the need for additional training and development for middle positions, the lack of resources and support for the effective implementation of educational policies, the need to improve communication and coordination between different levels of the school system, and the need for greater participation of educational stakeholders in decision-making and education

According to Badillo-Vega and Buendía-Espinosa (2022), school technical councils in Mexico cannot function and be managed without leadership. In his study, he emphasizes the importance of coordination and collaboration among the leaders of these councils to enhance the quality of education in schools. In addition, he emphasizes the significance of ongoing training and the enhancement of teachers' and principals' leadership skills. In contrast, Montecinos et al. (2023) examine the competency profile of pedagogical directors in vulnerable Chilean schools. Their analysis emphasizes the importance of these leaders' pedagogical management, strategic leadership, and human resource management skills. To improve the quality of education in vulnerable contexts, they conclude that training and professional development policies for pedagogical leaders must be enhanced.

Furthermore, Gurr (2019) explored the evolution of the school principal role in Chile and examined the function of leadership in school management from various perspectives. The authors emphasize the need for school principals to be pedagogical leaders committed to enhancing the quality of education and student learning. In addition, they acknowledge that the function of the principal has shifted toward organizational management, focusing on the efficiency of educational program delivery and resource management. Instead of authoritarian and centralized management, they emphasize the significance of developing pedagogical leadership that fosters collaboration, innovation, and creativity in the school to solve this problem. Miled (2019) also highlights the significance of pedagogical leadership and the need for principals to receive adequate supervision and pedagogy training. Both authors consider the significance of leadership in school administration and the enhancement of educational quality. Although they approach the topic from different angles, they agree that school principals must be pedagogical leaders capable of managing resources and administering the school efficiently while also being committed to enhancing student learning and development.

A correlation has been identified between the training of management teams and the efficacy of pedagogical leadership in schools. Despite the importance of training, ensuring effective pedagogical leadership practices is insufficient. Instead, it is necessary to cultivate leadership in the school that encourages collaboration,

communication, and motivation (Ramos, et al., 2022). This is especially crucial in situations of social peril. The authors conducted a qualitative study to identify the pedagogical leadership skills required in social risk contexts. According to the findings, effective pedagogical leadership in contexts of social risk is characterized by a commitment to students and their community, a shared vision, and the capacity to manage change and innovation. It is essential to note that these studies investigate the connection between the training of management teams and effective pedagogical leadership, highlighting the significance of leadership that facilitates collaboration and innovation in the school. In addition, Höddinghaus, Sondern, and Hertel's (2021) contributions emphasize the need for committed and adaptable leadership in social risk contexts.

Similarly, Klahn Acuña and Male (2022) examine the relationship between organizational culture and leadership styles in a Chilean institution of higher education. The results indicate that the most effective leaders in this context practice transformational leadership and foster a culture of collaboration, motivation, and commitment. In contrast, De Wit and Altbach (2021) investigate the connection between leadership and quality in higher education. The authors highlight the significance of leadership that fosters a culture of quality and continuous improvement, engages all staff in decision-making, and achieves institutional goals. In addition, they emphasize the importance of leadership that fosters innovation and the use of technology to enhance the quality of instruction. In addition, how pedagogical leadership can contribute to school development has been analyzed.

The studies reviewed in 2019 demonstrate the significance of pedagogical leadership in school administration for enhancing the quality of education in socially disadvantaged areas and the education system as a whole. The implementation of educational policies at the intermediate level of the school system faces significant challenges, including the lack of clarity in job roles and responsibilities, the need for training and support, the lack of resources and support for effective policy implementation, the need to improve communication and coordination between different levels of the school system, and the need for greater participation of educational stakeholders in decision-making and policy implementation. In addition,

the significance of pedagogical leadership and management, strategic leadership, and human resource management is stressed. To improve the quality of education in disadvantaged contexts, it is crucial to strengthen the policies governing educational leaders' training and professional development.

The importance of pedagogical leadership for enhancing the quality and equity of education in the school context has been reaffirmed since 2020. To accomplish quality education, Heffernan, MacDonald, and Longmuir (2022) emphasize the significance of ethical and pedagogical leadership based on values such as justice and solidarity. In the meantime, Lambrecht et al. (2022) highlight the importance of pedagogical leadership in inclusive education programs and how it fosters collaborative work among instructors to enhance the quality of student learning. Bryant and Walker (2022) highlight the role of middle leadership in establishing professional learning communities to improve teaching and learning. In addition, Al Mahdi et al. (2022) emphasize the significance of Professional Learning Communities (PLCs) as an effective strategy for pedagogical leadership in schools of the twenty-first century.

Moreover, the contributions of Liu, Li, and Huang (2022) analyze the perceptions of various education stakeholders regarding pedagogical leadership and conclude that it is essential for educational success. On the other hand, Kemethofer, Helm, and Warwas (2022) stress the importance of developing leadership competencies in areas such as strategic leadership, team leadership, resource management, quality management, ethical leadership, and pedagogical leadership. They also emphasize the significance of ongoing training and collaboration to enhance the quality of education. Moreover, the affective aspect of pedagogical leadership is crucial. In addition, Martins, Nascimento, and Moreira (2023) provide an intriguing perspective on the relationship between leadership style and organizational commitment, emphasizing that transformational leadership can be a useful tool for enhancing the commitment of the educational community. Recent research highlights the significance of ethical and collaborative pedagogical leadership in education development and the need to develop leadership and emotional competencies for effective school administration.

In addition, it is essential to assess the global impact of the COVID-19 pandemic on higher education. In this context, the digital divide and unequal access have emerged as significant challenges for higher education, and measures have been proposed to assure learning continuity and digital inclusion for all students (Bozkurt et al., 2022). The significance of international cooperation and solidarity in combating the effects of the pandemic on higher education is highlighted, as is the need for coordinated policy responses worldwide to ensure the financial sustainability of higher education institutions and address the long-term challenges posed by the pandemic.

In contrast, the research of Kouhsari et al. (2022) focuses on the relationship between instructional leadership and teacher performance in the legal context of Ecuador. The authors contend that instructional leadership is necessary for improving teacher performance and achieving the institution's goals. However, they note that Ecuadorian law does not define the instructional leadership competencies required for educational success. They identify several flaws in the current legislation and make suggestions to improve the situation, such as the need for a clear definition of instructional leadership competencies and increased training and development for educational leaders.

The contribution by Chatzipanagiotou and Katsarou (2023) focuses on managerial leadership during the pandemic and examines the steps educational leaders took to ensure the continuity of the educational process. The study emphasizes the significance of leadership in crisis management by highlighting some of the challenges educational leaders encounter, such as the lack of technological resources and the need to adapt to a new mode of instruction. In addition, it emphasizes the importance of pedagogical leadership for implementing educational policies, continuous development, and students' academic success. Therefore, school principals must cultivate the necessary leadership skills and competencies.

In this manner, beginning in 2021, researchers will reaffirm the importance of pedagogical leadership in various contexts, which is crucial for enhancing the quality of education and teacher performance. It is emphasized (Yurkofsky, 2022) that private educational institution administrators must develop effective leadership skills to foster continuous improvement in teaching and learning. Parents and students consider pedagogical leadership crucial when selecting a private educational institution.

Historically, men have dominated pedagogical leadership positions. However, according to Yu et al. (2022), a changing and demanding environment highlights the significance and talents of female leadership in school administration. They demonstrate through empirical research that Chilean female school principals have leadership skills that emphasize interpersonal relationships, communication, and teamwork to enhance the quality of education, empower the educational community, and build trust in the educational institution. Therefore, female spaces are gaining prominence in school administration.

In contrast, the ongoing health crisis continues to impact the quality of education in public and private educational institutions. In Peru, variables influencing the quality of education in this context, such as school infrastructure, teacher preparation, educational technology, and parental involvement, are determined. The results indicate that the pandemic has significantly impacted the quality of education, particularly in areas such as technology access and online teacher training (Zhang, 2022). In the context of a health crisis, specific educational policies and measures are required to address these issues and enhance the quality of learning. Implementing a quality management system in an educational institution is essential to improve the efficacy and efficiency of educational processes and the satisfaction of students and their families.

Recent research conducted in 2021 focuses on how pedagogical leadership should be able to establish a clear and coherent vision, define attainable objectives and goals, and motivate the institution's staff to achieve the desired educational outcomes. In addition to fostering a quality culture within the institution, leadership should ensure that all academic community members are actively engaged. Implementing quality management systems in educational institutions is highlighted by Ahmad and Ahmed (2023) as a strategy to enhance leadership and the quality of education. They analyze the experiences of several educational institutions that have implemented quality management systems and provide practical recommendations, including establishing a work team, identifying critical processes, setting clear objectives and goals, training staff, involving the entire educational community, conducting internal audits, and pursuing continuous improvement. Therefore, emphasis is placed on implementing quality management systems in educational institutions and their positive impact on leadership and education quality.

In addition, various studies evaluate the literature on co-teaching and present the results of research that evaluated the implementation of co-teaching and its effect on student learning in a Chilean school. Co-teaching can be an effective strategy for improving teaching practices and student outcomes, but it requires careful planning, ongoing support, and a mutual understanding of objectives and roles. Overall, the research conducted in 2021 highlights the significance of ethical and collaborative pedagogical leadership in the development of education. It also emphasizes developing leadership and emotional skills for effective school administration. Recent studies have primarily focused on the impact of the ongoing health crisis on education, the role of female leadership, the implementation of quality management systems, and the efficacy of co-teaching.

There exists a paradigm of pedagogical leadership for private primary school administrators. Five factors comprise the model: pedagogical leadership, pedagogical innovation, the culture of collaboration, learning management, and motivation. It is suggested that attention should be paid to the training of directors in these areas of leadership (Yokuş, 2022) so that the model can be utilized to improve the quality of education.

The importance of synchronous leadership for transforming higher education is emphasized, as is the need for collaborative, inclusive leadership emphasizing effective communication and collaboration to address the current and future challenges in higher education (Lucey, Davis, & Green, 2022). The significance of positive leadership in developing healthy organizations highlights the need for transformative leadership that promotes employee health and well-being and fosters a positive work environment (Abolnasser et al., 2023). Arriagada-Venegas et al. (2022) analyze how authentic leadership can prevent organizational dehumanization and reduce workplace tension. The relationship between transformative leadership and innovative culture and their effects on institutional quality fosters a creative culture within organizations, thereby enhancing institutional quality (Tipu, Ryan, & Fantazy, 2012). Louws et al. (2017) investigate the relationship between leadership and culture in engineering professions, focusing on how students perceive leadership and culture within their faculty. The results indicated that leadership and culture significantly impact engineering students' experiences and academic performance.

In another study, Xenikou and Simosi (2006) examine the relationship between transformative leadership and organizational culture. It is argued that transformative leadership can help develop a positive and effective culture centered on inspiring and motivating organization members to achieve common goals and can positively affect organizational culture by encouraging collaboration, innovation, and adaptability. Other research confirms that management and leadership in an academic unit, defined as a group of individuals collaborating to achieve common education-related objectives, are essential. Management focuses on planning, organizing, controlling, and coordinating resources and processes to achieve established objectives, whereas leadership focuses on the influence exerted on people to motivate and direct them toward achieving goals. The characteristics that an effective leader should possess, such as communication skills, empathy, collaboration, and creativity, are highlighted. The competencies and skills educational administrators must-have for effective management are also discussed.

In conclusion, 2021 has been a pivotal year for highlighting the significance of pedagogical leadership in various educational contexts, and multiple strategies have been proposed to enhance the quality of education and teachers' performance. The pandemic has presented significant academic challenges, but it has also provided an opportunity to implement specific policies and measures to address these issues and enhance the quality of education in the context of a health crisis. Implementing quality management systems and co-teaching have been highlighted as effective strategies for improving the quality of education. A model of pedagogical leadership for school directors has been proposed, which can be useful for enhancing the quality of education and training school directors in various key areas, including pedagogical leadership, pedagogical innovation, the culture of collaboration, learning management, and motivation. This year has been a call to action to improve education through effective pedagogical leadership and innovative strategies in a constantly evolving context and presenting new challenges.

Strengthening pedagogical leadership in 2022 was accomplished through pedagogical monitoring and support, where systematic classroom observation stood out as a valuable instrument for enhancing teaching quality by identifying teachers' strengths and weaknesses in performance. Nonetheless, during the implementation of the classroom observation process, obstacles such as the resistance of some teachers

to being observed, the need to establish explicit observation protocols, and the need for trained observers with effective communication skills emerged.

In Spain, the importance of inclusion and diversity in education was emphasized, as was the self-assessment model in six important areas for identifying educational institutions' strengths and weaknesses. In this regard, pedagogical leadership was regarded as crucial in advancing inclusive education and promoting inclusive values.

Recently, a model of pedagogical leadership concentrating on three dimensions — personal, pedagogical, and managerial — was presented, and it analyzed how pedagogical leaders can assist teachers in addressing the challenges posed by the pandemic. In the health crisis context, pedagogical leadership's significance in problem-solving and decision-making is highlighted. Consequently, a model of pedagogical leadership is proposed that educational leaders can use to assist teachers with implementing new strategies and decision-making in uncertain and changing situations during the pandemic crisis in Peru (Bozkurt et al., 2020).

Regarding student learning outcomes, pedagogical leadership is linked to accountability procedures. Therefore, it is essential to foster autonomy and assure accountability in educational institutions. In addition, several pedagogical leadership practices that can facilitate the implementation of autonomy policies with responsibility in educational institutions have been identified. Nonetheless, it is necessary to continue enhancing the training of school principals in pedagogical leadership and promoting these managerial leadership best practices (Jackson & Kelley, 2002).

Hoch and Dulebohn (2017) highlight the importance of leadership to the success of a project and describe various leadership positions, including directive leadership, pedagogical leadership, shared leadership, and emergent leadership. These roles highlight the significance of collaboration and teamwork in attaining predetermined objectives. In addition, to achieve success, the managing leader should encourage the participation of instructors and students in the decision-making process.

In this context, female leadership has emerged, exemplified by a more open, conscientious, and compassionate personality than male leadership. Female leaders tend to prioritize the team and take a participatory approach to decision-making, whereas male

leaders may be more individualistic and emphasize autocratic leadership. This gender- and personality-based disparities in leadership styles influence how leaders communicate and make decisions, thereby impacting leadership effectiveness (Memon, 2014).

Transformational leadership has been studied in higher education, where it is defined as inspiring and motivating followers to attain their full potential and exceed expectations. A recent study shows that private universities have more transformative leadership than public universities. In addition, it was discovered that transformative leadership positively affects academic performance and student satisfaction. These findings demonstrate the significance of public university administrators assuming transformative leadership to enhance the quality of education and student development. In addition, public universities must take steps to enhance their leadership and transformative capacity (Saad Alessa, 2021).

Leadership is also associated with fostering a corporate culture of social responsibility. Leaders must be dedicated to advancing ethical values and social responsibility practices. A shared vision is established in the first stage of this three-stage model for developing leadership and social responsibility in organizations. The second stage involves the development of leadership skills and competencies, while the third stage involves implementing social responsibility practices within organizations. This, however, depends on the capacity of leaders to communicate the vision and values and motivate employees to engage in social responsibility initiatives. Moreover, leaders must perpetually evaluate and enhance the organization's social responsibility practices (Maon, Lindgreen, & Swaen, 2009).

Current research has demonstrated the significance of pedagogical leadership in schools for enhancing pedagogical competencies and education quality. A lack of pedagogical leadership can result in a behaviorist and decontextualized orientation of educational processes. To foster a school environment where all teachers can learn and teach, it is essential to employ transformative pedagogical leadership that considers the various domains of the educational community. In addition, the significance of ethical and collaborative pedagogical leadership in enhancing education has been emphasized, as the need to develop managerial and emotional competencies for effective school administration. The COVID-19 pandemic has presented significant

educational challenges, but it has also presented an opportunity to implement specific policies and measures to address these challenges and enhance the quality of education in a public health emergency. This year has been a call to action to improve education through effective pedagogical leadership and innovative strategies in a constantly evolving context and presenting new challenges.

## Material and Methods

A qualitative methodology supported by a systematic review of seventy articles from indexed journals was employed. 26 of these 70 articles were found in the Web of Science (WOS) database, 19 in Scopus, and the remaining 25 were selected by hand because of their relevance to the categorical concept. As discussed in prior literature, convenience criteria influenced the selection process.

In January 2023, a quantitative analysis was conducted utilizing the abundance of information on scientific output found in the Web of Science and Scopus databases. This analysis employed a bibliometric methodology to extract data associated with the terms "leadership AND pedagogical." Bibliometrics is a potent instrument that enables the quantification of abstract concepts. Through this lens, it is possible to gather information about research disciplines and epistemological positions, allowing us to delineate the limits of knowledge. The documentary analysis zeroed in on a review of scientific literature and, from a qualitative perspective, characterized the diverse positions of various authors to define the current state of the art.

On the ethical front, all research activities rigorously adhered to academic research's ethical guidelines. All cited articles were appropriately cited, and any potential conflicts of interest were disclosed. The integrity of the research process was maintained by safeguarding the privacy and confidentiality of any personal information that may have been collected during this investigation. Overall, the methodology attempted to combine qualitative and quantitative research with a strong emphasis on ethical considerations to provide a robust and comprehensive overview of the current state of knowledge regarding the concepts of "leadership" and "pedagogical."

## Procedure and Search Selection

The PRISMA 2020 statement was utilized to conduct this study, and inclusion and exclusion criteria were established in two phases. In the first stage, methodological filters were applied using an advanced search with Boolean operators (TITLE-ABS-KEY (leadership) AND TITLE-ABS-KEY (pedagogical) OR TITLE-ABS-KEY (leadership) AND TITLE-ABS-KEY (pedagogical)). The Scopus database, 49 pertinent results were identified, and 29 open-access articles published in the "social sciences" category between 2018 and 2022 were chosen. There were 23 articles written in Spanish, with 19 being scientific articles and 4 being critiques. To broaden the scope of the study, a WOS database thematic search on "pedagogical leadership" was conducted. The investigation was restricted to open-access publications by applying filters to the initial 64 results, yielding 44 publications. In addition, a specific period, from 2018 to 2022, was evaluated, reducing the number of social sciences and related publications to 33. The publication language was also considered, and 26 Spanish-language articles were chosen, of which 25 were scientific articles, and 1 was a review (see Table 1).

Thus, the Web of Science and Scopus databases were consulted, identifying 26 and 19 pertinent publications, respectively. Due to this limitation, the information source "CONCYTEC Library" from Peru, which permits searches in other significant academic indexers in Latin America, was included. This source contained 12,451 articles, of which 12,193 were excluded because they were theses or volumes, leaving only peer-reviewed journals. After applying the inclusion and exclusion criteria, 258 reports were obtained, of which 122 were excluded because they did not fall within the study period (2018 to 2022), and 99 were excluded because they did not satisfy the criteria for relevant disciplinary areas. Finally, 25 peer-reviewed scientific journal articles were included in the corpus for analysis (see Table 1). Thus, an endeavor was made to supplement the results from Western databases with significant academic literature from Latin America.

Table 1. Eligibility Criteria

| Criteria | WOS | Scopus | Convenience* |
|---|---|---|---|
| Results | 64 | 49 | 12,451 |
| All Open Access/indexed journals** | 44 | 29 | 258* |
| Period 2018 to 2022 | 33 | 23 | 122 |
| Social Sciences and Related Areas | 31 | 23 | 53 |
| Spanish language | 26 | 19 | 52 |
| ✓ Articles | 25 | 15 | 40 |
| ✓ Review | 1 | 04 | 12 |
| Revisión bibliográfica | 26 | 19 | 25 |
| Total | | 70 | |

Note. WOS, Scopus, and CONCYTEC Library databases provided data as of 15/01/2023.

Next, in Figure 1, the review process applying the PRISMA 2020 statement is detailed.

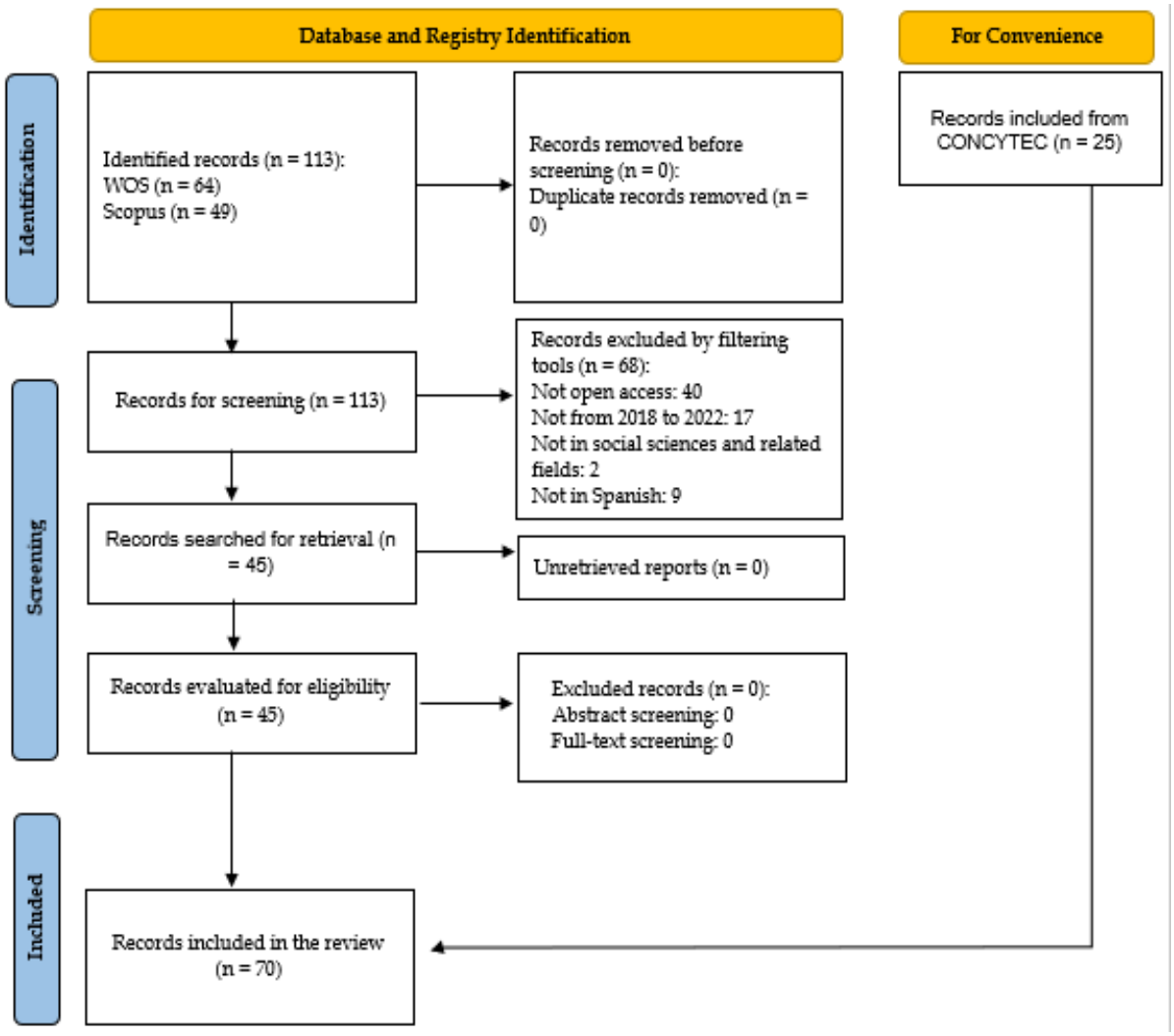


Figure 1. Review process adapted from the PRISMA statement

## Results

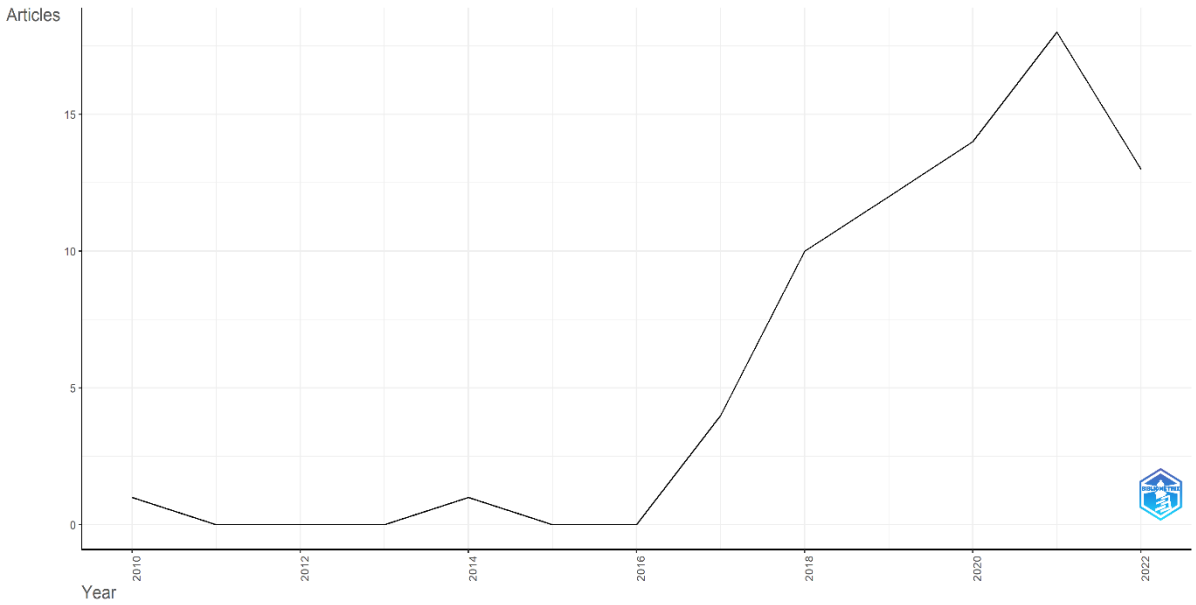


Figure 2. Distribution of scientific production by year of publication

Note. Metadata provided by WOS, Scopus, and CONCYTEC Library databases through the R language - Bibliometrics.

This study consulted a variety of databases, including Scopus and Web of Science, to determine the annual scientific output about pedagogical leadership during a specified time frame. The year 2021 had the greatest number of published studies (17), followed by 2020 with (15). The years 2018, 2019, and 2022 had the most published studies related to pedagogical leadership, with (10), (6), and (9) studies, respectively, while the years 2017, 2014, and 2010 had the fewest, with (3), (1), and (1) studies, respectively. The literature on pedagogical leadership has expanded in recent years, as shown in Figure 2.

Various Spanish-speaking nations were represented in the studies discovered in the literature reviewed. In Europe, Spain is the leader in scientific production with twenty (20) published studies, followed by Portugal with three (3) studies and Switzerland and France with one (1) study each. Chile leads the scientific production in Latin America and North America with thirteen studies, followed by Peru and Ecuador with seven each and Colombia with six. Mexico's index was low, with only two published studies, while Bolivia and Argentina each had one.

In 2018, research was conducted on the adaptation and validation of a pedagogical leadership scale in Spain, the perception of Spanish principals regarding pedagogical leadership, the ideal leadership style for school principals, the development of generic competencies in student tutors, and the practices that impede teaching processes in vulnerable schools. In 2019, the significance of pedagogical leadership for education in socially at-risk areas was emphasized, and obstacles such as unclear roles and responsibilities, lack of resources, and the need for additional training were identified. In 2020, the focus of research will be on ethical and collaborative pedagogical leadership, the need to develop managerial and emotional competencies, and the challenges posed by the COVID-19 pandemic in education. In Ecuador, the emphasis was on the connection between leadership and instructional effectiveness. In 2021, the significance of female leadership in school administration and the need to cultivate effective leadership skills to enhance teaching and learning will be emphasized.

Table 2. Distribution of production according to Authors' Local Impact, citations per year

| Element | h_index | g_index | m_index | TC | NP | PY_start |
|---|---|---|---|---|---|---|
| Alcázar | 1 | 1 | 0.25 | 4 | 1 | 2020 |
| Álvarez | 1 | 1 | 0.333 | 2 | 1 | 2021 |
| Ávalos | 1 | 1 | 0.2 | 2 | 1 | 2019 |
| Barraza | 1 | 1 | 0.333 | 1405 | 1 | 2021 |
| Bustos-González | 1 | 1 | 0.167 | 120 | 1 | 2018 |
| Cabrera Álvarez | 1 | 1 | 0.25 | 1727 | 1 | 2020 |
| Cáceres-Coaquira | 1 | 1 | 0.25 | 2 | 1 | 2020 |
| Carrasco-Lozano | 1 | 1 | 0.167 | 1409 | 1 | 2018 |
| Carrasco | 1 | 1 | 0.333 | 1405 | 1 | 2021 |
| Carro-Olvera | 1 | 1 | 0.167 | 1409 | 1 | 2018 |

| Año | MeanTCperArt | N | MeanTCperYear | CitableYears |
|---|---|---|---|---|
| 2018 | 351.9 | 10.00 | 58.65 | 6 |
| 2019 | 0.17 | 12.00 | 0.03 | 5 |
| 2020 | 175.14 | 14.00 | 43.78 | 4 |
| 2021 | 189.06 | 18.00 | 63.02 | 3 |
| 2022 | 0.15 | 13.00 | 0.07 | 2 |

Note. Metadata provided by WOS, Scopus, and CONCYTEC Library databases through the R language - Bibliometrics.

Table 2 displays a variety of bibliometric indicators for a group of authors, including the h-index, g-index, and m-index, as well as the total number of citations (TC), the number of publications (NP), and the year publication began (PY_start). The h-index indicates the number of an author's publications cited at least "h" times, whereas the g-index is similar but weights citations from the most highly cited publications differently. The m-index considers the average number of citations per publication and the distribution of citations. All authors in this table have an h-index and g-index of 1, indicating that at least one of their publications has been cited once, whereas the m-index ranges from 0.167 to 0.333, indicating that some authors have a greater concentration of citations in a subset of their publications.

The table also reveals that the total number of citations differs significantly from 2 to 1727, indicating that the significance and influence of these authors' publications vary considerably. Also variable, the number of publications ranges from 1 to 1405, showing a wide range of published research. In addition, the publication year ranges from 2018 to 2021, indicating a diversity of career paths and experience levels.

2018 had the greatest average citations per year, at 58.65, and the highest mean citations per article, at 351.9. In addition, ten articles were published that year, and it was cited six times. Despite publishing 12 articles, 2019 had the lowest mean citations per article, with 0.17, and only five citable years.

Regarding the average number of citations received per article and year, the scientific output of 2020 and 2021 was respectable. However, only two years were citable in 2022, and the average number of citations per article was only 0.15. In summary, the table illustrates notable differences in scientific output and citation reception in different years, which can be utilized to comprehend the career trajectory and significance of the scientific output of these authors.

Table 3. Authors' Production over Time

| Author | year | freq | TC | TCpY |
|---|---|---|---|---|
| Amores | 2018 | 1 | 0 | 0 |
| Amores | 2019 | 1 | 0 | 0 |
| Aravena | 2018 | 1 | 0 | 0 |
| Aravena | 2019 | 1 | 0 | 0 |
| Cobano-Delgado | 2017 | 2 | 4.42789E+11 | 63,255,557,143.143 |
| García-Garnica | 2018 | 1 | 0 | 0 |
| García-Garnica | 2019 | 1 | 0 | 0 |
| Gento | 2020 | 1 | 0 | 0 |
| Gento | 2021 | 1 | 0 | 0 |
| Gento | 2022 | 1 | 0 | 0 |
| González-Fernández | 2020 | 2 | 0 | 0 |
| González-Fernández | 2021 | 1 | 0 | 0 |
| González-Fernández | 2022 | 1 | 0 | 0 |
| Khampirat | 2020 | 1 | 0 | 0 |
| Khampirat | 2021 | 1 | 0 | 0 |
| Llorent-Bedmar | 2017 | 2 | 4.42789E+11 | 63,255,557,143.143 |
| López-Gómez | 2020 | 1 | 0 | 0 |
| López-Gómez | 2021 | 1 | 0 | 0 |
| Muñoz-Fritis | 2021 | 2 | 0 | 0 |

Note. Metadata provided by WOS, Scopus, and CONCYTEC Library databases through the R language - Bibliometrics.

Most authors in this dataset have a low frequency and citation count, indicating that the scientific community has not widely recognized their scientific contribution. However, two authors stand out: Cobano-Delgado and Liorent-Bedmar, each with two (2) publications and a high annual citation rate. This demonstrates that their research has substantially impacted their field of study.

González-Fernández and Khampirat, on the other hand, have a publication frequency comparable to that of Cobano-Delgado and Llorent-Bedmar, but their publications lack citations, indicating that their work has not been widely recognized or cited by other researchers.

Overall, Table 3 presents a dataset that emphasizes the significance of publishing significant and pertinent research that contributes to the advancement of science and the significance of citations in assessing the quality and impact of research.

Table 4. Documentos Más Citados Globalmente

| Paper | DOI | Total Citations | TC per Year | Normalized TC |
|---|---|---|---|---|
| Llorent-Bedmar, 2017, paginas educ. | 10.22235/pe.v11i2.1639 | 4.42789E+11 | 63,255,557,143.14 | 4.00 |
| Espinosa Beltrán, 2021, Conrado | NA | 1990 | 663.33 | 10.53 |
| morales vergara i, 2018, Conrado | NA | 1990 | 331.67 | 5.66 |
| López Fernández r, 2020, medisur | NA | 1727 | 431.75 | 9.86 |
| Carro-Olvera, 2018, rev. Electron. educ. | 10.15359/ree.22-1.8 | 1409 | 234.83 | 4.00 |
| Carrasco 2021, rev. mex. investig. educ. | NA | 1405 | 468.33 | 7.43 |
| Miras, 2020, rev. estud. y exp. educ. | 10.21703/rexe.20201941miras16 | 718 | 179.50 | 4.10 |
| Bustos-González, 2018, rev. colomb. educ. | NA | 120 | 20.00 | 0.34 |
| Alcázar, 2020, rev. coyunt. y perspect. | NA | 4 | 1.00 | 0.02 |
| Montoya, 2021, gest. segur. y salud el trab. | 10.15765/gsst.v4i4.3011 | 4 | 1.33 | 0.02 |

Note. Metadata provided by WOS, Scopus, and CONCYTEC Library databases through the R language - Bibliometrics.

Table 4 displays a selection of scientific articles and their respective citation metrics. The 2017 article by Llorent-Bedmar has a high number of total citations (4.42789E+11) and a high rate of citations per year (63,255,557,143.14), indicating that it is a highly influential article. The other articles have a lower range of citations, with the majority having less than 500 cumulative citations and less than 500 per year.

For instance, the article by Alcázar has only four total citations and a citations per year rate of one, indicating that it has not significantly impacted its field. This table is beneficial for comparing the relative influence of various scientific articles based on their respective citation metrics.

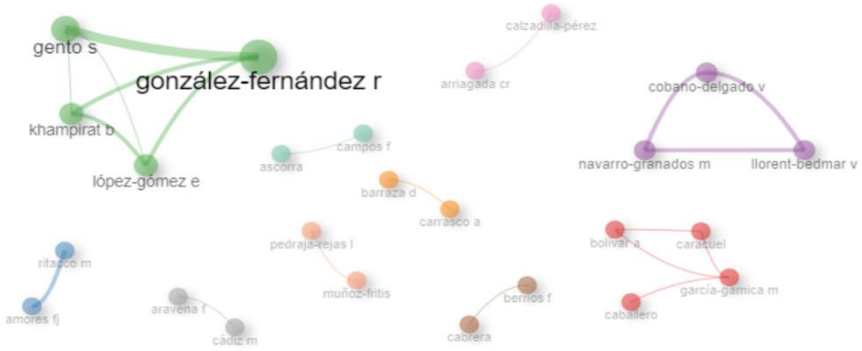


Figure 3. Collaboration Network

Note. Metadata provided by WOS, Scopus, and CONCYTEC Library databases through the R language - Bibliometrics.

Table 5. Collaboration Network

| Node | Cluster | Betweenness | Closeness | PageRank |
|---|---|---|---|---|
| García-Garnica | 1 | 2 | 0.333333333 | 0.058677739 |
| Bolívar | 1 | 0 | 0.25 | 0.039348451 |
| Caballero | 1 | 0 | 0.2 | 0.022625359 |
| Caracuel | 1 | 0 | 0.25 | 0.039348451 |
| Amores | 2 | 0 | 1 | 0.04 |
| Ritacco | 2 | 0 | 1 | 0.04 |
| González-Fernández | 3 | 0 | 0.333333333 | 0.049722062 |
| Gento | 3 | 0 | 0.333333333 | 0.036632723 |
| Khampirat | 3 | 0 | 0.333333333 | 0.036822607 |
| López-gómez | 3 | 0 | 0.333333333 | 0.036822607 |
| Cobano-Delgado | 4 | 0 | 0.5 | 0.04 |
| Llorent-Bedmar | 4 | 0 | 0.5 | 0.04 |
| Navarro-Granados | 4 | 0 | 0.5 | 0.04 |
| Barraza | 5 | 0 | 1 | 0.04 |
| Carrasco | 5 | 0 | 1 | 0.04 |
| Berrios | 6 | 0 | 1 | 0.04 |
| Cabrera | 6 | 0 | 1 | 0.04 |
| Arriagada | 7 | 0 | 1 | 0.04 |
| Calzadilla-Pérez | 7 | 0 | 1 | 0.04 |
| Aravena | 8 | 0 | 1 | 0.04 |
| Cádiz | 8 | 0 | 1 | 0.04 |
| Ascorra | 9 | 0 | 1 | 0.04 |
| Campos | 9 | 0 | 1 | 0.04 |
| Muñoz-Fritis | 10 | 0 | 1 | 0.04 |
| Pedraja-Rejas | 10 | 0 | 1 | 0.04 |

Nota. Metadatos suministrados por la BD WOS, Scopus y Biblioteca CONCYTEC, a través del Lenguje R - Bibliometrics

Different nodes and their corresponding clusters, betweenness, closeness, and PageRank measures are illustrated in Figure 3. These metrics are used to evaluate the significance of a network node. In this regard, each node's measurements can be interpreted according to Table 5.

This column denotes the number of the cluster to which each node belongs. A cluster is a collection of highly interconnected elements within a network. The betweenness column indicates the number of times a node is situated on the shortest path between two other nodes. This metric helps identify nodes that serve as bridges between various network segments. The intimacy column indicates a node's proximity to all other network nodes. This metric is based on the average length of the shortest path from a node to all other nodes in the network. The PageRank column indicates the significance of a node based on the quantity and quality of incoming links from other nodes.

Garca-Garnica has the highest betweenness score, indicating that this node is highly connected to other sections of the network and functions as a bridge between different clusters. On the other hand, Bolvar, Caballero, and Caracuel have low betweenness scores, indicating that they are not as important in connecting various parts of the network. In addition, Amores and Ritacco have the maximum PageRank score, suggesting that they have the most incoming links from other nodes in the network and are, therefore, extremely significant. In addition, Berrios, Cabrera, Arriagada, Calzadilla-Pérez, Aravena, Cádiz, Ascorra, and Campos all have a PageRank score of 0.04, indicating that they share a comparable level of network importance. Similarly, Garca-Garnica has the maximum closeness score, suggesting that it is the node in the network that is closest to all other nodes. This metric can be used to identify nodes with rapid information dissemination capabilities.

Overall, these measures provide information about the significance and structure of the collaboration network and can be used to identify nodes that play a crucial role in connecting various parts of the network or have a substantial impact within the network.

## Discussion and Conclusions

In recent years, there has been a rise in scholarly research on pedagogical leadership (PL) in education. This is because PL is a determining factor in the pursuit and attainment of educational quality and the improvement of the management of educational activities related to teaching, learning, research, and community relations. These are the primary goals addressed by international educational agendas.

Applying bibliometric approaches and laws in the analysis of scientific literature emphasizes the relevance and impact generated by research conducted on PL in various countries, with the results systematized as bibliometric indicators. The logical historical analysis of publications related to PL reveals that, according to Price's Law, it was a subject of intense interest in the scientific literature between 2010 and 2022. The number of articles published increased from one in 2010 to ten in 2018, fifteen in 2020, and seventeen in 2021. In 2022, however, there was a decline in production, with only nine articles published. These findings can be explained by the fact that the study of PL has strengthened and gained importance in educational institutions to transform pedagogical practices, enhance the quality and excellence of education, and adapt educational leaders' competencies to new educational scenarios.

It is important to note that the study of PL focuses on three main aspects: as a determining factor in the pursuit, innovation, development, and transformation of teaching and learning processes at different educational levels for the achievement of academic quality; as a teaching competence aimed at generating processes of change, adaptation, and transformation of pedagogical practices to improve student learning outcomes and contribute to their comprehensive education; and as a determining factor in the pursuit, innovation, development, and transformation of teaching and learning processes at different educational levels for

In the past 13 years, pedagogical leadership has become a central topic in educational administration, as evidenced by the rise in scientific publications on the subject. Although the study of leadership has been addressed in the organizational field since the 20th century, its significance in international educational agendas has increased in the 21st century. The scientific literature examines three perspectives: institutional management, teaching, and managerial perspectives, which address

various aspects of pedagogical leadership. The 2010 to 2022 Scopus and Web of Science bibliometric analysis concludes that pedagogical leadership is essential for attaining educational quality and enhancing educational management worldwide. Three major facets were identified: innovation, development, and transformation of teaching and learning processes; teaching competence to improve student learning outcomes and their comprehensive education; and managerial competence to manage institutional infrastructure, improve educational management processes and outcomes, and foster relationships with community and academic stakeholders. In the co-occurrence analysis of PL research, the most frequent keywords were "leadership," "pedagogical leadership," "transformational leadership," and "higher education." Overall, the study emphasizes the significance of pedagogical leadership in educational administration and its expanding importance in the scientific literature.

In conclusion, pedagogical leadership is increasingly relevant and significant in the scientific literature. The bibliometric analysis has enabled the identification of characteristics and trends in the scientific production of this topic, highlighting its significance in educational management for the achievement of quality education. Three approaches to pedagogical leadership have been identified: institutional management, teaching perspective, and managerial competence.

## References

Aas, M., & Paulsen, J. M. (2019). National strategy for supporting school principal's instructional leadership: A Scandinavian approach. *Journal of Educational Administration, 57*(5), 540-553. https://doi.org/10.1108/JEA-09-2018-0168

Abolnasser, M. S. A., Abdou, A. H., Hassan, T. H., & Salem, A. E. (2023). Transformational Leadership, Employee Engagement, Job Satisfaction, and Psychological Well-Being among Hotel Employees after the Height of the COVID-19 Pandemic: A Serial Mediation Model. *International Journal of Environmental Research and Public Health, 20*(4), 3609. https://doi.org/10.3390/ijerph20043609

Ahmad, S., & Ahmed, A. (2023). The role of leadership in effective implementation of quality assurance mechanisms in higher education: an exploratory case study from Pakistan.

*Quality Assurance in Education, 31*(2), 230-246. https://doi.org/10.1108/QAE-02-2022-0037

Al Mahdi, O., de Munnik, M., Meinen, L., & Green, M. (2022). Professional Learning Communities in Private Schools in Bahrain and Oman: Reflection on Two Cases. *ECNU Review of Education*, 1-16. https://doi.org/10.1177/20965311221131583

Ali, W. (2020). Online and remote learning in higher education institutes: A necessity in light of COVID-19 pandemic. *Higher education studies, 10*(3), 16-25. https://doi.org/10.5539/hes.v10n3p16

Almanthari, A., Maulina, S., & Bruce, S. (2020). Secondary School Mathematics Teachers' Views on E-Learning Implementation Barriers during the COVID-19 Pandemic: The Case of Indonesia. *Eurasia journal of mathematics, science and technology education, 16*(7), 1-9. https://doi.org/10.29333/EJMSTE/8240

Arriagada-Venegas, M., Ariño-Mateo, E., Ramírez-Vielma, R., Nazar-Carter, G., & Pérez-Jorge, D. (2022). Authentic leadership and its relationship with job satisfaction: The mediator role of organizational dehumanization. *Europe's Journal of Psychology, 18*(4), 450–463. https://doi.org/10.5964/ejop.6125

Badillo-Vega, R., & Buendía-Espinosa, A. (2022). The leadership roles of Mexico's university presidents. *Studies in Higher Education, 47*(2), 378-393. https://doi.org/10.1080/03075079.2020.1750582

Bozkurt, A., Jung, I., Xiao, J., Vladimirschi, V., Schuwer, R., Egorov, G., Lambert, S., Al-Freih, M., Pete, J., & Olcott Jr, D. (2020). A global outlook to the interruption of education due to COVID-19 pandemic: Navigating in a time of uncertainty and crisis. *Asian Journal of Distance Education, 15*(1), 1-126. http://www.asianjde.com/ojs/index.php/AsianJDE/article/view/462

Bozkurt, A., Karakaya, K., Turk, M., Karakaya, Ö., & Castellanos-Reyes, D. (2022). The impact of COVID-19 on education: a meta-narrative review. *TechTrends, 66*(5), 883-896. https://doi.org/10.1007/s11528-022-00759-0

Bryant, D. A., & Walker, A. (2022). Principal-designed structures that enhance middle leaders' professional learning. *Educational Management Administration & Leadership*, 1-20. https://doi.org/10.1177/17411432221084154

Chatzipanagiotou, P., & Katsarou, E. (2023). Crisis Management, School Leadership in Disruptive Times and the Recovery of Schools in the Post COVID-19 Era: A Systematic Literature

Review. *Education Sciences, 13*(2), 118. https://doi.org/10.3390/educsci13020118

De Giuseppe, T., & Corona, F. (2020). Flipped inclusion between educational emergencies and transformative socio-semiotic didactics. In *Disruptive and Emerging Technology Trends Across Education and the Workplace* (pp. 52-89). IGI Global. https://doi.org/10.4018/978-1-7998-2914-0.ch003

De Wit, H., & Altbach, P. G. (2021). Internationalization in higher education: Global trends and recommendations for its future. In *Higher Education in the Next Decade* (pp. 303-325). Brill. https://doi.org/10.1163/9789004462717_016

García-Carmona, M., Fuentes-Mayorga, N., & Rodríguez-García, A.-M. (2021). Educational leadership for social justice in multicultural contexts: The case of Melilla, Spain. *Leadership and Policy in Schools, 20*(1), 76-94. https://doi.org/10.1080/15700763.2020.1833939

Gillingham, K., Eggleton, K., & Goodyear-Smith, F. (2020). Is reflective learning visible in online discussion forums for medical students on general practice placements? A qualitative study. *Teaching and learning in medicine, 32*(4), 434-441. https://doi.org/10.1080/10401334.2020.1730184

Gurr, D. (2019). School middle leaders in Australia, Chile and Singapore. *School Leadership & Management, 39*(3-4), 278-296. https://doi.org/10.1080/13632434.2018.1512485

Hallinger, P. (2003). Leading educational change: Reflections on the practice of instructional and transformational leadership. *Cambridge Journal of education, 33*(3), 329-352. https://doi.org/10.1080/0305764032000122005

Heffernan, A., MacDonald, K., & Longmuir, F. (2022). The emotional intensity of educational leadership: A scoping review. *International Journal of Leadership in Education*, 1-23. https://doi.org/10.1080/13603124.2022.2042856

Hoch, J. E., & Dulebohn, J. H. (2017). Team personality composition, emergent leadership and shared leadership in virtual teams: A theoretical framework. *Human Resource Management Review, 27*(4), 678-693. https://doi.org/10.1016/j.hrmr.2016.12.012

Höddinghaus, M., Sondern, D., & Hertel, G. (2021). The automation of leadership functions: Would people trust decision algorithms? *Computers in Human Behavior, 116*, 106635. https://doi.org/10.1016/j.chb.2020.106635

Honig, M. I., & Rainey, L. R. (2019). Supporting principal supervisors: what really matters? *Journal of Educational Administration, 57*(5), 445-462.

https://doi.org/10.1108/JEA-05-2019-0089

Hopkins, D., & Stern, D. (1996). Quality teachers, quality schools: International perspectives and policy implications. *Teaching and teacher education, 12*(5), 501-517. https://doi.org/10.1016/0742-051X(95)00055-O

Jackson, B. L., & Kelley, C. (2002). Exceptional and innovative programs in educational leadership. *Educational administration quarterly, 38*(2), 192-212. https://doi.org/10.1177/0013161X02382005

Kemethofer, D., Helm, C., & Warwas, J. (2022). Does educational leadership enhance instructional quality and student achievement? The case of Austrian primary school leaders. *International Journal of Leadership in Education*, 1-25. https://doi.org/10.1080/13603124.2021.2021294

Klahn Acuña, B., & Male, T. (2022). Toxic leadership and academics' work engagement in higher education: A cross-sectional study from Chile. *Educational Management Administration & Leadership*. https://doi.org/10.1177/17411432221084474

Kouhsari, M., Navehebrahim, A., Zeinabadi, H., & Abbasian, H. (2022). Exploring positive school leadership practices in Iranian primary schools. *International Journal of Leadership in Education*, 1-21. https://doi.org/10.1080/13603124.2022.2052759

Lambrecht, J., Lenkeit, J., Hartmann, A., Ehlert, A., Knigge, M., & Spörer, N. (2022). The effect of school leadership on implementing inclusive education: How transformational and instructional leadership practices affect individualised education planning. *International Journal of Inclusive Education, 26*(9), 943-957. https://doi.org/10.1080/13603116.2020.1752825

Liu, Y., Li, L., & Huang, C. (2022). To what extent is shared instructional leadership related to teacher self-efficacy and student academic performance in China? *School Effectiveness and School Improvement, 33*(3), 381-402. https://doi.org/10.1080/09243453.2022.2029746

Louws, M. L., Meirink, J. A., van Veen, K., & van Driel, J. H. (2017). Exploring the relation between teachers' perceptions of workplace conditions and their professional learning goals. *Professional Development in Education, 43*(5), 770-788. https://doi.org/10.1080/19415257.2016.1251486

Lucey, C. R., Davis, J. A., & Green, M. M. (2022). We have no choice but to transform: the future of medical education after the COVID-19 pandemic. *Academic*

*Medicine, 97*(3), S71–S81. https://doi.org/10.1097/ACM.0000000000004526

Mansilla, E. B. R., Castillo-Acobo, R. Y., Puma, E. G. M., Maquera, Y. M., Gonzales, J. L. A., & Vasquez-Pauca, M. J. (2022). Stress in university teachers in the framework of the post-pandemic face-to-face academic resumption. Journal of Medicinal and Chemical Sciences, 5(6), 1040-1047. https://doi.org/ 10.26655/JMCHEMSCI.2022.6.17

Maon, F., Lindgreen, A., & Swaen, V. (2009). Designing and implementing corporate social responsibility: An integrative framework grounded in theory and practice. *Journal of business ethics, 87*, 71-89. https://doi.org/10.1007/s10551-008-9804-2

Martins, P., Nascimento, G., & Moreira, A. (2023). Leadership and turnover intentions in a public hospital: The mediating effect of organisational commitment and moderating effect by activity department. *Administrative Sciences, 13*(1), 18. https://doi.org/10.3390/admsci13010018

Memon, K. R. (2014). Effects of leadership styles on employee performance: Integrating the mediating role of culture, gender and moderating role of communication. *International Journal of Management Sciences and Business Research, 3*(7), 63-80. http://dx.doi.org/10.5281/zenodo.3457647

Miled, N. (2019). Educational leaders' perceptions of multicultural education in teachers' professional development: A case study from a Canadian school district. *Multicultural education review, 11*(2), 79-95. https://doi.org/10.1080/2005615X.2019.1615249

Montecinos, C., Cortez, M., Zett, I., & Chávez, S. (2023). Responding to external accountability in high-performing, high-capacity public secondary schools in Chile. *European Journal of Education, 58*(1), 36-50. https://doi.org/10.1111/ejed.12538

Munastiwi, E., & Puryono, S. (2021). Unprepared management decreases education performance in kindergartens during Covid-19 pandemic. *Heliyon, 7*(5), e07138. https://doi.org/10.1016/j.heliyon.2021.e07138

Orosco Gavilán, J. C., Zapana Díaz, D., Jinchuña Huallpa, J., Bustinza Cabala, J. L., Pongo Aguila, O. E., Martínez Puma, E. G., . . . Arias-Gonzáles, J. L. (2022). Technological social responsibility in university professors. Eurasian Journal of Educational Research, 2022(100), 104-118. https:/doi.org/ 10.14689/ejer.2022.100.008

Pattiwael, A. S. (2019). Literature for Developing Student's Humanity Awareness.

*Journal International Seminar on Languages, Literature, Arts, and Education (ISLLAE), 1*(1), 79-88. https://doi.org/10.21009/ISLLAE.01115

Popa, D., Repanovici, A., Lupu, D., Norel, M., & Coman, C. (2020). Using mixed methods to understand teaching and learning in COVID 19 times. *Sustainability, 12*(20), 8726. https://doi.org/10.3390/su12208726

Ramos, W. R. M., Herrera, E. E., Manrique, G. M. L., Acevedo, J. E. R., Acosta, D. B., Palacios-Jimenez, A. S., . . . Gonzáles, J. A. (2022). Responsible leadership: A comparative study between peruvian national and private universities. Eurasian Journal of Educational Research, 2022(99), 143-154. https://doi.org/ 10.14689/ejer.2022.99

Saad Alessa, G. (2021). The dimensions of transformational leadership and its organizational effects in public universities in Saudi Arabia: A systematic review. *Frontiers in psychology, 12*, 682092. https://doi.org/10.3389/fpsyg.2021.682092

Tipu, S. A. A., Ryan, J. C., & Fantazy, K. A. (2012). Transformational leadership in Pakistan: An examination of the relationship of transformational leadership to organizational culture and innovation propensity. *Journal of Management & Organization, 18*(4), 461-480. https://doi.org/10.5172/jmo.2012.18.4.461

Xenikou, A., & Simosi, M. (2006). Organizational culture and transformational leadership as predictors of business unit performance. *Journal of Managerial Psychology, 21*(6), 566-579. https://doi.org/10.1108/02683940610684409

Yokuş, G. (2022). Developing a guiding model of educational leadership in higher education during the COVID-19 pandemic: A grounded theory study. *Participatory Educational Research, 9*(1), 362-387. https://doi.org/10.17275/per.22.20.9.1

Yu, M., Wen, J., Smith, S. M., & Stokes, P. (2022). Building-up resilience and being effective leaders in the workplace: a systematic review and synthesis model. *Leadership & Organization Development Journal, 43*(7), 1098-1117. https://doi.org/10.1108/LODJ-09-2021-0437

Yurkofsky, M. (2022). From compliance to improvement: How school leaders make sense of institutional and technical demands. *Educational administration quarterly, 58*(2), 300-346. https://doi.org/10.1177/0013161X211053597

Zhang, W. (2022). The Role of technology-based education and teacher professional development in English as a Foreign Language Classes. *Frontiers in psychology, 13*, 910315. https://doi.org/10.3389/fpsyg.2022.910315