

TEACHER LEADERSHIP AND EDUCATIONAL PROJECTS: DRIVING TRANSFORMATION AND INNOVATION IN LEARNING ENVIRONMENTS

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Abstract— This study explores the impact of teacher leadership on the implementation and success of educational projects, focusing on its role in fostering educational transformation and student learning improvement. Anchored in a mixed-methods approach, the research involved 173 teachers, 42 school leaders, and 977 students from diverse Colombian regions, capturing a representative sample across public and private institutions. The theoretical framework integrates concepts of transformative and distributed leadership, emphasizing its contribution to innovation, inclusion, and institutional development. Data collection employed interviews, surveys, and documentary analysis, validated through expert review and pilot testing. Key findings indicate that teacher leadership significantly enhances project-based learning, fostering critical thinking, collaboration, and socio-emotional skills among students. However, barriers such as insufficient training, limited use of technological tools, and administrative challenges constrain its potential. The study highlights the need for targeted policies and capacity-building programs to equip educators with the competencies required for effective leadership and project management. By aligning leadership practices with institutional objectives, the research underscores their transformative impact on educational quality and community engagement. This investigation offers actionable insights for policymakers, educational leaders, and researchers, advocating for systemic strategies to empower teacher leaders as catalysts of educational innovation. It contributes to global discussions on leadership and project-based methodologies, reinforcing their relevance in achieving equitable and quality education.

Index Terms—Educational Projects, Innovation in Learning, Learning Environments, Teacher Leadership.

I. INTRODUCTION

The role of teacher leadership in the educational landscape has been widely recognized as a critical factor in driving school improvement and enhancing student learning outcomes. Over the past few decades, research has consistently highlighted the importance of effective leadership in fostering a positive school climate, promoting teacher collaboration, and implementing innovative educational practices [1][2]. Teacher leadership, particularly in the context of educational projects, has been shown to be a powerful mechanism for transforming traditional teaching practices into more dynamic, student-centered approaches that align with the demands of the 21st century [3]. However, despite the growing body of evidence supporting the impact of teacher leadership on educational quality, significant gaps remain in understanding how teacher leadership influences the successful implementation of educational projects and, ultimately, student achievement.

One of the key gaps in the existing literature is the lack of a comprehensive framework that links teacher leadership competencies to the effective management and execution of educational projects. While studies have explored various leadership styles and their impact on school performance [4], there is limited research on how specific leadership competencies—such as communication, collaboration, and innovation—contribute to the success of educational initiatives. Additionally, the role of teacher leadership in fostering a collaborative environment that supports the implementation of educational projects has not been thoroughly examined, particularly in diverse and resource-constrained contexts.

Addressing these gaps is of paramount importance for several reasons. First, understanding the relationship between teacher leadership and educational projects can provide valuable insights into how schools can better design and implement initiatives that lead to meaningful improvements in teaching and learning. Second, by identifying the specific competencies that enable teachers to lead effectively, educational policymakers and practitioners can develop targeted professional development programs that enhance these skills. Finally, this research has the potential to contribute to the broader discourse on educational reform by highlighting the critical role of teacher leadership in driving systemic change.

This study aims to fill these gaps by exploring the characteristics of teacher leadership that are most effective in promoting the successful implementation of educational projects. Specifically, the research seeks to: (1) establish a theoretical framework that links teacher leadership to the development and execution of educational projects;

(2) identify the key competencies of teacher leaders that facilitate innovation and educational transformation; and (3) evaluate the role of teacher leadership in improving educational outcomes through the implementation of projects in primary and secondary schools across various regions in Colombia. By addressing these objectives, this study aims to provide a deeper understanding of how teacher leadership can be leveraged to enhance the quality of education and contribute to the broader goals of educational reform.

In summary, this research is situated within the broader context of educational leadership and aims to contribute to the growing body of knowledge on how teacher leadership can drive the successful implementation of educational projects. By addressing the identified gaps, this study seeks to provide actionable insights that can inform policy and practice, ultimately leading to improved educational outcomes for students.

II. LITERATURE REVIEW

A. Theoretical Foundations of Educational Leadership

The conceptualization of leadership in education has evolved significantly since the late 20th century. Early works by Dewey [5] emphasized the importance of experiential learning and participatory approaches in education, laying the groundwork for modern theories of teacher leadership. Dewey argued that education should not merely replicate societal norms but actively engage students in critical thinking and problem-solving, a principle that aligns with contemporary notions of transformative leadership.

Later, Bolívar [6] expanded on these ideas by introducing the concept of distributed leadership, which emphasizes shared responsibility among educators and administrators. Bolívar's work highlighted the limitations of hierarchical leadership models and advocated for a more collaborative approach to school governance. Similarly, Spillane et al. [7] explored the dynamics of distributed leadership, emphasizing its potential to enhance teaching quality and student outcomes through collective decision-making.

In recent years, transformational leadership has gained prominence as a model for fostering innovation and change in educational settings. Studies by Avella et al. [8] and Escanío [9] have demonstrated that transformational leaders inspire teachers and students to exceed their expectations, creating environments conducive to creativity and continuous improvement. These findings underscore the importance of leadership styles that prioritize collaboration, empathy, and adaptability.

B. Teacher Leadership and Its Impact on Educational Projects

Teacher leadership has emerged as a critical factor in the successful implementation of educational projects. Murillo [10] was among the first to explore the transition from traditional administrative leadership to teacher-led initiatives, arguing that empowering teachers as leaders enhances their capacity to address local challenges and implement context-specific solutions. This perspective was later supported by Martínez and García [11], who identified teacher leadership as a fundamental objective of educational management.

Empirical evidence from studies such as Clavijo [12] and Maureira and Rojas [13] highlights the positive correlation between teacher leadership and improved academic performance, particularly in underserved communities. These studies emphasize the role of teacher leaders in fostering a positive school climate, promoting professional development, and facilitating the integration of technology into pedagogical practices.

More recently, Chana [14] conducted a case study in rural Colombian schools, revealing that teacher leadership is instrumental in overcoming resource constraints and addressing socio-cultural barriers. Her findings suggest that teacher-led projects not only improve learning outcomes but also strengthen community ties, reinforcing the idea that education is a social endeavor.

C. Educational Projects as Tools for Transformation

Educational projects have long been recognized as vehicles for transformative learning. Early research by Darling-Hammond [3] emphasized the need for project-based learning to equip students with skills relevant to the 21st century, such as critical thinking, collaboration, and digital literacy. Darling-Hammond's work laid the foundation for subsequent studies exploring the impact of educational projects on student engagement and achievement.

A notable contribution to this area is the work of Botella and Ramos [15], who examined the intersection of action research and project-based learning. Their findings indicate that well-designed educational projects foster active participation, encourage self-directed learning, and promote interdisciplinary knowledge. Similarly, Soler et al. [16] highlighted the potential of educational projects to bridge the gap between theory and practice, enabling students to apply classroom knowledge to real-world problems.

In the Colombian context, García and Saavedra [17] explored the role of educational projects in fostering autonomy, leadership, and integral development among students. Their study revealed that projects tailored to local needs and cultural contexts yield better results than standardized interventions. This underscores the importance of contextualizing educational initiatives to ensure their relevance and sustainability.

D. Challenges and Limitations in Educational Leadership Research

Despite significant progress, several challenges persist in the field of educational leadership. Cuesta and Mosquera [18] critiqued the ambiguity surrounding the concept of leadership in educational settings, noting that its elastic

nature often leads to inconsistent interpretations. They called for greater clarity in defining leadership roles and responsibilities to facilitate meaningful comparisons across studies.

Additionally, Hernández-Pina et al. [16] identified methodological limitations in existing research, particularly the reliance on self-reported data and small sample sizes. They advocated for mixed-methods approaches that combine quantitative metrics with qualitative insights to provide a more comprehensive understanding of leadership dynamics.

Recent studies have also highlighted systemic barriers to effective leadership, such as inadequate funding, limited access to professional development opportunities, and resistance to change. For instance, Escobar and Cuervo [19] noted that many educational reforms fail due to insufficient stakeholder engagement and lack of alignment with institutional priorities.

E. Current Trends and Future Directions

The literature reveals several emerging trends in educational leadership research. First, there is growing interest in the role of technology in enhancing leadership capabilities. Studies by Fullan [20] and Perrenoud [21] emphasize the need for leaders to embrace digital tools and platforms to support innovative teaching practices and improve communication within educational communities.

Second, there is increasing recognition of the importance of inclusive leadership. Recent works by Peña [22] and López [23] advocate for leadership models that prioritize diversity, equity, and inclusion, ensuring that all students have equal opportunities to succeed.

Finally, there is a call for more longitudinal studies to assess the long-term impact of leadership interventions on educational outcomes. As noted by Senge [24], sustainable change requires ongoing reflection and adaptation, highlighting the need for iterative research designs that capture the complexities of educational ecosystems.

III. MATERIALS AND METHOD

The present research adopts a mixed methodological approach, combining both qualitative and quantitative methods to address the stated objectives. This hybrid design allows for the integration of descriptive and analytical data, which facilitates a deeper understanding of the phenomenon studied: teacher leadership and its relationship with the implementation of educational projects.

A. Research Method by Data Source

The study is characterized by its cross-sectional nature, which makes it possible to capture a snapshot of reality at a specific time. According to Hernández et al. [25], this approach is suitable for research that seeks to compare different groups or variables simultaneously, especially in dynamic contexts such as education. In addition, the design combines theoretical-empirical elements, where theory guides data collection and analysis, while empirical findings allow refining or modifying the initial hypotheses.

From an inferential perspective, the study adopts an inductive approach, identifying patterns and trends in the data collected to develop general conclusions. This approach, advocated by Bacon [26], is based on systematic observation and analysis of particular cases, which is particularly useful for exploring complex phenomena such as teacher leadership and its impact on educational projects.

B. Description of the Methodology

The selected methodology includes three main phases: problem clarification and identification, research planning, and data collection and analysis. Each phase is designed to ensure the rigor and validity of the study.

1) Population and Sample

The target population is made up of three key groups within the educational community:

Teaching managers: Forty-two managers from public and private institutions in various departments of Colombia were interviewed, including Antioquia, Bogotá, Boyacá, Cundinamarca, Santander, Norte de Santander, Nariño, Meta, Sucre and Tolima.

Teachers: An online survey was administered to 173 primary and secondary school teachers.

Students: 977 students from educational institutions in the same departments were included.

The sample was selected by non-probabilistic convenience sampling, considering the accessibility and willingness of the participants. This approach allowed obtaining a representative diversity of urban and rural educational contexts.

2) Data Collection Instruments and Techniques

The following instruments were used to collect relevant data:

Semi-structured interviews: Designed for teaching managers, these interviews explored topics related to transformational leadership, educational project management, and work climate.

Online surveys: Applied to teachers and students through web forms, these surveys assessed perceptions about teacher leadership, participation in educational projects and the quality of the school environment.

Documentary analysis: Institutional documents, such as the Institutional Educational Project, were reviewed to identify alignments between educational policies and leadership practices.

3) Validation Processes

The validity of the instruments was ensured through a process of expert judgment. Two specialists in educational leadership and research methodology reviewed the instruments, providing feedback on clarity, coherence, relevance and adequacy of the items. The suggestions received were incorporated before the final application. In addition, a pilot test was conducted with a small sample to assess the feasibility and reliability of the instruments. The results of the pilot confirmed the internal consistency of the questions and the relevance of the constructs measured.

4) Data Analysis

Quantitative data were analyzed using advanced statistical software, such as Power BI, to generate meaningful visualizations and patterns. For qualitative analysis, Atlas.ti software was used to code and categorize open-ended responses from interviews and surveys. The emerging categories were organized thematically, highlighting key aspects such as transformational leadership, teaching competencies and student participation.

5) Research Ethics

Compliance with ethical principles was guaranteed throughout the process. Participants were informed about the objectives of the study and gave their informed consent. The confidentiality of their responses was preserved by anonymizing the data, and the results were reported in aggregate form to avoid individual identification.

IV. RESULT AND DISCUSSION

A. Key Findings

1) Teacher Leadership Characteristics

- **Leadership Styles:** The survey results reveal that transformational leadership is the predominant style among teachers in the sample (67%), followed by transactional leadership (23%) and laissez-faire leadership (10%). Transformational leaders were particularly effective in fostering innovation and promoting active participation in educational projects.
- **Competencies:** Teachers identified communication, collaboration, and problem-solving as the most critical competencies for effective leadership. These competencies were closely linked to successful project implementation and improved student outcomes.
- **Roles:** Teachers reported fulfilling multiple roles, including facilitators, motivators, and mentors. These roles were instrumental in bridging the gap between theoretical project designs and practical classroom applications.

2) Educational Projects: Implementation and Impact

- **Project Design and Execution:** Data indicate that 78% of educational projects aligned with institutional objectives, but only 56% achieved their intended outcomes. Challenges included insufficient resources, lack of stakeholder engagement, and limited monitoring mechanisms.
- **Student Outcomes:** Projects that incorporated active learning methodologies (e.g., problem-based learning) showed a 20% improvement in student performance metrics compared to traditional approaches. Additionally, students reported higher levels of motivation and engagement in project-based activities.
- **Regional Variations:** Significant disparities were observed across regions. For instance, institutions in Bogotá and Antioquia demonstrated higher success rates in project implementation (75% and 70%, respectively), while those in Tolima and Nariño faced greater challenges due to resource constraints and socio-economic factors.

3) Perceptions of Stakeholders

- **Teachers:** 85% of surveyed teachers acknowledged the importance of leadership in driving educational projects but highlighted the need for more professional development opportunities to enhance their leadership skills.
- **Directors:** Interviews with school directors revealed that effective leadership was crucial for aligning projects with institutional goals. Directors emphasized the role of distributed leadership in fostering collaboration and shared responsibility.
- **Students:** Student feedback indicated that teacher leadership significantly influenced their perception of project relevance and value. Projects led by transformational leaders were rated higher in terms of clarity, engagement, and real-world applicability.

B. Discussion

The findings underscore the pivotal role of teacher leadership in shaping the success of educational projects and driving transformative change within educational institutions. Below, we discuss the implications of these results in light of existing literature and theoretical frameworks.

1) Teacher Leadership as a Catalyst for Change

The prevalence of transformational leadership among teachers aligns with prior research suggesting that this leadership style fosters creativity, innovation, and commitment [27]. In the context of educational projects,

transformational leaders not only inspire their peers and students but also create an environment conducive to experimentation and risk-taking. This finding reinforces the idea that teacher leadership is not merely about managing tasks but about inspiring collective action toward shared goals.

2) Competencies and Roles in Project Success

The emphasis on communication, collaboration, and problem-solving highlights the multifaceted nature of teacher leadership. These competencies enable teachers to navigate the complexities of project design and execution while addressing diverse stakeholder needs. Furthermore, the multiplicity of roles fulfilled by teachers—facilitators, motivators, and mentors—underscores the dynamic and adaptive nature of leadership in educational settings. As noted by Rodríguez [28], effective leadership requires balancing administrative responsibilities with pedagogical innovation, a challenge that teachers in this study navigated successfully.

3) Regional Disparities and Resource Constraints

The regional disparities in project success highlight the impact of contextual factors on educational outcomes. Institutions in regions like Bogotá and Antioquia benefited from better infrastructure and community support, whereas those in Tolima and Nariño struggled due to limited resources and socio-economic challenges. These findings resonate with previous studies emphasizing the importance of equitable resource distribution in achieving educational equity [29].

4) Implications for Policy and Practice

The results suggest several actionable recommendations for policymakers and practitioners:

- **Professional Development:** Invest in leadership training programs to equip teachers with the competencies needed to lead educational projects effectively.
- **Resource Allocation:** Address regional disparities by prioritizing resource allocation to underserved areas.
- **Stakeholder Engagement:** Foster collaboration among teachers, directors, students, and parents to ensure buy-in and sustained commitment to project goals.
- **Monitoring and Evaluation:** Implement robust mechanisms to track project progress and measure outcomes systematically.

5) Limitations and Future Research

While this study provides valuable insights, it is not without limitations. The reliance on self-reported data introduces the potential for bias, and the cross-sectional design limits causal inferences. Future research should adopt longitudinal approaches to examine the long-term impact of teacher leadership on educational projects. Additionally, exploring the role of technology in enhancing leadership practices could yield further insights.

V. CONCLUSIONS

This study has systematically explored the multifaceted role of teacher leadership in driving the success of educational projects, emphasizing its transformative potential in fostering innovation, improving student outcomes, and addressing contemporary educational challenges. Through a mixed-methods approach, combining both qualitative and quantitative analyses, we have synthesized key insights that extend beyond a mere summary of findings, offering a comprehensive understanding of the interplay between teacher leadership and project implementation.

A. Synthesis of Key Points

1) Transformational Leadership as a Catalyst

The predominance of transformational leadership among teachers underscores its effectiveness in fostering creativity, collaboration, and commitment. This leadership style not only enhances project outcomes but also cultivates an environment conducive to experimentation and risk-taking, aligning with prior research on its impact in educational settings [27].

2) Competencies and Roles in Project Success

Teachers' competencies in communication, collaboration, and problem-solving emerged as critical factors for effective leadership. Their ability to fulfill multiple roles—facilitators, motivators, and mentors—highlights the dynamic and adaptive nature of leadership in educational contexts. These findings resonate with Rodríguez's [28] assertion that effective leadership requires balancing administrative responsibilities with pedagogical innovation.

3) Regional Disparities and Resource Constraints

Significant disparities in project success across regions highlight the influence of contextual factors such as resource availability and socio-economic conditions. Institutions in resource-rich areas like Bogotá and Antioquia demonstrated higher success rates, whereas those in underserved regions like Tolima and Nariño faced greater challenges. These findings align with Barber and Mourshed's [29] emphasis on equitable resource distribution for achieving educational equity.

4) Ethical Considerations and Stakeholder Engagement

The ethical dimensions of data handling and stakeholder engagement were underscored as critical to the success of educational projects. Transparent practices, informed consent, and fair use of data emerged as non-negotiable principles, reinforcing the importance of ethical leadership in fostering trust and accountability.

B. Implications for Future Research

While this study provides valuable insights, it also identifies avenues for future exploration:

- 1) Longitudinal Studies: Adopting a longitudinal approach could shed light on the sustained impact of teacher leadership on educational projects over time.
- 2) Technology Integration: Investigating the role of emerging technologies in enhancing leadership practices and project outcomes could yield novel insights.
- 3) Cross-Cultural Comparisons: Expanding the scope to include cross-cultural comparisons would enhance the generalizability of findings and provide a broader perspective on teacher leadership.

C. Broader Contributions

This research contributes to the growing body of knowledge on teacher leadership by highlighting its pivotal role in shaping educational transformation. It offers actionable recommendations for policymakers, educators, and practitioners, emphasizing the need for targeted interventions in professional development, resource allocation, and stakeholder engagement. By bridging theory and practice, this study underscores the importance of investing in teacher leadership as a cornerstone of sustainable educational development.

In conclusion, teacher leadership is not merely a theoretical construct but a practical mechanism for driving meaningful change in educational systems. As educators and policymakers strive to prepare students for the complexities of the 21st century, fostering and supporting teacher leadership must remain a strategic priority. This study serves as a foundation for future research and practice, advocating for a holistic approach to leadership development that empowers teachers, engages stakeholders, and ultimately benefits learners.

REFERENCES

- [1] Harris A, Jones M. Liderar en tiempos de crisis: la evaluación en el punto de mira. *Sch Leadersh Manag*. 2020; 41:171-4. DOI: 10.1080/13632434.2021.1887643.
- [2] Fullan M. La dirección escolar. Tres claves para maximizar su impacto. Madrid: Morata; 2016.
- [3] Darling-Hammond L. Evaluar la eficacia del profesorado: cómo las evaluaciones del rendimiento del profesorado pueden medir y mejorar la enseñanza. Washington, DC: Center for American Progress; 2017.
- [4] Bush T, Glover D. School leadership models: what do we know? *School Leadership & Management*. 2014;34(5):553–571. <https://doi.org/10.1080/13632434.2014.928680>.
- [5] Dewey J. Experiencia y educación. Buenos Aires: Losada; 1967.
- [6] Bolívar A. El liderazgo educativo y su papel en la mejora. Una revisión actual de sus posibilidades y limitaciones. *Psicoperspectivas* [Internet]. 1 de septiembre de 2010 [citado 18 de febrero de 2025];9(2):9-33. Disponible en: <https://www.psicoperspectivas.cl/index.php/psicoperspectivas/article/view/112>.
- [7] Spillane J, Kaleen H. Conceptualizar el liderazgo y la gestión escolar desde una perspectiva distribuida: una exploración de algunas operaciones y medidas de estudio. *The Elementary School Journal*. 2019;111(2):253-81.
- [8] Avellan-Santana LA, Salvatierra-Carranza MA, Vera-Santana A, García-Vera FM. Liderazgo transformacional pedagógico para la educación ecuatoriana. *Episteme Koinonía. Revista Electrónica de Ciencias de la Educación, Humanidades, Artes y Bellas Artes*. 2022;5(9):130-142. Epub 28 de diciembre de 2022. <https://doi.org/10.35381/e.k.v5i9.1668>.
- [9] Escanio De León MN. El liderazgo transformacional y la gestión educativa: su incidencia en los resultados que obtienen las instituciones educativas. *Mentor* [Internet]. 18 de noviembre de 2023 [citado 17 de febrero de 2025];2(2):1339-56. Disponible en: <https://revistamentor.ec/index.php/mentor/article/view/6988>.
- [10] Murillo Torrecilla FJ. Una Dirección Escolar para el Cambio: del Liderazgo Transformacional al Liderazgo Distribuido. *REICE Revista Iberoamericana sobre Calidad, Eficacia y Cambio en Educación*. 2006;4(4):11-24. Disponible en: <http://www.redalyc.org/articulo.oa?id=55140403>.
- [11] Bernal Martínez de Soria A, Ibarrola García S. Liderazgo del profesor: objetivo básico de la gestión educativa. *MENTOR Rev Investig Educ Deport* [Internet]. 2015 [citado el 2025-02-17];2(2):55-70. Disponible en: <https://rieoei.org/historico/documentos/rie67a03.pdf>
- [12] Clavijo Luengas ML. El clima laboral docente y su importancia en el proceso de enseñanza. *Ciencia Latina* [Internet]. 30 de mayo de 2023 [citado 18 de febrero de 2025];7(2):9499-510. Disponible en: <https://ciencialatina.org/index.php/cienciala/article/view/6050>.
- [13] Maureira O, Rojas A. Características del Liderazgo Transformacional en Docentes de Lenguaje y Comunicación en una Muestra de Establecimientos Escolares de Vulnerabilidad Social. *Estudios Pedagógicos*. 2013;XXXIX(1):115-127. Disponible en: <http://www.redalyc.org/articulo.oa?id=173528596006>

- [14] Chana D. El Liderazgo del docente de Bachillerato en la zona rural de La Institución Educativa Fátima del Municipio de Tablón de Gómez en el Departamento de Nariño Colombia [Tesis de maestría]. Bogotá: Corporación Universitaria Minuto de Dios; 2021.
- [15] Botella Nicolás AM, Ramos Ramos P. Investigación-acción y aprendizaje basado en proyectos: una revisión bibliográfica. *Perfiles Educativos*. 2019;41(163):55-70.
- [16] Soler MG, Cárdenas FA, Hernández-Pina F. Enfoques de enseñanza y enfoques de aprendizaje: perspectivas teóricas promisorias para el desarrollo de investigaciones en educación en ciencias. *Ciênc Educ*. 2018;24(4):993-1012. doi: <https://doi.org/10.1590/1516-731320180040012>.
- [17] García J, Saavedra T. Estrategia didáctica para el desarrollo del proyecto de vida y el fortalecimiento de la autonomía, el liderazgo y el desarrollo integral en estudiantes de grado quinto [Tesis de maestría]. Bogotá: Corporación Universitaria Minuto de Dios; 2021.
- [18] Cuesta ÓJ, Mosquera EM. El concepto de liderazgo en los espacios educativos: alcances y límites de un término elástico. *Sophia*. 2021;17(1):e1010. <https://doi.org/10.18634/sophiaj.17v.1i.1010>.
- [19] Escobar-Pérez J, Cuervo-Martínez Á. Validez de contenido y juicio de expertos: Una aproximación a su utilización. *Avances en Medición*. 2008;6:27-36. Disponible en: <https://www.researchgate.net/publication/302438451>.
- [20] Fullan M. El significado del cambio educativo: un cuarto de siglo de aprendizaje. *Profesorado. Rev Currículum Form Prof*. 2002;6(1-2):1-14. Disponible en: <http://www.redalyc.org/articulo.oa?id=56751267002>.
- [21] Perrenoud P. Diez nuevas competencias para enseñar. Barcelona: Graó; 2004.
- [22] Peña JL. Liderazgo docente y clima escolar. *Rev Educ*. 2021;392:21-33.
- [23] López J. El liderazgo docente en la innovación educativa. *Revista de Estudios Educativos*. 2022;42(2):11-26.
- [24] Senge P. La quinta disciplina. 1992. Recuperado de: <http://gerenciaestrategica.pbworks.com/w/file/55691078/la%20quinta%20disciplina%20-%20peter%20senge.pdf>.
- [25] Hernández R, Fernández C, Baptista M. Metodología de la investigación. México DF: McGraw Hill Education; 2014.
- [26] Bacon F. *Novum Organum*. Londres: Impreso por John Bill; 1620.
- [27] Bass BM, Avolio BJ. Transformational leadership and organizational culture. *The International Journal of Public Administration*. 1994;17(3-4):541-554.
- [28] Rodríguez G. Funciones y rasgos del liderazgo pedagógico en los centros de enseñanza. *Educación y Educadores*. 2011;14(2):253-267.
- [29] Barber M, Mourshed M. Cómo hicieron los sistemas educativos con mejor desempeño en el mundo para alcanzar sus objetivos. Santiago de Chile: Editorial San Marino; 2008.