Influence of School Administrators' Transformational Leadership on the Innovation Ability of University Teachers

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ABSTRACT

While some research has highlighted the potential positive impact of transformational leadership on various aspects of academic performance, including job satisfaction and engagement, a comprehensive understanding of how transformational leadership practices contribute to fostering a culture of innovation among university faculty is lacking. In addition, the unique characteristics of the academic environment, such as the emphasis on research, teaching, and institutional goals, introduce complexities that require exploring the relationship between transformational leadership and innovation capacity on a case-by-case basis. Traditional academic hierarchies, the diversity of university departments, and the need to balance individual research pursuits with collaborative endeavors all contribute to the complexity of this relationship. Therefore, this study will evaluate the teacher-respondents' on school administrators' transformational leadership, and the impact of school administrators' transformational leadership on their innovation self-efficacy. The research will further develop measures that should be taken to respond to the problems found by this study and improve the existing program regarding the benefits of school administrators' transformational leadership to teachers' innovation self-efficacy and its development. The quantitative descriptive-correlational research methodology was used in this study. In implementing stratified proportionate random sampling for this study, the population was categorized into distinct strata based on relevant characteristics, such as academic rank and discipline. Findings show effective inspirational motivation by administrators in creating an engaging community, while improvements in task communication are suggested. Individual consideration is generally prioritized, but mentorship opportunities need enhancement. Differences in perceptions based on sex, age, education level, and teaching experience were observed in various aspects of transformational leadership, emphasizing the need for tailored approaches. Teacher-respondents demonstrate significant critical thinking and creativity fostered by administrators' leadership, with room for improvement in research and risk-taking encouragement. Differences in critical thinking and creativity were noted based on sex, while no significant differences were observed in collaboration and problem-solving. Across age, education level, and teaching experience, consistency was found in perceptions of innovation self-efficacy under administrators' leadership. Pearson's correlation analysis revealed a significant relationship between school administrators' transformational leadership and its impact on nurturing teachers' innovation self-efficacy, indicating the importance of effective leadership in promoting innovation within educational settings.

INTRODUCTION

In today's rapidly evolving educational landscape, innovation has become a key factor for university success. Universities play a key role in shaping the future through knowledge creation, dissemination and application. In this context, the role of university teachers as innovators becomes crucial. However, fostering a culture of innovation in a teaching environment requires effective leadership that goes beyond traditional management methods. Transformational leadership, with its inspiring and visionary nature, is valued as a potential catalyst for improving innovation among university faculty.

The impact of transformational leadership on the innovation capacity of university faculty is a dynamic and multifaceted relationship that holds great promise for educational institutions. By adopting transformational leadership principles, universities can tap the creativity of their faculty to enhance innovation, increase competitiveness, and make more impactful contributions to society's changing needs. Further research in this area can continue to reveal the nuances of this relationship, guiding the development of effective strategies to promote innovation in educational instruction.

In the past few decades, the field of higher education has undergone extensive and profound changes, including changes in teaching methods, curriculum design, and research directions. This change has been largely influenced by leadership models, especially the introduction of transformational leadership. Transformational leadership is a style of leadership that emphasizes innovation, motivates employees to strive for excellence, and drives organizational change. In university settings, transformational leadership is thought to have the potential to have a profound effect on faculty innovation.

The innovation ability of college teachers is very important to promote the improvement of education quality, promote the progress of academic research and adapt to the changing educational needs. However, the traditional education system is often conservative, and it is difficult to stimulate the innovative potential of teachers. In this context, the introduction of transformational leadership may provide teachers with more autonomy and motivation to innovate, thereby promoting the development of their innovative capabilities in teaching and research.

Innovation refers to the existing thinking mode that is different from conventional or ordinary people's thinking, using existing knowledge and materials, in a specific environment, in line with ideal needs or to meet social needs, to improve or Create new things, including but not limited to various products, methods, elements, paths, environments, etc., and can obtain certain beneficial effects. From a philosophical point of view, innovation is a kind of human creative practical behavior. This kind of practice is to increase the total amount of benefits, and requires the utilization and re-creation of things and discoveries, especially the utilization and re-creation of contradictions in the material world. Through the utilization and re-creation of the material world, human beings create new contradictory relationships and form new material forms. Innovation is the fundamental driving force for the development of things, and the key factor for things to change from the backward situation. Innovative thinking refers to the skills of people to discover, propose, analyze and solve problems creatively, and it is the skill that people constantly put forward new ideas, theories, methods and innovations in various practices such as science, art and technology. The innovation ability of university teachers is the comprehensive quality of teachers in teaching, scientific research, social service, cultural inheritance and so on. Colleges and universities, as the infants of cultivating professional talents, are also the cradle of the country's cultivation of innovative spirit. As a college teacher, it plays an important and key role in cultivating innovative talents.

Innovation is the inevitable direction and trend of higher education development. Institutions of higher learning want to cultivate innovative and practical talents with strong practicability, and the innovation

ability of university teaching staff is an important influencing factor. In today's world of rapid development, we are striving to build an innovative society. In this regard, it is of great practical significance to discuss the development of the teaching innovation ability of college teachers, analyze it deeply, and explore the way of its development.

Transformational school leadership, as conceptualized by Burton (2009), represents a leadership methodology capable of instigating reform in stakeholders, school culture, and educational organizations. Extensive research suggests that leaders adopting a transformational approach can revolutionize the treatment of people and culture within an organization (Masumoto et al., 2009; Pepper, 2010). Change has been a constant in the realm of education, driven by various anticipated and unforeseen factors, including the COVID-19 pandemic, war, recession, and advancements in educational technologies (Sahlberg, 2020; Treneman-Evans, 2022; Shaya et al., 2020; Yuksek, 2018; Knight, 2017; Molchaniuk et al., 2020). Faced with these diverse and often unpredictable challenges, it becomes evident that change remains an enduring aspect of school life. Navigating the intricacies of organizational change demands specific skills and practices from school leaders (Harris & Jones, 2020). Given the continuous and rapid transformations experienced by schools in recent years, possessing a set of transformational leadership skills becomes imperative for today's school leaders.

Nevertheless, school leadership itself is encountering unprecedented challenges and transformations. Societal trends wield influence over education systems, with the capacity to shape and be shaped by them (OECD, 2023). In addition to the disruptive impact of technological, social, economic, and political events on a global scale (Molchaniuk et al., 2020; Lin & Long, 2020; Giouroglou, 2022; McNair et al., 2022; Farrell, 2020; Engelbrecht et al., 2020), a global staffing crisis in teaching and school leadership is currently unfolding (Kotok & Knight, 2022). This crisis is expected to worsen due to declining rates of teacher recruitment and escalating teacher turnover (UNESCO, 2022; Ward, 2019). Globally, as schools strive to address a rapidly diversifying population (Kaushal et al., 2022; Pentassuglia, 2017; De Leersnyder et al., 2022), they must adapt to swift and substantial changes to remain aligned with societal goals, including inclusion (Kelly et al., 2022; Keon, 2020). However, the implementation of organizational change has consistently been linked to staff turnover (Boon & Wynen, 2021; Lundmark et al., 2021), placing school leaders in a paradoxical situation where they must reduce staff attrition while implementing change strategies that may amplify challenges related to staff retention.

To induce necessary changes while mitigating the adverse impact of change on staff turnover intentions, transformational leadership offers potential solutions. Existing research has established positive associations between transformational leadership, workplace engagement, and reduced turnover intentions (Gyensare et al., 2017). Despite its potential benefits and prevalence in published articles on school leadership (Berkovich, 2016), transformational leadership is not the predominant leadership approach in policy or practice. For instance, in Ireland, distributed leadership is endorsed as the ideal leadership approach and is prominently featured in national policy (Hickey et al., 2022; Lynch et al., 2022). The gap between theory and practice may stem from criticisms of transformational leadership, such as its perceived lack of differentiation from other leadership styles and the potential dark side when a leader's personality and motivations are unethical (Van Knippenberg, 2013; Judge, 2014; Khoo & Burch, 2008). However, proponents argue that these criticisms should prompt a deeper engagement with associated challenges rather than a departure from transformational leadership (Berkovich, 2016). This review aims to explore international research on the impact of transformational leadership on school staff and culture within a

school context, with the subsequent section outlining the study's conceptualization of transformational leadership, transformational school leadership, and school culture.

Transformational Leadership and Innovation Ability

Transformational leadership, as described by scholars like Bass (1985) and Avolio and Gardner (2005), revolves around a leader's ability to inspire and motivate their followers through a shared vision, personal example, and individualized support. This leadership style has been linked to various positive outcomes, including increased innovation and creativity among followers (Bass, 1990). In the context of university education, transformational leadership plays a crucial role in shaping the innovation ability of teachers. By providing a vision for academic excellence, fostering a culture of collaboration, and supporting individual growth and development, transformational leaders empower university faculty to explore new ideas, challenge existing norms, and contribute to the advancement of knowledge and practice in their respective fields (Bass & Riggio, 2010; Avolio & Yammarino, 2013).

Transformational leadership and innovation ability among university teachers has been widely studied and acknowledged in the literature (e.g., Avolio & Bass, 2004; Yukl, 1999). Research suggests that transformational leaders have a significant impact on their followers' ability to innovate by providing them with the necessary motivation, resources, and opportunities to explore new ideas and approaches (Chen Lu, 2020; Han & Li, 2020). Transformational leaders are known for their ability to create a supportive and inclusive work environment that encourages risk-taking, experimentation, and learning (Bass & Riggio, 2006). Through their inspirational motivation, intellectual stimulation, and individualized consideration, transformational leaders cultivate a culture of innovation where faculty members feel empowered to push the boundaries of knowledge and contribute to the advancement of their disciplines (Engelbrecht et al., 2020).

Transformational leadership serves as a catalyst for fostering innovation ability among university teachers by providing them with the vision, motivation, and support needed to excel in their roles (Sun & Leithwood, 2012). Embracing the principles of transformational leadership, academic institutions can create an environment where creativity, collaboration, and continuous improvement are valued and encouraged (Leithwood & Jantzi, 1990). As such, investing in the development of transformational leaders and promoting a culture of transformational leadership within universities can have far-reaching implications for enhancing the innovation capacity of faculty and driving positive change in the education sector (Berkovich, 2016; Kaushal et al., 2022).

The influence of transformational leadership on the innovation ability of university teachers extends beyond individual motivation and support. It also encompasses the creation of a conducive organizational climate that values and rewards innovative thinking and experimentation (Leithwood & Montgomery, 1982). Transformational leaders actively promote a culture of openness, adaptability, and risk-taking, where faculty members feel empowered to challenge conventional wisdom, explore new methodologies, and engage in interdisciplinary collaboration (Barling et al., 2010). This organizational climate encourages individual innovation and facilitates the exchange of ideas and knowledge sharing among colleagues, leading to collective innovation and cross-pollination of ideas (Gilani et al., 2020).

Furthermore, transformational leadership has been associated with the development of a shared vision and a sense of purpose among university faculty, aligning their efforts towards common goals and objectives (Avolio & Gardner, 2005). By articulating a compelling vision for academic excellence and fostering a sense of belonging and commitment among faculty members, transformational leaders create a sense of

collective identity and unity of purpose that is conducive to innovation (Diaz-Saenz, 2011). This shared vision serves as a guiding framework for faculty members, inspiring them to pursue ambitious research agendas, engage in collaborative projects, and pursue excellence in teaching and scholarship (Knight, 2017).

Indeed, the influence of transformational leadership on the innovation ability of university teachers is multifaceted and far-reaching. It encompasses not only individual motivation and support but also the creation of an organizational climate that fosters creativity, collaboration, and shared purpose (Leithwood & Riehl, 2005). By embracing the principles of transformational leadership and investing in the development of transformational leaders, universities can cultivate a culture of innovation that drives continuous improvement and excellence in teaching, research, and service (Northouse, 2017). Ultimately, the integration of transformational leadership practices into academic institutions can enhance the innovation capacity of faculty and contribute to the advancement of knowledge and scholarship in diverse fields of study (Zhou & Zhang, 2018).

Transformational leadership, as defined by Avolio and Bass (2004), involves leaders inspiring their followers to transcend self-interest for the collective good, thereby fostering an environment where innovation can flourish. This leadership style is particularly relevant in the context of universities, where faculty members are expected to engage in cutting-edge research, develop innovative teaching methods, and contribute to the advancement of knowledge in their respective fields (Bass, 1985). Embodying the characteristics of transformational leadership—such as inspirational motivation, intellectual stimulation, individualized consideration, and idealized influence—administrators can create a supportive and empowering environment that encourages faculty members to explore new ideas, take calculated risks, and push the boundaries of their disciplines (Burns, 1978).

When university administrators demonstrate a genuine commitment to innovation and creativity, they set the tone for the entire institution, signaling to faculty members that experimentation and exploration are not only encouraged but also valued and rewarded (Bass & Riggio, 2010). This, in turn, fosters a culture of psychological safety where faculty members feel comfortable challenging the status quo, sharing their ideas openly, and collaborating with colleagues from diverse backgrounds and disciplines (Engelbrecht et al., 2020). Moreover, transformational leaders actively seek to develop the leadership potential of their followers, empowering them to take ownership of their work, develop their skills, and pursue their passions (Berkovich, 2016).

The influence of school administrators' transformational leadership on the innovation ability of university teachers is profound and multifaceted. Creating a supportive and empowering environment that values creativity, experimentation, and collaboration, transformational leaders can inspire faculty members to reach their full potential as scholars, educators, and innovators. Through their visionary leadership, administrators can catalyze a culture of innovation that not only drives academic excellence but also advances knowledge, fosters interdisciplinary collaboration, and addresses the complex challenges facing society today (Leithwood & Jantzi, 1990).

These studies offer a comprehensive framework for comprehending the diverse influence of transformational leadership in education. The project seeks to investigate how transformational leadership approaches might increase creativity and generate positive change inside educational institutions, with a focus on university faculty.

The theoretical framework of the research on the impact of transformational leadership on the innovation ability of university teachers draws upon multiple theories and concepts from the fields of educational

leadership, organizational behavior, and innovation management. This framework provides a structured basis for understanding the relationships, interactions, and mechanisms underlying the phenomenon under investigation. One possible theoretical framework could incorporate the following key components: **Transformational Leadership Theory:** Transformational leadership theory, initially proposed by Burns and further developed by Bass, serves as the central theoretical foundation. This theory posits that transformational leaders inspire and motivate followers to achieve extraordinary outcomes through the use of visionary and motivational strategies. The components of transformational leadership—individualized consideration, intellectual stimulation, inspirational motivation, and idealized influence—provide a lens through which the leadership behaviors influencing innovation ability can be examined. **Innovation Theory:** Drawing from innovation theories, such as the Innovation Diffusion Theory and the Innovation as a Process Theory, the framework highlights the multidimensional nature of innovation ability. It encompasses generating novel ideas, implementing them effectively, and disseminating them for meaningful impact. These theories help contextualize innovation within the academic environment, recognizing that innovation in higher education is not limited to technological advancements but also encompasses pedagogical methods, research, and institutional development. **Social Exchange Theory:** Social exchange theory provides insights into the relational dynamics between leaders and followers. It explains how transformational leaders create a positive exchange relationship by offering support, empowerment, and recognition in return for increased commitment, engagement, and innovative efforts from university teachers. This theory can elucidate the reciprocal nature of the transformational leadership–innovation ability relationship.

Self-Determination Theory: Self-Determination Theory emphasizes the importance of intrinsic motivation and autonomy in driving behavior. Within the context of the research, this theory can help explain how transformational leadership, which fosters a sense of ownership, autonomy, and mastery, can enhance the intrinsic motivation of university teachers to engage in innovative endeavors.

Transformational Leadership Theory stands out as the most suitable framework for investigating the "Influence of School Administrators' Transformational Leadership on the Innovation Ability of University Teachers." This theory, initially introduced by Burns, emphasizes leaders who inspire and motivate followers to achieve exceptional outcomes, with a specific focus on fostering innovation and creativity within the organizational context. In the realm of university teaching, where innovation is a crucial aspect of pedagogy and research, transformational leadership aligns seamlessly with the goal of enhancing the innovation ability of teachers.

One key feature of Transformational Leadership is its emphasis on motivation and creativity. Leaders employing a transformational style are known for their ability to go beyond transactional exchanges and inspire their followers intrinsically. This intrinsic motivation is vital for encouraging university teachers to explore innovative teaching methods and research approaches. The theory suggests that transformational leaders can create a conducive environment that sparks creativity and helps individuals transcend the traditional boundaries of their roles.

Moreover, Transformational Leadership Theory underscores the importance of a positive work environment. Leaders employing this style often engage in intellectual stimulation, individualized consideration, and the promotion of a shared vision. In an academic setting, this positive environment becomes a breeding ground for innovative ideas. Teachers feel empowered to express their thoughts, contribute to shared goals, and actively participate in shaping the direction of their work, fostering a culture of innovation.

The long-term vision inherent in Transformational Leadership aligns well with the strategic and continuous nature of innovation. School administrators, adopting a transformational leadership style, are more likely to support and nurture innovation as an ongoing process rather than a sporadic initiative. This forward-thinking approach ensures that the efforts towards innovation are sustained, allowing for the continuous development of new ideas and practices.

Another crucial aspect of Transformational Leadership is its commitment to employee development. Leaders following this style invest in the growth of their followers, supporting both personal and professional advancement. In the context of university teaching, this commitment can significantly impact the innovation ability of teachers. By fostering an environment that values individual development, transformational leaders encourage teachers to explore novel methods and ideas, contributing to the overall innovative culture of the institution.

In essence, Transformational Leadership Theory provides a comprehensive and directly applicable framework for understanding how leadership behaviors influence the innovation ability of university teachers. Its emphasis on motivation, creativity, positive work environment, long-term vision, and employee development aligns well with the unique challenges and opportunities within the academic setting, making it an ideal lens through which to explore the dynamics of innovation in university teaching. In addition, it also features essential facets such as:

Contextual Factors: Recognizing the specific context of higher education, the framework should also consider contextual factors that influence the transformational leadership–innovation ability relationship. These factors may include the academic hierarchy, interdisciplinary collaboration, institutional support for innovation, and alignment of individual goals with the institution's mission.

Mediating and Moderating Mechanisms: The theoretical framework should account for potential mediating and moderating mechanisms that explain the pathways through which transformational leadership impacts innovation ability. Mediating variables might include factors like job satisfaction, self-efficacy, and collaborative networks, which mediate the influence of leadership on innovation. Moderating variables could include individual characteristics, such as personality traits and prior experience, that interact with leadership behaviors to influence innovation outcomes. Incorporating these theories and concepts into the theoretical framework provides a comprehensive understanding of how transformational leadership practices impact the innovation ability of university teachers. The framework guides the research design, methodology, and data analysis, enabling a structured exploration of the relationships and mechanisms at play.

The conceptual framework of the study on the impact of transformational leadership on the innovation ability of university teachers outlines the key concepts, relationships, and variables that were investigated. It visually represents the theoretical underpinnings of the research and guides the formulation of research questions, data collection, and analysis. Here's an outline of what the conceptual framework might include:
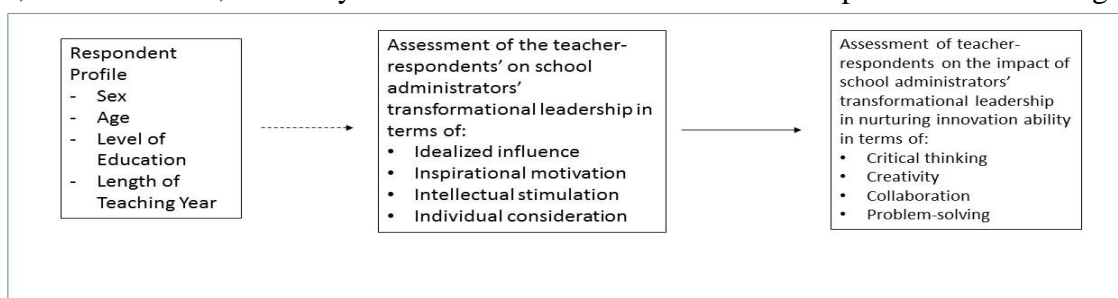
> Interventions on improvement of School Administrators' Transformational Leadership and its impact on teachers' innovation abiity

Research Paradigm

This study aims to explore the impact of transformational leadership on university faculty's innovation capacity, taking into account the unique characteristics of academic contexts and the underlying mechanisms by which transformational leadership practices can facilitate the generation, implementation, and dissemination of faculty's innovative ideas. The research explored how the various components of transformational leadership, such as individualized consideration, intellectual stimulation, inspirational motivation, and idealized influence, interact with the multifaceted nature of innovative capacity, ultimately advancing knowledge about effective leadership strategies progress to foster internal innovation. institutions of higher education.

Despite the recognized importance of innovation in academia, significant gaps remain in the understanding of how transformational leadership directly affects university faculty's ability to innovate. Although the concept of transformational leadership has gained prominence in a variety of organizational settings, its specific impact on enhancing innovation in higher education remains relatively underexplored. This study aims to address this gap by investigating the subtle relationship between transformational leadership and innovation capacity of university faculty.

Existing literature provides fragmented insights into transformational leadership and innovation capabilities separately, with limited attention to their interrelatedness in the academic context. While some research has highlighted the potential positive impact of transformational leadership on various aspects of academic performance, including job satisfaction and engagement, a comprehensive understanding of how transformational leadership practices contribute to fostering a culture of innovation among university faculty is lacking.

In addition, the unique characteristics of the academic environment, such as the emphasis on research, teaching, and institutional goals, introduce complexities that require exploring the relationship between transformational leadership and innovation capacity on a case-by-case basis. Traditional academic hierarchies, the diversity of university departments, and the need to balance individual research pursuits with collaborative endeavors all contribute to the complexity of this relationship.

Therefore, the research questions can be structured as follows:

Specifically, it tries to answer the following:

1. What is the profile of the teacher respondents based on:
    1.1. Sex
    1.2. Age
    1.3. Level of Education
    1.4. Length of Teaching Year
2. What is the assessment of the teacher-respondents' on school administrators' transformational leadership in terms of:
    2.1. Idealized influence
    2.2. Inspirational motivation
    2.3. Intellectual stimulation
    2.4. Individual consideration

3. Is there a significant difference in the assessment of the teacher-respondents on school administrators' transformational leadership when their profiles are considered as test factors?

4. What is the assessment of teacher-respondents on the impact of school administrators' transformational leadership on their innovation self-efficacy in terms of:
   4.1. Critical thinking
   4.2. Creativity
   4.3. Collaboration
   4.4. Problem-solving

5. Is there a significant difference in assessment of teacher respondents on the impact of school administrators' transformational leadership in nurturing innovation self-efficacy when their profile is taken as test factors?

6. Is there a significant relationship between school administrators' transformational leadership and its impact in nurturing teachers' innovation self-efficacy?

7. What measures should be taken to respond to the problems found by this study and improve the existing program regarding the benefits of school administrators' transformational leadership to teachers' innovation self-efficacy and its development?

Summary of Findings

1. **Respondents' Profile.** The majority of respondents were female, primarily aged between 31 to 50 years old, holding Master's Degrees, and having 11 to 20 years of teaching experience. This demographic profile suggests that female university teachers within this age range, with advanced degrees and moderate teaching experience, are significantly influenced by the transformational leadership of school administrators in enhancing their innovation ability.

2. **Assessment of the teacher-respondents' on school administrators' transformational leadership**

a. **Inspirational Motivation.** The data indicates that school administrators effectively foster inspirational motivation among university teachers by creating an engaging and inclusive community. However, there's an opportunity to improve communication about the benefits of assigned tasks to teachers. Enhancing this aspect of transformational leadership could better align institutional objectives and promote innovation among faculty.

b. **Individual Consideration.** The findings indicate that school administrators generally prioritize individual consideration in their transformational leadership approach with university teachers. They highly value and utilize teachers' unique qualities to enhance educational outcomes, reflecting an appreciation for faculty diversity. However, there is a gap in providing mentorship to teachers, with administrators showing less willingness in this aspect. Addressing this shortfall could be crucial in fostering professional development and growth among faculty members, contributing to a more vibrant and innovative academic atmosphere.

c. **Intellectual Stimulation.** The findings indicate that school administrators prioritize intellectual stimulation in their leadership approach with university teachers. They encourage innovation, especially in using technology and new teaching methods. However, there's less focus on providing opportunities for teachers to reflect on their performance and evaluate their effectiveness. Improving support for self-reflection could help teachers grow professionally and enhance their teaching practices, leading to a more dynamic educational environment.

d. **Idealized Influence.** The findings suggest that school administrators typically demonstrate idealized influence in their transformational leadership approach with university teachers. They are perceived as influential figures who are regarded as masters of the skills required for their positions, inspiring confidence and respect among faculty members. However, the data indicates a gap in administrators sharing their teaching experiences with teachers, which received less attention. Fostering more opportunities for administrators to share their experiences could enhance trust and credibility among faculty members, further strengthening their influence and fostering a collaborative learning environment.

3. **Difference in the assessment of the teacher-respondents on school administrators' transformational leadership**

a. **Sex.** The assessments of school administrators' transformational leadership by respondents' sex revealed varying perceptions, particularly in intellectual stimulation, indicating potential gender-related differences in how this aspect of leadership is perceived. However, assessments of inspirational motivation, individual consideration, and idealized influence showed no significant disparities between male and female respondents, suggesting consistency in perception across genders. Hence, administrators should be mindful of these nuances to ensure inclusive leadership practices.

b. **Age.** The examination of teachers' evaluations regarding school administrators' transformational leadership across various age groups unveiled variations in how intellectual stimulation and idealized influence were perceived. This indicates the necessity for administrators to adapt their strategies to cater to different age cohorts. No notable distinctions were observed in how inspirational motivation and individual consideration were perceived among different age groups, suggesting a uniform viewpoint regardless of age.

c. **Level of Education.** The study found that teachers with different levels of education have varying views on inspirational motivation, individual consideration, and idealized influence in school administrators' leadership. This highlights the need for administrators to adapt their leadership styles to meet the expectations of teachers with diverse educational backgrounds in these areas. However, perceptions of intellectual stimulation were consistent across all educational levels, suggesting a shared perspective on this aspect of leadership.

d. **Length of Teaching Years.** The study revealed that teachers' perceptions of certain aspects of school administrators' leadership vary depending on their years of teaching experience. Notably, significant differences were found in how teachers view inspirational motivation and intellectual stimulation, regardless of their teaching experience. However, perceptions of individual consideration and idealized influence were consistent across all levels of teaching experience, indicating a uniform viewpoint among teachers in these areas of leadership.

4. **Assessment of teacher-respondents on the impact of school administrators' transformational leadership on their innovation self-efficacy**

a. **Critical Thinking.** The assessment by teacher-respondents on their innovation self-efficacy highlights a significant demonstration of critical thinking fostered by the transformational leadership of school administrators. Teachers predominantly exhibit critical thinking skills, notably in correlating data and analyzing scenarios based on their knowledge and experiences. However, there are areas for improvement, such as conducting research and suggesting solutions for school issues, which received lower scores.

b. **Creativity.** The assessment of teacher-respondents' innovation self-efficacy suggests that they demonstrate creativity influenced by school administrators' transformational leadership. Teachers typically exhibit creative thinking in innovation, notably by sharing ideas with others. However, there is room for improvement in encouraging teachers to take calculated risks in their ideas, which scored lowest in creativity indicators.

c. **Collaboration**. The assessment reveals that teachers demonstrate collaboration influenced by administrators' leadership, as indicated by the composite mean score and standard deviation. Feedback from teacher-respondents underscores the emphasis on collaboration, particularly in idea development, study, and implementation. However, there is potential for improvement in fostering healthy exchanges of ideas among teachers, co-teachers, and administrators, which scored lowest in collaboration indicators.

d. **Problem Solving.** The assessment indicates that teachers generally demonstrate problem-solving skills, influenced by administrators' leadership, as reflected in the composite mean score and standard deviation. Notably, teachers excel in recognizing inclusivity and respect as crucial in problem-solving approaches, as indicated by the highest mean score. However, there's a need for improvement in fostering a more systematic and scientific approach to problem-solving, which scored lowest among indicators.

5. **Difference in assessment of student-respondents on the impact of school administrators' transformational leadership in nurturing innovation self-efficacy**

a. **Sex.** Critical thinking and creativity were areas where notable disparities were observed, indicating varying perspectives between genders. However, assessments related to collaboration and problem-solving skills showed no significant differences, suggesting a shared viewpoint among male and female respondents in these aspects.

b. **Age.** The assessment of innovation self-efficacy among teachers, influenced by school administrators' transformational leadership, revealed no significant differences across age groups in critical thinking, creativity, collaboration, and problem-solving skills, suggesting that regardless of age, teachers perceive their innovation self-efficacy similarly under the influence of administrators' leadership.

c. **Level of Education.** The assessment of teachers' innovation self-efficacy, influenced by school administrators' transformational leadership, revealed significant differences across different levels of education in critical thinking, creativity, and problem-solving. However, perceptions of collaboration showed no significant differences, indicating a consistent view among respondents across educational levels in this aspect of innovation self-efficacy nurtured by school leaders' transformational leadership.

d. **Length of Teaching Years**. The assessment of teachers' innovation self-efficacy, influenced by school administrators' transformational leadership, revealed significant differences only in perceptions of collaboration across different lengths of teaching experience. However, no significant differences were found in perceptions of critical thinking, creativity, and problem-solving skills, indicating a consistent viewpoint among respondents across different lengths of teaching experience in these aspects of innovation self-efficacy nurtured by school leaders' transformational leadership.

6. **Relationship between school administrators' transformational leadership and its impact in nurturing teachers' innovation self-efficacy**

The analysis using Pearson's correlation coefficient revealed a significant relationship between school administrators' transformational leadership and its impact on nurturing teachers' innovation self-

efficacy across all variables. The degree of correlation ranged from moderate to high, emphasizing the importance of effective leadership in promoting innovation within educational settings.

Conclusion

1. The majority of respondents were female, aged 31 to 50, holding Master's Degrees, with 11 to 20 years of teaching experience, indicating that female university teachers in this demographic are significantly influenced by school administrators' transformational leadership in enhancing innovation ability.

2. Findings show effective inspirational motivation by administrators in creating an engaging community, while improvements in task communication are suggested. Individual consideration is generally prioritized, but mentorship opportunities need enhancement. Intellectual stimulation is evident, yet support for self-reflection requires improvement. Idealized influence is perceived, but administrators could share teaching experiences more.

3. Differences in perceptions based on sex, age, education level, and teaching experience were observed in various aspects of transformational leadership, emphasizing the need for tailored approaches.

4. Teacher-respondents demonstrate significant critical thinking and creativity fostered by administrators' leadership, with room for improvement in research and risk-taking encouragement. Collaboration is emphasized but could benefit from more exchanges. Problem-solving skills are evident, particularly in inclusivity recognition, but a more systematic approach is needed.

5. Variations in critical thinking and creativity were noted based on sex, while no significant differences were observed in collaboration and problem-solving. Across age, education level, and teaching experience, consistency was found in perceptions of innovation self-efficacy under administrators' leadership.

6. Pearson's correlation analysis revealed a significant relationship between school administrators' transformational leadership and its impact on nurturing teachers' innovation self-efficacy, indicating the importance of effective leadership in promoting innovation within educational settings.

Recommendations

1. Administrators should adopt personalized leadership strategies based on the demographic profile of teachers, focusing on areas such as mentorship, communication, and professional growth to enhance innovation ability.

2. Administrators should continually assess and refine their leadership practices, particularly in areas such as inspirational motivation, individual consideration, intellectual stimulation, and idealized influence, to create a supportive and innovative academic environment.

3. Recognizing and addressing differences in perception based on factors like gender, age, education level, and teaching experience, administrators should ensure equitable opportunities and promote inclusivity in leadership initiatives and professional development programs.

4. Encouraging teachers to engage in research, take risks, share ideas, and collaborate can foster creativity and critical thinking skills essential for innovation.

5. Administrators should facilitate platforms and initiatives that promote collaboration among teachers, encourage healthy exchanges of ideas, and provide training in systematic problem-solving approaches to enhance teachers' collaboration and problem-solving skills.

6. Investing in leadership development programs for administrators can strengthen their ability to nurture innovation self-efficacy among teachers, fostering a culture of continuous improvement and innovation within educational settings.

Proposed Program for Enhancing the Influence of School Administrators' Transformational Leadership on the Innovation Ability of University Teachers

The study shows the need to use strategies to support school administrators' leadership impact on teachers' innovation. This means encouraging teamwork and creativity. Hence, it is vital for improving problem-solving skills and critical thinking, stressing the importance of a joint effort between administrators and teachers to boost innovation in education.

The analysis of the results of the study sheds light on the relationship between school administrators' transformational leadership and their influence on nurturing teachers' innovation self-efficacy. Notably, concerns arise regarding problem-solving, which demonstrates lower correlations with transformational leadership across various dimensions. This suggests potential challenges in how administrators' leadership styles impact teachers' self-efficacy in problem-solving endeavors. To address this, administrators may consider providing additional training or resources to support teachers in developing effective problem-solving strategies and fostering a collaborative problem-solving culture to encourage experimentation and risk-taking among educators.

Similarly, collaboration presents as an area of concern with lower correlations across different dimensions of transformational leadership. This underscores the need for administrators to refine their approaches to support collaboration among teachers and foster innovation self-efficacy. Strengthening collaboration can enhance teachers' ability to generate new ideas, share best practices, and address complex challenges in education. Administrators can facilitate collaboration by creating opportunities for interdisciplinary teamwork, promoting open communication channels, and recognizing and rewarding collaborative efforts. While all dimensions of transformational leadership significantly correlate with innovation self-efficacy, variations in the strength of these relationships emphasize the importance of tailoring leadership strategies to address specific needs and preferences among educators. Administrators can leverage these variations to develop more effective leadership approaches that empower teachers and promote a culture of innovation and continuous improvement within the educational institution.

Following such idea, this proposal follows the following objectives:

- Develop and implement targeted training programs to enhance university teachers' innovation ability, addressing any observed weaknesses in correlation with school administrators' transformational leadership.
- Foster a collaborative culture among university teachers to encourage innovation and creativity, leveraging the influence of transformational leadership to support cross-disciplinary collaboration and knowledge-sharing.
- Provide resources and support for university teachers to engage in collaborative innovation initiatives, promoting experimentation and risk-taking in research and teaching endeavors.
- Establish open communication channels and recognition mechanisms to promote collaboration among university teachers and strengthen their innovation self-efficacy.
- Tailor transformational leadership approaches to address the specific needs and preferences of university teachers, enhancing their innovation ability and promoting a culture of continuous improvement.

- Create opportunities for interdisciplinary collaboration and innovation within the university community, fostering a dynamic environment that values creativity and critical thinking.
- Implement feedback mechanisms to assess the impact of transformational leadership initiatives on university teachers' innovation ability, guiding ongoing efforts to support their professional development.
- Cultivate an organizational culture that values innovation and empowers university teachers to explore new ideas and approaches in their research, teaching, and service activities.

Area of Concern	Goal	Strategies	Key Person	Time Frame	Budget	Expected outcome	Key Performance Indicator
ASSESSMENT PHASE							
	To assess the strengths and weaknesses of the study on the influence of school administrators' transformational leadership on the innovation ability of university teachers	Observations Survey	Teachers Experts Administrators	1 month	100 RMB per person	To assess the current level of influence of school administrators' transformational leadership on the innovation ability of university teachers.	Survey statistics
PROGRAM ADAPTATION PHASE							
	To inform those involved in the project about their importance to the project's goals and its potential implications for the	Program Orientation Assessment of current practices and behaviors of administrators.	Administrators Teachers Experts	1 months	300 RMB per person	To emphasize the significance of transformational methods to influence teacher effectiveness.	Assessment of program framework Evaluating the willingness of core personnel to modify the suggested approach

	influence of school administrators' transformational leadership on the innovation ability of university teachers.					Educating administrators-educators about diverse transformational techniques.	Ensure the participation of essential participants
STAKEHOLDER ENGAGEMENT PHASE							
Prospective issue that may arise as a result of any precedence. Establishment of key communication channels and managing expectations Involvement and immersion of stakeholders	Enhance awareness and recognition of the significance of school administrators' transformational leadership in fostering innovation among faculty and advancing the institution's objectives. Establish school administrators as key influencers for academic	Foster talking exchange sessions between administrators and faculty members focused on the influence of school administrators' transformational leadership on the innovation ability of university teachers. Personalized development initiatives are	Teachers Administrators Experts	At least one session per semester At least one training session per semester	2500 RMB per person	Administrators and faculty members become collaborative. Effective management is evident among administrators. Faculty members experience equitable opportunities and treatment. A culture rooted on transformational leadership is	Evaluations of initiatives Administrator management proficiency Collaborative practices between administrators and faculty Cooperation and harmony among the community Transformational leadership adopted by faculty

| | institutions and policy development. | established to address the unique needs and challenges faced by male and female faculty members in enhancing their innovation ability under the guidance of school administrators' transformational leadership.

Employee subjective trainings are made available to faculty members to enhance their understanding and application of transformational leadership principles in fostering innovation. | | | | established. | |
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		Engage school policy board in creating new policies based on feedback from community members regarding the influence of school administrators' transformational leadership on their innovation ability.					
		Ensure equal opportunity for faculty members with diverse backgrounds to benefit from the innovation-promoting initiatives facilitated by school administrators' transformational leadership.					

		Conduct consistent conversations and evaluations with faculty members about the influence of school administrators' transformational leadership on their innovation ability, aiming to continuously improve and refine existing rules and activities.					
MONITORING AND EVALUATION PHASE							
Reducing disparities in how school administrators influence innovation among university teachers. Enhancing faculty contentment with the leadership of their	Assess the satisfaction level of faculty members with the influence of school administrators' transformational leadership on innovation. Evaluate the	Assessing the resources needed to support the implementation of school administrators' transformational leadership initiatives. Ensuring ongoing	Teachers School administrators	Every end of semester	2500 RMB	University teachers can express fulfilment with the transformational leadership provided by their administrators' impact on their progress as professionals.	Academic staff members conduct their duties diligently and effectively. Teachers develop their own interpretation of transformational leadership

administrators in fostering innovation.	effectiveness of particular techniques in enhancing the innovation ability of university teachers.	engagement of administrators and faculty members in discussions and initiatives related to transformational leadership.				The job satisfaction of faculty members is evident in their work, particularly in their implementation of innovative teaching methods.	strategies inspired by administrators' model for them.
Enhancing teaching effectiveness through the implementation of transformational leadership strategies by administrators.	Ensure that administrators and faculty members collaborate effectively in fostering innovation.	Analyzing the impact of resolutions derived from dialogue sessions on the innovation ability of university teachers.				The leadership style of administrators reflects a focus on fostering innovation among faculty members, which the latter practices.	University teachers actively engage in relevant administrative activities and contribute to decision-making processes.
						Faculty members undergo seminars in transformational leadership techniques and apply them in their teaching practices.	There exists a strong appreciation and respect between administrators and faculty members within the institution.

REFERENCES

1. Avolio, B. J., & Bass, B. M. (2004). Multifactor Leadership Questionnaire (3rd ed.). Mind Garden.

2. Avolio, B. J., & Gardner, W. L. (2005). Authentic leadership development: Getting to the root of positive forms of leadership. The Leadership Quarterly, 16(3), 315-338.

3. Avolio, B. J., & Yammarino, F. J. (Eds.). (2013). Transformational and Charismatic Leadership: The Road Ahead. Emerald Group Publishing.

4. Barling, J., Christie, A., & Hoption, C. (2010). Leadership. In APA Handbook of Industrial and Organizational Psychology. Building and Developing the Organization; Zedeck, S., Ed.; American Psychological Association: Washington, DC, USA, 2010; Volume 1, pp. 183–240. [Google Scholar]

5. Bass, B. M. (1990). Bass & Stogdill's Handbook of Leadership: Theory, Research, and Managerial Applications. Free Press.

6. Bass, B.M. (1985). Leadership and Performance beyond Expectations. Collier Macmillan: London, UK. [Google Scholar]

7. Bass, B.M., & Riggio, R.E. (2010). The transformational Model of leadership. In Leading Organisations; Perspectives of a New Era, 2nd ed.; Sage: Riverside, CA, USA, 2010; p. 76. [Google Scholar]

8. Bennis, W., & Nanus, B. (1985). Leaders: The Strategies for Taking Charge. Harper & Row: New York, NY, USA. [Google Scholar]

9. Berkovich, I. (2016). School leaders and transformational leadership theory: Time to part ways? Journal of Educational Administration, 54, 609–622. [Google Scholar] [CrossRef]

10. Boon, B., Wynen, J., & Kleizen, B. (2021). What happens when the going gets tough? Linking change scepticism, organizational identification, and turnover intentions. Public Management Review, 23, 1056–1080. [Google Scholar] [CrossRef]

11. Burns, J.M. (1978). Leadership. Harper & Row: New York, NY, USA. [Google Scholar]

12. Burton, L., & Peachey, J. (2009). Transactional or transformational? Leadership preferences of division III athletic administrators. Journal of Intercollegiate Sport, 2, 245–259. [Google Scholar] [CrossRef]

13. Chen Lu (2020). Research on Transformational Leadership and Innovative Ability of University Teachers. Research on Chinese Higher Education, 8, 53-56.

14. De Leersnyder, J., Gündemir, S., & Ağirdağ, O. (2022). Diversity approaches matter in international classrooms: How a multicultural approach buffers against cultural misunderstandings and encourages inclusion and psychological safety. Studies in Higher Education, 47, 1903–1920. [Google Scholar] [CrossRef]

15. Diaz-Saenz, H.R. (2011). Transformational leadership. SAGE Handbook of Leadership, 5, 299–310. [Google Scholar]

16. Downton, J.V. (1973). Rebel Leadership: Commitment and Charisma in the Revolutionary Process. The Free Press: New York, NY, USA. [Google Scholar]

17. Engelbrecht, J., Borba, M.C., Llinares, S., Kaiser, G. (2020). Will 2020 be remembered as the year in which education was changed? ZDM Mathematics Education, 52, 821–824. [Google Scholar] [CrossRef] [PubMed]

18. Farrell, F. (2020). Walking on eggshells: Brexit, British values and educational space. Education and Training, 62, 981–997. [Google Scholar] [CrossRef]

19. Gilani, P., Bolat, E., Nordberg, D., & Wilkin, C. (2020). Mirror, mirror on the wall: Shifting leader–follower power dynamics in a social media context. Leadership, 16, 343–363. [Google Scholar] [CrossRef]

20. Giouroglou, C. (2022). Primary education stakeholders' views on the European Union during the Greek economic crisis. Innovation: The European Journal of Social Science Research, 1–23. [Google Scholar] [CrossRef]

21. Gyensare, M.A., Kumedzro, L.E., Sanda, A., Boso, N. (2017). Linking transformational leadership to turnover intention in the public sector: The influences of engagement, affective commitment, and psychological climate. African Journal of Economic and Management Studies, 8, 314–337. [Google Scholar] [CrossRef]

22. Hallinger, P. (2003). Leading educational change: Reflections on the practice of instructional and transformational leadership. Cambridge Journal of Education, 33, 329–352. [Google Scholar] [CrossRef]

23. Han Jianbo, & Li Ming (2020). Research on Transformational Leadership and Innovative Ability of University Teachers. China Social Science Press.

24. Harris, A., & Jones, M. (2020). COVID-19—School leadership in disruptive times. School Leadership & Management, 40, 243–247. [Google Scholar] [CrossRef]

25. Hickey, N., Flaherty, A., & Mannix McNamara, P. (2022). Distributed Leadership: A Scoping Review Mapping Current Empirical Research. Societies, 12, 15. [Google Scholar] [CrossRef]

26. Howell, J. M., & Avolio, B. J. (1993). Transformational leadership, transactional leadership, locus of control, and support for innovation: Key predictors of consolidated-business-unit performance. Journal of Applied Psychology, 78(6), 891-902.

27. Judge, T.A., & Piccolo, R.F. (2004). Transformational and transactional leadership: A meta-analytic test of their relative validity. Journal of Applied Psychology, 89, 755–768. [Google Scholar] [CrossRef]

28. Kark, R., & Shamir, B. (2002). The Dual Effect of Transformational Leadership: Priming Relational and Collective Selves and Further Effects on Followers. In Transformational and Charismatic Leadership: The Road Ahead; Avolio, B.J., Yammarino, F.J., Eds.; JAI Elsevier Science: Amsterdam, The Netherlands, pp. 67–91. [Google Scholar] [CrossRef]

29. Kaushal, S., Shah, S., Sundararajan, S., Bell, K.G., Jackson, P., Aponte-Patel, L., Sargent, C., Muniz, E.I., Oghifobibi, O., Kresch, M., et al. (2022). Paediatric research's societal commitment to diversity: A regional approach to an international crisis. Pediatric Research, 92, 933–935. [Google Scholar] [CrossRef]

30. Kellerman, B. (2008). Followership: How Followers are Creating Change and Changing Leaders. Harvard Business Press: Boston, MA, USA. [Google Scholar]

31. Kelly, J., McKenzie, J., Watermeyer, B., Vergunst, R., Karisa, A., Samuels, C. (2022). We Need to Go Back to Our Schools, and We Need to Make that Change We Wish to See: Empowering Teachers for Disability Inclusion. International Journal of Disability, Community & Rehabilitation, 17, 1–17. [Google Scholar] [CrossRef]

32. Keon, D.M. (2020). Soft barriers—The impact of school ethos and culture on the inclusion of students with special educational needs in mainstream schools in Ireland. Improving Schools, 23, 159–174. [Google Scholar] [CrossRef]

33. Khoo, H.S., & Burch, G.S.J. (2008). The "dark side" of leadership personality and transformational leadership: An exploratory study. Personality and Individual Differences, 44, 86–97. [Google Scholar] [CrossRef]

34. Knight, D.S. (2017). Are High-Poverty School Districts Disproportionately Impacted by State Funding Cuts? School Finance Equity Following the Great Recession. Journal of Education Finance, 43, 169–194. [Google Scholar]

35. Kotok, S., & Knight, D.S. (2022). Revolving Doors: Cross-Country Comparisons of the Relationship between Math and Science Teacher Staffing and Student Achievement. Leadership and Policy in Schools, 21, 345–360. [Google Scholar] [CrossRef]

36. Kouzes, J.M., & Posner, B.Z. (1987). The Leadership Challenge. Jossey-Bass: San Francisco, CA, USA. [Google Scholar]

37. Leithwood, K. (1993). Contributions of transformational leadership to school restructuring. In Proceedings of the Annual Meeting of the University Council for Educational Administration, Houston, TX, USA, 29–31 October 1993. [Google Scholar]

38. Leithwood, K. (1994). Leadership for school restructuring. Educational Administration Quarterly, 30, 498–518. [Google Scholar] [CrossRef]

39. Leithwood, K., & Jantzi, D. (1990). Transformational leadership: How principals can help reform school cultures. School Effectiveness and School Improvement, 1, 249–280. [Google Scholar] [CrossRef]

40. Leithwood, K., & Montgomery, D.J. (1982). The Role of the Elementary School Principal in Program Improvement. Review of Educational Research, 52, 309–339. [Google Scholar] [CrossRef]

41. Leithwood, K., & Riehl, C. (2005). What do we already know about educational leadership In A New Agenda for Research in Educational Leadership; Firestone, W.A., Riehl, C., Eds.; Teachers College Press: New York, NY, USA, p. 14. [Google Scholar]

42. Leithwood, K., Tomlinson, D., & Genge, M. (1996). Transformational school leadership. In International Handbook of Educational Leadership and Administration; Leithwood, K., Ed.; Kluwer Academic: Dordrecht, The Netherlands, pp. 785–840. [Google Scholar]

43. Lin, F., & Long, C.X. (2020). The impact of globalization on youth education: Empirical evidence from China's WTO accession. Journal of Economic Behavior & Organization, 178, 820–839. [Google Scholar] [CrossRef]

44. Liu Honglei, & Zhang Xingwen (2018). Research on the Relationship between Transformational Leadership and Innovative Ability of University Teachers. Modernization of Education, 6, 89-90.

45. Lundmark, M., Nordin, M., Yepes-Baldó, M., Romeo, M., Westerberg, K. (2021). Cold wind of change: Associations between organizational change, turnover intention, overcommitment and quality of care in Spanish and Swedish eldercare organizations. Nursing Open, 8, 163–170. [Google Scholar] [CrossRef] [PubMed]

46. Lynch, J., Daly, D., Lafferty, N., & Mannix McNamara, P. (2022). The Real Deal: A Qualitative Investigation of Authentic Leadership in Irish Primary School Leaders. Societies, 12, 106. [Google Scholar] [CrossRef]

47. Masumoto, M., & Brown-Welty, S. (2009). Case study of leadership practices and school community interrelationships in high-performing, high-poverty, rural California high schools. Journal of Research in Rural Education, 24, 1. Available online: https://jrre.psu.edu/sites/default/files/2019-08/24-1.pdf (accessed on 20 November 2021).

48. McNair, L., Ravenscroft, J., Rizzini, I., Tisdall, K., Biersteker, L., Shabalala, F., S'lungile, K.T., Dlamini, C.N., Bush, M., Gwele, M., et al. (2022). The Impact of the Covid-19 Global Health Pandemic in Early Childhood Education Within Four Countries. Journal of Social Inclusion, 10, 160–171. [Google Scholar] [CrossRef]

49. Molchaniuk, O., Babakina, O., Dmytrenko, K., Kharkivska, A., Kapustina, O. (2020). Partial programs in access to the social values: Technology that changes preschool education. Journal of Physics: Conference Series, 1691, 12176. [Google Scholar] [CrossRef]

50. Northouse, P. G. (2017). Leadership: Theory and Practice (8th ed.). Sage Publications.

51. OECD. (2023). Education GPS. Available online: https://gpseducation.oecd.org/revieweducationpolicies/#!node=42356&filter=all (accessed on 5 January 2023).

52. Pearce, C. L., & Conger, J. A. (Eds.). (2003). Shared Leadership: Reframing the Hows and Whys of Leadership. Sage Publications.

53. Pentassuglia, G. (Ed.) (2017). Ethno-Cultural Diversity and Human Rights: Challenges and Critiques. Leiden, The Netherlands: Brill. [Google Scholar] [CrossRef]

54. Pepper, K. (2010). Effective principals skillfully balance leadership styles to facilitate student success: A focus for the reauthorization of ESEA. Planning and Changing, 41, 42–56. [Google Scholar]

55. Podsakoff, P. M., MacKenzie, S. B., & Bommer, W. H. (1996). Transformational leader behaviors and their effects on followers' trust in leader, satisfaction, and organizational citizenship behaviors. The Leadership Quarterly, 7(3), 385-417.

56. Qiu Jingyi, & Tang Rui (2019). Research on the Impact of Transformational Leadership on Innovative Behavior of University Teachers. Research on Technology Management, 4, 144-147.

57. Riggio, R. E. (Ed.). (2002). Introduction to Industrial/Organizational Psychology. Prentice Hall.

58. Sahlberg, P. (2020). Will the pandemic change schools? Journal of Professional Capital and Community, 5, 359–365. [Google Scholar] [CrossRef]

59. Shamir, B., Pillai, R., Bligh, M. C., & Uhl-Bien, M. (Eds.). (2007). Follower-Centered Perspectives on Leadership: A Tribute to the Memory of James R. Meindl. Information Age Publishing.

60. Shaya, N., & Shayya, R. (2020). The impacts of World Bank education programs in alleviating Middle East economies within Syrian refugee crisis. International Journal of Development Issues, 19, 377–390. [Google Scholar] [CrossRef]

61. Sun Haiyan, & Xie Min (2017). Research on the Impact of Transformational Leadership on the Innovative Ability of University Teachers. University Personnel, 4, 47-49.

62. Sun, J., & Leithwood, K. (2012). Transformational School Leadership Effects on Student Achievement. Leadership and Policy in Schools, 11, 418–451. [Google Scholar] [CrossRef]

63. Treneman-Evans, G., Ali, B., Denison-Day, J., Clegg, T., Yardley, L., Denford, S., Essery, R. (2022). The Rapid Adaptation and Optimisation of a Digital Behaviour-Change Intervention to Reduce the Spread of COVID-19 in Schools. International Journal of Environmental Research and Public Health, 19, 6731. [Google Scholar] [CrossRef]

64. UNESCO. (2022). Transforming Education from Within: Current Trends in the Status and Development of Teachers; World Teachers' Day. Paris, France. [Google Scholar]

65. Van Knippenberg, D., & Sitkin, S.B. (2013). A critical assessment of charismatic—Transformational leadership research: Back to the drawing board? Academy of Management Annals, 7, 1–60. [Google Scholar] [CrossRef]

66. Wang Ting, & Tian Chunxiang (2019). An empirical study on the impact of transformational leadership on the innovation ability of university teachers. Management of Higher Education, 9, 54-56.

67. Ward, P. (2019). The teacher pipeline for PETE: Context, pressure points, and responses. Journal of Teaching in Physical Education, 38, 4–13. [Google Scholar] [CrossRef]

68. Weber, M. (1947). The Theory of Social and Economic Organization. The Free Press: New York, NY, USA. [Google Scholar]

69. Yang Xiaojuan, & Wang Zhiqi (2018). Research on the Impact of Transformational Leadership on the Innovative Ability of University Teachers. Vocational and Technical Education, 4, 153-155.

70. Yao Lina (2018). Research on the Impact of Transformational Leadership in Universities on Teachers' Innovative Ability. Science Press.

71. Yukl, G. (1999). An evaluation of conceptual weaknesses in transformational and charismatic leadership theories. The Leadership Quarterly, 10(2), 285-305.

72. Yukl, G. (2002). Leadership in Organizations. Harvard Business Press: Boston, MA, USA. [Google Scholar]

73. Yüksek, C. (2018). Dealing with stress using social theatre techniques with young Syrian students adapting to a new educational system in Turkey: A case study. MHPSS Interventions, 16, 175–180. [Google Scholar] [CrossRef]

74. Zhang Honggang, & Lei Xiaoping (2020). An empirical study on the impact of transformational leadership on the innovation ability of university teachers. Science and Education Guide (Mid Tencent), 8, 42-44.

75. Zhao Ling (2015). Research on the relationship between transformational leadership and teacher innovation behavior. Chinese Vocational and Technical Education, 10, 37-41.

76. Zhou Liping, & Zhang Hui (2018). An empirical study on the impact of transformational leadership in universities on teachers' innovation ability. Modern Education Research, 12, 1-6.