Developing Leadership for Pre-service Teachers: Previous Concepts and Models

Pembangunan Kepimpinan Untuk Guru Pra-perkhidmatan: Konsep dan Model Terdahulu

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ABSTRACT

Developing leadership skills among pre-service teachers is a pressing issue that is vital for ensuring the long-term sustainability and continuous advancement of the educational landscape. The purpose of this concept paper is to examine the role of pre-service teacher leadership in shaping future educational environments. Drawing upon theoretical frameworks and empirical research related to pre-service teacher leadership, this paper highlights the significance and dimensions of pre-service teacher leadership. Six common aspects crucial for developing leadership qualities in pre-service teachers are identified: (i) empowering professional leadership, (ii) setting direction, (iii) enriching data practices, (iv) valuing diversity, (v) fostering stakeholder consensus, and (vi) developing self-competence. Through a comprehensive literature review and critical analysis of existing studies, the paper offers practical recommendations for integrating leadership initiatives within teacher education programs, emphasizing experiential learning, mentorship, and professional development. These recommendations aim to empower future educators and improve the overall quality of education. The implications of this paper suggest that incorporating structured leadership development programs into teacher education curricula can enhance pre-service teachers' readiness to face educational challenges and contribute positively to school communities. Furthermore, the integration of leadership skills may improve classroom management, instructional quality, and student engagement. Future research should explore the long-term effects of leadership development on pre-service teachers' career trajectories, as well as its broader impact on educational outcomes, such as student achievement and institutional improvement.

Keywords: pre-service teachers; educational leadership development; teacher education programs; leadership skills

ABSTRAK

Membangunkan kemahiran kepimpinan dalam kalangan guru praperkhidmatan merupakan isu mendesak yang penting untuk memastikan kelestarian dan kemajuan berterusan landskap pendidikan. Tujuan kertas konsep ini adalah untuk membincangkan peranan kepimpinan guru pelatih dalam membentuk persekitaran pendidikan masa hadapan. Berdasarkan kerangka teori dan kajian empirikal yang berkaitan dengan kepimpinan guru pelatih, kertas ini menekankan kepentingan dan dimensi kepimpinan guru pelatih. Enam aspek utama yang penting untuk membangunkan kualiti kepimpinan dalam kalangan guru pelatih telah dikenalpasti: (i) mengupaya kepimpinan profesional, (ii) menetapkan hala tuju, (iii) memperkayakan amalan data, (iv) menghargai kepelbagaian, (v) menyantuni permuafakatan pemegang taruh, dan (vi) membangunkan kompetensi kendiri. Melalui kajian literatur yang komprehensif dan analisis kritikal kajian sedia ada, perbincangan ini menawarkan cadangan praktikal untuk mengintegrasikan inisiatif kepimpinan dalam program pendidikan guru, dengan penekanan pada pengalaman pembelajaran, bimbingan, dan pembangunan profesional. Cadangan ini bertujuan untuk memperkasakan bakal pendidik dan meningkatkan kualiti keseluruhan pendidikan. Implikasi perbincangan ini mencadangkan bahawa pengintegrasian program pembangunan kepimpinan yang berstruktur dalam kurikulum pendidikan guru dapat meningkatkan kesiapsiagaan guru pelatih dalam menghadapi cabaran pendidikan dan memberi sumbangan positif kepada komuniti sekolah. Selain itu, pengintegrasian kemahiran kepimpinan mungkin dapat meningkatkan pengurusan bilik darjah, kualiti pengajaran, dan penglibatan pelajar. Kajian masa hadapan perlu meneroka kesan jangka panjang pembangunan kepimpinan terhadap laluan kerjaya guru pelatih serta kesannya yang lebih luas terhadap hasil pendidikan, seperti pencapaian pelajar dan penambahbaikan institusi.

Kata kunci: guru praperkhidmatan; pembangunan kepimpinan Pendidikan; program pendidikan guru; kemahiran kepimpinan

INTRODUCTION

In the ever-evolving landscape of education, the role of teachers extends far beyond the confines of the classroom. A study by Siddiqui and Ahamed (2020) highlights that teachers must operate within a supportive environment, clear organizational policies, stimulating career paths, and professional recognition to fulfill their broader roles. Pineda-Báez et al. (2020) proposed the concept of pre-service teacher leadership, highlighting the importance of preparing future educators with the skills needed for leadership in educational environments. This viewpoint emphasizes the crucial role pre-service teachers have in fostering positive change, both within their individual classrooms and throughout the broader educational system. Pre-service teacher leadership involves developing the necessary skills, knowledge, and mindset for educators to become proactive agents of change (Véliz, 2018). Rather than just receiving instruction, pre-service teachers are seen as potential catalysts for innovation. They are also viewed as advocates for equity within the educational system. This view is supported by Ghamrawi and Al-Thani (2023), who assert that nurturing pre-service teacher leadership acknowledges the untapped potential of these individuals. According to Van Katwijk et al. (2023), these future educators are crucial contributors to shaping the future of education. This perspective encourages pre-service teachers to see themselves not only as facilitators of learning but also as advocates for transformative practices that promote inclusivity, diversity, and excellence in education.

At its core, pre-service teacher leadership embodies the idea that leadership is not a trait reserved for a select few but a skill set that can be cultivated in all educators from the start of their careers (Aliu & Kaçaniku, 2023). By embedding leadership development into pre-service teacher education programs, institutions can cultivate a new generation of educators. These educators will be proficient in pedagogy and skilled at inspiring and influencing change on multiple levels. Effective teaching extends beyond knowledge dissemination; as King and Logan (2022) note, leadership includes fostering critical thinking, collaboration, and a commitment to continuous improvement.

However, the challenges faced by pre-service teachers as they strive to be agents of change highlight a significant gap. Huang et al. (2023) describe difficulties in implementing anti-racist pedagogy, emphasizing issues related to teacher identity, parental misunderstandings, and support for educational leadership. This underscores the need for comprehensive support structures and training to empower pre-service teachers as effective agents of change in promoting social justice within the educational context.

Pre-service teacher leadership also holds promise for addressing persistent challenges in education, such as inequitable resource access and systemic barriers that hinder student success. By fostering a sense of agency and advocacy among pre-service teachers, educational institutions can develop a cadre of change-makers ready to tackle these challenges directly (Pantić et al., 2022). Through curriculum design, community engagement, or policy advocacy, pre-service teacher leaders can drive meaningful and lasting improvements in educational outcomes.

This concept paper explores the foundations, principles, and implications of pre-service teacher leadership with a focus on improving teacher education programs. Specifically, the paper seeks to evaluate various concepts, models, and frameworks employed in the assessment of pre-service teachers' leadership to inform and enhance teacher education practices. Additionally, it aims to provide a summary of the common elements found within these models and frameworks as identified in empirical research, which can be integrated into pre-service teacher curricula. The research questions guiding this study are: (i) What are the various concepts, models, and

frameworks used to measure pre-service teacher leadership? and (ii) What are the common aspects within the analyzed pre-service teacher leadership frameworks and models identified in empirical research? By examining the intersection of teacher preparation and leadership theory, this paper offers insights into how educators, policymakers, and stakeholders can collaborate to cultivate a culture of leadership among pre-service teachers, ultimately fostering positive change and improving the effectiveness of teacher education programs.

LITERATURE REVIEW

The notion of pre-service teacher leadership has garnered significant interest in the evolving field of teacher education in recent years. Understanding the adaptable nature of pre-service teacher leadership and its implications for teacher education is increasingly crucial, given the shifting needs and challenges within the profession. To provide a comprehensive view of this evolving concept, it is essential to explore several key theoretical frameworks that underpin current research. This will be followed by a synthesis of key findings from relevant studies to offer insight into the diverse dimensions of pre-service teacher leadership, with a focus on underlying theoretical frameworks and methodologies.

Contingency Theory of Leadership by Fred Fiedler in Ocampo and Chua (2023) posits that effective leadership is contingent upon the leader's ability to adapt their style to the specific demands of a given situation. This theory emphasizes that there is no single best way to lead; instead, successful leadership depends on the alignment between a leader's approach and the situational context. In the realm of pre-service teacher leadership, Contingency Theory suggests that the effectiveness of leadership practices may vary depending on the situational factors and challenges encountered in educational settings. This framework highlights the importance of flexibility and situational awareness in developing effective leadership skills among pre-service teachers.

Distributed Leadership Theory as mentioned in Phillips et al. (2023) advocates for a model of leadership that is shared among various roles within an educational setting rather than being concentrated in a single individual. This theory suggests that leadership is a collective process that involves multiple stakeholders, including teachers, administrators, and support staff. In the context of pre-service teacher leadership, Distributed Leadership Theory underscores the significance of collaborative practices and the distribution of leadership responsibilities. It emphasizes that effective leadership in schools results from the interaction and contributions of various members of the educational community, rather than relying solely on individual leaders.

Leader-Member Exchange Theory by Graen and Uhl-Bien in Martin et al. (2018) focuses on the quality of relationships between leaders and their followers, and how these relationships influence leadership outcomes. This theory posits that leaders develop different types of relationships with their followers, which can impact their effectiveness and the development of leadership skills. In the context of pre-service teacher leadership, Leader-Member Exchange Theory highlights the role of interpersonal relationships and the quality of interactions between pre-service teachers and their mentors or supervisors. It suggests that positive, high-quality relationships can enhance leadership development and contribute to more effective teaching and leadership practices. With these theoretical frameworks established, contemporary studies on pre-service teacher leadership can now be examined to analyze the practical application of these theories.

An underlying theme in exploring pre-service teacher leadership is the complex relationship between external responsibilities and the autonomy of academic leaders. Hulme, Meanwell, and Bryan (2023) employed qualitative methods, including interviews with Heads of Department from ten large-scale university providers of pre-service teacher education in England, to examine the impact of audit-based responsibilities on academic leaders. Their study reveals how the pressures of multiple accountabilities and the need to demonstrate compliance with policy directives in a volatile environment constrain leaders' opportunities for critically reflexive practice and policy activism. This underscores the need for a delicate balance between compliance and innovation, reflecting the Contingency Theory of leadership, which suggests that effective leadership depends on the leader's ability to adapt to varying situational demands (Ocampo & Chua, 2023). The theoretical gap highlighted by the study is the limited exploration of how these situational factors specifically influence leadership effectiveness. Methodologically, while the qualitative approach provides detailed insights into the challenges faced by academic leaders, incorporating quantitative methods could enhance the generalizability of these findings across different educational contexts.

Sharp et al. (2018) employed a one-shot qualitative survey design to examine how literacy teacher educators cultivate leadership among pre-service teachers. This study, part of a larger survey research project conducted in a state in the Southern United States, focused specifically on Standard 6, Professional Learning and Leadership. An electronic survey using Google Forms with open-ended questions was designed to capture literacy teacher educators' perspectives on how they promote leadership development in their literacy courses. This approach allowed for detailed qualitative insights into the specific methods used but may not generalize across diverse educational contexts. The study aligns with Distributed Leadership Theory which posits that leadership is distributed among various roles within educational settings to enhance teaching and learning (Phillips et al., 2023). However, the theoretical gap in this study lies in its limited exploration of how leadership development in the context of literacy education influences overall teacher effectiveness and broader educational outcomes. Methodologically, while the qualitative survey provided rich, context-specific data, it may benefit from quantitative validation to assess the applicability of the findings across different educational settings. This approach highlights the need for further research to examine the broader impact of subject-specific leadership training on teacher efficacy and student outcomes.

Wang et al. (2023) employed a mixed-methods approach to identify potential attributes of emergent teacher leadership among pre-service teachers with higher levels of reflection, particularly within the Chinese context. The study utilized quantitative methods to examine the depth of reflection among pre-service teachers and selected the top 10% with higher reflection levels for further qualitative analysis. This approach identifies five key attributes of emergent teacher leadership and how these attributes contribute to professional development. The findings align with Leader-Member Exchange Theory in Martin et al. (2018), which emphasizes the quality of relationships between leaders and followers and their impact on leadership development. However, the theoretical gap here is the lack of longitudinal data on how early leadership opportunities and reflective practices influence long-term leadership development and career outcomes. Methodologically, while the mixed-methods approach provides valuable insights into the attributes of emergent leadership, incorporating longitudinal data could enhance understanding of how these attributes evolve over time and impact long-term professional growth.

The synthesis also examines the link between transformational leadership and the socio-emotional and moral competencies of future educators. Álamo and Falla (2023) utilized quantitative surveys to investigate how transformational leadership correlates with competencies

such as self-control, social awareness, and responsible decision-making. However, theoretical gaps persist in identifying specific socio-emotional and moral competencies that directly contribute to effective leadership. Methodologically, while the study's quantitative approach provides valuable data, it limits the ability to explore the development of these competencies over time and their dynamic relationship with leadership effectiveness.

Further, Meirink et al. (2020) conducted a descriptive, exploratory study using a combination of surveys and interviews to examine the leadership opportunities for beginning teachers within an alternative certification program. The research included 12 beginning teachers working at 11 different secondary schools across the Netherlands and 11 school management staff members (e.g., principals, administrators, and heads of departments). This design aimed to provide a nuanced understanding of the leadership roles beginning teachers could enact and how these roles are perceived by school management. Theoretical gaps identified include a lack of exploration into how leadership curricula influence practical application. Methodologically, while the study offers valuable insights into the early leadership experiences of beginning teachers, incorporating experimental designs could enhance the assessment of specific leadership interventions and their effectiveness in teacher education programs.

Studies by Chaaban and Sawalhi (2020) explored the development of teacher leadership during the practicum experience using qualitative methods, including pre/post interviews, weekly journals, mid- and post-reflective essays, classroom observations, and multiple assignments. Their research identified two distinct pathways to leadership development, influenced by the presence or absence of supportive factors, and revealed divergent teacher leadership identities and views among pre-service teachers. Theoretical gaps identified include the need for more comprehensive frameworks to capture the nuanced development of leadership during practicum experiences. Methodologically, while the qualitative approach provides rich insights into the development of teacher leadership, incorporating longitudinal and mixed-methods approaches could enhance understanding of the long-term impact and evolution of leadership skills throughout the practicum. Overall, the exploration of pre-service teacher leadership has illuminated several critical aspects in teacher education and development. The collective findings from these studies emphasize the versatile nature of pre-service teacher leadership and its long-term implications. Addressing both theoretical and methodological gaps such as the need for longitudinal and diverse studies, as well as comprehensive frameworks, will enhance our understanding of how pre-service teacher leadership can be effectively fostered and integrated.

METHODOLOGY

This research employed a two-stage process to address the research questions. The first stage involved conducting a systematic literature review to gather relevant studies, followed by the second stage, which focused on concept analysis of "pre-service teacher leadership" using Walker and Avant's (2005) methodology.

Stage 1. Conducting the literature review

The literature review was guided by conceptual and practical challenges in pre-service teacher leadership research, which shaped the inclusion and exclusion criteria. Following Xu and Patmor (2012), the criteria were based on empirical findings and the elements of pre-service teacher

leadership, ensuring that only relevant studies were included (see Table 1). The search strategy used Boolean operators and synonyms to broaden the scope of the database search. The key terms "pre-service teacher leadership" were used along with related terms like "future teacher leadership," "teacher preparation leadership," and "teacher candidate leadership." Boolean operators such as AND, OR, and NOT were applied to refine the search. For example, "pre-service teacher leadership" AND "teacher education" AND "leadership development" were used to focus on studies relevant to leadership in teacher preparation programs. The search was conducted in the Scopus and Web of Science (WoS) databases, and only English-language articles published between 1995 and 2024 were considered. This time frame was chosen because it aligns with the concept of research maturity described by Kraus et al. (2020). Over the past decade, numerous opportunities have emerged to conduct comparative studies and explore identifiable patterns and trends related to leadership attributes (Agustina et al., 2024). The initial search yielded 382 articles from Web of Science and 351 items from Scopus.

After identifying the articles, data extraction was performed systematically. Duplicate studies were identified and removed to ensure that each unique study was only counted once. This was done by comparing the title, authors, and publication details of articles across both databases. Any studies that appeared in both the Web of Science and Scopus databases were removed to avoid redundancy in the analysis. This step reduced the total number of articles for review.

After removing duplicates, inclusion and exclusion criteria (Table 1) are established during the screening phase, which is used to choose articles that suit the focus of the paper (Shaffril et al., 2020). Only studies that focused on empirical findings with participants who were pre-service teachers at the teacher preparation stage were included. Following this, the abstracts were reviewed, and 710 articles that did not meet the criteria were excluded. This left a final sample of 23 articles that met the inclusion criteria and offered substantial empirical insights into pre-service teacher leadership for full review and synthesis. The synthesis of these articles involved identifying recurring themes, concepts, and models of pre-service teacher leadership. The data were organized and analyzed to understand the common elements and frameworks discussed in the literature.

TABLE 1. The Inclusion And Exclusion Criteria For Literature Review

Inclusive criteria	Exclusive criteria
• Empirically based findings; literature must report the findings of empirical studies	• Exclude purely descriptive pieces
• Participants are pre-service teachers in teacher preparation programs.	• Exclude studies about public or private school teachers; principals or school administration leadership
• Pre-service teachers at the preparation stage, not employed at schools	• Exclude studies focusing on in-service teachers
• Pre-service teacher leadership is the primary subject	• Exclude studies that focus intentionally on general teacher leadership.
• Articles published in peer-reviewed journals, including open access, full-text articles	• Exclude studies without peer review

Stage 2. Concept analysis

The research applied concept analysis to clarify the meaning and application of "pre-service teacher leadership" within the context of teacher education. The method, based on Walker and Avant's (2005) framework, was chosen due to its effectiveness in examining abstract concepts in educational research, particularly when the goal is to define and refine an evolving idea like pre-service teacher leadership. Concept analysis is commonly used in fields like business studies and nursing science, making it well-suited to exploring pre-service teacher leadership. It is also used in

terminological analysis, allowing for the identification of a concept's key components, clarifying its significance, enhancing existing theory, and providing a primary definition.

Walker and Avant (2005) outlined six steps in the concept analysis process: selecting a concept, establishing the goals of the analysis, identifying the key attributes of the concept, choosing an appropriate model, drawing boundaries, and defining a case. For this research, "pre-service teacher leadership" was selected as the concept due to its emerging importance in teacher education and its relevance in preparing future educators for leadership roles. The goal was to establish a clear and operational definition of the concept to inform both academic inquiry and practical application in pre-service teacher education programs.

Following the six steps, the key attributes of pre-service teacher leadership were identified through a systematic literature review, revealing components such as professional leadership, data-driven decision-making, and fostering a collaborative culture. A model reflecting these attributes was chosen, and boundaries were drawn to differentiate pre-service teacher leadership from related concepts like in-service teacher leadership or school administration leadership. Real-world examples and case studies from the literature were incorporated to illustrate the concept in practice, offering a more concrete understanding of how pre-service teacher leadership manifests in educational settings.

This approach to concept analysis not only provided a theoretical foundation but also offered practical insights into how leadership development can be integrated into pre-service teacher education programs. By using this method, the research was able to define term usage idiosyncrasies and contribute to the broader understanding of pre-service teacher leadership in the field of teacher education.

Although this study systematically reviewed available literature, there are potential biases that may affect the findings (Büttner et al., 2020). One possible bias is related to publication selection, as only peer-reviewed English-language studies were included, potentially excluding valuable research in other languages or formats. Additionally, the reliance on abstracts during the initial filtering stage may have led to the exclusion of relevant studies that were misrepresented in their abstracts.

Another limitation is that the concept analysis is confined to the selected models and frameworks in the existing literature. This restriction might limit the generalizability of the findings across all contexts. Finally, while this study presents a foundation for pre-service teacher leadership, further empirical validation is required to ensure that the identified concepts are robust and applicable across different educational settings.

DEFINITION AND CONCEPT OF PRE-SERVICE TEACHER LEADERSHIP

Pre-service teacher leadership refers to the development and practice of leadership skills by individuals still in the process of completing their teacher preparation programs. According to Issah and Al-Hattami (2020), pre-service teacher leadership focuses on the proactive involvement of pre-service teachers in leadership roles and activities, even before they formally begin their careers as educators. This concept encompasses a wide range of actions and attributes that contribute to creating effective teaching and learning environments.

At its core, pre-service teacher leadership involves recognizing and nurturing leadership abilities within teachers-in-training. These abilities include influencing and motivating peers, engaging in reflective practice, and contributing to educational practices and policies. However,

Aliu and Kaçaniku (2023) highlight that pre-service teacher leadership extends beyond traditional teaching roles, encompassing collaboration, peer mentoring, and participation in school-based initiatives. These activities help shape future teachers' capacity to lead.

This concept can be understood through several dimensions. The first dimension is leadership development, which focuses on preparing future educators to take on leadership roles in schools. This includes fostering skills like initiative, decision-making, and the ability to drive change. According to Martínez-Mena et al. (2022), leadership development is often supported by structured programs and experiences that encourage pre-service teachers to take on responsibilities, participate in decision-making, and engage in professional growth.

Another key dimension is the capacity to influence and make an impact. Pre-service teacher leaders can influence their peers and positively contribute to the learning environment (Cavanagh & King, 2020). This may involve leading group projects, initiating discussions on best practices, or providing support to fellow trainees. Their leadership can enhance collaboration, improve teaching methods, and build a supportive learning community.

Pre-service teacher leadership is closely integrated into teacher education programs through coursework, field experiences, and extracurricular activities (Xiong et al., 2020). Programs may offer specific modules or activities to develop leadership skills, such as leading classroom discussions, participating in school committees, or mentoring peers. The goal is to ensure that pre-service teachers are prepared for leadership roles in their future careers.

Reflective practice is another essential aspect of pre-service teacher leadership. Pre-service teachers are encouraged to reflect on their leadership experiences and effectiveness. This continuous self-assessment, according to Hendriwanto (2021), helps them refine their leadership style, identify areas for improvement, and develop strategies for future leadership success.

In summary, pre-service teacher leadership is a comprehensive concept involving the development and application of leadership skills during teacher training. It includes leadership development, the capacity for influence, integration with education programs, and reflective practice. Through these aspects, teacher preparation programs aim to equip future educators with the skills needed to become effective leaders in their professional roles.

LEADERSHIP PREPARATION FOR PRE-SERVICE TEACHER

Pre-service teachers are currently in a critical phase of developing their pedagogy and educational philosophy. Buchanan et al. (2020) emphasize that pre-service teachers begin their careers as researchers, seeking to understand the nature of learning and reflecting on their methods as they navigate the existing educational systems and structures. Often, these aspiring teachers view teacher education as a set of tasks, expecting clear instructions from their educators that they can apply directly in the classroom. Pre-service teachers frequently engage in teacher education to determine the most effective course of action in their teaching journey. Supporting this, Liu et al. (2021) found that pre-service teachers' informatization teaching awareness, knowledge, skills, and high-level abilities generally improved through 18 weeks of teaching practice.

To address this, higher education institutions must provide a strong foundation rooted in research-based theory and practice, equipping pre-service teachers with the necessary tools to succeed. Belford et al. (2020) argues that leadership theories and foundational skills should be introduced early in teacher education programs to help cultivate leadership potential and foster change. In reality, prospective teacher students have latent leadership talent when unearthed in the

right way. This is supported by Issah and Al-Hattami (2020) who concluded that pre-service teachers have the potential to be teacher leaders but they are not always given the opportunity to show their leadership.

Although pre-service teachers in training institutions are often seen as inexperienced and lacking real-world responsibility, Aliu and Kaçaniku (2023) argue that factors like age and years of experience should not hinder the identification of teacher leaders. They assert that pre-service teachers possess energy, fresh insights, and enthusiasm, which can be harnessed positively to apply leadership values in education.

FUTURE TRENDS IN TEACHER LEADERSHIP

As educational landscapes continue to evolve in response to societal, technological, and pedagogical changes, Reznik (2020) suggests that future trends in teacher leadership are also emerging to address new challenges and opportunities within the field. These trends reflect a shift towards more collaborative, innovative, and data-driven approaches to leadership that aim to enhance teaching and learning outcomes. Understanding these trends is crucial for educators, policymakers, and stakeholders as they seek to prepare for and adapt to the changing dynamics of educational leadership.

INCREASED EMPHASIS ON COLLABORATIVE LEADERSHIP

One prominent trend in teacher leadership is the growing emphasis on collaborative leadership models. According to Vanschaik et al. (2020), traditional hierarchical leadership structures are increasingly being replaced by more inclusive and distributed approaches. Collaborative leadership involves shared decision-making, collective problem-solving, and the distribution of leadership responsibilities among educators (Jong et al., 2022). This trend aligns with Distributed Leadership Theory, which posits that leadership should be spread across various roles within the educational setting to leverage the expertise and perspectives of all members (Phillips et al., 2023). Collaborative leadership not only fosters a more supportive and cohesive school culture but also empowers teachers to take on leadership roles, contribute to school improvement initiatives, and engage in professional learning communities.

INTEGRATION OF TECHNOLOGY IN LEADERSHIP PRACTICES

The integration of technology into leadership practices represents another significant trend in the future of teacher leadership. Technological advancements offer new tools and platforms for enhancing communication, collaboration, and data analysis within educational settings (Dexter & Richardson, 2020). Digital platforms such as learning management systems, virtual collaboration tools, and data analytics software enable leaders to streamline administrative tasks, monitor student progress, and facilitate professional development. Major et al. (2021) argue that technology also supports innovative instructional practices and personalized learning experiences. Furthermore, ability to integrate technology into leadership will encourage teachers to apply technology in their tasks, supporting the broader trend of technological integration in educational leadership (Kassim et al., 2022). As educational technology continues to evolve, teacher leaders will increasingly need to adeptly navigate and integrate these tools to optimize teaching and learning environments.

FOCUS ON DATA-DRIVEN DECISION MAKING

Data-driven decision-making is becoming a central component of effective teacher leadership. The ability to analyze and interpret data related to student performance, instructional practices, and school operations is essential for making informed decisions that drive educational improvement (Prenger & Schildkamp, 2018). This trend is supported by the growing availability of data analytics tools and the emphasis on evidence-based practices in education. Teacher leaders are expected to utilize data to identify areas for improvement, set measurable goals, and evaluate the effectiveness of interventions. By leveraging data, Thomas et al. (2020) suggest that teacher leaders can make strategic decisions to enhance instructional quality, address equity issues, and support student success.

EMPHASIS ON EQUITY AND INCLUSION

Future trends in teacher leadership also highlight a strong focus on equity and inclusion within educational settings. As schools strive to address diverse student needs and reduce achievement gaps, teacher leaders are increasingly expected to champion equity initiatives and promote inclusive practices (Poekert et al., 2020). This trend involves developing and implementing strategies that ensure all students have access to high-quality education and support. Samuels (2018) suggests that teacher leaders play a critical role in advocating for diverse and equitable learning environments, addressing systemic biases, and fostering culturally responsive teaching practices. Therefore, emphasizing equity and inclusion helps create a more just and supportive educational experience for all students.

CONTINUED PROFESSIONAL DEVELOPMENT AND LIFELONG LEARNING

The importance of continuous professional development and lifelong learning is a prevailing trend in teacher leadership (Makuachukwu, 2023). As educational practices and technologies advance, teacher leaders are expected to engage in ongoing learning to stay current with new developments and enhance their leadership skills. Professional development opportunities such as workshops, conferences, and collaborative learning communities are essential for maintaining and expanding leadership competencies (Martínez-Mena et al., 2022). Lifelong learning fosters adaptability, innovation, and resilience among teacher leaders, enabling them to effectively navigate the complexities of modern education and lead their schools to success. Kutty (2022) further emphasizes that the culture of continuous learning highlights the learning process that has a positive impact on self-competence and career practices.

In conclusion, future trends in teacher leadership reflect a shift towards more collaborative, technology-integrated, data-driven, and equity-focused approaches. These trends highlight the evolving nature of educational leadership and the need for teacher leaders to embrace new practices and competencies. By understanding and adapting to these trends, educators and stakeholders can better prepare for the future of teacher leadership and contribute to the ongoing improvement of educational systems.

PRE-SERVICE TEACHER LEADERSHIP CONCEPTS AND MODEL

This section will discuss four concepts of teacher leadership identified in previous literature, which are (i) the Pre-service Teacher Preparation Model to Become Leaders by Bond (2011), (ii) the Pre-service Teacher Leadership Capacity and Commitment Model by Grossman & Richert (1996), (iii) the Teacher Leadership Model by Phelps (2008), and (iv) the New Teacher Leader Development Model by Wang et al. (2023).

Preservice Teacher Preparation Model to Become Leader by Bond (2011) is utilized in this study due to its focus on developing teacher leadership through a comprehensive, developmental approach. This model integrates essential knowledge, skills, and dispositions across all courses in a teacher preparation program, supporting pre-service teachers' growth through a constructivist process. Figure 1 shows the Model of Preparing Pre-Service Teachers to Become Leaders by Bond (2011).

Preservice Teacher Preparation Model Being The Leader by Bond (2011)

KNOWLEDGE
- Knowledge about self
- Knowledge of others
- Knowledge about school
- Knowledge about teaching

SKILLS
- Metacognitive skills in questions and reflections
- Interpersonal skills for collaboration and mentoring
- Leadership skill

CHARACTER
- Personality superior
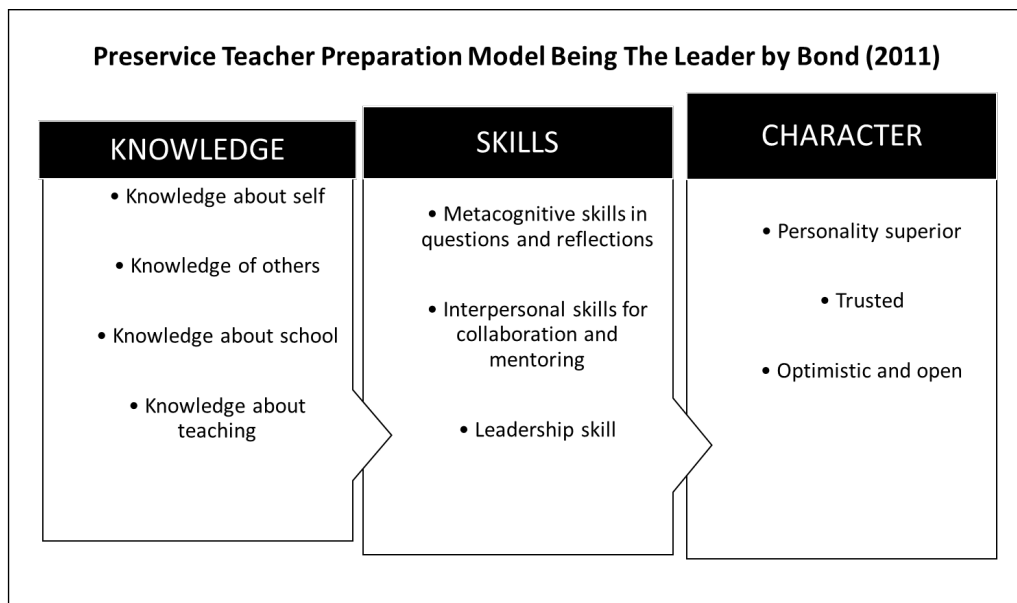- Trusted
- Optimistic and open

FIGURE 1. Preservice Teacher Preparation Model to Become Leader (Bond, 2011)

Figure 1 depicts Bond's model, which comprises three core components: (1) knowledge as a teacher leader, (2) skills as a teacher leader, and (3) character as a teacher leader. This framework is designed to infuse leadership training throughout undergraduate studies and in specific courses focused on leadership. Bond (2011) advocates for initiating leadership development early in the pre-service education phase, arguing that early exposure equips future teachers to assume significant leadership roles more effectively.

Pre-service Teacher Leadership Capacity and Commitment Model by Grossman and Richert (1996) emphasizes the need for teacher education programs to cultivate commitment, skills, and knowledge essential for teacher leadership. This model emerged from challenges faced in preparing novice teachers for leadership roles during professional development. It focuses on building leadership capacity and commitment through three core elements integrated into the pre-service curriculum: (i) commitment, (ii) knowledge, and (iii) skills required for effective leadership.
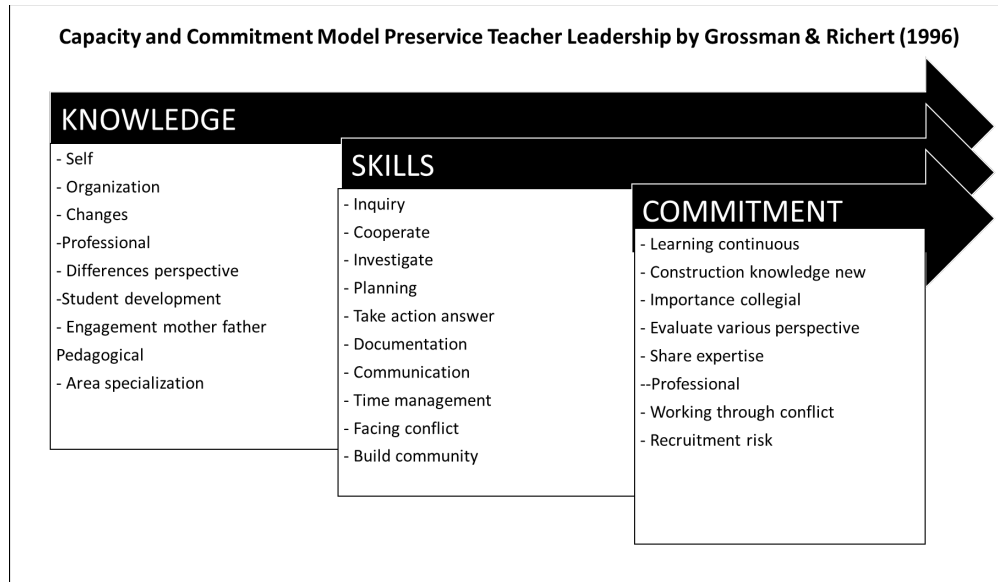
Capacity and Commitment Model Preservice Teacher Leadership by Grossman & Richert (1996)

KNOWLEDGE

- Self
- Organization
- Changes
-Professional
- Differences perspective
-Student development
- Engagement mother father
Pedagogical
- Area specialization

SKILLS

- Inquiry
- Cooperate
- Investigate
- Planning
- Take action answer
- Documentation
- Communication
- Time management
- Facing conflict
- Build community

COMMITMENT

- Learning continuous
- Construction knowledge new
- Importance collegial
- Evaluate various perspective
- Share expertise
--Professional
- Working through conflict
- Recruitment risk

FIGURE 2. Pre-service Teacher Leadership Capacity and Commitment Model (Grossman & Richert, 1996)

Figure 2 illustrates this model, which outlines commitments such as continuous learning, collegiality, valuing diverse perspectives, and risk-taking. These commitments are essential for teacher preparation and should be embedded within the teaching curriculum, rather than being taught in isolation. The model emphasizes that communication skills and collaborative abilities should be developed as part of the teaching process, allowing aspiring teachers to effectively work with colleagues and share leadership roles within schools.

Additionally, Grossman and Richert highlight the importance of self-knowledge and understanding the broader context of education, including the history and current proposals of school reform. Pre-service education should introduce key concepts about educational reform and school politics, helping teachers begin a journey of self-awareness and reflective practice, which are critical for future leadership.

Teacher Leadership Model of Essential Knowledge, Skills, and Character by Phelps (2008) emphasizes the need for teachers to assume leadership roles to enhance school improvement. This model outlines key aspects of teacher leadership and offers strategies for supporting teachers in these roles, highlighting essential knowledge, skills, and attitudes that can be developed during pre-service and in-service training.

Teacher Leadership Model Essential Knowledge , Skills, and Characters

KNOWLEDGE	SKILLS	CHARACTERS
• Change (process and principles) • Culture School • Proposed Reforms • Servant Leadership	• Advocacy • Empathy • Enquiry and answering • Creating Vision • Cooperate • Network network	• Recruitment Risk and Persistence • Challenge Services • Effectiveness • Endurance

FIGURE 3. Teacher Leadership Model of Essential Knowledge, Skills, and Character (Phelps, 2008)

Figure 3 illustrates the model, which includes several critical traits. The first trait is knowledge, focusing on understanding educational reform and school culture. Teacher leaders must grasp the change process and its implications for their practice, despite often encountering resistance to altering the existing school culture. This knowledge includes awareness of school reform initiatives and the principles of servant leadership.

The second trait encompasses skills such as networking, advocacy, empathy, questioning, vision creation, and collaboration. Teachers can develop these skills through practice, such as crafting vision statements, engaging in empathetic scenarios, and asking meaningful questions. Effective collaboration is fostered through team activities, and recognizing and supporting proactive teachers can encourage leadership development. Administrators are encouraged to create opportunities for teachers to lead discussions and study groups to cultivate an inquiry-based culture. The final trait involves characteristics such as efficacy, resilience, risk-taking, and persistence. Teacher leaders should be recognized for their willingness to take risks and demonstrate resilience. Building a supportive environment where teachers feel comfortable experimenting and making mistakes can enhance their leadership qualities. Encouraging risk-taking and resilience in teachers contributes to creating a more robust school culture.

Overall, Phelps' model provides a framework for developing teacher leaders through targeted professional education and development activities, aiming to improve both individual teacher capabilities and the broader educational environment.

New Teacher Leader Development Model by Wang et al. (2023) underscores the significance of reflection in nurturing teacher leadership among pre-service teachers in China. The model highlights that ongoing reflective practice is essential for professional growth and enhances teaching effectiveness. According to the study, pre-service teachers who engage deeply in reflective activities are better positioned to influence others positively and maintain strong interpersonal relationships.
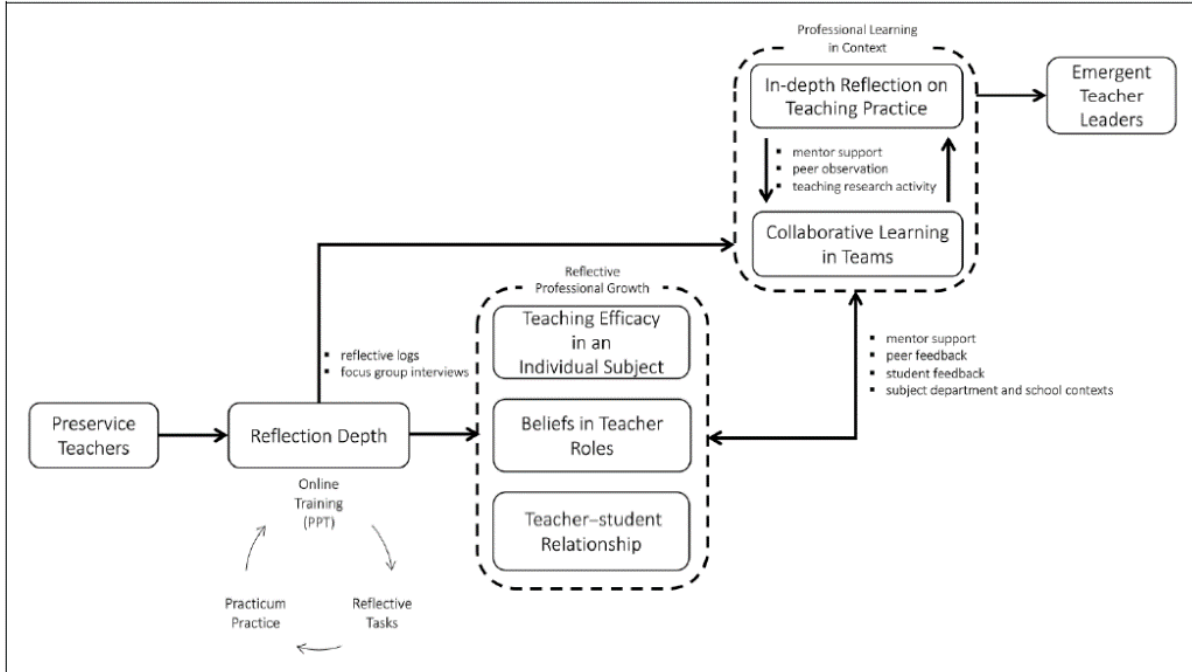
FIGURE 4. New Teacher Leader Development Model (Wang et al., 2023)

The New Teacher Leader Development Model by Wang et al. (2023) underscores the significance of reflection in nurturing teacher leadership among pre-service teachers in China. The model highlights that ongoing reflective practice is essential for professional growth and enhances teaching effectiveness. According to the study, pre-service teachers who engage deeply in reflective activities are better positioned to influence others positively and maintain strong interpersonal relationships.

The model identifies three critical factors for cultivating teacher leadership. First, teaching effectiveness is emphasized; pre-service teachers who demonstrate competence in teaching various subjects and achieving learning objectives show higher self-efficacy and are more likely to succeed in their roles. Second, the perception of the teaching role is crucial. Teachers who view themselves as leaders within the classroom are more inclined to assume additional responsibilities, which supports their development as leaders. Third, maintaining positive teacher-student relationships is highlighted as essential for fostering adaptable and innovative teaching practices. Effective interactions with students contribute to a teacher's sense of efficacy and leadership potential.

Additionally, the model suggests that team-based collaborative learning can play a significant role in leadership development. Activities such as peer recognition, feedback, and mentorship contribute to improved teaching quality and reflective practice. Collaborative learning environments, including peer observation and mentorship during professional development, support pre-service teachers in enhancing their reflective abilities and pedagogical skills. Wang et al. (2023) argue that critical reflection, supported by collaborative learning, is crucial for developing pre-service teachers' leadership capacities and advancing their early professional development.

FINDINGS BASED ON PREVIOUS STUDY

This study identifies six key aspects of pre-service teacher leadership from a review of four leadership models as shown in Table 2 below. These aspects are crucial for developing effective educational leaders.

Firstly, professional leadership emphasizes ethical decision-making, accountability, and continuous improvement. All models reviewed underscore this aspect as fundamental in shaping competent leaders. Secondly, setting direction involves establishing clear goals, articulating a vision, and guiding others toward shared objectives. This aspect is consistently highlighted across all models, reflecting its core role in leadership development. Thirdly, data-driven decision-making, which focuses on using data to inform decisions and enhance instructional methods, is prominently featured in Wang et al. (2023). Its absence in earlier models suggests a growing need to integrate data literacy into leadership frameworks. The fourth aspect, valuing diversity, involves addressing the diverse needs of students and staff to promote inclusive practices. While several models include this aspect, its inconsistent presence indicates an evolving focus on diversity in leadership. The fifth aspect, respecting stakeholder consensus, underscores the importance of considering various perspectives and engaging in collaboration. This aspect is universally present across all models, highlighting its significance in effective leadership. Lastly, fostering collaboration emphasizes creating a culture of teamwork and shared responsibility, which is crucial for driving innovation and improving educational outcomes.

TABLE 2. Summary Of Common Aspects Identified In Previous Concepts And Models

Aspects	Pre-service Teacher Preparation Model to Become Leaders by Bond (2011)	Pre-service Teacher Leadership Capacity and Commitment Model by Grossman & Richert (1996)	Teacher Leadership Model by Phelps (2008)	New Teacher Leader Development Model by Wang, Ko and Qian (2023)
(i) Leadership practices that strive for professional leadership	√	√	√	√
(ii) Leadership practices that set the direction	√	√	√	√
(iii) Leadership practices that enhance data use				√
(iv) Leadership practices that value diversity		√	√	
(v) The practices of leadership that foster stakeholder consensus	√	√	√	√
(vi) Leadership practices that develop self-competence	√	√	√	√

Table 2 shows that while aspects like professional leadership, setting direction, and fostering collaboration are universally present, others such as data-driven decision-making and valuing diversity are less consistently represented. Data-driven decision-making, highlighted in the New Teacher Leader Development Model by Wang et al. (2023), reflects a recent focus on integrating data into leadership roles. The variability in including diversity suggests differing

priorities across models. These insights point to areas for further development, emphasizing the need to update leadership preparation models to align with evolving educational demands.

DISCUSSION

Based on the review of four pre-service teacher leadership concepts and models, six common aspects of pre-service teacher leadership have been identified as crucial for developing leadership qualities in future educators. These aspects are essential for shaping pre-service teachers into effective leaders capable of navigating the complexities of contemporary educational environments (Arwildayanto et al., 2023). The synthesis of these aspects reveals both foundational consistencies and notable gaps across the reviewed models. The universal emphasis on professional leadership, setting direction, and fostering collaboration underscores their central role in leadership development. These elements reflect a broad consensus on the essential qualities and skills required for effective leadership, highlighting their integral role in a robust leadership framework.

However, the analysis also highlights several important gaps and areas for further exploration. For instance, the aspect of enriching data practices is prominently featured only in the New Teacher Leader Development Model by Wang et al. (2023). This indicates a shift towards incorporating data-driven decision-making in leadership roles, responding to increasing demands for accountability and evidence-based practices in education. The absence of this aspect in earlier models suggests a lag in the integration of data literacy into leadership training. Henderson and Corry (2021) emphasize the need for updating leadership frameworks to integrate data literacy and address contemporary challenges in educational settings.

Similarly, the aspect of valuing diversity is inconsistently represented across the models. While frameworks such as the Pre-Service Teacher Leadership Capacity and Commitment Model by Grossman and Richert (1996) and the Teacher Leadership Model by Phelps (2008) incorporate this aspect, its absence in other models reflects a variable emphasis on inclusivity and equitable practices in leadership preparation. This variability highlights the ongoing need for leadership models to explicitly address how leaders can effectively engage with and support diverse student populations and communities. Stanley and Gilzene (2023) suggest that a model for responsible community engagement for educational leaders should include listening, engaging, advocating, and partnering with community-based assets to improve outcomes for historically disenfranchised students. In an evolving educational context, a more uniform integration of diversity and inclusivity into leadership training is essential for equipping future leaders to manage and support diverse educational environments. Gómez-hurtado et al. (2021) support this by asserting that leaders in schools should promote inclusive collaborative cultures, focus on pupils' knowledge and cultural capital, and develop strategies based on recognition and participation within the educational community.

Another aspect involves the practice of leadership that respects the consensus of stakeholders. Effective leadership in education necessitates collaboration and consensus-building among various stakeholders, including students, parents, colleagues, and the community. Bond (2011) and Wang et al. (2023) stress the importance of pre-service teachers developing skills in participatory decision-making and stakeholder engagement. A study by Ghamrawi et al. (2023) found that there is a need for stronger policy and practice alignment among stakeholders in teacher education, shaped by collective input regarding what constitutes quality in schooling and teaching. By respecting the consensus of stakeholders, pre-service teachers ensure that their leadership

practices are democratic, transparent, and reflective of the collective needs and aspirations of the school community.

The broader implications of these findings suggest that while certain leadership practices such as professional leadership, setting direction, and fostering stakeholder consensus are widely accepted and emphasized, others, like data practices and valuing diversity, are emerging trends that require further attention. The consistency of foundational aspects across the models suggests a stable core in leadership preparation. However, addressing gaps related to data use and diversity points to areas where existing models can be strengthened to reflect contemporary educational priorities. Enriching leadership practices with data is crucial for informed decision-making. By integrating data into their leadership practices, pre-service teachers can make evidence-based decisions, identify areas for improvement, and measure the impact of their interventions. Prestigiacomo et al. (2020) confirm that a deeper understanding of teachers' perspectives on data as evidence is required to improve student educational outcomes. This data-driven approach ensures that future educators are reflective practitioners and effective leaders.

Furthermore, valuing diversity is an essential component of inclusive leadership. Pre-service teachers must be trained to recognize and embrace the diverse backgrounds, cultures, and perspectives of their students. This aspect advocates for the development of culturally responsive teaching practices. The findings of Sunthonkanokpong and Murphy (2020) indicate that pre-service teachers experience the highest anxiety when teaching students who are diverse in terms of resources, mental, physical, and learning disabilities, underscoring the role of higher education in preparing teachers for various contexts. By valuing diversity, pre-service teachers can create inclusive learning environments that respect and celebrate differences, thereby fostering equity and social justice in education. Alsen and Buss (2022) concluded that when pre-service teachers develop critical awareness, they become more capable of acting as teachers who are responsive to diversity and can cultivate a culturally responsive pedagogical mindset in collaboration with stakeholders.

Counterarguments may arise regarding the feasibility of uniformly integrating all identified aspects into leadership models. Some might argue that placing too much emphasis on emerging trends, such as data literacy and diversity, could overshadow foundational leadership practices like professional competence and setting direction. However, it is essential to recognize that effective leadership in education requires a balance between established practices and the ability to adapt to new challenges (Ibeawuchi et al., 2021). Ensuring that leadership models are both comprehensive and flexible will better prepare pre-service teachers to lead effectively in a rapidly changing educational landscape.

In conclusion, the findings underscore the importance of continuously evolving pre-service teacher leadership models to address both enduring and emerging challenges in education. By addressing identified gaps particularly in areas like data practices and valuing diversity future frameworks can better prepare pre-service teachers to assume leadership roles and drive positive change in their educational contexts. This approach will ensure that leadership training remains relevant, forward-looking, and capable of equipping future educators with the skills needed for effective leadership.

IMPLICATIONS FOR FURTHER RESEARCH AND PRACTICE

The findings provide key insights into integrating pre-service teacher leadership into theory, practice, and policy. They identify six crucial aspects of pre-service teacher leadership: professional empowerment, direction setting, data enrichment, diversity, stakeholder consensus, and self-competence. However, research gaps include the need for cross-context validation, longitudinal studies on the impact of leadership training, and consideration of contextual factors like cultural and socio-economic variables.

Future research should focus on validating these aspects in various educational contexts and conducting longitudinal studies to assess the long-term effects of leadership training. Exploring how contextual factors influence leadership development will also enhance theoretical models and their applicability.

In practice, incorporating these aspects into teacher education curricula will better prepare pre-service teachers for leadership roles, improving their ability to drive educational outcomes and foster change. Professional development should emphasize leadership skills, data-driven decision-making, and collaboration.

Policy-wise, there should be a systematic integration of leadership development into teacher education standards and accreditation processes. Education policies must mandate leadership training in pre-service programs and support ongoing professional development to address evolving needs. This approach will ensure that leadership training remains relevant and effective across diverse educational settings.

CONCLUSION

This concept paper has thoroughly explored pre-service teacher leadership, drawing insights from existing concepts and models in the field. Through a review of four prominent frameworks, six fundamental aspects of pre-service teacher leadership were identified. These aspects serve as foundational pillars for empowering future educators with the skills, competencies, and dispositions needed to thrive in leadership roles. By focusing on futuristic leadership, direction-setting, data enrichment, valuing diversity, stakeholder consensus, and collaborative culture, teacher education programs can effectively prepare pre-service teachers for leadership. This paper sets the groundwork for designing and implementing such programs and calls for further research to refine and operationalize the proposed concept of pre-service teacher leadership. Future research should also explore how leadership development impacts educational outcomes and how to best integrate leadership training into teacher education curricula.

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