Methodological and Contextual Trends of Teacher Leadership and its Conceptualization: A Systematic Literature Review (2018-2022)

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Abstract
Despite decades of research on teacher leadership, its definition remains marked by significant conceptual and operational disagreements. To systematically update the latest developments and research trends in this field, this literature review employed the Scopus and ScienceDirect databases to analyze 80 empirical studies published between 2018 and 2022 that met predefined criteria. Following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) screening procedure, a detailed examination was conducted on the research contexts, methodological approaches, and definitions of teacher leadership. The findings revealed that the overall growth rate has been relatively slow between 2018 and 2022, with most studies utilizing qualitative research methods. Currently, teacher leadership research focuses primarily on K-12 teacher populations in North America and Asia. Notably, teacher leadership is conceptualized as a complex and multidimensional construct, and its definitions remain conceptual and operationally unharmonized, influenced mainly by the specific context and school culture of each study.
Keywords: Teacher Leadership, Teacher Leaders, Systematic Literature Review, Methodological Patterns, Educational Leadership

Introduction
    In recent years, teacher leadership has emerged as a prominent leadership model in education, particularly against the backdrop of global education reforms and decentralization trends (Gümüş et al., 2022; Pan et al., 2023; Schott et al., 2020). Especially in driving systemic school reform processes, encouraging teachers to take on formal or informal leadership roles can effectively reduce the administrative burden on school leaders and improve the overall quality and sustainability of teachers' work (Friesen & Brown, 2022; Li & Liu, 2022; Pan & Chen, 2021). Considerable literature highlights the crucial role of effective teacher leadership, which extends beyond the classroom to improve the quality of instruction and the education system as a whole (Bellibaş et al., 2020; Cassata & Allensworth, 2021). Several literature reviews focused on conceptual definitions of teacher leadership, evidence, patterns, levels of

preparation and practice, influences, and factors that have promoted and challenged teacher leadership over the past several decades, providing valuable insights for future researchers (Nguyen et al., 2019; Wenner & Campbell, 2017; York-Barr & Duke, 2004). Although previous studies have examined the qualities, implementation processes, developmental strategies, and positive impacts of teacher leadership in various conceptual frameworks (Nguyen et al., 2019; Pineda et al., 2020), a definitive consensus on the definition and nature of teacher leadership has yet to be established globally within the educational field (Liu, 2021; Wenner & Campbell, 2017). Moreover, it is essential to update and synthesize the latest research findings to address ongoing changes in the educational landscape and to identify emerging research trends (Pan et al., 2023). In this context, the current review aims to identify research contexts and methodological patterns of teacher leadership from selected studies, summarizing the conceptual definitions, themes, and characteristics of teacher leadership to highlight the latest trends in the field.

This research review conducts a Systematic Literature Review on teacher leadership to identify the latest research trends. It addresses the following two primary research questions:
    i) What are the contextual and methodological patterns of teacher leadership in existing research?
    ii) How is teacher leadership being conceptualized in existing research?

By assessing and addressing these issues using standardized quality assessment criteria, the review provides a comprehensive overview of current trends in teacher leadership research, reveals gaps in future research that need to be filled, and offers valuable insights.

Methodology
A systematic literature review (SLR) is a comprehensive methodology that systematically collects literature relevant to a specific research topic in a transparent and reproducible manner (Lame, 2019; Shaffril et al., 2021). It offers a thorough and detailed synthesis of the existing evidence on a given subject (Snyder, 2019). Conducting an SLR facilitates an in-depth evaluation and documentation of the current state of knowledge regarding a particular area of inquiry (Shaffril et al., 2021; Snyder, 2019). Unlike conventional review methods, SLR treats the literature review as a methodical scientific process that generates reliable empirical evidence by employing a transparent and systematic approach, thereby minimizing bias in the selection and inclusion criteria (Lame, 2019; Snyder, 2019).

This research review is conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) screening process. PRISMA offers a standardized framework with logical, replicable, and transparent steps to identify all significant publications (Nagtegaal et al., 2019). As shown in Figure 1, the review process comprises three key stages: identification, screening, and eligibility. In the identification stage, electronic databases are searched using specific keywords to find literature pertinent to the research topic for potential inclusion. The screening phase involves carefully evaluating the collected articles against established inclusion and exclusion criteria to assess their eligibility for the final review. During the eligibility stage, article titles and abstracts are reviewed for relevant keywords or connections to the research topic, followed by a comprehensive reading of the articles to determine which ones are ultimately suitable for inclusion in the systematic review.

Stage One: Identification

To identify relevant studies for this review, two digital databases: Scopus and ScienceDirect were utilized, both known for hosting high-quality, well-cited, and peer-reviewed educational journals (Hallinger & Kulophas, 2020). A comprehensive search using the terms "teacher leadership" OR "teacher leader" OR "teacher leaders" was conducted within these databases, with the search parameters defaulting to titles, abstracts, and keywords. This process yielded 1,641 resources from Scopus and 85 from ScienceDirect (Figure 1).
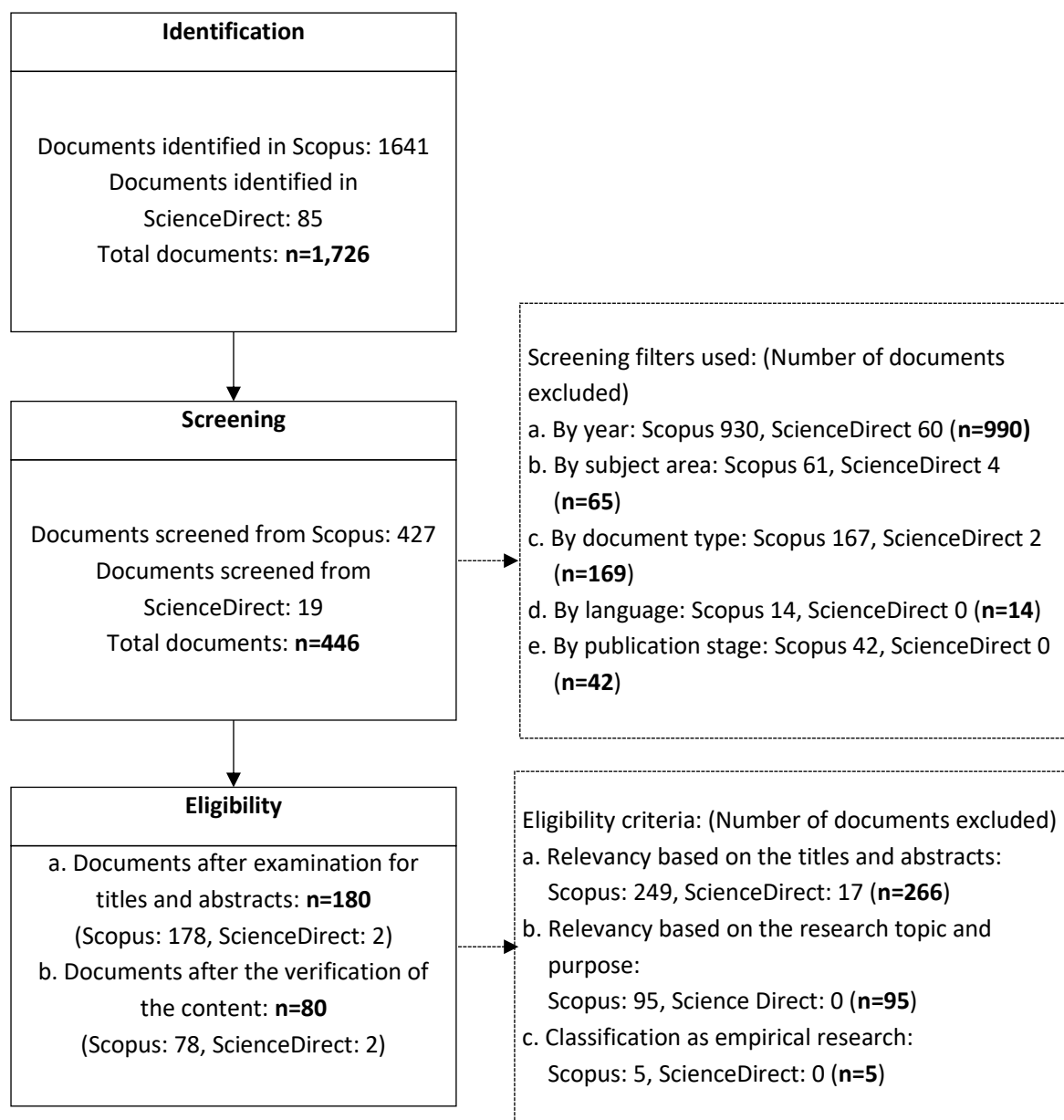
Identification

Documents identified in Scopus: 1641
Documents identified in ScienceDirect: 85
Total documents: **n=1,726**

Screening

Documents screened from Scopus: 427
Documents screened from ScienceDirect: 19
Total documents: **n=446**

Screening filters used: (Number of documents excluded)
a. By year: Scopus 930, ScienceDirect 60 (**n=990**)
b. By subject area: Scopus 61, ScienceDirect 4 (**n=65**)
c. By document type: Scopus 167, ScienceDirect 2 (**n=169**)
d. By language: Scopus 14, ScienceDirect 0 (**n=14**)
e. By publication stage: Scopus 42, ScienceDirect 0 (**n=42**)

Eligibility

a. Documents after examination for titles and abstracts: **n=180**
(Scopus: 178, ScienceDirect: 2)
b. Documents after the verification of the content: **n=80**
(Scopus: 78, ScienceDirect: 2)

Eligibility criteria: (Number of documents excluded)
a. Relevancy based on the titles and abstracts: Scopus: 249, ScienceDirect: 17 (**n=266**)
b. Relevancy based on the research topic and purpose: Scopus: 95, Science Direct: 0 (**n=95**)
c. Classification as empirical research: Scopus: 5, ScienceDirect: 0 (**n=5**)

Figure 1: *Selection Process of the Studies of Teacher Leadership for Analysis*

Stage Two: Screening

At this stage, 1726 documents from the Scopus (=1641) and ScienceDirect (=85) databases were scoped and iteratively screened. To accurately capture the latest trends in teacher

leadership research, the period was defined as 2018 to 2022. During the first iteration, 990 papers published before 2018 were excluded from Scopus (n=930) and ScienceDirect (n=60), resulting in 736 remaining papers. The second iteration narrowed the focus to the social sciences, eliminating an additional 65 papers from Scopus (n=61) and ScienceDirect (n=4), yielding 671 papers. The next iteration restricted the document type to articles, excluding 169 works— from Scopus (n=167) and ScienceDirect (n=2), bringing the total down to 502 articles. After filtering for language, 14 articles were excluded from Scopus (n=14) and none from ScienceDirect, resulting in 488 articles retained. Finally, as part of the preparation for publication, 42 articles were excluded from Scopus (n=42) and none from ScienceDirect, leaving a total of 446 articles (Figure 1).

Stage Three: Eligibility

At this point, the 446 publications' titles and abstracts were examined to weed out any that had titles that did not correspond with the research topic or abstract claims that were unrelated. A total of 266 articles from Scopus (n=249) and ScienceDirect (n=17) were deleted because, among other things, some articles refer to "teacher leaders" or "teacher leadership," but the abstracts specify authentic leadership for principals, distributed leadership, transformational leadership, teacher entrepreneurship, teacher curriculum, and religious beliefs. The researcher further examined the text of the 180 eligible publications to verify that their focus was directly pertinent to teacher leadership, resulting in the exclusion of 95 articles from Scopus (n=95) and none from ScienceDirect. Following the selection of these studies for empirical investigation, five articles were excluded from Scopus (n=5), whereas none were excluded from ScienceDirect. In other words, 80 eligible studies were ultimately included for final analysis (Figure 1).

Results

The 80 articles were subsequently classified and assessed based on publication year, research approach, geographical coverage, and educational context. According to Figure 2, which displays the number of publications with review eligibility from 2018 to 2022, 19 were published in 2018, 17 in 2019, and 16 in 2020 in the Scopus database. In 2021, the number of published papers diminished to 10, but the number of published articles rose to 16 in 2022. Conversely, a solitary article was published in each of the years 2021 and 2022 within the ScienceDirect database. The pattern of research articles during the past five years is consistent and dynamic.
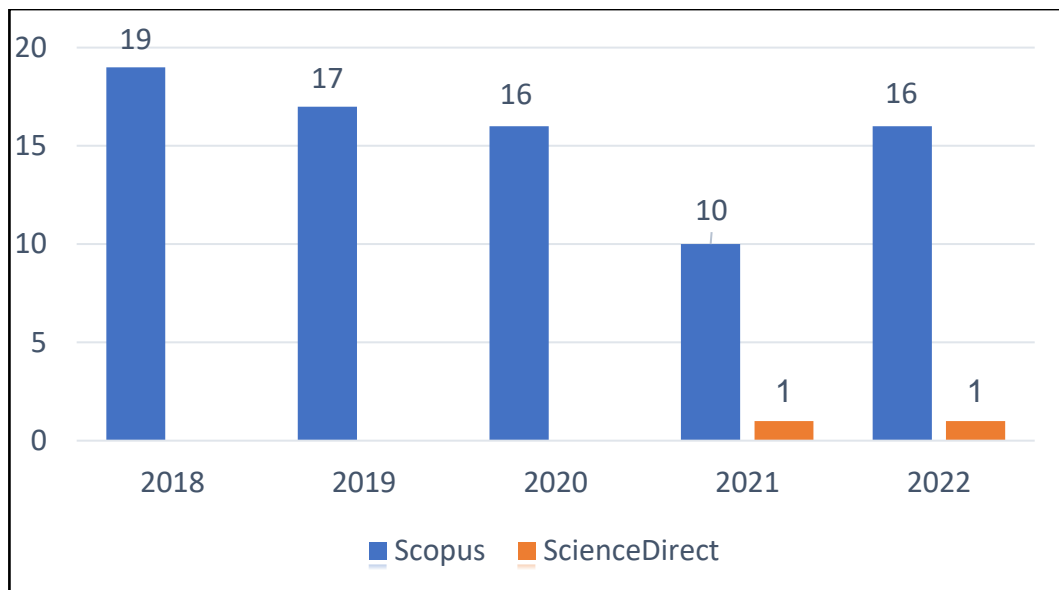
Figure 2: *Distribution of Articles by Publication Year*

Figure 3 presents a comparison of the research methods used in the articles. The Scopus database contains 44 qualitative research publications and 24 quantitative research articles. Ten further articles employed mixed research methodologies. Only two papers in the ScienceDirect database adhered to the qualitative research methodology. The qualitative research paradigm has prevailed in teacher leadership publications in recent years. Furthermore, Table 1 presents a comparison between the research designs featured in the current review with those in prior teacher leadership reviews, revealing an increase in the proportion of quantitative research and a decline in mixed methods research in recent years, whereas qualitative research remains the predominant study type in teacher leadership.
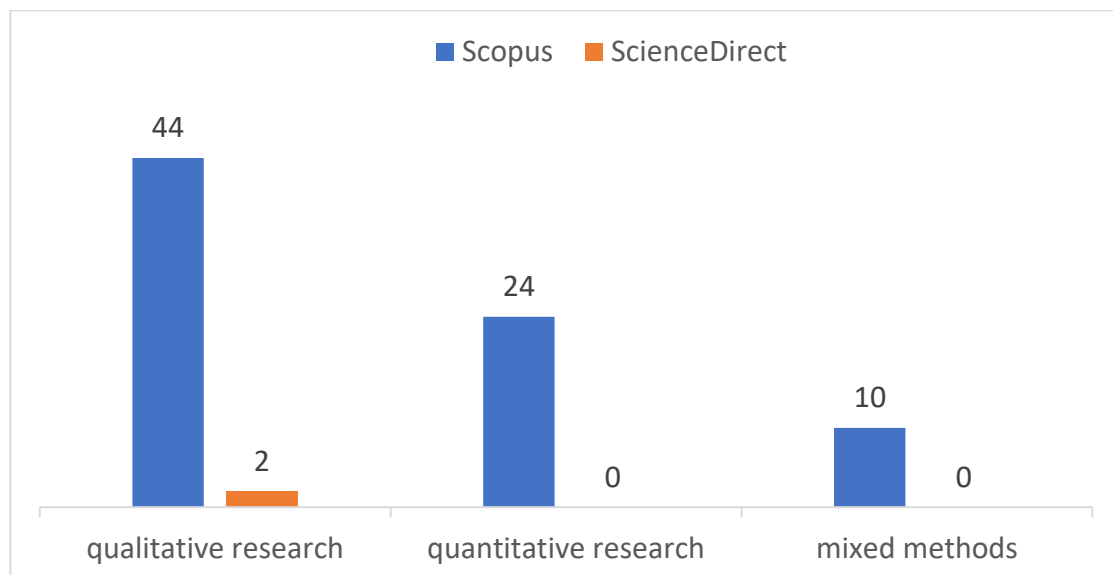

Figure 3: *Distribution of Articles by Research Approaches*

Table 1
Comparison of Research Designs

Authors	Years Reviewed	Qualitative Research	Quantitative Research	Mixed Research	Total
York-Barr & Duke, 2004	1980-2004	56% (19)	23% (8)	21% (7)	100% (34)
Wenner & Campbell, 2017	2004-2013	74% (60)	6% (3)	20% (20)	100% (83)
Nguyen et al., 2019	2003-2017	71% (106)	16% (24)	13% (20)	100% (150)
The present study	2018-2022	56% (44)	30% (24)	11% (10)	100% (80)

Regarding article distribution by geography, Figure 4 shows that the 80 review articles included in this study can be broadly categorized into ten key regions. In the Scopus database, North America, represented by the United States, contributed the highest number with 27 articles. East Asian countries, led by China, followed with 16 articles. Additionally, West Asia has 13 articles, and Europe has nine articles. Other regions published relatively few articles, including Africa (n=3), Southeast Asia (n=3), Oceania (n=2), South Asia (n=2), Central Asia (n=1), and South America (n=1). Notably, one cross-national study was among the eligible published articles. Whereas in the ScienceDirect database, there were two articles from Europe and Southeast Asia. Overall, the eligible articles for this review were primarily sourced from North America and Asia.
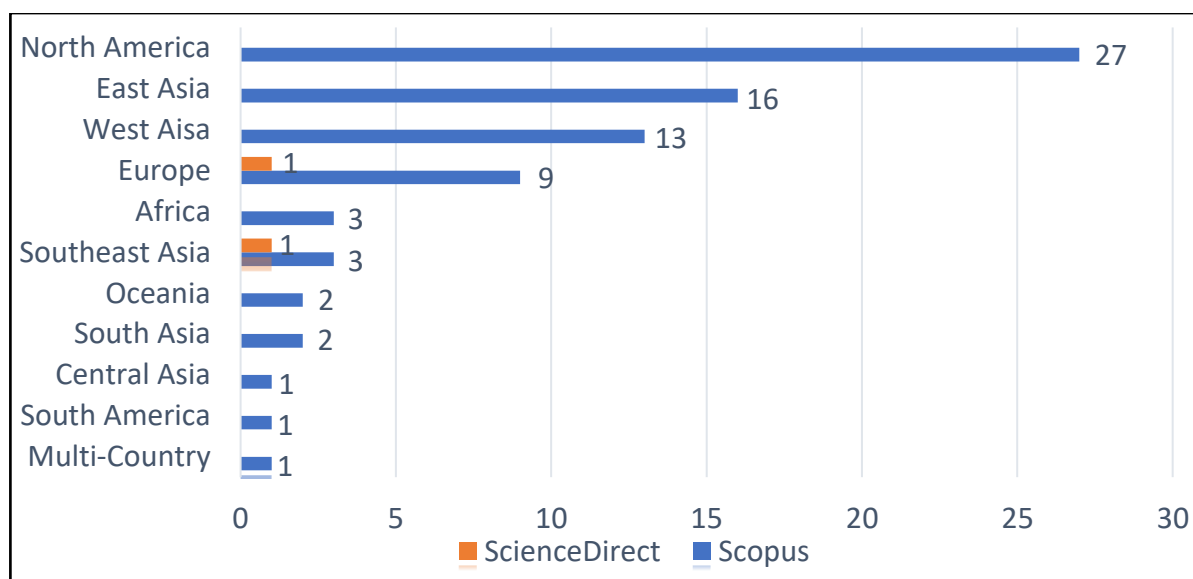

Figure 4: *Articles Based on Geographical Classification*

Additionally, Figure 5 illustrates distinct differences in the articles reviewed at the school level. Most studies in the Scopus database focused on teacher leadership at the K-12 level (n=57), compared to 11 empirical studies that examined teacher leadership in the higher education system. Seven empirical studies examined teacher leadership in a mixed school setting, and three investigated early childhood teacher leadership. In contrast, the two

empirical studies in the ScienceDirect database also centered on K-12 teacher leadership. Overall, it is evident that the predominant trend in international research on teacher leadership over the past five years has mainly been K-12-focused.

In summary, teacher leadership, as a contemporary model of decentralized school leadership, has garnered sustained attention worldwide. Researchers from various countries have undertaken diverse studies employing different methodologies, with qualitative research emerging as the most prevalent and significant empirical approach. These empirical studies encompass global contexts and address various countries, geographical regions, and school levels. Consequently, this review enhances the understanding of the recent developments and trends in teacher leadership research, offering essential references to inform future investigations.
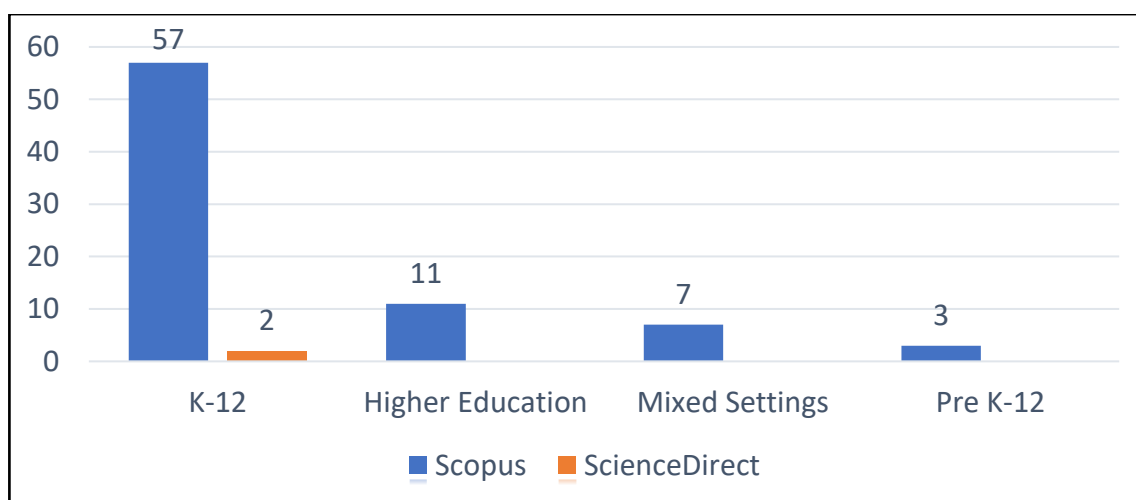

Figure 5: *Articles Based on School Level Classification*

Definition of Teacher Leadership

As noted in the prior research literature, the conceptual or operational definitions of teacher leadership remain ambiguous and diverse to date, despite unending scholarship on teacher leadership in recent decades (Harris & Jones, 2019; Wenner & Campbell, 2017; Nguyen et al., 2019; Schott et al., 2020; York-Barr & Duke, 2004). Indeed, the specific definition of teacher leadership is related to the school context and culture involved in local research (Cooper et al., 2016). The diversity of definitions for teacher leadership is further compounded by the fact that schools in different districts use varying terms for teacher leaders, including coaches, experts, backbone teachers, heads of department, or mentors (Neumerski, 2013; Wenner & Campbell, 2017).

Furthermore, another significant factor contributing to the inconsistency in the conceptual and operational definitions of teacher leadership is the evolving and expanding roles assigned to teacher leaders in schools in recent years, aimed at addressing the demands of school change (Pan et al., 2023). Scholars increasingly recognize that teacher leaders are not only capable of providing instructional leadership within the classroom but also play a crucial role beyond it, fostering a culture of collegiality and facilitating school change (Adams, 2013; Silva et al., 2000; York-Barr & Duke, 2004).

In accordance with the literature evaluations of York-Barr and Duke (2004), Wenner and Campbell (2017), and Nguyen et al. (2019) on teacher leadership, not all studies articulated or elucidated definitions pertinent to their research. Within the 80 empirical studies reviewed, 73% (n=58) failed to offer a specific definition of teacher leadership pertinent to their research; indeed, they are typically contentious or relied on comprehensive definitions posited by other scholars. According to Garg's (2020) research,

"There is little consensus around what constitutes 'teacher leadership'. It tends to be an umbrella term referring to a myriad of work" (Neumerski, 2013, p. 320). "The demarcation between teacher and teacher leader is often blurred as an academic leader is also expected to fulfil the regular duties of the teacher too. This lack of clarity proves to be a significant obstacle for contemporary researchers in synchronization of the research efforts towards a common and widely accepted finding." (p. 882)

Certain scholars adopted the definition of teacher leadership given by York-Barr and Duke (2004) in their research (Chen, 2022; Nickerson et al., 2018; Sawalhi & Chaaban, 2022; Shah, 2020). For example, in the study conducted by Chen (2022), the author clearly emphasized that

"We adopted the definition of York-Barr and Duke (2004), 'the process by which teachers, individually or collectively, influence their colleagues, principals, and other members of school communities to improve teaching and learning practices with the aim of increased student learning and achievement (pp.287–288)', as it provides a more parsimonious and precise construct of teacher leadership along with its multi-dimensionality."

There are merely 27% (n=22) of the studies clearly defined the concept of teacher leadership pertinent to their research. For instance, Oppi et al. (2022) integrated the perspectives of Fairman and Mackenzie (2015), Frost (2008), and Margolis and Huggins (2012) and provided a precise definition of teacher leadership:

"Teacher leadership is defined as a process through which teachers, in formal and informal positions, individually or collectively support their colleagues' professional development, improving teaching and learning practices to enhance student learning." (p.82)

These definitions systematize the conceptualization, specificity, and impact of teacher leadership in many manners. Consequently, the current study identified these categories and determined that they can be classified into five overarching themes. Firstly, many academics perceive teacher leadership as an influential process rather than a distinct position or role (Netzer & Shoshani, 2019; Whitehead & Greenier, 2019; Xie et al., 2021; Zhang et al., 2022). Teacher leadership fundamentally involves establishing trust and collaboration among colleagues within and beyond the classroom, consequently impacting the instructional practice process (Gümüş et al., 2022). Douglass (2018) highlighted that teacher leadership encompasses the ability to effectuate change and enhancement within the educational system rather than merely occupying a formal leadership role. This influence transcends teachers' technically designated instructional tasks by cultivating exemplary pedagogy,

disseminating practices, and instigating change both within and beyond the classroom (Harris & Jones, 2019). Criswell et al (2018), contended that teacher leadership as a process encompasses several interactions that must be properly leveraged to achieve desired goals, particularly in enhancing student learning results. Teacher leadership is not confined to any organization or individual; instead, it is a dynamic, decentralized, expertise-driven, and collaborative impact process (Sharar & Nawab, 2020).

Secondly, teacher leadership can function within both formal and informal contexts. A consensus among scholars suggests that teacher leaders exercise their leadership roles through a variety of formal and informal positions, responsibilities, and frameworks integrated into the daily operations of the school (Oppi et al., 2022; York-Barr & Duke, 2004). Teachers may assume formal leadership roles within the school's organizational framework to facilitate improvement (Supovitz, 2018), or they may engage informally by interacting with students outside the classroom (e.g., Karabağ, 2019; Pineda et al., 2020; Whitehead & Greenier, 2019), mentoring colleagues to enhance instructional practices (e.g., Friesen & Brown, 2022; Oppi et al., 2022; Wang et al., 2020), training novice educators (e.g., Gilles et al., 2018; Sharar & Nawab, 2020), participating in school governance (e.g., Wang & Xia, 2022; Xie et al., 2021), or articulating a vision for school enhancement (e.g., Criswell et al., 2018; Lin et al., 2018). In recent years, the distinctions between the two models have diminished considerably due to the decentralization of school administration and the necessity for teacher leaders to assume greater responsibilities (Bellibaş et al., 2020). Sharar and Nawab (2020), indicated that, beyond exercising instructional leadership within the formal classroom, teacher leaders also possess informal leadership roles, including making instructional decisions, assisting novice teachers, directing school activities, and engaging with the surrounding community.

Thirdly, teacher leadership fosters establishing and maintaining a collaborative learning culture among peers. Harris and Muijs (2005), assert that teacher leadership encompasses the collaboration of all school community members, including teacher leaders, teachers, and non-teaching support staff, in the exchange of instructional techniques. Teacher leaders can enhance collaboration and teamwork among colleagues through reciprocal learning and foster a culture of trust within the school community, which is essential for school improvement (Adams, 2013; Devos et al., 2014; Liu, 2021; Pineda et al., 2020). In the literature examined for this study, "collaboration" is a fundamental term in the definition of teacher leadership. The advantages of teacher leaders collaborating with peers encompass, but are not confined to, the provision of additional educational resources and opportunities (e.g., Landa & Donaldson, 2022), the delivery of cognitive and emotional support (e.g., Nguyen & Ng, 2020), the establishment of trusting partnerships (e.g., Bellibaş et al., 2020; Zhang et al., 2022), the creation and innovation of a shared instructional vision (e.g., Criswell et al., 2018), and the enhancement of colleagues' instructional practices (e.g., Friesen & Brown, 2022; Jacobs & Crowell, 2018).

Xie et al (2021), assert that teacher leadership enhances the establishment and direction of effective group interactions, fosters a trusting cooperative environment, and cultivates collaborative teams inside educational institutions. Landa and Donaldson (2022), assert that teacher leaders enhance opportunities for both educators and students by disseminating instructional competence through collaborative learning with peers, hence augmenting

educational resources. Kaminskienė et al (2022), define teacher leadership as the meaningful collaboration of educators within their school's professional community to enhance their peers' instructional methodologies and elevate their learning environments, hence attaining improved classroom outcomes.

Fourthly, teacher leadership can facilitate teachers' professional growth effectively. The capacity of teacher leaders to assume responsibility for professional development is recognized as a crucial element of teacher leadership (Boylan, 2018; Poekert, 2012). This study reveals that most scholars concur that a fundamental duty of teacher leaders is to facilitate their colleagues' professional growth through the provision of more sustainable professional development activities (Friesen & Brown, 2022; Nguyen & Hunter, 2018; Oppi et al., 2022; Sharar & Nawab, 2020; Wang & Xia, 2022). These professional development activities encompass participation in seminars, scheduled conferences, webinars, and learning integrated into daily practices, including peer observation, mentoring, modeling, and collaborative investigation into teaching and learning (Chaaban et al., 2022; Nguyen & Ng, 2020).

For example, Oppi et al (2022), propose that when teacher leaders assume greater responsibility for school development programs and activities, they are more inclined to enhance the professional development of their peers, as these initiatives are founded on enduring collaborations and encompass innovative pedagogical practices and dialogues. Boylan (2018), concurs with this view, asserting that fostering teacher collaboration across schools can be effectively achieved by empowering teacher leaders to establish a knowledge network aimed at addressing instructional challenges, mobilizing educators from other institutions to participate in and utilize pedagogical innovations, and equipping them with resources to create and disseminate learning.

Additionally, Friesen and Brown (2022), assert that creating a professional learning community within schools is one of the most effective methods for enhancing continuous professional development and collaborative learning for teachers, in contrast to conventional teacher programs. Xie et al (2021), assert that teacher leaders ought to exemplify and promote the professional development of their peers by creating job-embedded, integrated, and differentiated learning opportunities tailored to their requirements. This aligns with York-Barr and Duke (2004), who highlighted that teacher leaders can effectively mediate for colleagues to enhance their professional knowledge, acquire more resources, and seek essential external assistance.

Fifthly, teacher leadership influences student success and school reform outcomes both directly and indirectly. In recent years, teacher leadership has emerged as a crucial aspect of instructional specialization and school reform initiatives, profoundly influencing the performance of students (Uysal & Sarier, 2019). The primary objective of teacher leaders at the classroom level is to enhance student accomplishment and academic success (Hunzicker, 2012; Wenner & Campbell, 2017). Teacher leaders, as authorities on classroom learning, can directly impact the instruction of teachers by promoting the establishment of trusting relationships with students through equitable and significant collaboration, disseminating optimal instructional practices, and dedicating increased time and effort to co-developing the student learning process (Kaminskienė et al., 2022). Whitehead and Greenier (2019),

characterize teacher leadership as a dynamic amalgamation of behaviors, actions, and attributes that educators demonstrate both within and beyond the classroom, thereby enhancing students' learning and lives. Öqvist and Malmström (2016), unequivocally endorse this perspective, emphasizing that teacher leadership is a behavior that harnesses instructors' inherent qualities to impact students' everyday activities both within and outside the classroom. Nguyen and Hunter (2018), assert that teacher leaders can motivate colleagues to adopt new instructional methodologies to facilitate and oversee the student learning process while ensuring accountability for academic success both within and beyond the classroom.

Concerning the school level, some scholars highlight the significant influence of teacher leadership on school reform within their definitions at the school level. Teacher leaders impact the school reform process by facilitating the professional development of their colleagues within the institution (e.g., Nguyen & Hunter, 2018; Oppi et al., 2022; Wang & Xia, 2022), enhancing teaching practices (e.g., Friesen & Brown, 2022; Jacobs & Crowell, 2018), engaging with the school community and its environment (e.g., Netzer & Shoshani, 2019; Xie et al., 2021; Zhang et al., 2022), and participating in school decision-making (e.g. Chen, 2022; Wang & Xia, 2022). For example, Chen contends (2022) that teacher leaders play a crucial role in educational reform by enhancing student learning, supporting the professional development of colleagues, promoting a culture of collaboration within the school, and engaging with external partners. Criswell et al. (2018) assert that teacher leaders develop a shared vision grounded in an understanding of educational practices and school systems by collaborating with colleagues to facilitate an effective change process. Liu (2021) underscores the significance of teacher leaders as essential to capacity building, asserting that they can exhibit a commitment to change and possess the passion and capability to drive transformation throughout the school reform process.

Conclusion

This study review aims to cover the research context, methodological patterns, and concepts related to teacher leadership derived from the 80 qualifying papers collected from 2018 to 2022. The survey revealed that research on teacher leadership has exhibited a dynamic growth trend in recent years, signifying sustained scholarly interest in this area worldwide. Qualitative research constitutes the predominant portion of these studies. The geographical distribution of articles indicates that teacher leadership research is predominantly concentrated in North America and Asia. Moreover, these teacher leadership studies predominantly focus on K-12 educational settings.

The comprehensive review of these studies indicated that teacher leadership is a complicated, multilayer conceptual construct. Its purpose and impact transcend the classroom as schools change and leadership is distributed, encompassing internal and external environments. Teacher leaders may not have formal positions or adhere to specific job descriptions, yet they can impact their peers' professional development and daily practices through informal means. These definitions demonstrate that teacher leaders dismantle communication barriers and enhance an organization's educational resources by fostering collaborative relationships both within and beyond the school, thereby elevating the quality of their colleagues' instruction, students' learning outcomes, and the overall efficacy of the school.

This study systematically updates the latest developments and research trends on teacher leadership, filling in the definitional and methodological divides within the field. Although teacher leadership has been studied for decades, the study highlights the inconsistency of definitions, reflecting the diversity of teacher leadership as a concept in different contexts and cultural settings. This inconsistency is fundamental as it influences teacher leadership's theoretical underpinnings and practical applications. More importantly, the findings reveal the regional limitations of current research and the cultural dependence of the theoretical underpinnings and provide a basis for expanding future research to more diverse regions and stages of education.

In conclusion, this study not only deepens the existing knowledge of teacher leadership but also provides a guiding framework for future research, emphasising the necessity of establishing a more unified definition for cumulative research in the field, thereby promoting the development of teacher leadership research in a more systematic and international direction.

Limitations and Future Research Directions
The current systematic literature review provides systematic and robust empirical evidence for glimpsing recent trends in teacher leadership; however, there are some limitations. Although this study was conducted through a thorough search of two major databases, Scopus and ScienceDirect, it may have resulted in articles from other databases not being included in this literature review, which prevented us from capturing the complete picture of teacher leadership. Secondly, this review limited the period to the five years of 2018-2022, thus failing to cover teacher leadership-related research prior to 2018. Thirdly, since the inclusion criteria of this study are empirical studies, it may overlook other non-empirical studies that may produce different patterns and findings.

As for future research directions, the results of this study show that most of the explorations of teacher leadership have been focused on North America and Asia, and the studies have mainly focused on teachers in K-2 settings; therefore, there is a need to expand the scope of the study further to encompass different countries, cultures, and educational backgrounds in order to provide a broader range of information and data to support the study.

In addition, it would be interesting to examine the negative influences on teacher leadership. While all articles included in the review present positive outcomes of teacher leadership, it is suggested that future research looks at potential negative factors such as work stress, role conflict, or burnout and analyzes the correlation between teacher leadership and these negative factors.

Moreover, consistent with studies Wenner and Campbell (2017), and Nguyen et al (2019), this review found that the definition of teacher leadership remains ambiguous, with variability of interpretation across research contexts. Therefore, it is suggested that future teacher leadership research can provide a coherent and consistent operational definition. Since current conceptualizations and explanations of teacher leadership focus primarily on K-12 schools, it is recommended that more empirical analyses of teacher leadership in higher education settings be conducted in the future.

Finally, most of the studies in this review (e.g., Araşkal & Kılınç, 2019; Cassata & Allensworth, 2021; Chaaban et al., 2022; Liu, 2021) emphasized the critical impact of teacher leadership at the school level or described how teacher leadership is practiced. However, most of these studies tend to be normative descriptions rather than empirical analyses of patterns and processes of influence. Therefore, it is recommended that future research on the practice process of teacher leadership in school organizations should be based on more empirical analyses to explore how teacher leadership as a process of influence plays out and the effects produced.

Reference

Adams, C. M. (2013). Collective trust: A social indicator of instructional capacity. *Journal of Educational Administration, 51*(3), 363–382. https://doi.org/10.1108/09578231311311519

Araşkal, S., & Kılınç, A. Ç. (2019). Investigating the factors affecting teacher leadership: A qualitative study. *Teacher Leadership, 25*(3), 419-468. https://files.eric.ed.gov/fulltext/EJ1305637.pdf

Bellibaş, M. Ş., Gümüş, S., & Kılınç, A. Ç. (2020). Principals supporting teacher leadership: The effects of learning-centred leadership on teacher leadership practices with the mediating role of teacher agency. *European Journal of Education, 55*(2), 200–216. https://doi.org/10.1111/ejed.12387

Boylan, M. (2018). Enabling adaptive system leadership: Teachers leading professional development. *Educational Management Administration & Leadership, 46*(1), 86–106. https://doi.org/10.1177/1741143216628531

Cassata, A., & Allensworth, E. (2021). Scaling standards-aligned instruction through teacher leadership: Methods, supports, and challenges. *International Journal of STEM Education, 8*(1), 39. https://doi.org/10.1186/s40594-021-00297-w

Chaaban, Y., Sawalhi, R., & Du, X. (2022). Exploring teacher leadership for professional learning in response to educational disruption in Qatar. *Professional Development in Education, 48*(3), 426–443. https://doi.org/10.1080/19415257.2021.1973070

Chen, J. (2022). Understanding teacher leaders' behaviours: Development and validation of the teacher leadership inventory. *Educational Management Administration & Leadership, 50*(4), 630–648. https://doi.org/10.1177/1741143220945704

Cooper, K. S., Stanulis, R. N., Brondyk, S. K., Hamilton, E. R., Macaluso, M., & Meier, J. A. (2016). The teacher leadership process: Attempting change within embedded systems. *Journal of Educational Change, 17*(1), 85–113. https://doi.org/10.1007/s10833-015-9262-4

Criswell, B. A., Rushton, G. T., Nachtigall, D., Staggs, S., Alemdar, M., & Cappelli, C. J. (2018). Strengthening the vision: Examining the understanding of a framework for teacher leadership development by experienced science teachers. *Science Education, 102*(6), 1265–1287. https://doi.org/10.1002/sce.21472

Devos, G., Tuytens, M., & Hulpia, H. (2014). Teachers' organizational commitment: examining the mediating effects of distributed leadership. *American Journal of Education, 120*(2), 205–231. https://doi.org/10.1086/674370

Douglass, A. (2018). Redefining leadership: Lessons from an early education leadership development initiative. *Early Childhood Education Journal, 46*(4), 387–396. https://doi.org/10.1007/s10643-017-0871-9

Fairman, J. C., & Mackenzie, S. V. (2015). How teacher leaders influence others and understand their leadership. *International Journal of Leadership in Education, 18*(1), 61–87. https://doi.org/10.1080/13603124.2014.904002

Friesen, S., & Brown, B. (2022). Teacher leaders: Developing collective responsibility through design-based professional learning. *Teaching Education, 33*(3), 254–271. https://doi.org/10.1080/10476210.2020.1856805

Frost, D. (2008). 'Teacher leadership': Values and voice. *School Leadership & Management, 28*(4), 337–352. https://doi.org/10.1080/13632430802292258

Garg, N. (2020). Exploring role of gratitude in developing teacher leadership in Indian universities. *International Journal of Educational Management, 34*(5), 881–901. https://doi.org/10.1108/IJEM-07-2019-0253

Gilles, C., Wang, Y., Fish, J., & Stegall, J. (2018). "I learned by watching my mentor." Nurturing teacher leadership with an induction program. *Mentoring & Tutoring, 26*(4), 455–475. https://doi.org/10.1080/13611267.2018.1530174

Gümüş, S., Çağatay Kılınç, A., & Bellibaş, M. S. (2022). The relationship between teacher leadership capacity at school and teacher self-efficacy: The mediating role of teacher professional learning. *School Leadership & Management, 42*(5), 478–497. https://doi.org/10.1080/13632434.2022.2123791

Hallinger, P., & Kulophas, D. (2020). The evolving knowledge base on leadership and teacher professional learning: A bibliometric analysis of the literature, 1960-2018. *Professional Development in Education, 46*(4), 521–540. https://doi.org/10.1080/19415257.2019.1623287

Harris, A., & Jones, M. (2019). Teacher leadership and educational change. *School Leadership and Management, 39*(2), 123–126. https://doi.org/10.1080/13632434.2019.1574964

Harris, A., & Muijs, D. (2005). *Improving schools through teacher leadership.* London: Open University Press.

Hunzicker, J. (2012). Professional development and job-embedded collaboration: How teachers learn to exercise leadership. *Professional Development in Education, 38*(2), 267–289. https://doi.org/10.1080/19415257.2012.657870

Jacobs, J., & Crowell, L. (2018). Developing as teacher leaders for social justice: The influence of a teacher-leadership graduate program. *The New Educator, 14*(4), 315–341. https://doi.org/10.1080/1547688X.2016.1237693

Karabağ, E. (2019). Development and psychometric properties of teacher classroom leadership scale (TCLS). *Educational Administration: Theory and Practice, 25*(1), 139–168. https://doi.org/10.14527/kuey.2019.004

Lame, G. (2019). Systematic literature reviews: An introduction. *Proceedings of the Design Society: International Conference on Engineering Design, 1*(1), 1633–1642. https://doi.org/10.1017/dsi.2019.169

Landa, J. B., & Donaldson, M. L. (2022). Teacher leadership roles and teacher collaboration: Evidence from Green Hills Public Schools Pay-for-Performance System. *Leadership and Policy in Schools, 21*(2), 303–328. https://doi.org/10.1080/15700763.2020.1759648

Li, L., & Liu, Y. (2022). An integrated model of principal transformational leadership and teacher leadership that is related to teacher self-efficacy and student academic performance. *Asia Pacific Journal of Education, 42*(4), 661–678. https://doi.org/10.1080/02188791.2020.1806036

Lin, W., Lee, M., & Riordan, G. (2018). The role of teacher leadership in Professional Learning Community (PLC) in International Baccalaureate (IB) schools: A social network

approach. *Peabody Journal of Education, 93*(5), 534–550. https://doi.org/10.1080/0161956X.2018.1515833

Liu, P. (2021). The relationship between teacher leadership and collective teacher efficacy in Chinese upper secondary schools. *International Journal of Educational Management, 35*(2), 394–407. https://doi.org/10.1108/IJEM-07-2020-0361

Liu, Y. (2021). Contextual influence on formal and informal teacher leadership. *International Journal of Educational Research Open, 2-2*(1), 1-15. https://doi.org/10.1016/j.ijedro.2020.100028

Margolis, J., & Huggins, K. S. (2012). Distributed but undefined: New teacher leader roles to change schools. *Journal of School Leadership, 22*(5), 953–981. https://doi.org/10.1177/105268461202200506

Nagtegaal, R., Tummers, L., Noordegraaf, M., & Bekkers, V. (2019). Nudging healthcare professionals towards evidence-based medicine: A systematic scoping review. *Journal of Behavioral Public Administration, 2*(2), 1-20. https://doi.org/10.30636/jbpa.22.71

Netzer, P., & Shoshani, A. (2019). Becoming teacher leaders in Israel: A meaning-making model. *Cambridge Journal of Education, 49*(3), 369–389. https://doi.org/10.1080/0305764X.2018.1533524

Neumerski, C. M. (2013). Rethinking instructional leadership, a review: What do we know about principal, teacher, and coach instructional leadership, and where should we go from here? *Educational Administration Quarterly, 49*(2), 310–347. https://doi.org/10.1177/0013161X12456700

Nguyen, D., Harris, A., & Ng, D. (2019). A review of the empirical research on teacher leadership (2003–2017): Evidence, patterns and implications. *Journal of Educational Administration, 58*(1), 60–80. https://doi.org/10.1108/JEA-02-2018-0023

Nguyen, D., & Ng, D. (2020). Teacher collaboration for change: Sharing, improving, and spreading. *Professional Development in Education, 46*(4), 638–651. https://doi.org/10.1080/19415257.2020.1787206

Nguyen, T. D., & Hunter, S. (2018). Towards an understanding of dynamics among teachers, teacher leaders, and administrators in a teacher-led school reform. *Journal of Educational Change, 19*(4), 539–565. https://doi.org/10.1007/s10833-017-9316-x

Nickerson, S. D., Vaughn, M., Lamb, L., Ross, D., Philipp, R., LaRochelle, R., & Williams, K. S. (2018). A model for selecting exemplary mathematics and science teacher leaders. *Journal of School Administration Research and Development, 3*(1), 67–73. https://doi.org/10.32674/jsard.v3i1.1933

Oppi, P., Eisenschmidt, E., & Jõgi, A.-L. (2022). Teacher's readiness for leadership – a strategy for school development. *School Leadership & Management, 42*(1), 79–103. https://doi.org/10.1080/13632434.2021.2016685

Öqvist, A., & Malmström, M. (2016). Teachers' leadership: A maker or a breaker of students' educational motivation. *School Leadership & Management, 36*(4), 365–380. https://doi.org/10.1080/13632434.2016.1247039

Pan, H.-L. W., & Chen, W.-Y. (2021). How principal leadership facilitates teacher learning through teacher leadership: Determining the critical path. Educational *Management Administration & Leadership, 49*(3), 454–470. https://doi.org/10.1177/1741143220913553

Pan, H.-L. W., Wiens, P. D., & Moyal, A. (2023). A bibliometric analysis of the teacher leadership scholarship. *Teaching and Teacher Education, 121*(3)*, 1-11. https://doi.org/10.1016/j.tate.2022.103936

Pineda, C., Bauman, C., & Andrews, D. (2020). Empowering teacher leadership: A cross-country study. *International Journal of Leadership in Education, 23*(4), 388–414. https://doi.org/10.1080/13603124.2018.1543804

Poekert, P. E. (2012). Teacher leadership and professional development: Examining links between two concepts central to school improvement. *Professional Development in Education, 38*(2), 169–188. https://doi.org/10.1080/19415257.2012.657824

Sawalhi, R., & Chaaban, Y. (2022). Student teachers' perspectives towards teacher leadership. *International Journal of Leadership in Education, 25*(4), 586–602. https://doi.org/10.1080/13603124.2019.1666430

Schott, C., Roekel, H. V., & Tummers, L. G. (2020). Teacher leadership: A systematic review, methodological quality assessment and conceptual framework. *Educational Research Review, 31*(3), 1-44. https://doi.org/10.1016/j.edurev.2020.100352

Shaffril, H. A., Samsuddin, S. F., & Abu Samah, A. (2021). The ABC of systematic literature review: The basic methodological guidance for beginners. *Quality & Quantity, 55*(4), 1319–1346. https://doi.org/10.1007/s11135-020-01059-6

Shah, S. R. A. (2020). Language teachers as leaders: A case study of teacher leaders in the Arabian Gulf. *Cogent Education, 7*(1), 1-18. https://doi.org/10.1080/2331186X.2020.1792260

Sharar, T., & Nawab, A. (2020). Teachers' perceived teacher leadership practices: A case of private secondary schools in Lahore, Pakistan. *Social Sciences & Humanities Open, 2*(1), 1-9. https://doi.org/10.1016/j.ssaho.2020.100049

Silva, D.Y., Gimbert, B.G., & Nolan, J. (2000). Sliding the Doors: Locking and Unlocking Possibilities for Teacher Leadership. *Teachers College Record, 102*(4), 779-804. https://doi.org/10.1111/0161-4681.00077

Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research, 104,* 333–339. https://doi.org/10.1016/j.jbusres.2019.07.039

Supovitz, J. A. (2018). Teacher leaders' work with peers in a Quasi-formal teacher leadership model. *School Leadership & Management, 38*(1), 53–79. https://doi.org/10.1080/13632434.2017.1389718

Uysal, Ş., & Sarier, Y. (2019). Teacher leadership effects on student achievement and student satisfaction: A Meta analysis on the studies published in Turkey and USA. *Croatian Journal of Education, 21*(3), 989-1010. https://doi.org/10.15516/cje.v21i3.3257

Wang, M., Ho, D., Lu, J., & Yang, D. (2020). Constructing early childhood leadership models in China: A mixed-methods study. *Journal of Educational Administration, 58*(6), 729–748. https://doi.org/10.1108/JEA-09-2019-0149

Wang, M., & Xia, J. (2022). A scale for measuring teacher leadership in early childhood education in China: Development and validation. Educational Management *Administration & Leadership, 50*(4), 649–671. https://doi.org/10.1177/1741143220949546

Wenner, J. A., & Campbell, T. (2017). The theoretical and empirical basis of teacher leadership: A review of the literature. *Review of Educational Research, 87*(1), 134–171. https://doi.org/10.3102/0034654316653478

Whitehead, G. E. K., & Greenier, V. T. (2019). Beyond good teaching practices: Language teacher leadership from the learners' perspective. *TESOL Quarterly, 53*(4), 960–985. https://doi.org/10.1002/tesq.526

Xie, C., Song, P., & Hu, H. (2021). Measuring teacher leadership in different domains of practice: Development and validation of the teacher leadership scale. *The Asia-Pacific Education Researcher, 30*(5), 409–419. https://doi.org/10.1007/s40299-020-00527-9

York-Barr, J., & Duke, K. (2004). What do we know about teacher leadership? Findings from two decades of scholarship. *Review of Educational Research, 74*(3), 255–316. https://doi.org/10.3102/00346543074003255

Zhang, L., Wu, T., Liu, L., Ren, P., & Lin, C. (2022). The relationship between Chinese preschool principal leadership styles and teacher leadership: Exploring the mediating effect of psychological capital. *Frontiers in Psychology, 13*(6), 1-15. https://doi.org/10.3389/fpsyg.2022.1006184

Zhang, J., Yuan, R., & Shao, X. (2022). Investigating teacher learning in professional learning communities in China: A comparison of two primary schools in Shanghai. *Teaching and Teacher Education, 118*(5), 1-13. https://doi.org/10.1016/j.tate.2022.103839