

A Systematic Review Analysis on Instructional Leadership Styles: Exploring Research Foci, Conceptual Models, Methodological Designs, and Geographical Distributions

ABSTRACT

Aims: This study explored the various literature on Instructional leadership of secondary school principals. This study aimed to answer the following questions based on (1) the geographic distribution of the distributed leadership literature published globally; (2) methodological designs (qualitative, quantitative, mixed methods) have been adopted and data collection tools used; (3) the nature of literature in terms of research foci; and (4) conceptual frameworks/models are predominant in the relevant literature publications between 2012 and 2022.

Study design: Systematic review analysis.

Place and Duration of Study: The systematic review of existing literature was carried-out last 2023 and analyzed relevant studies on instructional leadership from 2012-2022.

Methodology: This study utilized the systematic review analysis using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) as the functional research design in answering the research questions. The study used the Google scholar and Eric as the main database search platform for seeking relevant literature. These databases have an advanced search method to set the desired operative words, the year of publication, and it provides the data based such as in-full text version, peer-reviewed, written in English, research design, etc.

Results: As a result of the systematic analysis, this study exposed notable variations in terms of research design employed, and the locale of the study. Based on the synthesis of the various research studies, it was observed that instructional leadership is currently being studied against students, teachers, and school performances. Moreover, the widely used conceptual framework used was exploratory, and a direct effect model.

Conclusion: Finally, the framework provided by this study and the overview of the challenges outlined here may help to improve the delivery of instructional leadership among secondary school principals and will serve as the foundation for future research projects and policy decisions.

Keywords: Instructional leadership; school principal; systematic review analysis; PRISMA.

The highlighted references are missing in the reference section. Please provide complete citations in reference section

1. INTRODUCTION

In order to ensure that the nation's education aims to give the best 21st-century education to future generations, the education system needs

to be transformed to accommodate the ever-increasing needs of modern globalization. The majority of nations are thinking about or reevaluating their country's educational system in light of the world's recent rapid progress [1].

However, planning for these diverse efforts won't be successful if the school administrators acting as change managers can't properly manage them.

Competent school leaders are expected to assist the government in achieving the plan for the country's educational transformation, while ineffective and disturbed school leaders are anticipated to obstruct this great objective [2]. In order to mobilize education transformation, one of the major changes is to place more focus on the quality of school leaders. Among the crucial components that influence the efficacy of both external and internal influences in education improvement are school leadership practices. Results from earlier research demonstrate the significance of instructional leadership principles in managing change [3-6]. When there are changes in education, instructional leaders are responsible for achieving the academic goals of the school with the aid of the teachers. They are also prepared to devote their time and energy to putting those changes into practice, with a focus on pedagogical elements, teaching strategies, and learning to raise the academic standard of the school. This shows that to catalyze changes among teachers, school leaders should also serve as instructional leaders. As a result, one of the most important aspects of how well change is implemented in schools is by instructional leaders [7-10]. Because of its importance, the practice of instructional leadership is one of the things that is emphasized in every reform of the educational system.

Principals are regarded as crucial players in both the creation and maintenance of well-run schools, as well as the development of schools with high student accomplishment [11,12], (Matthew & Crow, 2003; Zepeda, 2003). A principal's primary responsibility is to assist teachers in developing their classrooms for higher instructional success by providing a focus and support structure [13]. According to research, there is a strong link between certain principal instructional leadership practices and student accomplishment (Marzano, Waters, & McNulty, 2005).

In recent years, there were researchers who conducted review studies to compile the data that link school leadership and student achievement. Most recent reviews of the literature have either concentrated on synthesizing significant findings [14,11,15] or meta-analysis [16,17,18]. While some researchers reviewed the conceptual and methodological development of research on

school leadership and school improvement as well as the nature of the relationship between leadership and student achievement [11], others reviewed the magnitude of the impact of leadership types or sets of leadership practices [19]. Additionally, several assessments were performed specifically to gather the findings of the relevant research. A more recent review of research in the United States that was restricted to longitudinal and experimental studies suggested that school leadership may even be more important than teachers since it affects the school rather than just a single classroom. For instance, Leithwood et al. [20] made the compelling argument that leadership influences student achievement second only to teachers [14].

Notwithstanding the implication of instructional leadership to students' achievement, several related studies have given emphasis on the connection between instructional leadership and teachers' performance. Hallinger [21] asserts that school leaders can use defined goals to guarantee that teachers' teaching and learning processes are effective. While Schildkamp et al. (2019) explained that leaders who share goals with teachers are critical to the success of a school. A study by Makgato & Mudzanani [22] believes poor school performance is caused by flaws in leadership and a lack of focus on curriculum administration. Further research by Mansor et al. [23] revealed that many school principals in rural and small schools are still less proactive, creative, and inventive, and they frequently lose focus as curriculum administrators.

The role of instructional leadership is underscored in several studies. According to Hallinger & Huber [24], leadership is increasingly regarded as a crucial component of both organizational and educational efficiency. High-performing schools are significantly impacted by excellent leadership. A variety of leadership strategies can be utilized in schools, depending on the leader's qualifications and skills [25], (Hallinger, P., 2020; Mohammed & Jamalullail, 2012). Through change and innovation in the classroom, school leaders employ instructional leadership to support their students' academic success. In this sense, teacher performance is one of the factors that must be taken into consideration while building a great school (Menaha et al, 2020). As a result, instructional leadership is required in schools. There is a link between instructional leadership and teacher performance, according to several previous

studies. According to a study by Tatlal, A., Akhtar, SN, and Hashmi, MA, [26] principals who practice instructional leadership act as change agents and promote a positive learning environment that boosts student achievement and teacher productivity. The function of instructional leadership can also improve the functional proficiency of the teachers [27]. In general, the literature currently in print asserts that instructional leadership significantly affects both teacher and student performance [28], (Hallinger & Hosseingholizadeh, 2019).

The existing body of research on the relationship between teacher and student performance and school leadership has generally been evaluated more regularly. The field has, however, been lacking a systematic examination with a larger perspective to map out the nature of the pertinent literature. By utilizing both descriptive and integrative viewpoints, such a review would reveal the nature of the literature in relation to various research emphases, conceptual models, and methodological approaches, as well as any potential errors and gaps. The author hopes that this review will serve as a useful source of information and direction for academics curious about the relationship between school leadership, teacher effectiveness, and student accomplishment.

As a result, the objective is to increase the current understanding of the study concentrating on the empirical connection between school leadership and teachers' performance and student accomplishment as well as to identify the gaps in the pertinent literature based on a thorough evaluation of the available literature.

1.1 Research Questions

The study tends to conduct a systematic review analysis of the existing literature about Instructional leadership in public school institutions. Mainly, it aims to answer the following:

1. What is the geographic distribution of the distributed leadership literature published globally?
2. What methodological designs (qualitative, quantitative, mixed methods) have been adopted and data collection tools used?
3. What is the nature of literature in terms of research foci?
4. What conceptual frameworks/models are predominant in the relevant literature publications between 2012 and 2022?

1.2 Conceptual Framework

The available review studies in the area of educational administration [29,30],(Hallinger and Kovaevi, 2019) served as the conceptual framework for this study. Three categories of review studies in the area were recognized by Bellibaş and Gümüş [29]. The first type focuses on mapping the already published research by identifying the most referenced studies, co-citations, keywords, growth trends, geographic distribution, authors of linked studies, etc. For instance, Hallinger and Kovaevi (2019) used descriptive statistics, citation, co-citation, and keyword analyses to identify the most significant documents and authors, geographic distribution, schools of thought, and topical foci of the entire corpus of the educational administration field based on 22 journals. In the second type of review study, thematic foci, methodological techniques, and conceptual models are described using a content analysis strategy (Hammad et al., 2022). The third type of review includes a thorough synthesis of previous research to highlight its most important conclusions [31,32]. There are also mixed-methods review studies available that blend various methodologies into a single study. For instance, Gumus et al. [30] outlined the breadth of many leadership models that have been investigated in the field, changes in research trends over time, the most prominent academics, etc., in addition to the most popular methodological approaches and the goals of the pertinent studies.

The current study will follow a hybrid conceptual framework adapting a few components of the first and second types of review study previously described and indicated. The methodology, thematic foci, and conceptual models of the pertinent research papers are the three main areas of attention for our study (see Fig. 1).

Research designs and the locale of the study will be the two categories that will be used in the review analysis for the methodological component. Quantitative, qualitative, and mixed-method study types will be included in the design category. Finally, categories for the locale of the study will include research studies conducted at the local, national, and international levels.

The research foci component focused on where instructional leadership is being applied, correlated, or tested against other variables. To identify these topical foci, during the analysis process, categories will be determined as they emerged from the data.

For the conceptual framework components, this study adapted the framework developed by Hallinger and Heck [11], which was utilized by Ozdemir et al. (2022), and includes the following eight models: CF-A: direct effects model; CF-B1: mediated effects (leadership as predictor); CF-B2: mediated effects (leadership as mediator); CF-C1: moderating effects (leadership as predictor); CF-C2: moderating effects (leadership as moderator); CF-D: reciprocal effects; CF-E: exploratory; and CF-F: explanatory.

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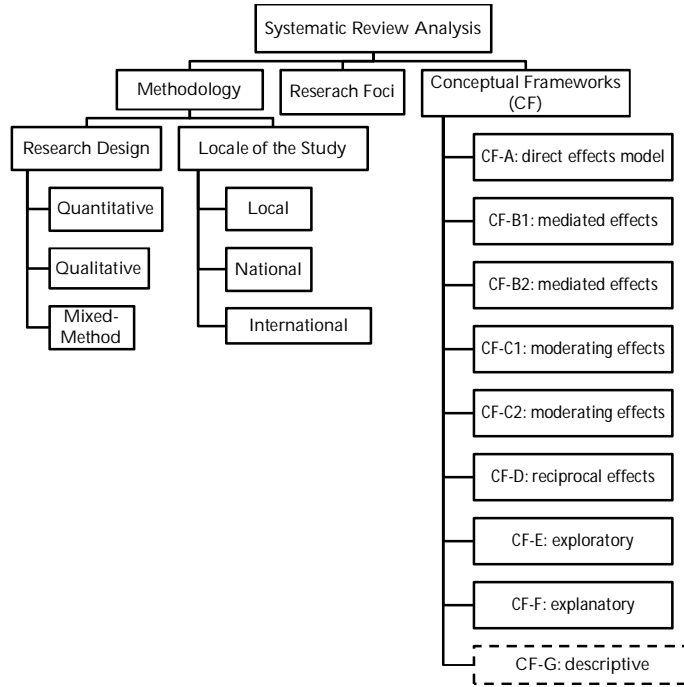


Fig. 1. Framework for the systematic review analysis

2. MATERIALS AND METHODS

2.1 Searching, Screening, and Data Extraction

This study utilized the systematic review analysis as the functional research design in answering the research questions. According to Ranganathan and Aggarwal [33], systematic reviews frequently also include meta-analysis, a statistical technique for statistically combining the findings of numerous research studies to get a pooled estimate of treatment impact. Hence, systematic reviews are regarded as the most substantial level of evidence (Chandler et al., 2019).

The study used the Eric as the main database search platform for seeking relevant literature, which was included in this study. The main reason for selecting Eric is that it has an advanced search method to set the desired operative words, which section of the study the operative words were used in, and able to set the year of publication. Moreover, it provides the data based on the inclusion and exclusion criteria such as in-full text version, peer-reviewed, written in English, research design, etc.

Moreover, as indicated in Fig. 2, the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) reporting checklist carried out this systematic review (PRISMA; Liberati et al., [34]). The process involved four stages: identification, screening, eligibility, and inclusion. A thorough literature search was conducted to find systematic review publications for this study's purposes.

In terms of search terms, the study will use the PICO framework borrowed from the study of Sherma et al. (2015). The letters "P" stand for the participants, group, or subject of interest; "I" for the intervention; "C" for a comparison intervention or group; and "O" for the relevant outcome(s). Some of these categories are less helpful in educational reviews because they may

be used to assess the range of outcomes (rather than a specific outcome).

Lastly, in searching valid literature in both database search platforms, the use of keywords such as "instructional leadership," "instructional leadership styles," "secondary school heads," and "secondary school principals" will be applied in all searching and browsing.

2.2 Determining Criteria for Inclusion and Exclusion

Based on this study's stated research questions and focus, the following inclusion criteria will be included throughout the systematic review. Valid literature in this review was conducted in quantitative, qualitative, and mixed-method research designs containing the instructional leadership style among school heads/school principals. Additionally, the study must be conducted in secondary school institutions, written in English, and available in open access and full text. Further, the different pieces of literature were peer-reviewed from 2012 to 2022 since the abundance of SBM literature is evident from the last 10 years.

On the contrary, studies published before 2012, not relevant to research questions, from non-public school institutions, not English, not available in full text, and not formally peer-reviewed were not included in the review.

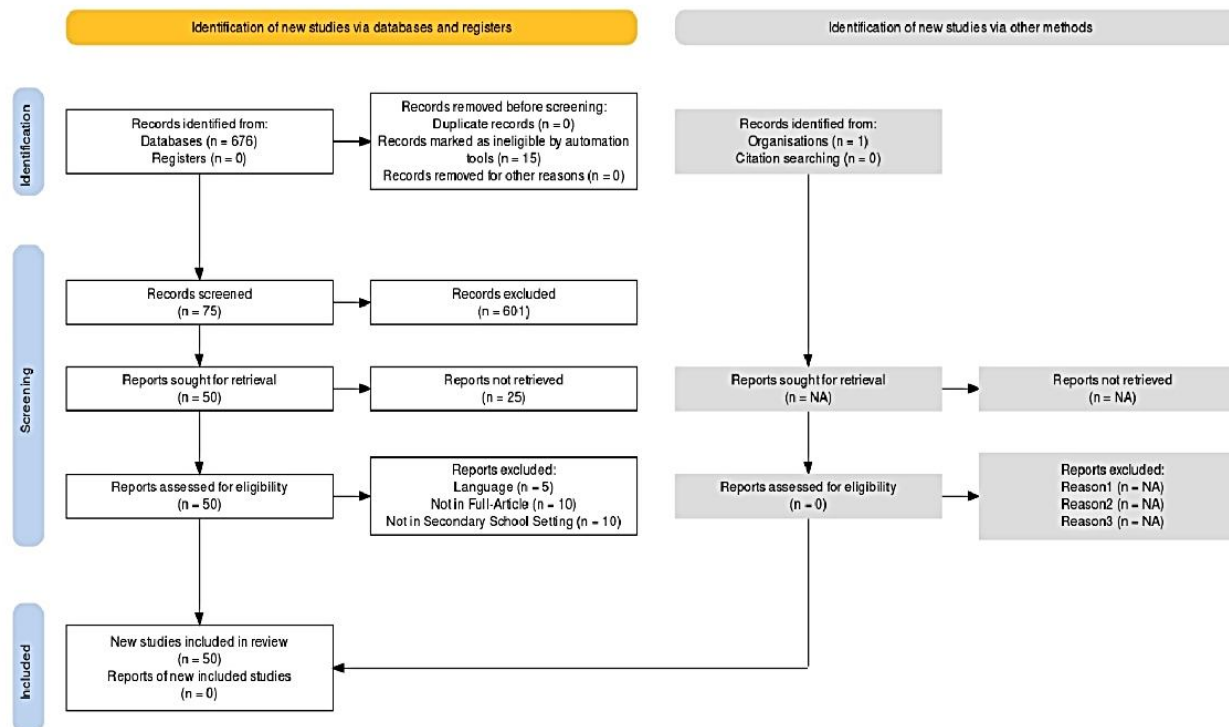
2.3 Data Extraction Procedures

The data of the study were extracted into an Excel spread. In addition to extracting standard information around study information (country, research design, number of participants, and aim of study/research questions), the information relating to the research questions was extracted and coded immediately, particularly for the three different channels of communication and identified communication barriers as indicated in the theoretical framework of this study.

2.4 Data Analysis

During the data analysis, the study will use Microsoft Excel to record the following details for each article: research design (quantitative, qualitative, mixed-methods), conceptual model (direct, mediated, moderating, etc.), mediating path (rational, emotional, organizational, etc.), and mediating variable (classroom instruction, teacher commitment, etc.). Then, for the

conceptual framework of the articles, this study will use the different conceptual frameworks across various valid literatures. The codes are as follows: direct effects (A), mediated effects (B), and reciprocal effects (D); for those articles that did not fit these categories, we created data-driven new codes such as moderated effects (C), exploratory (E), and explanatory (F).



Adopted from: Liberati A, Altman DG, Tetzlaff J, Mulrow C, Gøtzsche PC, et al. (2009) The PRISMA Statement for Reporting Systematic Reviews and Meta-Analyses of Studies That Evaluate Health Care Interventions: Explanation and Elaboration. PLOS Medicine 6(7): e1000100. <https://doi.org/10.1371/journal.pmed.1000100>

Fig. 2. Information flow between the various stages of a systematic review

3. RESULTS AND DISCUSSION

3.1 Methodological Designs Used by the Various Literatures

The relevant works of literature highlight the summary of screened full-text articles and journals related to the literature on instructional leadership styles among secondary school principals/school heads including the research designs and the locale of the study.

Fig. 1 revealed the classification of terms of research designs utilized by all works of literature, it can be gleaned that there was a

large number of quantitative research designs explored instructional leadership styles (e.g. Lambrecht et al., [35], Bellibas, 2020). And a few numbers of mixed-method research designs (e.g. Zuckerman and O'Shea, [36], Huong, [37], Ozdemir et al. [38]). This outcome, however, is not unexpected given the positivist nature of the research focus of this literature review and pertinent research questions.

Another significant data that can be extracted from the relevant literature is the locale where it was conducted. As presented in Fig. 2, this literature can be classified as conducted in international, national, and local settings.

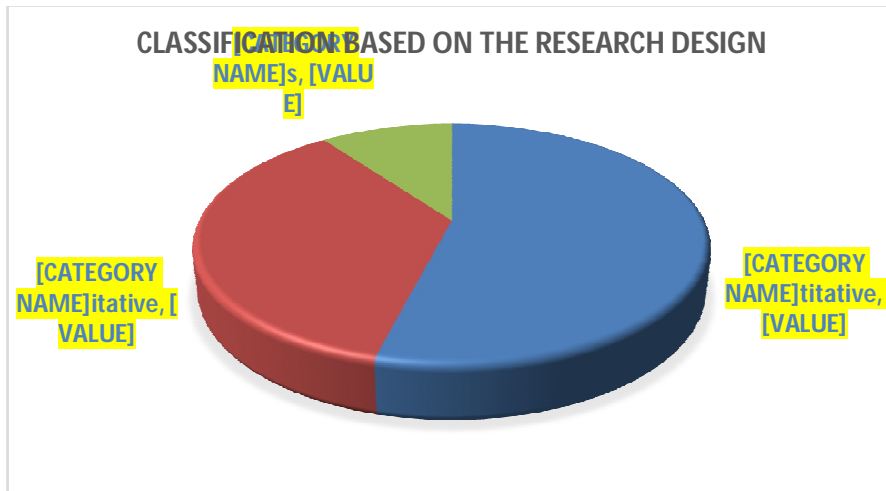


Fig. 3. Various works of literature based on Research Design and Research Locale



Fig. 4. Various works of literature based on research locale

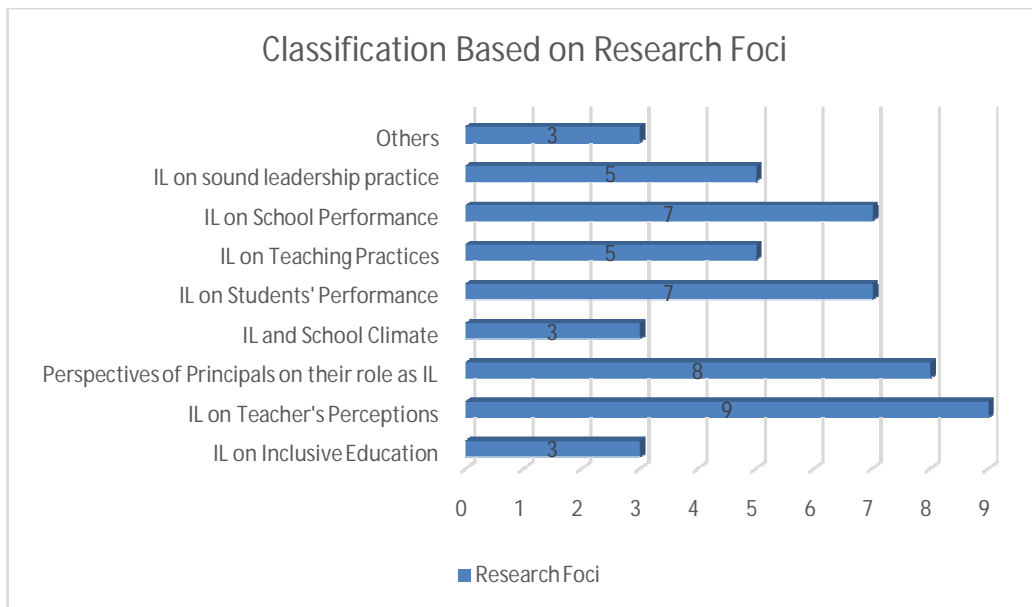


Fig. 5. Analysis of the various works of literature based on research Foci

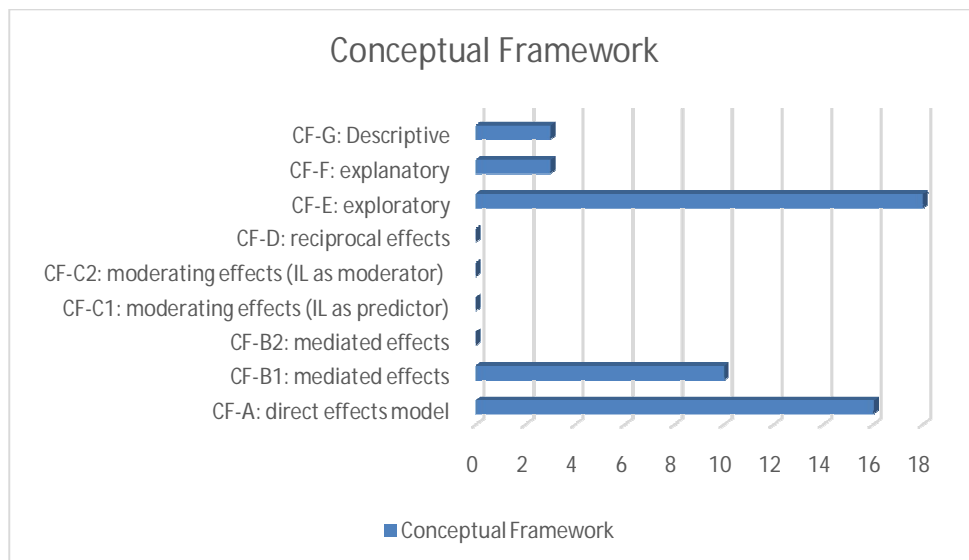


Fig. 6. Analysis of the various works of literature based on conceptual framework

The figure illustrates the abundance of literature conducted in local settings (e.g. [Shafeeu, 2019](#); Liu et al., [39], and Bellibas, [29]). Most of the conducted research studies in local settings were carried out through qualitative design. Almost the same in numbers were studies conducted at the national level (e.g. Shaked & Benoliel, [40], Oznacar, [41], and Davis & Boudreaux, [42]). Only two works of literature were conducted in an international setting.

3.2 Analysis of Relevant Literature Based on Research Foci

The second research question aimed to investigate which research foci are predominant in the relevant research. Specifically, this study underwent a thorough analysis of the research purpose by classifying these into themes (e.g. instructional leadership style and its impact on the school, teachers, and learners' performances, and similar research purposes).

Fig. 3 reports the instructional leadership conceptualizations in the reviewed studies.

Presented in Fig. 3, are the various research foci of the different literature. It can be observed that the most common research foci where instructional leadership (IL) was being studied based on the perceptions of the teachers (e.g. Lingam et al. [43], Davis & Boudreaux, [42] and Cansoy et al. [44]). Another common research focus observed was on the perceptions of school principals (e.g. Vogel et al., [45], Hallinger et al., 2016; and Kalman & Arslan, 2016). Further, a similar trend was observed in some research studies where IL was being used against the teaching practices (e.g. Ozdemir, [38], Hussain et al., 2018; and Pietsch & Tulowitzki, [28]) and students' achievements (Kwan, [46], Mitchell et al. [47] and Shatzer et al. [48]).

Interestingly, only a few works of literature whose research foci were related to inclusive education, particularly on Early Childhood Care and Education (e.g. Mampane & Mampane, [49]), and Madrasah Aliyah Teaching [50], and school climate (Martin, 2018; and Bush, 2016).

3.3 Analysis Based on Conceptual Frameworks

The last research question seeks to identify how the related studies are conceptually framed. In order to respond to this inquiry, the pertinent research studies were examined in light of the conceptual models that were most frequently applied in studies examining the relationship between instructional leadership and other variables used. As indicated in the methodology, the study adopted the framework developed by Hallinger and Heck [11] in categorizing the different conceptual frameworks. However, during the analysis, it was included in the framework one additional model which will accommodate descriptive literature as seen in Fig. 1 denoted by CF-G and enclosed with a broken line.

It can be summarized as the most frequent conceptual framework in Fig. 4. It is clear in the figure below that the prominent conceptual model used among the literature studies was CF-E: exploratory. Studies that fell under this framework were mostly qualitative papers and were conducted in local settings [51,50]. Another notable observation based on the figure was that no research studies utilized CF-B2, CF-CA, CF-C2, and CF-D frameworks. These frameworks set to use IL as a mediating variable, predictor

variable, moderating variable, or IL with reciprocal effects towards other variable/s. Another common model used was the direct effect, where IL is correlated or compared to other variable/s directly [50,52,53,54,55].

4. CONCLUSION

This research provides a summary overview of the different literature regarding instructional leadership. Based on the data, most of the literature studies were conducted through quantitative design, and only a few were carried out through mixed-method design. Likewise, it can be gleaned that these research studies were carried out in various local settings, however only a few were conducted in an international setting.

In terms of the research foci, there was a number of works of literature exploring instructional leadership based on teachers' and principals' perceptions, and IL on students' and school's performances. Additionally, areas on school climate and inclusive education were least explored. Was an exploratory model and a direct effect model. This means that the other frameworks were not been explored well or have unexplored research areas.

Lastly, the framework in Fig. 1 can serve as a basis for further research that will facilitate a certain literature review.

5. RECOMMENDATION

Based on the findings of analysis it is recommended by the author to explore other repository website to widen the coverage of the literature review and to capture other studies which are not available in the Eric such as web of science and other reputable websites. Moreover, it is highly recommended that studies on instructional leadership at international scope and with the use of mixed-methods designs since only few were conducted with these inclusions. Similarly, it can also be recommended to broaden research focus by adding leadership failure and to the factors contributing to ineffective leadership. By exploring this area, researchers can develop more balanced understanding on what strategies may lead to poor school outcome, offering significant insights for leadership development.

DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Author hereby declares that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc) and text-to-image

generators have been used during writing or editing of this manuscript.

ETHICAL APPROVAL

The research described in this paper involved the conduct of a systematic review analysis of existing literature. The research was conducted in accordance with the principles of ethical research practice, including transparency, integrity, and respect for intellectual property. In conducting the systematic review, all sources were appropriately cited, and care was taken to ensure that the analysis was conducted fairly and accurately, without bias. Any potential conflicts of interest were identified and addressed, and the research adhered to the highest standards of academic and ethical integrity. Furthermore, the review included publicly available data, and no personal or sensitive information was accessed or used in the analysis. The study was conducted with a commitment to advancing knowledge while respecting the work of other researchers and authors.

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COMPETING INTERESTS

Author has declared that no competing interests exist.

REFERENCES

1. Abu Bakar H, Sheer VC. The mediating role of perceived cooperative communication in the relationship between interpersonal exchange relationships and perceived group cohesion. *Management Communication Quarterly*. 2013;27:443-465. Available:<https://doi.org/10.1177/0893318913492564>
2. Mohd Yusri I. Model Kepimpinan Pengajaran Pemimpin sekolah, Efikasi dan Kompetensi Pengajaran. Unpublish PhD thesis, Universiti Malaysia Terengganul; 2012.
3. Shafinaz A. Maulod, Hubungan di antara kecerdasan emosi dan kepimpinan instruksional pengetua dengan efikasi sendiri guru sekolah menengah di Negeri Sembilan, Universiti Malaya; 2017.
4. Nor Azni AA. Hubungan Antara Kepimpinan Instruksional Pemimpin sekolah dengan Komitmen untuk Perubahan Guru sebagai Mediator dalam Melaksanakan Pentaksiran Berasaskan Sekolah. Unpublish PhD thesis, Universiti Putra Malaysia; 2015.
5. Jamelaa Bibi A. Amalan kepimpinan instruksional dan sikap terhadap perubahan dalam kalangan pemimpin sekolah Sekolah Menengah di Negeri Pahang. Unpublish PhD thesis. Universiti Kebangsaan Malaysia; 2012.
6. Hazura AB. Relationship between religious devotion, epistemology and Muslim student environmental knowledge and attitude, and behavior towards the environment. Thesis PhD, Universiti Sains Malaysia; 2009.
7. Carrier L. What Is Instructional leadership and what does it look like in practice? A Multi-Case Case study of elementary school principals who have led schools from being identified as under performing to performing, PhD thesis. University of Massachusetts Amherst; 2011.
8. Leithwood K, Day C. The impact of school leadership on pupil outcomes: Editorial. *School Leadership and Management*. 2008;28(1):1-4.
9. Sahin S. Instructional leadership in turkey and the united states: Teachers' perspectives. *Problems of Education in the 21st Century*. 2011;34:122-137.
10. Southworth G. Instructional leadership in schools: Reflections and empirical evidence. *School Leadership and Management: Formerly School Organisation*. 2002;22(1):73-91.
11. Hallinger P, Heck RH. Reassessing the principal's role in school effectiveness: A review of empirical research, 1980-1995. *Educational Administration Quarterly*. 1996;32(1):5-44.

12. Hoy W, Miskel C. Educational administration: Theory, research, and practice. (8th Ed.), New York. NY: McGraw Hill; 2008.
13. Fullan M, Hill P, Crevola C. Breakthrough. Thousand Oaks, CA: Corwin Press; 2006.
14. Grissom JA, Egalite AJ, Lindsay CA. How Principals Affect Students and Schools. New York: Wallace Foundation; 2021.
15. Leithwood K, Sun J, Schumacker R. How school leadership influences student learning: A test of "The Four Paths Model". Educational Administration Quarterly. 2020;56(4):570–599.
16. Robinson VMJ, Lloyd C, Rowe K. The impact of leadership on student outcomes: An analysis of the differential effects of leadership types. Educational Administration Quarterly. 2008;44(5):635–674.
17. Shen J, Wu H, Reeves P, Zheng Y, Ryan L, Anderson D. The association between teacher leadership and student achievement: A meta-analysis. Educational Research Review. 2020;31:100357.
18. Tan CY, Gao L, Shi M. Second-order meta-analysis synthesizing the evidence on associations between school leadership and different school outcomes. Educational Management Administration and Leadership. 2022;50(3):469–490.
19. Hallinger P, Heck RH. Exploring the principal's contribution to school effectiveness: 1980–1995. School Effectiveness and School Improvement. 1998;9(2):157–191.
20. Leithwood KA, Louis KS, Anderson S, Wahlstrom K. Review of Research: How Leadership Influences Student Learning. New York: The Wallace Foundation; 2004.
21. Hallinger P, Kovačević J. Mapping the intellectual lineage of educational management, administration, and leadership, 1972–2020. Educational Management Administration and Leadership. 2022;50(2):192–216. Available: <https://doi.org/10.1177/17411432211006093>
22. Moses Makgato, Nelson N, Mudzanani. Exploring School Principals' Leadership Styles and Learners' Educational Performance: A Perspective from High- and Low-Performing Schools, Africa Education Review, 2019;16:2:90-108, DOI:10.1080/18146627.2017.1411201
23. Mansor, Azlin, Zabarani, Hidayah, Jamaludin, Khairul, Yusoff, Mohamed, Alias, Bity, Mansor, Ahmad Zamri. Home-Based Learning (HBL) Teacher Readiness Scale: Instrument Development and Demographic Analysis. Sustainability. 2021;13. DOI: 10.3390/su13042228
24. Hallinger, Philip, Huber, Stephan. School leadership that makes a difference: International perspectives. School Effectiveness and School Improvement - SCH EFFECTIVENESS SCH IMPROV. 2012;23:1-9. DOI: 10.1080/09243453.2012.681508
25. Fullan M. Learning and the pandemic: What's next? Prospects. 2020;49:25–28. Available: <https://doi.org/10.1007/s11125-020-09502->
26. Tatlah IA, Akhtar SN, Hashmi MA. Effect of instructional leadership on teachers' performance and job commitment: A comparison of public and private universities of Lahore. Journal of Educational Research. 2019;22(1):133.
27. Ismail Sualman. Kualiti Pendidikan Malaysia Antara Terbaik di Dunia; 2020. Available: <https://www.sinarharian.com.my/article/9910/KOLUMNIS/Pendidikan-Malaysia>
28. Pietsch, Marcus, Tulowitzki, Pierre. Disentangling school leadership and its ties to instructional practices – an empirical comparison of various leadership styles. School Effectiveness and School Improvement. 2017;28:1-21. DOI: 10.1080/09243453.2017.1363787.
29. Bellibaş MŞ, Gümüş S. A systematic review of educational leadership and management research in Turkey. Journal of Educational Administration. 2019;57(6):731–747.
30. Gumus S, Bellibas MS, Esen M, Gumus E. A systematic review of studies on leadership models in educational research from 1980 to 2014. Educational Management Administration and Leadership. 2018;46(1):25–48.
31. Gümüş S, Hallinger P, Cansoy R, Bellibaş MŞ. Instructional leadership in a centralized and competitive educational system: A qualitative meta-synthesis of research from Turkey. Journal of Educational Administration. 2021;59(6):702–720.
32. Oplatka I, Arar K. The research on educational leadership and management in the Arab world since the 1990s: A systematic review. Review of Education. 2017;5(3):267–307.

33. Aggarwal R, Ranganathan P. Study designs Part 2—descriptive studies. *Perspectives in Clinical Research*. 2019;10(1):34.
34. Liberati A, Altman DG, Tetzlaff J, Mulrow C, Gøtzsche PC, et al. The PRISMA Statement for Reporting Systematic Reviews and Meta-Analyses of Studies That Evaluate Health Care Interventions: Explanation and Elaboration. *Plos Medicine*. 2009;6(7):e1000100. Available: <https://doi.org/10.1371/journal.p.med.1000100>
35. Lambrecht, Jennifer, Lenkeit, Jenny, Hartmann, Anne, Ehlert, Antje, Knigge, Michel, Spörer, Nadine. The effect of school leadership on implementing inclusive education: How transformational and instructional leadership practices affect individualized education planning. *International Journal of Inclusive Education*. 2020;26:1-14. DOI: 10.1080/13603116.2020.1752825.
36. Zuckerman SJ, O'Shea C. Principals' Philosophies of leadership and instructional support strategies. Published in *Journal of School Leadership*; 2020. DOI: 10.1177/1052684620966063.
37. Huong VT. Factors affecting instructional leadership in secondary schools to meet Vietnam's general education innovation. Hanoi National University of Education, Vietnam; 2019.
38. Özdemir N. Principal leadership and students' achievement: Mediated pathways of professional community and teachers' instructional practices. *KEDI Journal of Educational Policy*. 2019;16(1):81–104.
39. Liu S, Hallinger P. Principal instructional leadership, teacher self-efficacy, and teacher professional learning in China: Testing a mediated-effects model. *Educational Administration Quarterly*. 2020;54(4):501-528
40. Shaked H, Benoliel PS. Instructional boundary management: The complementarity of instructional leadership and boundary management. *Educational Management Administration and Leadership*. 2020;48(5):821–839. Available: <https://doi.org/10.1177/1741143219846905>
41. Öznacar, Behcet. The Role of school administrators in the use of technology. *EURASIA Journal of Mathematics, Science and Technology Education*. 2017;13. DOI: 10.12973/eurasia.2017.00615a.
42. Davis FH, Boudreaux MK. Teacher leaders' perceptions of charter school principals' instructional leadership practices. *Journal of Educational Research and Practice*; 2019.
43. Lingam GI, Lingam N, Singh SK. Instructional leadership practices: Teachers perceptions of a rural school Principal in Fiji. *Australian Journal of Teacher Education*. 2021;46(6). Available: <http://dx.doi.org/10.14221/ajte.2021v46n6.2>
44. Cansoy, Ramazan, Parlar, Hanifi. Examining the relationship between school principals' instructional leadership behaviors, teacher self-efficacy, and collective teacher efficacy. *International Journal of Educational Management*. 2018;32:00-00. DOI: 10.1108/IJEM-04-2017-0089
45. Vogel M, Meigen C, Sobek C, Ober P, Igel U, Körner A, Poulain T. Well-being and COVID-19-related worries of German children and adolescents: A longitudinal study from pre-COVID to the end of lockdown in Spring 2020. *JCPP Advances*. 2021;1(1):e12004.
46. Kwan P. The effect of trust on the relationship between instructional leadership and student outcomes in Hong Kong secondary schools. *Asia-Pacific Education Researcher*. 2016;25(1):111–121.
47. Mitchell A, et al. Oscillatory stress stimulation uncovers an Achilles' heel of the yeast MAPK signaling network. *Science*. 2015;350(6266):1379-83
48. Shatzer, Ryan, Caldarella, Paul, Hallam, Pamela, Brown, Bruce. Comparing the effects of instructional and transformational leadership on student achievement: Implications for practice. *Educational Management Administration and Leadership*. 2013;42:445-459. DOI: 10.1177/1741143213502192
49. Aluko FR, Mampane MR. Students with disabilities access to distance education: *International Journal of African Higher Education*. 2022;9(1):94-115. Available: <https://doi.org/10.6017/ijahe.v9i1.15237>
50. Samarinda AN, Ilmu D. *Instructional Leadership Style at MAN 1 Samarinda Suratman*; 2021.
51. Chabalala, Grace, Naidoo, Parvathy. Chabalala and Naidoo *SAJCE* 2021. *South African Journal of Childhood Education*. 2021;11:1-10.

52. Maponya, Tebogo. The instructional leadership role of the school principal on learners' academic achievement. *African Educational Research Journal*. 2020;8:183-193.
DOI: 10.30918/AERJ.82.20.042
53. Kwan P. Is transformational leadership theory passé? Revisiting the integrative effect of instructional leadership and transformational leadership on student outcomes. *Educational Administration Quarterly*. 2020;56(2):321–349.
54. Gümüş S, Bellibaş MŞ, Ş en S, Hallinger P. Finding the missing link: Do principal qualifications make a difference in student achievement? *Educational Management Administration and Leadership*. EPUB ahead of print; 2021.
Available:<http://dx.doi.org/10.1177/17411432211051909>.
55. Bayram Özdemir S, Özdemir M. The role of perceived inter-ethnic classroom climate in adolescents' engagement in Ethnic Victimization: For Whom Does it Work? *J Youth Adolescence*. 2020;49:1328–1340.
Available:<https://doi.org/10.1007/s10964-020-01228-8>

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