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(IJMOE)**www.gaexcellence.com/ijmoe**SUPERVISORY PRACTICES AMONG MIDDLE LEADERS:
A CHRONOLOGICAL REVIEW (2000–2026)**Norizan Abdul Patah^{1,2}, Al-Amin Mydin^{3*}¹School of Educational Studies, Universiti Sains Malaysia, Malaysia norizanpatah@gmail.com <https://orcid.org/0009-0003-6919-2848>²Bahagian Tajaan Pendidikan, Kementerian Pendidikan Malaysia, Malaysia norizanpatah@gmail.com <https://orcid.org/0009-0003-6919-2848>³School of Educational Studies, Universiti Sains Malaysia, Malaysia alamin@usm.my <https://orcid.org/0000-0002-6762-4729>

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DOI: 10.35631/IJMOE.830001**Abstract:**

There has been considerable growth in studies of supervisory practices of middle leaders in the last two decades, but little research has examined the chronology of fields of study. This research bridges this gap by examining the chronological development of the field between 2000 and 2026 in terms of the emphasis of the literature, the research methods used, and ideas of the nature of supervision. Using a chronological review, we analysed 101 peer-reviewed journal articles obtained from the Scopus database using a search strategy. The results show a distinct evolution in three phases. Phase 1 (2000-2013) reflected dispersed research, insert into the management narrative. Phase 2 (2014-2019) was a period of consolidation, in which there was increased attention given to instructional leadership, distributed leadership and professional learning. Phase 3 (2020-2026) established exponential growth, with middle leaders considered as instructors, knowledge: Importantly, research designs have transitioned from being largely descriptive to robust and varied designs, such as mixed methods, structural modelling, qualitative, action research, and others. The review shows that supervisory effectiveness is related to personal and organisational factors such as relational skills, trust and organisational support. This confirms the need to enhance preparation and professional development for leaders, and to take more context-sensitive approaches to research, especially in non-Western and longitudinal contexts.

Keyword:

Chronological Review, Instructional Leadership, Middle Leadership, Supervisory Practices



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Introduction

An important issue in today's educational leadership is that of who is responsible for classroom practices. School instructional supervision, which includes processes of observation, guidance and development of teaching practices, has long been regarded as the purview of school principals. But this is no longer the case. In recent years, the nature of instructional supervision is increasingly recognised as a shared responsibility with middle leaders, such as department heads and subject coordinators, among other mid-level agents between the senior leadership and teachers (Bush, 2023; Leithwood, 2016; Malinga et al., 2021). This comes as middle leaders have expert discipline knowledge, are centrally involved in curriculum and professional development, and work alongside teachers, allowing for dynamic and responsive supervision (Chabalala & Naidoo, 2021; Kubheka et al., 2025; Shaked., 2023). Their position as educators and leaders equips them to direct supervisory efforts that can impact teaching, and ultimately, student learning (Adewale, 2014; Castillo, 2025; Pana, 2024; Potane et al., 2023; Rizada, 2024).

Yet, notwithstanding this strategic role, middle leaders' supervisory practices continue to be hampered. Research indicates ongoing impediments to their enactment such as role confusion, excessive teaching responsibilities, lack of readiness, and inadequate time for reflective observation of teaching, including activity and feedback (Bush, 2023; Kubheka et al., 2025; Leithwood, 2016). As a result, while instructional supervision is often theoretically recognised as important, it is not always realised (Castillo, 2025; Leithwood, 2016; Malinga et al., 2021). However, research suggests that if conditions are right and middle leaders can foster teacher collaborations, support curriculum enactment and school improvement through the benefit of their role autonomy (Chabalala & Naidoo, 2021; Pomentel, 2024). Although the role of middle leaders as supervision agents has been well-recognised, limited attention has been paid to the evolution of the understanding of middle leaders as supervisory agents.

This constitutes the focus of this study. While middle leadership and/or instructional supervision studies have grown significantly in the past 20 years, no study has yet mapped the chronological history of the research. The string and needle review (thematic) identifies the topics of investigation; the chronology review (chronological) shows how the field has developed, when and why. Hence, this study employs a chronological review, using 101 peer-reviewed articles found on the Scopus database published between 2000 and 2026, to illustrate how supervisory practices of middle leaders have evolved. The aim is to understand how and why things have changed over time, and to inform a systematic approach to future research, as well as ensure the well-being of middle leaders in educational organisations.

Literature Review

Middle leaders hold a pivotal role in educational organisations as the "glue" between senior leaders and teachers. This provides them with significant authority in the realm of teacher development, policy enactment and implementation of school improvement projects. Their influence is anything but unfettered. Confusion about their roles, the demands on their time and lack of formal power are common challenges that complicate the supervisory role of middle leaders and have the potential to hinder their success (Bas, 2025; Lambert, 2025; Tarrant, 2025). Responding to these challenges, a growing emphasis in the literature is on the need for professional development and structural capacity building to support middle leaders to balance the demands of their roles (Attard et al., 2025; Hipona, 2024; Pavlopoulos, 2021).

Perhaps the best documented work of middle leaders is to enable teacher professional learning. Their supervisory practices often include promoting collaboration, engaging in reflective inquiry and offering context-specific advice (Adams et al., 2026; Lipscombe et al., 2020). When these practices are done well, middle leaders' teams tend to embrace evidence-informed practices and to establish an environment for professional learning, which, in turn, is linked to improved teaching practice and student learning (Adams et al., 2026; Attard et al., 2025). However, this is not always the case. Middle leaders often take on roles without adequate training and there remain a need for more training in relation to supervisory practices around conflict management, mentoring and leading professional learning (Highfield & Woods, 2024; Irvine & Brundrett, 2016).

Middle leaders' supervisory practices are also shaped by their socio-cultural and organisational contexts. In more centralised systems, constraints and resource allocation in more centralised systems limit autonomy and in turn the impact middle leaders can have on teacher capacity-building (Bas, 2025). More generally, their success is determined by the extent to which they are supported by and have clear expectations from senior leadership and the needed resources for development work (Lipscombe et al., 2020; Pavlopoulos, 2021). These observations suggest improvement in supervision practices requires a systemic approach such as time allocated for leadership and middle leader development programs that are part of a whole-school approach to improvement (Bassett & Shaw, 2018; Pavlopoulos, 2021).

Beyond systemic considerations, the relational aspect of middle leadership provides an essential element to supervision. Middle leaders who take on trustful and dialogic relational practices are more likely to offer responsive, authentic and sustainable supervision (Adams et al., 2026; Altae, 2025). Yet, as both teachers and leaders, middle leaders find themselves stuck in a dilemma between the roles of teaching and supervision, which cannot be alleviated by role clarification (Abu-Shawish & Ghamrawi, 2025; Bassett & Shaw, 2018). While an increasing number of studies have focused on these aspects, research has tended to explore supervisory practice in a piecemeal, or topic-focused, manner without considering how knowledge in this field has evolved over the years. The need to include a temporal synthesis to map the progression of such supervisory practices among middle leaders is therefore evident.

Methodology

Data Collection

In this study a chronological (systematic) review was undertaken focused on the development of supervisory practices in middle leaders using peer-reviewed published journal articles from the Scopus database. Scopus was chosen specifically because its database covers a wide range of high-impact, internationally indexed journals, and provides an interface that supports effectively searching on the basis of specified criteria, increasing the integrity of the dataset. A search query was developed using the terms for two key constructs: supervisory and leadership practices ("supervisory practices," "supervision," "management practices," "leadership practices") and middle-tier leadership ("middle leaders," "middle management," "mid-level leaders", "intermediate leaders", "middle tier"). The search was conducted across the title, abstract and keywords:

TITLE-ABS-KEY ("supervisory practices" OR "supervision" OR "management practices" OR "leadership practices") AND ("middle leaders" OR "middle management" OR "mid-level leaders" OR "intermediate leaders" OR "middle tier")) AND (LIMIT-TO (DOCTYPE, "ar")) AND (LIMIT-TO (LANGUAGE, "English")) AND (LIMIT-TO (SRCTYPE, "j")) AND PUBYEAR > 2000 AND PUBYEAR < 2026

A number of inclusion criteria were used to identify a relevant and high-quality corpus. We focused exclusively on peer-reviewed journal articles in English published between 2000 and 2026 that discussed supervisory practices (management practices, leadership practices) of middle leaders in educational organisations or other operations. The articles were screened first on the basis of titles and abstracts, before full text screening against inclusion and exclusion criteria. A total of 167 records were initially identified. After screening, which involved the removal of records due to lack of conceptual fit, marginal relevance, duplication or lack of empirical or theoretical significance, 101 records were deemed appropriate for chronological assessment. The screening is summarised in Figure 1.

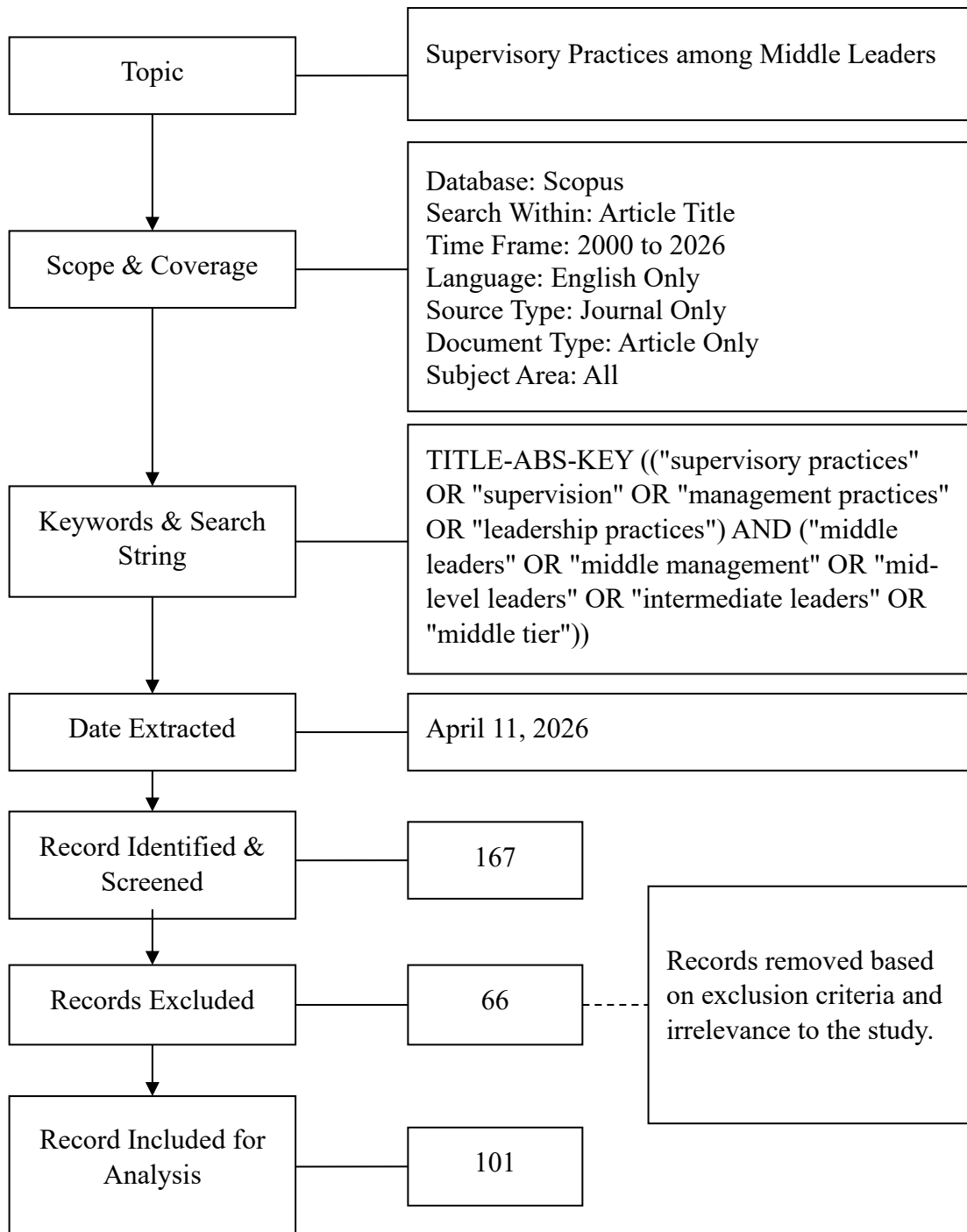


Figure 1. Flow Diagram of The Search Strategy.

Source: Punj et al. (2021), Moher et al. (2009)

Data Clustering

In order to enable structured analysis of research trends, publications extracted from the Scopus database were grouped into time periods (or clusters) based on evidence of changes in the annual number and consistency of publications, level of research intensity, and shifts in the focus of research. These clusters were identified based on visualisation of trends in publications that were further confirmed by observable shifts in the volume and stability of publications

over time. Instead of displaying publications per year in chronological order, this establishes the ability to discern different developmental periods and phases (such as implementation, maturation and explosion, for example), which may otherwise be masked in the annual aggregate view. Three clusters were detected in this longitudinal distribution of the 101 studies, as shown in Figure 2.

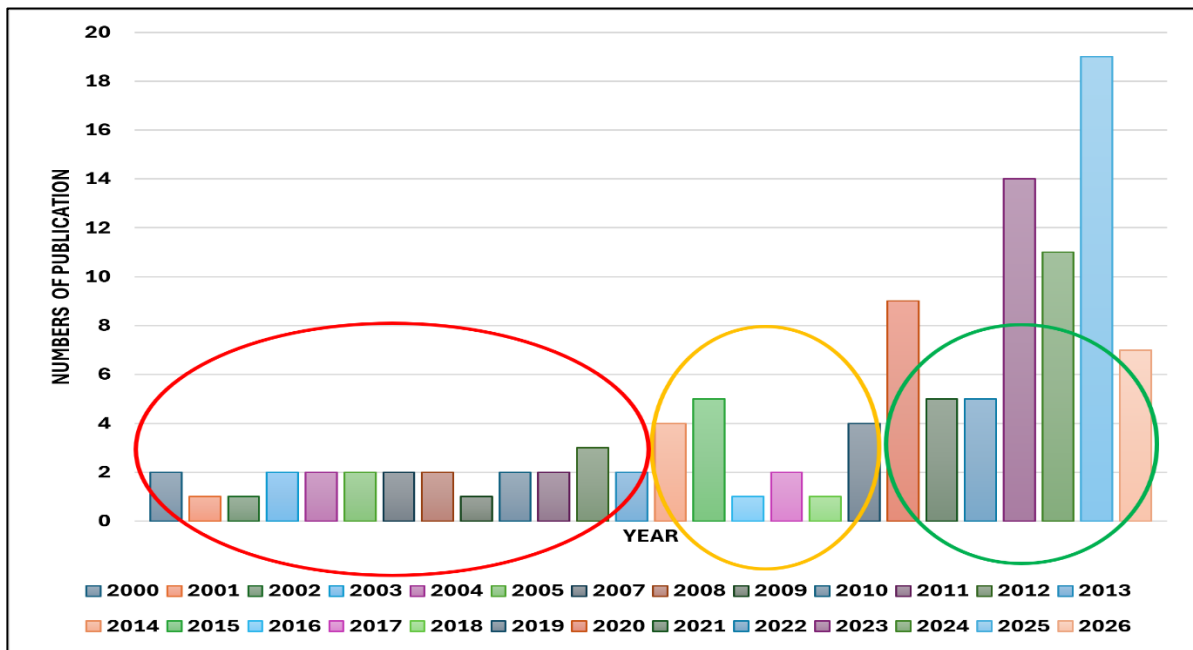


Figure 2: Temporal Clustering of Research Publications on Supervisory Practices among Middle Leaders across Three Developmental Phases (2000–2026)

Note. The figure illustrates the progression of publication output across three phases: Phase 1 (2000–2013), Phase 2 (2014–2019), and Phase 3 (2020–2026).

Phase 1: Nascent and Fragmented Development (2000–2013) features very low and inconsistent publication rates of between one and three articles a year. Scholarly interest in supervisory practices by middle leaders at this time was minimal, with research topics often dispersed through discussions of leadership and management more broadly, rather than as a standalone field of research.

Phase 2: Emerging Consolidation and Gradual Growth (2014–2019) sees the beginning of consolidation and progressive development in scholarly interest, with an increase in publication numbers to one to five articles per year. During this period, the field had started to consolidate, with supervisory practices attracting greater attention and recognition of the significance of middle leaders gaining momentum in educational and organisational scholarship. Occasional fluctuations in the number of publications indicate that activity around middle leaders was progressing but not yet in full flow.

Phase 3: Rapid Expansion and Intensification (2020–2026) marks a critical point of acceleration, with publication output escalating from five to 19 articles per year, accompanied by an escalation of the field from 2023 more. This surge speaks to the considerable priority given to the field of educational research given the increase in current educational reforms, an added focus on the notion of instructional leadership and the evolving complexities of middle leaders' organisational contexts.

This marks not just a growth in the number of publications, but also a shift in the way middle leaders are conceptualised and practised within the field. Overall, the progression from Phase 1 of low and erratic growth, through Phase 2 of moderate growth to Phase 3 (as of 2013) of a sharp increase and acceleration provides a firm foundation for understanding the temporal evolution of this field and demonstrates the ways in which middle leaders' supervisory practices have become a major and rapidly growing field of study.

Results and Discussion

Phase 1: Nascent and Fragmented Development (2000–2013)

The very earliest research on supervisory practices of middle leaders, in fact, does not begin with supervision. From 2001 to 2013, what we find is middle managers were considered as part of the "organisation" in the context of quality management, boundary-spanning roles, organisational restructuring and performance control rather than as subject of their own education and instruction leadership studies (Austin, 2002; Kuei et al., 2001; Oman et al., 2003; Sims, 2003). The view of this era is perhaps more one of an ad-hoc collection of insights about people occupying an organisational no-man's land.

Between 2001 and 2004 questions of organisational performance prevailed. These investigations found better quality management practices led to better cost efficiency, productivity and worker satisfaction while middle managers were also faced with the need to reconcile conflicting demands from different levels of the organisation - a continuing theme in this field. Simultaneously, however, managerial practices were found to have an indirect effect on organisational creativity and innovation, hinting that even at this stage, middle managers were not just blindly implementing policy (Austin, 2002; Khandwalla & Mehta, 2004; Kuei et al., 2001; Lukasova, 2004; Sims, 2003).

From 2005 to 2008, the roles of supervision were more clearly defined and centred on control and co-ordination. Supervisory functions were recognised as constants, even as the roles of managers began to encompass strategy and unit management. Crucially, this was the period that saw coaching, cross-cultural knowledge sharing and skill enhancement emerge as new aspects of supervision, an indication that the field was starting to shift, albeit slowly, from control to facilitation (Hales, 2005; Hotho & Pollard, 2007; Kumar & Antony, 2008; Van Driel et al., 2007; Vance & Paik, 2005).

Between 2009 and 2011, professional development came to feature more prominently in the practice of supervision. Formal management development activities increased managerial and organisational performance, while organisational learning depends on middle managers making sense of and operationalising feedback (Caemmerer & Wilson, 2010; Rani et al., 2010). By 2011, the picture was even more refined to include psychological and relational aspects: satisfaction with middle management was found to predict job satisfaction and organisational commitment; and effective middle managers were found to have significantly greater emotional intelligence (empathy, interpersonal relations and problem-solving) than ineffective middle managers (Dalal et al., 2011; Kotzé & Venter, 2011). So, middle management effectiveness couldn't be reduced to technical skills alone.

Phase 1's final sub-phase (2012-2013) exhibits the most obvious trend toward aspects of the field that would become dominant. Middle managers were identified as playing a pivotal role

in evidence-based decision-making, instructional leadership, teacher development, and initiatives of distributed systems reform, roles that came to the forefront in Phase 2. Human resource practices aimed at retention also emerged, signalling growing recognition of the implications of supervisory practice for organisation-wide effectiveness beyond the supervisory task itself (Adamson & Brown, 2012; Hussain & Sana Ur Rehman, 2013; Seong & Ho, 2012; Westfall et al., 2013).

Overall, Phase 1 reveals a gradual yet patchy shifting and integration in supervisory roles, from disjointed, performance-focused supervisory elements to more whole roles focusing on learning, relational leadership, and organisational change. The field did not start with a clear focus on middle leaders; rather this came about eventually by accrual (Cammereer & Wilson, 2010; Hales, 2005; Kuei et al., 2001; Seong & Ho, 2012).

Phase 2: Emerging Consolidation and Gradual Growth (2014–2019)

Phase 2 marks the point at which middle leadership began to be taken seriously as a research focus in its own right, particularly within educational settings. Between 2014 and 2019, the literature moved from broad management concerns toward instructional leadership, distributed leadership, knowledge work, reform implementation, and teacher-driven school development. Methodological approaches also diversified, with greater use of structural equation modelling, mixed methods, focus groups, interviews, observations, and case-based analysis (Hirsh & Segolsson, 2019; Krommuang & Suwunnamek, 2014; Lárusdóttir & O'Connor, 2017; Ng et al., 2015; Tippmann et al., 2014).

In the early consolidation period of 2014 to 2015, middle leadership remained tied to organisational structures, but the nature of that connection was shifting. Decentralised decision-making and flatter hierarchies were shown to strengthen quality management practices, while good supervision was reframed as relational work, requiring the management of relationships with superiors, supervisees, clients, and workplace stakeholders rather than relying solely on professional knowledge (Fitsimmons, 2014; Krommuang & Suwunnamek, 2014). Flexible organisational structures also emerged as enablers of middle managers' knowledge-search routines, indicating that supervisory practice was becoming less administrative and more dependent on organisational design (Tippmann et al., 2014).

By 2015, an educational turn was clearly underway. Studies from Singapore showed that while principals shaped school vision and climate, middle management teams carried stronger responsibility for curriculum implementation and classroom instruction (Ng et al., 2015). In Iceland, collegial supervision was widely practised but classroom data collection was poor, suggesting a disconnect between the communicative and analytic elements of supervision (Hansen & Lárusdóttir, 2015). In other jurisdictions, middle leaders were demonstrated to create communication spaces to support professional learning and systematic quality improvement processes in early childhood education Rönnerman et al., (2015), revealing evidence about the role evolving beyond the role of co-ordinator.

2016-2017 saw an elevation in ambition for the middle leader. Middle managers were placed at the centre of dynamic capabilities, acting as a knowledge creator, dialectically interacting and creatively problem solving for the organisation (Nonaka et al., 2016). Leadership for change was observed to have significant direct and indirect impacts on various forms of planned and emergent change, with organisational culture key among these (Al-Ali et al.,

2017). Yet Lárusdóttir & O'Connor (2017), identified a persistent gap between distributed leadership theory and actual practice in schools: distributed leadership existed, but often depended on principal permission rather than genuine reciprocal teacher leadership. Conceptual development, in other words, was advancing more rapidly than practical implementation.

Accountability, well-being, and the limits of middle leadership authority defined much of the 2018 to 2019 literature. Education middle managers were found to experience private-sector-style accountability through key performance indicators while retaining less autonomy than their private-sector counterparts (Thompson & Wolstencroft, 2018). Centralised authority and reporting demands reduced managerial well-being, although cognitive reappraisal offered some protection under stressful conditions (Haver et al., 2019). The strongest school-based development emerged in 2019, when middle leaders were shown to enable collaborative learning and teacher-driven development by restructuring rules, divisions of labour, and mediating tools within school activity systems (Hirsh & Segolsson, 2019). Distributed leadership was shown to support collaboration but also risk compliance (Grice, 2019), while professional teacher associations in Russia positioned middle leaders as mediators between school administration, innovation demands, and external requirements, although career limitations created what researchers described as a glass ceiling on leadership development (Merenkov et al., 2019).

Phase 2 is a transitional phase overall. The temporal shift from a structural- and quality-management focus in 2014, to instructional and collegial supervision in 2015, to distributed and change leadership in 2016 to 2017 and finally to pedagogical reform, teacher collaboration and well-being in 2018 to 2019 illustrates a slow but significant shift from middle leaders as organisers and supervisors to middle leaders as knowledge brokers and supervisors, to middle leaders as instruction, reform and professional learnings enablers (Hansen & Lárusdóttir, 2015; Hirsh & Segolsson, 2019; Merenkov et al., 2019; Ng et al., 2015; Tippmann et al., 2014).

Phase 3: Rapid Expansion and Intensification (2020–2026)

Phase 3 is Phase 2 - but having found its feet. From 2020-2026 studies on supervisory practices among middle leaders increased substantially in both quantity and variety, from a focus on instructional improvement and professional learning, to crisis management, culturally responsive practices, destructive leadership, managing AI, and gendered management. Middle leaders were no longer studied as policy implementers; they were examined as knowledge brokers, meaning-makers, moral agents and - in some instances - as destructive leaders (Al-Ghdabi et al., 2020; Chaaban et al., 2025; Grootenboer et al., 2023; Le Fevre et al., 2020; Tang et al., 2022). This period saw the most diverse methodological approaches to study middle leaders yet: structural equation modelling, qualitative case study, Q-methodology, mixed methods, large-scale surveys, action research and practice-based inquiry.

During the initial period of 2020-2021 middle leaders were studied in complex and sometimes chaotic organisational contexts. Middle managers' attributes were found to contribute to innovation performance via strategic human capital management, although not a main determinant (Al-Ghdabi et al., 2020). Principals to lead collective responsibility were shown to negotiate ongoing tensions between accountability, teacher, student and professional learning (Le Fevre et al., 2020). Middle management teams relied on adrenaline and management instruments to inform rapid decision-making in times of disruption, presaging the

later COVID-19 studies. In the field of education, implementation of professional learning communities stressed how supervisory practices were moving more towards teacher learning, but also showed how work pressure, culture and lack of supervision impacted on implementation (Chua et al., 2020; Szeto, 2020).

By 2021 to 2022, the literature had intensified around instructional leadership, coaching, and measurable student outcomes. Coaching helped early-career principals in their reflection and awareness-raising and was potentially applicable to middle leaders and staff (Boon, 2022). A systematic review of instruction-focused middle leadership revealed key instructional practices, while empirical research confirmed specific middle leadership practices were powerful correlates of increased student academic performance (Highfield & Rubie-Davies, 2022; Tang et al., 2022). The pandemic emphasised relational and emotional aspects. Middle leaders in South African schools experienced distributive leadership amid changing roles and the COVID-19 stresses, while researchers focused attention on the need for normal workplaces that honoured psychological, sociological and emotional needs (Fourie & Naidoo, 2022).

The year 2023 marked a turning point toward greater precision. Rather than describing middle leadership in broad terms, studies began identifying specific practices and the conditions under which they operated. Middle managers were shown to support evidence-based decision-making through concrete mechanisms, including staff allocation, guidelines, training, and resource provision (Allen et al., 2023). Middle leaders pursued shared understandings of improved teaching, although the variability of their activities underscored the need for protected time and clearer goal alignment (Vale et al., 2023). Key school improvement drivers were identified, including challenging teacher beliefs, tight monitoring, and building collective responsibility among middle leaders (Meyer et al., 2023). At the same time, high administrative workload was found to reduce middle leaders' attention to teaching and learning, creating a tension between the role's management and leadership functions that remained unresolved (Grootenboer et al., 2023). Beyond schools, 2023 studies examined digital transformation, agile work, race, rural STEM leadership, and everyday managerial practice, reinforcing that supervisory roles were increasingly interpreted as collaborative, contextual, culturally situated, and socially differentiated (Alieva & Powell, 2023; Murphy, 2023; Rasmussen, 2023; Robinson et al., 2023; Zhang, 2023).

The 2024 research was more sophisticated and nuanced. Research in New Zealand revealed effective middle leadership practices, which resulted in academic achievement and equity outcomes, despite a lack of formal training, that included instructional guidance, coaching, goal setting and problem-solving discussions (Highfield et al., 2024). In Malaysia, a tight leadership team and participative decision making were necessary and even sufficient factors in achieving teacher commitment to change while supervision was a complementary but less important practice (Thien et al., 2024). Meanwhile, management-focused studies demonstrated middle leadership as an element of governance systems in which resistance, gender, works councils, and talent paradoxes played out, in which supervisory practice was as much an institutional and cultural practice as a leadership practice (Gechbaia et al., 2024; Grund et al., 2024; Jooss et al., 2024; Purvee et al., 2024).

The 2025 papers are the most varied in the review. Disruption, sensemaking and cultural sensitivities were prominent. Distributing crisis management responsibilities to middle leaders was responsive but also confusing, when lacking support (Ejsing, 2025). Middle leaders' creativity enabled responsive sensemaking in response to disruption (Chaaban et al., 2025).

Singaporean distributed leadership was shown to be culturally embedded in collectivism, hierarchy, pragmatic efficiency and effectiveness, which challenged the unmediated importation of Western leadership models (Lim & Goh, 2025). A parallel theme concerned professional learning and teacher leadership, in which middle leaders were increasingly recognised as networked, boundary-spanning and designers of professional development - activities that involved simultaneously navigating centralised power, informal leadership and the shortcomings of distributed leadership (Abu-Shawish & Ghamrawi, 2025; Arif et al., 2025; Hotham & Perry, 2025; Olondriz-Valverde & del Arco, 2025).

Crucially, 2025 marked an emergence of critical insights. Exploration of destructive middle leadership, manifest as misused authority, rigid hierarchy, institutional stagnation and silencing of disagreement, in Arab higher education troubled the field's subscription to the "goodness" of middle leadership (Ghamrawi et al., 2025). Tension, neglect in supervision and a lack of followership training were seen in health and welfare (Kazi, 2025; Mamba et al., 2025; Rhoden-Neita et al., 2025). Insights into the future came from studies in technology and management. There were differences in how people viewed AI compliance, based on age, gender and seniority (Sargent et al., 2025). Middle management by women influenced sustainable supplier management (Kang et al., 2025). Administrative innovation alleviated burnout, and transformational leadership and psychological safety lessened the negative impact of change (Glukov et al., 2025).

In short, Phase 3 has seen the field undergone a transformation. The shift during this time, from innovation and crisis management in 2020-2021, to instruction and student outcomes in 2022, evidence-based practice and role identities in 2023, cultural responsiveness and governance in 2024, and sensemaking, destructive leadership and AI governance in 2025, reflects a shift from supervisory implementers to middle leaders as instructors, knowledge brokers, cultural arbiters, sensemakers, designers and leaders of professional learning, and ethical agents in complex organisations (Chaaban et al., 2025; Ghamrawi et al., 2025; Grootenboer et al., 2023; Highfield et al., 2024; Tang et al., 2022).

Conclusion

The aim of this review was to map the evolution of research on supervisory practices among middle leaders spanning over 20 years, not only to document topics of research, but to understand when and why ideas came up and how the field has changed, and why. Using 101 peer-reviewed articles from the Scopus database for the same period (2000-2026) the chronological focus offers a view that often eludes thematic reviews, to see how current thinking is informed by and reflects developments in the field over time.

There are three stages. The first, from 2000 to 2013, was a disjointed and budding phase where supervisory practices appeared as a marginal interest within the field of management rather than a dedicated interest. The second, 2014-2019, is characterised by consolidation and a focus on instructional leadership, distributed leadership and professional learning, and as middle leaders as educational, not just organisational, actors. The third period, starting in 2020, sees explosive growth in the volume and tapestry of research on middle leaders as instructional actors, knowledge brokers, reform conveyors, crisis sense-makers and professional learning architects. This is also when we first saw widespread critique of middle leaders' destructive actions.

Across the phases, consistency is generalised. The early studies focused on control, coordination, and performance management, while the more recent work has emphasised collaboration and relational competence, evidence-based practice, and cultural responsiveness. The research went from nothing but descriptive and exploratory studies to broader, more rigorous research leading to - and then eventually involving - mixed methods, structural modelling, qualitative methods, action research and large surveys. This evolution is not simply in methodological approaches, but in a field becoming more certain as to what questions to answer and how to answer them.

The implications of this are relatively straightforward. School systems must be clear about role responsibilities, make time to fulfil supervisory responsibilities and ensure that middle leaders play roles in instruction decision-making. Training and coaching analysis should be considered a structural rather than simply optional resource, in the face of complex supervision. The literature demonstrates consistently that supervisory leadership depends more on relational trust, collaboration and the contextual and organisational factors for the success of middle leaders rather than the positional authority of supervisors per se.

There are also indications of future research. We know little about contexts outside the West, few studies are longitudinal, nor do we have much evidence from classroom practice and professional learning communities. Better understanding how to translate ideas into practice through complex, dynamic and high-pressure environments such as schools, over time and multiple reform cycles, is needed.

This review has a number of limitations. We focused solely on the Scopus database and within it, English journal articles within a specific time period and with specific keywords. Some research may have been missed because it was indexed in different database or published in different languages, or in different forms to journals. More inclusive search keywords and approaches are likely to bring up more insights.

As such, the temporal perspective offers more than a recap of the findings; it offers a narrative of how these findings came about. For mid-level leaders' supervisory practices, it tells a story of a transformation, from an obscure topic on the margins of management to an important and fast-growing field in educational leadership. This, in itself, is a stepping-stone to the future.

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References

- Abu-Shawish, R. K., & Ghamrawi, N. (2025). Sense-making and middle leaders: Analyzing perceptions of role in the development of teacher leadership. *Management in Education*. <https://doi.org/10.1177/08920206251315629>
- Adams, D., Sothinathan, J. S., & Mohd Radzi, N. (2026). From support to strategy: middle leaders' roles in fostering teachers' professional learning and development in schools. *Professional Development in Education*. <https://doi.org/10.1080/19415257.2026.2627334>
- Adamson, J., & Brown, H. (2012). Evidence-informed Leadership in the Japanese Context: Middle managers at a university self-access center. *Tertiary Education and Management*, 18(4), 353–374. <https://doi.org/10.1080/13583883.2012.725765>
- Adewale, O. (2014). *Instructional Improvement of Secondary School Teachers through Effective Academic Supervision by the Vice-Principals*. <https://consensus.app/papers/instructional-improvement-of-secondary-school-teachers-adewale/a5d6b4ef9d965a338510986008e8a9c0/>
- Al-Ali, A. A., Singh, S. K., Al-Nahyan, M., & Sohal, A. S. (2017). Change management through leadership: the mediating role of organizational culture. *International Journal of Organizational Analysis*, 25(4), 723–739. <https://doi.org/10.1108/IJOA-01-2017-1117>
- Al-Ghdabi, R. R., Almomani, R. Z. Q., & Banyhamdan, K. M. (2020). Impact of strategic human capital management practices on innovation performance through middle management characteristics: A study of industrial companies in Jordan. *Quality - Access to Success*, 21(177), 38–42. <https://www.scopus.com/pages/publications/85090875356?origin=resultslist>
- Alieva, J., & Powell, D. J. (2023). The significance of employee behaviours and soft management practices to avoid digital waste during a digital transformation. *International Journal of Lean Six Sigma*, 14(1), 1–32. <https://doi.org/10.1108/IJLSS-07-2021-0127>
- Allen, P., Parks, R. G., Kang, S. J., Dekker, D., Jacob, R. R., Mazzucca-Ragan, S., & Brownson, R. C. (2023). Practices among Local Public Health Agencies to Support Evidence-Based Decision Making: A Qualitative Study. *Journal of Public Health Management and Practice*, 29(2), 213–225. <https://doi.org/10.1097/PHH.0000000000001653>
- Altae, M. (2025). Middle leaders in schools: Leading with heart. *Management in Education*. <https://doi.org/10.1177/08920206251333037>
- Arif, M., Ismail, A., Jia Li, Y., & Yang, W. (2025). Relational and communicative leadership practices in professional learning: a case study of middle leaders in rural Pakistani high schools. *Professional Development in Education*. <https://doi.org/10.1080/19415257.2025.2593899>
- Attard, C., Grootenboer, P., Edwards-Groves, C., & Tindall-Ford, S. (2025). An investigation of the practices of middle leaders in Australian schools. *Australian Educational Researcher*, 52(3), 2345–2367. <https://doi.org/10.1007/s13384-025-00814-8>
- Austin, M. J. (2002). Managing out: The community practice dimensions of effective agency management. *Journal of Community Practice*, 10(4), 33–48. https://doi.org/10.1300/J125v10n04_03
- Bas, G. (2025). Practising middle leadership in improving teacher professional development: evidence from a centralised education setting. *Professional Development in Education*. <https://doi.org/10.1080/19415257.2025.2554742>

- Bassett, M., & Shaw, N. (2018). Building the confidence of first-time middle leaders in New Zealand primary schools. *International Journal of Educational Management*, 32(5), 749–760. <https://doi.org/10.1108/IJEM-05-2017-0101>
- Boon, Z. S. L. (2022). Coaching: an approach for leadership development in the Singapore education system. *International Journal of Mentoring and Coaching in Education*, 11(1), 89–103. <https://doi.org/10.1108/IJMCE-09-2021-0089>
- Bush, T. (2023). The importance of middle leadership for school improvement. *Educational Management Administration & Leadership*, 51, 267–269. <https://doi.org/10.1177/17411432221144628>
- Caemmerer, B., & Wilson, A. (2010). Customer feedback mechanisms and organisational learning in service operations. *International Journal of Operations and Production Management*, 30(3), 288–311. <https://doi.org/10.1108/01443571011024638>
- Castillo, R. C. (2025). Instructional Supervision and Teachers Job Performance: Insights from Academic Heads. *Psychology and Education: A Multidisciplinary Journal*. <https://doi.org/10.70838/pemj.460203>
- Chaaban, Y., Sawalhi, R., & Lundberg, A. (2025). Middle leaders' sensemaking of their leadership practices in response to educational disruption: A Q-methodology study. *Educational Management Administration and Leadership*, 53(1), 65–82. <https://doi.org/10.1177/17411432231152357>
- Chabalala, G., & Naidoo, P. (2021). Teachers' and middle managers' experiences of principals' instructional leadership towards improving curriculum delivery in schools. *South African Journal of Childhood Education*. <https://doi.org/10.4102/sajce.v11i1.910>
- Chua, W. C., Thien, L. M., Lim, S. Y., Tan, C. S., & Guan, T. E. (2020). Unveiling the Practices and Challenges of Professional Learning Community in a Malaysian Chinese Secondary School. *SAGE Open*, 10(2). <https://doi.org/10.1177/2158244020925516>
- Dalal, R. S., Bashshur, M. R., & Credé, M. (2011). The Forgotten Facet: Employee Satisfaction with Management above the Level of Immediate Supervision. *Applied Psychology*, 60(2), 183–209. <https://doi.org/10.1111/j.1464-0597.2010.00431.x>
- Ejsing, M. A. (2025). Decentralization of Internal Crisis Management and Communication: Implications for Crisis Management Teams and Middle Managers. *Journal of Contingencies and Crisis Management*, 33(4). <https://doi.org/10.1111/1468-5973.70100>
- Fitsimmons, G. (2014). On being a good library supervisor. *Bottom Line*, 27(1), 14–16. <https://doi.org/10.1108/BL-01-2014-0001>
- Fourie, L., & Naidoo, P. (2022). Middle leaders and managers perspectives of distributive leadership during COVID-19. *Perspectives in Education*, 40(4), 276–295. <https://doi.org/10.38140/pie.v40i4.6583>
- Gechbaia, B., Goletiani, K., Shoshiashvili, S., Kacharava, K., & Lochoshvili, K. (2024). The role of global economic change in the transformation of Georgian management. *Scientific Bulletin of Mukachevo State University. Series Economics*, 11(3), 47–58. <https://doi.org/10.52566/msu-econ3.2024.47>
- Ghamrawi, N., Shal, T., Ghamrawi, N. A. R., Abu-Tineh, A. M., & Alshaboul, Y. M. (2025). Leading backwards in a forward era: Destructive middle leadership in the pursuit of Higher Education 5.0. *Educational Management Administration and Leadership*. <https://doi.org/10.1177/17411432251396298>
- Gluvakov, V., Kavalić, M., Nikolić, M., Čočkalović, D., Stanisavljev, S., & Mirković, S. (2025). Organizational Innovation and Managerial Burnout: Implications for Well-Being and Social Sustainability in a Transition Economy. *Societies*, 15(12). <https://doi.org/10.3390/soc15120322>

- Grice, C. (2019). 007 Spies, surveillance and pedagogical middle leadership: for the good of the empire of education. *Journal of Educational Administration and History*, 51(2), 165–181. <https://doi.org/10.1080/00220620.2019.1583173>
- Grootenboer, P., Tindall-Ford, S., Edwards-Groves, C., & Attard, C. (2023). Establishing an evidence-base for supporting middle leadership practice development in schools. *School Leadership & Management*, 43, 454–472. <https://doi.org/10.1080/13632434.2023.2271957>
- Grund, C., Sliwka, D., & Titz, K. (2024). Works councils as gatekeepers: Codetermination, management practices, and job satisfaction. *Labour Economics*, 90. <https://doi.org/10.1016/j.labeco.2024.102563>
- Hales, C. (2005). Rooted in supervision, branching into management: Continuity and change in the role of first-line manager. *Journal of Management Studies*, 42(3), 471–506. <https://doi.org/10.1111/j.1467-6486.2005.00506.x>
- Hansen, B., & Lárusdóttir, S. H. (2015). Instructional Leadership in Compulsory Schools in Iceland and the Role of School Principals. *Scandinavian Journal of Educational Research*, 59(5), 583–603. <https://doi.org/10.1080/00313831.2014.965788>
- Haver, A., Olsen, E., & Akerjordet, K. (2019). Well-being among hotel managers: A study on the influence of job stressors and cognitive reappraisal. *International Journal of Contemporary Hospitality Management*, 31(4), 1819–1835. <https://doi.org/10.1108/IJCHM-11-2017-0737>
- Highfield, C., & Rubie-Davies, C. (2022). Middle leadership practices in secondary schools associated with improved student outcomes. *School Leadership & Management*, 42, 543–564. <https://doi.org/10.1080/13632434.2022.2137126>
- Highfield, C., Thompson, P., & Woods, R. (2024). Curriculum Middle Leader Practices and Teachers Perceptions of Their Effectiveness: A Study in New Zealand Secondary Schools. *Education Sciences*. <https://doi.org/10.3390/educsci14060623>
- Highfield, C., & Woods, R. (2024). Recent Middle Leadership Research in Secondary Schools in New Zealand: 2015–2022. *New Zealand Journal of Educational Studies*, 59(1), 93–108. <https://doi.org/10.1007/s40841-023-00304-4>
- Hipona, J. R. S. (2024). Confronting the challenges faced by senior high school mid-level academic managers. *Management in Education*. <https://doi.org/10.1177/08920206241273744>
- Hirsh, Å., & Segolsson, M. (2019). Enabling teacher-driven school-development and collaborative learning: An activity theory-based study of leadership as an overarching practice. *Educational Management Administration and Leadership*, 47(3), 400–420. <https://doi.org/10.1177/1741143217739363>
- Hotham, E., & Perry, E. (2025). Leading teacher learning: the networked middle leader of professional development model. *Professional Development in Education*. <https://doi.org/10.1080/19415257.2025.2552302>
- Hotho, S., & Pollard, D. (2007). Management as negotiation at the interface: Moving beyond the critical-practice impasse. *Organization*, 14(4), 583–603. <https://doi.org/10.1177/1350508407078768>
- Hussain, T., & Sana Ur Rehman, S. (2013). Do human resource management practices inspire employees' retention? *Research Journal of Applied Sciences, Engineering and Technology*, 6(19), 3625–3633. <https://doi.org/10.19026/rjaset.6.3569>
- Irvine, P., & Brundrett, M. (2016). Middle leadership and its challenges: a case study in the secondary independent sector. *Management in Education*, 30(2), 86–92. <https://doi.org/10.1177/0892020616643158>

- Jooss, S., McDonnell, A., & Skuza, A. (2024). Middle managers as key talent management stakeholders: Navigating paradoxes. *European Management Review*, 21(2), 459–476. <https://doi.org/10.1111/emre.12587>
- Kang, R., Kim, Y., & Kang, S. (2025). A determinant of sustainable supplier management by female executives: evidence from South Korean firms. *International Journal of Operations and Production Management*. <https://doi.org/10.1108/IJOPM-09-2024-0839>
- Kazi, D. D. (2025). Leading up: perspectives of the heads of departments and schools on their interactions with hierarchy in UK universities. *Journal of Educational Administration and History*. <https://doi.org/10.1080/00220620.2024.2446884>
- Khandwalla, P. N., & Mehta, K. (2004). Design of Corporate Creativity. *Vikalpa*, 29(1), 13–28. <https://doi.org/10.1177/0256090920040102>
- Kotzé, M., & Venter, I. (2011). Differences in emotional intelligence between effective and ineffective leaders in the public sector: An empirical study. *International Review of Administrative Sciences*, 77(2), 397–427. <https://doi.org/10.1177/0020852311399857>
- Krommuang, A., & Suwunnamek, O. (2014). How organizational characteristics and employee involvement affect quality management practices in the Thai food industry. *Research Journal of Business Management*, 8(3), 203–216. <https://doi.org/10.3923/rjbm.2014.203.216>
- Kubheka, P. N., Naidoo, P., & Oloba, P. (2025). Instructional leadership experiences of departmental heads in five public primary schools in Gauteng province, South Africa. *Interdisciplinary Journal of Education Research*. <https://doi.org/10.38140/ijer-2025.vol7.2.10>
- Kuei, C.-H., Madu, C. N., & Lin, C. (2001). The relationship between supply chain quality management practices and organizational performance. *International Journal of Quality and Reliability Management*, 18(8), 864–872. <https://doi.org/10.1108/EUM0000000006031>
- Kumar, M., & Antony, J. (2008). Comparing the quality management practices in UK SMEs. *Industrial Management & Data Systems*, 108(9), 1153–1166. <https://doi.org/10.1108/02635570810914865>
- Lambert, S. (2025). Factors influencing perceived stress in middle leaders of education. *Management in Education*, 39(4), 179–184. <https://doi.org/10.1177/08920206231189844>
- Lárusdóttir, S. H., & O'Connor, E. (2017). Distributed leadership and middle leadership practice in schools: a disconnect? *Irish Educational Studies*, 36(4), 423–438. <https://doi.org/10.1080/03323315.2017.1333444>
- Le Fevre, D., Meyer, F., & Bendikson, L. (2020). Navigating the leadership tensions in creating collective responsibility. *Journal of Professional Capital and Community*, 6(3), 253–266. <https://doi.org/10.1108/JPC-03-2020-0014>
- Leithwood, K. (2016). Department-Head Leadership for School Improvement. *Leadership and Policy in Schools*, 15, 117–140. <https://doi.org/10.1080/15700763.2015.1044538>
- Lim, S. Q. W., & Goh, J. W. P. (2025). Culturally nuanced distributed leadership practices of middle leaders in Singapore schools. *Educational Management Administration and Leadership*. <https://doi.org/10.1177/17411432251399078>
- Lipscombe, K., Tindall-Ford, S., & Grootenboer, P. (2020). Middle leading and influence in two Australian schools. *Educational Management Administration and Leadership*, 48(6), 1063–1079. <https://doi.org/10.1177/1741143219880324>
- Lukasova, R. (2004). Strategic aspects of organizational culture of Czech companies. *Journal of East-West Business*, 10(1), 93–104. https://doi.org/10.1300/J097v10n01_05

- Malinga, C., Jita, L., & Bada, A. (2021). Middle Management and Instructional Leadership: The Case of Natural Sciences' Heads of Departments in South Africa. *JETL (Journal of Education, Teaching and Learning)*. <https://doi.org/10.26737/jetl.v6i2.2425>
- Mamba, W. M., Fourie, W., & Heyns, T. (2025). Nurse leaders' perceptions of existing followership practices: A descriptive qualitative study. *International Journal of Africa Nursing Sciences*, 23. <https://doi.org/10.1016/j.ijans.2025.100918>
- Merenkov, A. V., Antonova, N. L., & Popova, N. G. (2019). Leadership potential of professional teacher associations in Russia: Formation of middle leaders. *Journal of Language and Education*, 5(3), 70–82. <https://doi.org/10.17323/jle.2019.9934>
- Meyer, F., Bendikson, L., & Le Fevre, D. M. (2023). Leading school improvement through goal-setting: Evidence from New Zealand schools. *Educational Management Administration and Leadership*, 51(2), 365–383. <https://doi.org/10.1177/1741143220979711>
- Murphy, S. (2023). Leadership practices contributing to STEM education success at three rural Australian schools. *Australian Educational Researcher*, 50(4), 1049–1067. <https://doi.org/10.1007/s13384-022-00541-4>
- Ng, F. S. D., Nguyen, T. D., Wong, K. S. B., & Choy, K. W. W. (2015). Instructional leadership practices in Singapore. *School Leadership and Management*, 35(4), 388–407. <https://doi.org/10.1080/13632434.2015.1010501>
- Nonaka, I., Hirose, A., & Takeda, Y. (2016). 'Meso'-Foundations of Dynamic Capabilities: Team-Level Synthesis and Distributed Leadership as the Source of Dynamic Creativity. *Global Strategy Journal*, 6(3), 168–182. <https://doi.org/10.1002/gsj.1125>
- Olondriz-Valverde, A., & del Arco, I. (2025). Cycle coordinators leading teachers: Study of middle leadership practices in primary education. *Educational Management Administration and Leadership*. <https://doi.org/10.1177/17411432251400275>
- Oman, R. C., Gabriel, R. L., Garrett, J. J., & Malmberg, K. B. (2003). Actions by political officials have weakened the federal government workplace: Downsizing has cut lower level workers the most and replacing federal employees with private corporations costs much more, creating the need for immediate reform. *International Journal of Public Administration*, 26(10–11), 1257–1286. <https://doi.org/10.1081/PAD-120019932>
- Pana, E. (2024). School Heads' Instructional Leadership and Performance: Basis for Strategic Leadership Program. *International Journal of Scientific and Management Research*. <https://doi.org/10.37502/ijsmr.2024.7203>
- Pavlopoulos, E. (2021). How to make a difference as a middle leader. *Management in Education*, 35(3), 153–155. <https://doi.org/10.1177/0892020620973038>
- Pomentel, L. D. (2024). Exploring the Influence of School Heads' Instructional Supervision on Teachers' Efficacy and Performance. *International Journal of Research Publications*. <https://doi.org/10.47119/ijrp1001481520246420>
- Potane, J., Alano, I. A. M., & Ongcachuy., B. L. (2023). *Leaders Circle In Facilitating School Heads' Instructional Supervision Practices For Continuing Professional Development*. *International Journal of Educational Management and Innovation*, 4(2), 86-98. <https://doi.org/https://doi.org/10.12928/ijemi.v4i2.5491>. <https://doi.org/10.12928/ijemi.v4i2.5491>
- Purveen, A., Zanabazar, A., & Bat-Ulzii, E. (2024). Making the glass ceiling visible: vertical segregation in Mongolian public universities. *Gender and Education*, 36(6), 615–632. <https://doi.org/10.1080/09540253.2024.2370282>
- Rani, S., Brennan, M., & Timmons, D. (2010). Development of a leadership role in a secure environment. *Journal of Forensic Nursing*, 6(2), 96–103. <https://doi.org/10.1111/j.1939-3938.2010.01073.x>

- Rasmussen, M. A. (2023). 'When the boat comes in': An empirical study of leadership as emerging activities at Greenlandic fish factories. *Leadership, 19*(2), 150–166. <https://doi.org/10.1177/17427150231155567>
- Rhoden-Neita, M.-A., Huang, H., Wilson, C., Jolly, K., Kim, J., & Parmenter, S. (2025). A Pilot Study on External Group Supervision for Child Welfare Supervisors: A Mixed-Methods Design. *Human Service Organizations Management, Leadership and Governance, 49*(4), 351–369. <https://doi.org/10.1080/23303131.2025.2470135>
- Rizada, M. (2024). Supervision of Instruction: Teachers and School Heads' Perspective. *American Journal of Education and Technology*. <https://doi.org/10.54536/ajet.v3i4.3862>
- Robinson, E. M., Anderson, M. W., & Walker, S. A. (2023). Race in the Middle: Exploring the Impacts of Managerial Differences on Organizational Performance. *Administration and Society, 55*(3), 541–568. <https://doi.org/10.1177/00953997221131774>
- Rönnerman, K., Edwards-Groves, C., & Grootenboer, P. (2015). Opening up communicative spaces for discussion 'quality practices' in early childhood education through middle leadership. *Nordic Journal of Studies in Educational Policy, 2015*(3). <https://doi.org/10.3402/nstep.v1.30098>
- Sargent, C. S., Koohang, A., Tsavatewa, C., Floyd, K., & Svanadze, S. (2025). Artificial Intelligence Compliance: Perceptions within Organizations. *Issues in Information Systems, 26*(1), 171–184. https://doi.org/10.48009/1_iis_113
- Seong, D. N. F., & Ho, J. M. (2012). How leadership for an ICT reform is distributed within a school. *International Journal of Educational Management, 26*(6), 529–549. <https://doi.org/10.1108/09513541211251370>
- Shaked., H. (2023). *Instructional leadership in school middle leaders. International Journal of Educational Management, 37*(6/7), 1288–1302. <https://doi.org/https://doi.org/10.1108/ijem-03-2023-0089>. <https://doi.org/10.1108/ijem-03-2023-0089>
- Sims, D. (2003). Between the millstones: A narrative account of the vulnerability of middle managers' storying. *Human Relations, 56*(10), 1195–1211. <https://doi.org/10.1177/00187267035610002>
- Szeto, E. (2020). School leadership in the reforms of the Hong Kong education system: insights into school-based development in policy borrowing and indigenising. *School Leadership and Management, 40*(4), 266–287. <https://doi.org/10.1080/13632434.2019.1616172>
- Tang, J., Bryant, D., & Walker, A. (2022). School middle leaders as instructional leaders: building the knowledge base of instruction-oriented middle leadership. *Journal of Educational Administration*. <https://doi.org/10.1108/jea-01-2022-0018>
- Tarrant, E. (2025). The role of the education adviser in enabling middle leaders to improve performance. In *Advising on School Improvement* (pp. 95–105). Taylor and Francis. <https://doi.org/10.4324/9781041054122-12>
- Thien, L., Chuah, S., & Low, M. (2024). Understanding Middle Leaders' Distributed Leadership Factors as Necessary and Sufficient Conditions for Fostering Teacher Commitment to Change. *European Journal of Education, 59*(4). <https://doi.org/10.1111/ejed.12757>
- Thompson, C., & Wolstencroft, P. (2018). Trust into mistrust: the uncertain marriage between public and private sector practice for middle managers in education. *Research in Post-Compulsory Education, 23*(2), 213–230. <https://doi.org/10.1080/13596748.2018.1444372>

- Tippmann, E., Sharkey Scott, P., & Mangematin, V. (2014). Stimulating knowledge search routines and architecture competences: The role of organizational context and middle management. *Long Range Planning*, 47(4), 206–223. <https://doi.org/10.1016/j.lrp.2013.11.001>
- Vale, C., Roche, A., Cheeseman, J., Gervasoni, A., Livy, S., & Downton, A. (2023). The practices of middle leaders of mathematics: alignment of their goals and activities. *School Leadership and Management*, 43(3), 238–260. <https://doi.org/10.1080/13632434.2023.2179982>
- Van Driel, H., de Goey, F., & Van Gerwen, J. (2007). Testing the Chandler thesis: Comparing middle management and administrative intensity in Dutch and US industries, 1900-1950. *Business History*, 49(4), 439–463. <https://doi.org/10.1080/00076790701296043>
- Vance, C. M., & Paik, Y. (2005). Forms of host-country national learning for enhanced MNC absorptive capacity. *Journal of Managerial Psychology*, 20(7), 590–606. <https://doi.org/10.1108/02683940510623407>
- Westfall, M., Johnson, K. G., & Royse, M. (2013). Making the Leap to Mid-Management. *Serials Librarian*, 64(1–4), 15–20. <https://doi.org/10.1080/0361526X.2013.761017>
- Zhang, L. (2023). The Changing Role of Managers. *American Journal of Sociology*, 129(2), 439–484. <https://doi.org/10.1086/727145>