Overviews and intellectual authority in educational leadership research: How we know 'what we know'

Author:

Adam Bongers

UNSW Sydney, Australia

https://orcid.org/0000-0002-3525-6204

Suggested citation:

Bongers, A. (2026). Overviews and intellectual authority in educational leadership research: How we know 'what we know.' *Educational Management Administration & Leadership*. https://doi.org/10.1177/17411432261495221

Keywords:

Educational leadership, intellectual authority, overviews and umbrella reviews, historical epistemology, knowledge production

Abstract

Systematic reviews and meta-analyses have proliferated in educational administration and leadership research, creating a need for reviews of reviews (overviews, umbrella reviews, meta-meta-studies) to consolidate and make sense of them. This article argues that such overviews do more than collate findings and bolster support for practice models; they also present a new form of claiming intellectual authority and scientific legitimacy for educational administration and leadership as a field. This argument draws upon the methods from historical epistemology to trace three successive appeals to scientific legitimacy in educational administration and leadership: the philosophy of science, the sociology of scientific knowledge, and, more recently, meta-science. In contemporary educational leadership research, meta-scientific practices, exemplified by overviews, aim to construct a cumulative knowledge base from layers of reviews. The article unpacks an influential overview of reviews to examine how this form of synthesis assembles and legitimates evidence. This article discusses seven pressure points associated with overviews, including the compression of methodological nuance, the amplification of tentative findings, and the synthesis of overlapping evidence. Rather than rejecting overviews, the article argues that recognising these vulnerabilities is essential for understanding the conditions under which educational leadership knowledge acquires scientific legitimacy and informs research, policy, and practice.

Overviews and intellectual authority in educational leadership research: How we know 'what we know'

Introduction

Systematic reviews and meta-analyses have increased in prevalence in educational administration and leadership research. They have become among the most cited papers in the field (e.g. Hitt & Tucker, 2016; Robinson et al., 2008), and a common means of making sense of expanding literatures across geographic regions (Bush et al., 2022; Flessa et al., 2018; Hallinger, 2020; Hammad et al., 2022; Storgaard et al., 2025). Their prevalence has created a need for reviews of reviews, including overviews, umbrella reviews (Mertkan & Gümüş, 2026), and meta-meta-studies (Hattie, 2023).

Overviews promise to summarise evidence about what is known, and present recommendations for practice (e.g. Goode et al., 2023; Harris & Jones, 2023). However, this emphasis on 'what we know' has diverted attention away from 'how we came to know it.' Particularly underexplored is the issue of 'intellectual authority:' how forms of knowledge become deemed worthy of academic conversations. Intellectual authority remains vital for understanding the evidence that goes into evidence-informed practice, from proposing initiatives to evaluating their implementation.

This article argues that, when viewed through the lens of intellectual authority, overviews do more than collate findings and support practice models. Rather, they represent a new form of claiming scientific legitimacy for educational administration and leadership as a field. Overviews respond to circumstances that former forms did not, but raise their own issues that require attention.

This study adopts a historical epistemology approach and makes two contributions. First, it argues that contemporary educational leadership research appeals to meta-science for intellectual authority, where earlier work appealed to the philosophy of science and sociology of scientific knowledge. Second, the article identifies seven pressure points where the field is vulnerable to critique, if its scientific legitimacy is to be anchored by overviews.

Intellectual authority and scientific legitimacy

The concepts 'intellectual authority' and 'scientific legitimacy' are drawn from Stephen H. Kellert's (2008) study of how chaos theory concepts have been imported into the social sciences.

Kellert (2008) defines intellectual authority as a social perception that a knowledge claim should be taken seriously within academic debates. As a social perception, intellectual authority is conferred by an academic community, making scientific status a kind of social status. Yet intellectual authority cannot be explained entirely by social power. Critical sociologists have mapped how educational leadership knowledge production serves political imperatives, through a triple helix of commissioned researchers, industry consultants, and policy entrepreneurs (Ball, 1998; Gunter, 2012). Such accounts show how political and market forces may shape the production and circulation of knowledge. This article begins from a complementary question: if these forces alone explained the authority of knowledge, why would government and industry need to mobilise research and expertise at all? Their very recourse to knowledge suggests that it carries an authority worth mobilising. This article therefore focuses on the authority that scientific knowledge itself carries.

One way of garnering this authority is through cross-borrowing from other fields. Kellert (2008) calls these 'source domains,' while Canguilhem (1988) calls them 'adjunct domains.' Borrowing involves more than importing substantive knowledge. Because knowledge claims are 'continuous' with epistemic claims (Kellert, 2008), borrowing from

another field also invokes its standards of scientific legitimacy: the conventions of rigour by which knowledge is judged to be 'scientific.' Borrowed knowledge and standards of legitimacy buttress a field's credibility, rationally and rhetorically. Rationally, they justify a field's scientific standing (Evers, 2022; Oplatka, 2022). Rhetorically, the prestige of a source domain can make derived claims more persuasive (Canguilhem, 1988; Kellert, 2008).

This article uses the term 'reauthorisations' for occasions when a field borrows from new sources of knowledge, renewing its appeals to scientific legitimacy and disciplinary prestige. Reauthorisations introduce new forms of intellectual authority without completely superseding previous ones; they are not 'paradigm shifts' (Kuhn, 1970). Rather, a new form 'crystallises' (Hacking, 2008), and becomes established as a live option for being taken seriously in the field.

Methodology

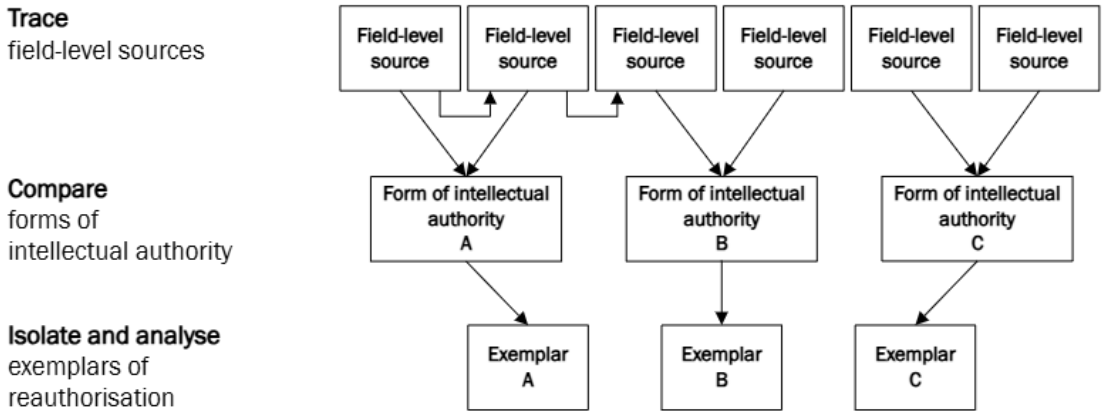
The methodology draws on Kellert's (2008) work, French historical epistemology and Anglophone history and philosophy of science. The study began with an initial research question (1): What is the current form of intellectual authority claimed by educational administration and leadership, and how does it differ from previous forms?

After determining that overviews of reviews now play a key role in claiming intellectual authority, another research question emerged (2): What new issues do overviews raise about scientific legitimacy in the field?

Question (1): Current and previous forms of intellectual authority

The first research question involved tracing sources to compare different forms of authority and isolate exemplars of each. This process is presented in Fig. 1.

Fig. 1. Tracing sources to compare forms of authority and isolate exemplars



Tracing field-level sources

Field-level sources were examined because they make claims about the structure and development of knowledge in the field. These included review articles in journals, histories in reference texts and book-length studies, as well as critiques in edited collections. Kuhn (1970) emphasises how reference texts codify and stabilise a field's practices of inquiry (including what a scientific community 'thinks it knows'). Sources from a seventy-year period (1954-2024) were admitted, beginning with field-building efforts in 1954 (see Analysis 1).

Sources were included where they addressed the configuration and trajectory of the educational administration and leadership field. For terminological consistency (e.g. 'educational administration,' 'educational leadership'), only English-language sources were included. Sources from other disciplines, even if they were influential within the field, were excluded. Those only addressing a particular topic, model, or method were also excluded.

Tracing began with reference texts (encyclopaedias and handbooks) and proceeded through recursive snowballing. This continued when comparing field-level sources (described below). Here, the purpose was not exhaustive retrieval of all sources in a database that meet fixed criteria, but recursive tracing of field-level accounts relevant to changes in intellectual authority.

Two rules were applied to eliminate double-counting. Where the corpus included both a sole-authored book and a chapter from it, the book was counted and the chapter was removed. Where it included an edited volume and separately authored chapters from that volume, the volume itself was removed and the individual chapters were retained. The resulting corpus comprised 455 field-level sources, including journal articles (238), chapters (114), books (87), conference papers (14), and reports (2). Doctoral theses were not included.

Comparing forms of intellectual authority

Field-level sources were compared according to the forms of intellectual authority they represented. Sources sharing common forms of authority were sorted together, producing provisional groupings that could be reconsidered as further sources were traced and compared. The process was therefore one of grouping sources rather than progressively whittling down the corpus. Tracing and comparison continued recursively until further field-level sources no longer altered the emerging groupings, at which point data saturation was considered to have been reached. Three modes of intellectual authority were identified through this process.

Isolating exemplars

An ‘exemplar’ was isolated for each mode of intellectual authority. Exemplars are commonplace in the history and philosophy of science. Kuhn (1970) argues that reference texts canonise predecessors that provide scientists with exemplary models of ‘how their job is to be done.’ Hacking (2008) calls such exemplars ‘trailblazing figures’ (e.g. Thales, Al-Khwarizmi, Galileo, Boyle, Linneaus, Pascal, Darwin). Though named after individuals, they represent new ways a scientific community collectively approaches inquiry.

Each exemplar was isolated based on the intellectual authority accorded to it by subsequent field-level literature. This does not mean that later scholars uncritically adopted the exemplar's format or findings. Rather, the exemplar was referenced when buttressing or critiquing the field as such. The exemplar thus provided a common reference point for identifying a mode of intellectual authority.

Table 1 presents an illustrative sample of the sources used to isolate the three exemplars.

Table 1. Illustrative sample of sources used for locating each exemplar

Illustrative sample of appraised sources	**Exemplar**
Culbertson (1995), Greenfield (1979), Griffiths (1964), Griffiths & Iannaccone (1958), Halpin (1970), Hoy & Miskell (1991), Riffel (1978), Silver (1983), Walker (1986), Willower (1980)	*Programmatic agenda* Getzels & Guba (1957)
Bogotch (2024), Eacott (2022), English (2002), Gunter (2016), Heck & Hallinger (2005), Lakomski & Evers (2020), Maxcy (2003), Murphy (2003), Oplatka (2010), Willower (1991)	*Retrospective history* Foster (1986)
Aldridge & McLure (2024), Bush & Glover (2014), Day & Sammons (2013), Gunnulfsen, et al. (2022), Hallinger & Kovačević (2019), Karakose, et al. (2024), Muijs (2011), Mulford (2008), Robinson, et al. (2008), Tian & Huber (2020)	*Overview of reviews* Leithwood et al. (2006, 2008)

Analysing exemplars

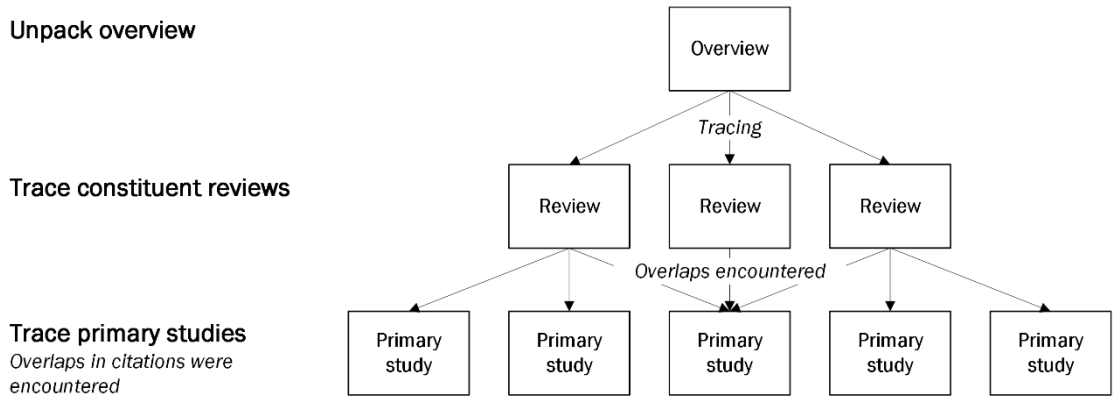
Each exemplar was then analysed using the three-part grid described in the Conceptual Framework section. Cross-borrowing, which had not been used in the source selection, was now used to analyse how each reauthorisation drew on external sources of scientific legitimacy and disciplinary prestige.

The corpus has two relevant design limitations. First, it was limited to English-language sources, and its geographic composition reflects the field's historical development: earlier literature was concentrated largely in the United States; then, British,

Canadian, Australian and New Zealand scholarship became increasingly prominent from the 1970s; and since the 2010s, the English-language field-level literature has become more international (cf. Hallinger & Kovačević, 2019). Second, the study treats 'educational administration and leadership' in a broad sense, including authors variously associated with 'administration,' 'leadership,' 'effectiveness,' or 'improvement.' The social epistemology of these distinct scientific communities has been treated elsewhere (e.g. Eacott, 2017; Gunter, 2016).

Question (2): Diagnose issues with current form of authority

Fig. 2. Unpacking exemplar by tracing constituent reviews, and primary studies



After determining that the contemporary exemplar was an overview of reviews (Leithwood, et al., 2008), focus turned to unpacking it. This process is presented in Fig. 2. The process involved working back through one section of the overview, tracing constituent reviews (systematic and narrative reviews, meta-analyses, meta-syntheses), and their underlying primary studies. Recurring overlaps in citations across reviews became apparent, and are explored in the Discussion section.

The tracing was deliberately partial. In this case, the overview was clearly organised into seven strong claims about school leadership, of which only the first proposition was unpacked. The purpose of this tracing was therefore diagnostic rather than exhaustive: it sought to identify issues raised by the overview's construction, not determine their prevalence across all seven propositions.

Conceptual framework

The exemplars were analysed according to three categories:

Circumstances for reauthorisation. Disciplines seek a renewal of intellectual authority when establishing the worthiness of a nascent research programme (Canguilhem, 1988); when a field is in crisis (Kuhn, 1970); or when concepts and methods become stale and require new problems to solve (Bachelard, 1984). Kellert (2008) also suggests that research assumptions can become overly familiar, and researchers can 'forget' that these were choices to begin with.

Source of authority. This category identifies the external source from which a reauthorisation 'cross-borrows' intellectual authority. As discussed above, Kellert (2008) calls these 'source domains' and Canguilhem (1988) 'adjunct domains.'

Standards of legitimacy. This term refers to the version of science that sets the norms for educational administration and leadership research.

The analysis is summarised in Table 2.

Table 2. Three 'reauthorisations' in educational administration and leadership

Reauthorisation	**Theory Movement (from 1954)**	**Paradigms (from 1974)**	**Robustness (from 2003)**
Exemplar	Functionalist model (Getzels & Guba, 1957)	Three-tiered model (empirical, interpretive, critical) (Foster, 1986)	Successful school leadership model (Leithwood et al., 2008)
Circumstances for reauthorisation	Recognition gap, for a field undergoing professionalisation	Relevance gap, following doubts about philosophical prescriptions	Robustness gap, with concerns about fragmented results, and small/ indirect effects.
Source of authority	Philosophy of science, via public administration. Modelled on the natural sciences.	Sociology of knowledge, via organisational studies. Modelled on the history of physics.	Meta-science, via public policy (EPPI-centre) and public health (PRISMA). Modelled on medicine (clinical epidemiology).
Standards of legitimacy	Scientific method (Hypothetico-deductivism)	Scientific community	Knowledge base

Analysis 1: Three appeals to intellectual authority

The Theory Movement (from 1954)

Circumstances for reauthorisation. In the postwar United States, educational administration confronted a recognition gap. This prompted a project of professionalisation, by establishing national councils and convening conferences. Amidst these circumstances emerged the Theory Movement, whose research programme promised to produce scientific knowledge, and thereby secure intellectual authority for the field (Campbell & Gregg, 1957).

Source of authority. The Theory Movement advocated for the hypothetico-deductivist view of scientific method. They opposed this to craft knowledge grounded in experience, which the movement dismissed as 'naked empiricism' because it lacked explicit philosophical foundations (Griffiths, 1965; Halpin, 1957). Instead, they drew from the philosophy of science as well as Simon's (1945) approach to public administration. Simon (1978) would later affirm his commitment that the social sciences ought to be modelled on the natural sciences; while noting that such emulation historically stemmed from a hankering for 'academic respectability' (Simon, 1969).

Standards of legitimacy. Hypothetico-deductivism proceeded by testing hypotheses derived from general models of predefined objects (Griffiths, 1964; Halpin, 1957). It could claim intellectual authority through consistency of its object of inquiry and its models. When hypotheses were confirmed, they reinforced both the models and the deeper framing of the object. Disconfirmation could be accommodated through model adjustment or treated as an exception, leaving the underlying framing intact. In this way, the wheel did not need to be constantly reinvented.

Exemplar. Getzels and Guba's (1957) functionalist model was singled out as an exemplar of the hypothetico-deductivist method during this time (Griffiths, 1964; Halpin, 1970), as it displayed the key features of a general model designed to generate testable hypotheses.

The first hallmark was clarity. The model clearly laid out assumptions (the school as a functional organisation arriving at goals more or less effectively) and dimensions (the

nomothetic and idiographic). It operationally defined concepts (institutions, roles, personalities) in observable terms. The model was formalised both as an equation and a flowchart, permitting the construction of typologies of conflicts, interventions, and outcomes. This clarity reinforced its standing as a scientific framework.

A second hallmark was tentativeness. The model generated testable hypotheses about the effects of administrative interventions. These hypotheses were investigated cautiously, without drawing premature conclusions (Lipham, 1988). This restraint further supported its claims to produce rigorous and authoritative knowledge.

Paradigms (from 1974)

Circumstances for reauthorisation. By the 1970s, administrative theory faced a relevance gap. Its distinction between scientific knowledge and practitioner experience risked detaching research from educational administration practice. Greenfield (1975) critiqued the view of schools as impersonal functional organisations, recasting them as socially constructed worlds shaped by values, intentions, and purposes.

Greenfield (1975) also critiqued hypothetico-deductivism by appealing to the history of physics. Following Kuhn (1970), he argued that theories and models did not develop linearly and cumulatively, but within paradigms that guided problem-solving until problems necessitated a shift in framework. This meant, unlike under hypothetico-deductivism, even the object of inquiry could shift. Drawing also on Feyerabend (1993), Greenfield (1975, 1993) argued that the principle of 'consistency' encouraged confirmation-seeking research that insulated research programmes from genuine empirical challenge.

Greenfield's (1975) critique provoked protracted disputes within the field (Gronn, 1983) and he was met with professional and personal attacks (Willower, 1997). The critique exposed doubts about relying on philosophical accounts of scientific method as the primary source of the field's intellectual authority.

Source of authority. Appeals to the history of science were transitional. They encouraged a turn away from philosophical prescriptions and opened space for engagement with the

sociology of scientific knowledge. Kuhn's (1970) account of paradigms was not designed for direct application to social science, and scholars turned to Burrell and Morgan (1979), who reformulated paradigms through a quasi-sociology of knowledge.

Donmoyer (2006) reports that paradigms talk gained traction partly due to 'physics envy.' This represented a new appeal to the rigour of natural science; grounded in the standards of a scientific 'community,' rather than a scientific 'method' based on formal models, axioms, and equations.

Standards of legitimacy. Burrell and Morgan's (1979) social approach to paradigms addressed the relevance gap by connecting scientific knowledge with people, practices, and purposes. Moreover, their mapping of functionalist, interpretivist, radical humanist, and radical structuralist orientations also provided a vocabulary for making sense of a field divided between functionalist traditions and Greenfield's interpretivist critique (Griffiths, 1983, 1988).

However, the paradigms concept was not universally embraced (e.g. Willower, 1985). Greenfield (1993) cautioned that typologies could privilege established methodologies and constrain genuine pluralism. Debates about knowledge became derided as 'paradigm wars' which widened the gap between research and matters of social and practical relevance (Blackmore, 2006; Gunter, 2004). The paradigms concept provided a vocabulary for articulating epistemic disagreements but did not resolve them and may indeed have exacerbated them. Nonetheless, the concept was considered important for making sense of the 'intellectual turmoil,' following the destabilisation of the Theory Movement's authority (Griffiths, 1979).

Exemplar. Foster's (1986) critical account of educational administration illustrates how the paradigms concept was taken up. To interpret the plural landscape opened by Greenfield's (1975) critique, Foster drew on Burrell and Morgan's (1979) typology and reworked it through Habermas's (1971) account of the human interests that condition knowledge. He translated technical, historical-hermeneutic, and emancipatory interests into a threefold distinction between empirical, interpretive, and critical approaches to educational administration, in order to reconnect inquiry with human concerns.

Robustness (from 2003)

From the 1980s onward, educational 'leadership' (as opposed to only 'administration') research proliferated across the scientific communities identified by Foster (1986). Empirical work on instructional leadership expanded through using instruments such as the Principal Instructional Management Rating Scale [PIMRS] (Hallinger & Murphy, 1985). Interpretive traditions continued through cultural and ethical studies (Sergiovanni & Starratt, 1989), while critical scholarship advanced forms of 'transformative' leadership concerned with equity (Foster, 1989). Alongside these strands, the 'transformational' leadership model rose to prominence (Hallinger, 1992). This transformational model combined empirical surveys, interpretative concerns about cultural cohesion, and a 'repurposing' of Foster's critical transformative leadership for school reform agendas (Leithwood & Jantzi, 1990).

Circumstances for reauthorisation. As leadership research expanded, a robustness gap became increasingly apparent. Although public and policy discourse often treated leadership effects as 'obvious' (Hallinger et al., 1996), research evidence appeared modest, indirect, and difficult to isolate (Hallinger & Heck, 1996, 1998). Reviews concluded that educational leadership research had generated few robust claims, and a lack of programmatic and cumulative development (Firestone & Riehl, 2003). Critics had also questioned whether leadership was a coherent object of inquiry (Lakomski, 1999).

Source of authority. In response to concerns about robustness, educational leadership researchers turned to meta-science as a source of authority. Drawn from clinical epidemiology, meta-scientific approaches perform observational studies of studies through standardised procedures of search, selection, and synthesis (Moher et al., 2009; Page et al., 2021). Systematic reviews sought comprehensive coverage and minimisation of discretion through predefined inclusion criteria and transparent reporting, while bibliometric analyses examined publication and citation patterns. Meta-analyses treated individual school studies as data points for estimating effect sizes. Together, these approaches promised robustness by reconstructing unified research programmes from dispersed findings, in a way that the paradigms approach had blocked. 'What we know'

reviews proved especially important in synthesising a coherent and cumulative body of knowledge (e.g. Leithwood & Riehl, 2005).

Unlike the philosophy of science, the appeal to meta-science did not prescribe procedures for making inferences; unlike the sociology of knowledge, it did not ground inquiry into diverse scientific communities. In principle, meta-science enabled the harmonisation of diverse research designs, provided that studies retained a common focus on leadership in schools.

Standards of legitimacy. The robustness gap also focused attention on the idea of a 'knowledge base' for educational leadership, and the term took on a specific sense. Whereas earlier discussions treated a knowledge base as an epistemological foundation (Culbertson, 1988), it increasingly referred to an accumulated body of findings for use by practitioners and policymakers (Donmoyer, 1999).

The knowledge base was not introduced as a new epistemology; its purpose was to gather and organise existing research around the consistency across findings. Educational leadership research increasingly came to rely on consistency as the main criterion for recognising claims as scientific expertise, captured by the formula, 'knowledge claims become more robust as the quantity of acceptable evidence accumulates' (Leithwood & Riehl, 2005, p. 13).

This formulation makes two key commitments. The first involves quantity: that the accumulation of evidence is treated as grounds for increased confidence, even if the quantitative amount of evidence does not automatically correspond to the qualitative degree of confidence warranted. The second involves acceptability: that evidence counts as acceptable when it shares the same object of inquiry and is consistent with what is already recognised as known about that object. Together, these commitments stabilised educational leadership knowledge as intellectually authoritative through continuity of focus and cumulative synthesis, while leaving the initial framing of objects and problems largely unexamined.

Analysis 2: Unpacking an exemplary overview

An illustrative example of an appeal to meta-science can be found in the article entitled 'Seven strong claims about successful school leadership' (Leithwood et al., 2008). This work exemplifies how meta-scientific practices have been mobilised to legitimate educational leadership research as scientific expertise by reinforcing a knowledge base. These practices include organising studies around the principle of consistency, aggregating their findings, and presenting them as cumulative evidence.

The selected example is an overview of reviews. Table 3 depicts its evidentiary strata. Analysis focused on the first of the article's strong claims, namely that school leadership is second only to classroom teaching as an influence on pupil learning.

Table 3. Three levels of review: primary studies, reviews, overviews

Level of review	**References**
1. Primary studies	• Published articles: Andrews & Soder, 1987; Bamburg & Andrews, 1991; Hallinger et al., 1996; Heck, 1992; Heck & Marcoulides, 1990 • Conference papers: Crawford et al., 1985 • Reports: Braughton & Riley, 1991 • Theses: Jackson 1982 • Theses using PIMRS: Cantu, 1994; Jones, 1987; Krug, 1986; O'Day, 1984; Ruziscka, 1989
2. Contributing reviews	• Hallinger/Heck: Hallinger & Heck, 1996; Hallinger & Heck, 1998 • Marzano/Waters/McNulty: Waters et al., 2003; Marzano et al., 2005 • Literature review: Leithwood et al., 2004
3. Overviews	Leithwood et al., 2008 • *Four strong claims*: Leithwood & Riehl, 2005 • *Seven strong claims*: Leithwood et al., 2006; Leithwood et al., 2020 • *Ten strong claims*: Day et al., 2010

The top row presents fourteen primary studies. These were selected because they are cited across all the reviews in the middle row (Hallinger & Heck, 1996; Hallinger & Heck, 1998; Waters et al., 2003; Marzano et al., 2005), which are in turn cited as separate sources in the final overview (Leithwood et al., 2008). The primary studies constitute a substantial share of the evidence base, accounting for over 20% of the sources cited by Hallinger and Heck (1998) and Marzano et al. (2005). All employ survey questionnaires, more than a third use the PIMRS instrument, and nearly half are unpublished doctoral theses.

The middle row comprises meta-analytic and literature reviews that interpret these studies in different ways. Hallinger and Heck (1998) adopt a cautiously optimistic stance, concluding that principals exert a small, indirect influence on student achievement. By contrast, Waters and colleagues (2003) advance a more assertive interpretation: Principals who score highly in leadership tests are found in schools where students perform well in exams, so substantial improvements in leadership scores could yield substantial gains in student outcomes. Their meta-analysis acknowledges that the reported effect sizes are based on correlations, rather than experiments testing cause and effect.

Leithwood and colleagues (2004) critique this claim and advise caution. Subsequently, Marzano and colleagues (2005) revisit their findings with greater methodological discussion, noting challenges associated with interpreting effect sizes, inferring causation from correlational data, and with fixating on a single correlation within a complex dataset.

In the bottom row, the overview synthesises these sources to support the first of seven strong claims about successful school leadership. It foregrounds headline findings while omitting many of the methodological qualifications raised in earlier analyses. It also accords greater weight to quantitative meta-analyses than to qualitative studies, on the grounds that qualitative research is less readily generalisable.

The analysis presented here focuses on a small subset of the studies underpinning the overview. While a full audit is beyond the scope of this article, the case illustrates

several methodological vulnerabilities associated with overviews, which are explored in the discussion that follows.

Discussion

This historical investigation sought to locate grounds for intellectual authority in educational administration and leadership. It argues that contemporary educational leadership derives intellectual authority through appeals to meta-science, exemplified by a prominent overview. This discussion indicates that there are seven pressure points where the intellectual authority of leadership knowledge is most exposed to critique.

Seven pressure points in overviews

1. *Overviews compress knowledge for dissemination and utilisation.*

   Overviews derive intellectual authority partly from their capacity to condense large bodies of research into accessible summaries that circulate beyond academic communities and inform policy and practice. In the process, methodological qualifications that could support careful deliberation and context-sensitive application may be compressed or omitted. Moreover, this could introduce circularity: policy relevance can reinforce the perceived authority of overviews, and this intellectual authority may in turn support policy uptake.

2. *Overviews risk rendering tentative findings as bold assertions.*

   Individual studies typically present findings in cautious terms, emphasise limitations, and suggest areas for further inquiry. As findings are synthesised across successive layers of review, claims may become progressively more assertive. This sits in contrast with the Theory Movement's view of scientific method, which was authoritative precisely because it was tentative.

3. *Overviews risk invoking effect sizes without establishing cause-effect relations.*

   The concept of effect size originates in research where experiments were designed to test causal hypotheses. When applied to survey studies, it refers to statistical

associations rather than causal effects. Although this distinction is sometimes acknowledged (e.g. Marzano et al., 2005, p. 129), it may recede in higher-level syntheses. This diverges with the Theory Movement's version of scientific method, which aimed for clarity in defining terms.

4. *Overviews risk giving greater weight to questionnaires than to qualitative methods.*

   Survey data are generally preferred because they come pre-coded and are more readily aggregated, compared to interviews and case studies. While meta-science ostensibly aims to harmonise different research designs, overviews may reinforce the predominance of questionnaires, quietly labelling them as 'large-scale quantitative studies.'

5. *Overviews risk concentrating evidence around a narrow set of survey instruments.*

   Large-scale reviews frequently cluster around a limited number of widely used instruments (e.g. PIMRS). Because such instruments embed particular leadership models and rely on fixed-response formats, they shape both the questions asked and evidence produced. For example, they may ask respondents about 'which' kind of leader influence is preferred, not 'whether' leadership theory is preferred to alternatives. This invites consideration of whether such practices risk a return to the verificationist and confirmation-seeking inquiry critiqued by Greenfield.

6. *Overviews risk relying on unpublished sources.*

   Survey data are often drawn from master's and doctoral theses. The use of readymade surveys in doctoral theses has long concerned scholars (Bridges, 1982; Haller, 1979). In smaller reviews, this is clearly marked (Leithwood, et al., 1996; Leithwood & Sun, 2012) or apparent from reference lists (Hallinger & Wang, 2015; Marzano et al., 2005). In larger-scale reviews of reviews, this is less visible. This raises questions, from the perspective of scientific community standards, about whether studies must be peer reviewed to be accepted as expertise, or whether the publication of an overview confers intellectual authority on the studies it includes.

7. *Overviews contend with multiple reviews based on the same underlying data.*

   Overviews (as well as umbrella reviews and meta-meta-studies) synthesise multiple reviews that draw on overlapping data, giving rise to two related

challenges. Where reviews converge, the same evidence may appear to corroborate itself. Where reviews diverge, the overview must adjudicate between competing interpretations of shared data. This dynamic sits in tension with the aims of systematic coverage and the minimisation of discretion that underpins meta-scientific methodology.

These seven pressure points mark where the intellectual authority of educational leadership knowledge is most vulnerable to critique. They carry implications for how responsibility is to be exercised in the production, dissemination, and reception of educational leadership research.

Production. The common thread among these pressure points has been that overview necessarily compress large bodies of research into accessible summaries, which inevitably entails selective retention and loss. Some qualifications will be foregrounded, while others will be relegated to footnotes or omitted altogether. These are editorial choices: how tentativeness is presented, how concepts are spelled out (e.g. effect sizes versus causal claims), how research designs are weighted, how instruments and publication status are reported, and how competing interpretations are adjudicated. Although no account can fully determine how its findings are later taken up, such editorial choices carry editorial responsibilities to make selections with audiences in view and to signal the selections that have been made.

Dissemination. Journals are primarily oriented toward specialist audiences, for whom many of the methodological considerations discussed here may be familiar and need not be rehearsed in detail within an overview. The equation changes, however, when such reviews of reviews circulate beyond scholarly communities and are taken up in policy and training programmes. This places a shared responsibility on advocates and educators to communicate the trade-offs involved in compressing research while they are translating and circulating summaries. The issue of dissemination remains pressing because commissioned overviews play an instrumental role in diffusing educational leadership research at national and international levels (Gunter, 2012; Thomson et al., 2013).

Reception. The authors of the exemplary overview have expressed ‘surprise’ that its bold claims have gone largely unchallenged and have become widely accepted and endorsed (Leithwood et al., 2020). However, when viewed through the lens of intellectual authority, this is perhaps unsurprising. The overview format itself has become authoritative, which can make it difficult to contest. Moreover, authorship itself also carries authority, and the social position of experts arguably shapes how reviews are taken up and received (Niesche, 2022).

Against this backdrop, educational researchers bear a responsibility to engage critically with overviews. Each stage of condensation, from primary studies to reviews to overviews, compresses nuance. Whereas simple reviews allow claims to be traced back to cited sources, overviews often rely on citation chains in which details become embedded within citations of citations. This does not necessarily imply the laundering of sources or their limitations, though it does present a challenge for scholars to unpack.

This study has begun to reconstruct these citation chains by working back through reviews to examine underlying studies. Such work is labour-intensive, yet the intellectual authority of overviews places a responsibility on the field to undertake it.

Conclusion

This article has traced successive appeals to intellectual authority. Educational administration grounded its claims to scientific legitimacy in the philosophy of science; later debates reframed authority in sociological terms; and contemporary leadership research consolidates its status through meta-scientific practices that construct a knowledge base from layers of review. This latest reauthorisation presents cumulative findings as robust evidence, but also introduces points of vulnerability.

The seven pressure points draw attention to tensions that arise when authority rests on synthesis, particularly the compression of nuance and the reliance on accumulation as a marker of robustness. These tensions do not immediately undermine the substance of leadership research, but highlight the conditions under which its

intellectual authority operates. Responsibility for sustaining the credibility of the field extends across knowledge production, dissemination, and reception, and requires attention to how claims are assembled, communicated, and critically examined.

References

Aldridge, J. M., & McLure, F. I. (2024). Preparing schools for educational change: Barriers and supports—A systematic literature review. *Leadership and Policy in Schools*, 23(3), 486–511.

Andrews, R. L., & Soder, R. (1987). Principal leadership and student achievement. *Educational Leadership*, 44(6), 9–11.

Bachelard, G. (1984). *The new scientific spirit* (A. Goldhammer, Trans.). Beacon Press.

Ball, S. J. (1998). Educational studies, policy entrepreneurship and social theory. In R. Slee, G. Weiner, & S. Tomlinson (Eds.), *School effectiveness for whom?* (pp. 70-84). Falmer Press.

Bamburg, J. D., & Andrews, R. (1991). School goals, principals and achievement. *School Effectiveness and School Improvement*, 2(3), 175–191.

Blackmore, J. (2006). Social justice and the study and practice of leadership in education: A feminist history. *Journal of Educational Administration and History*, 38(2), 185–200.

Bogotch, I. (2024). A genealogy toward methodic doubts in educational leadership research. *Education Sciences*, 14(5), 493.

Braughton, R. D., & Riley, J. D. (1991). *The relationship between principals' knowledge of reading process and elementary school reading achievement* (ED341952). ERIC.

Bridges, E. M. (1982). Research on the school administrator: The state of the art, 1967-1981. *Educational Administration Quarterly*, 18(3), 12–33.

Burrell, G., & Morgan, G. (1979). *Sociological paradigms and organizational analysis*. Gower.

Bush, T., Fadare, M., Chirimambowa, T., Enukorah, E., Musa, D., Nur, H., Nyawo, T., Shipota, M. (2022), Instructional leadership in sub-Saharan Africa: Policy and practice. *International Journal of Educational Management*, Vol. 36 No. 1 pp. 14–31.

Bush, T., & Glover, D. (2014). School leadership models: What do we know*? School Leadership & Management*, 34(5), 553–571.

Campbell, R. F., & Gregg, R. T. (1957). *Administrative behavior in education*. Harper & Row.

Canguilhem, G. (1988). *Ideology and rationality in the history of the life sciences* (A. Goldhammer, Trans.). MIT Press.

Cantu, M. M. I. (1994). *A study of principal instructional leadership behaviors manifested in successful and nonsuccessful urban elementary schools* [Unpublished doctoral dissertation]. University of Texas at Austin.

Crawford, J., Kimball, G., & Watson, P. (1985, March). *Causal modeling of school effects on achievement*. Annual Meeting of the American Educational Research Association.

Culbertson, J. A. (1988). A century's quest for a knowledge base. In N. J. Boyan (Ed.), *Handbook of research on educational administration* (pp. 3–26). Longman.

Culbertson, J. A. (1995). *Building bridges: UCEA's first two decades*. University Council for Educational Administration.

Day, C., & Sammons, P. (2013). *Successful leadership: A review of the international literature*. CfBT Education Trust.

Day, C., Sammons, P., Hopkins, D., Harris, A., Leithwood, K., Gu, Q., & Brown, E. (2010). *10 strong claims about successful school leadership.* National College for Leadership of Schools and Children's Services.

Donmoyer, R. (1999). The continuing quest for a knowledge base: 1976–1998. In J. Murphy & K. S. Louis (Eds.), *Handbook of research on educational administration* (2nd ed., pp. 25–44).

Donmoyer, R. (2006). Take my paradigm … please! The legacy of Kuhn's construct in educational research. *International Journal of Qualitative Studies in Education*, 19(1), 11–34.

Eacott, S. (2017). A social epistemology for educational administration and leadership. *Journal of Educational Administration and History*, 49(3), 196–214.

Eacott, S. (2022). A history of leadership thought. In F. W. English (Ed.), *The Palgrave handbook of educational leadership and management discourse* (pp. 25–41). Palgrave Macmillan.

English, F. W. (2002). The point of scientificity, the fall of the epistemological dominos, and the end of the field of educational administration. *Studies in Philosophy and Education*, 21, 109–136.

Evers, C. W. (2022). The search for science and scientific standing. In F. W. English (Ed.), *The Palgrave handbook of educational leadership and management discourse* (pp. 1563–1583). Springer.

Feyerabend, P. (1993). *Against method* (3rd ed). Verso.

Firestone, W. A., & Riehl, C. (Eds.). (2005). *A new agenda for research in educational leadership*. Teachers College Press.

Flessa, J., Bramwell, D., Fernandez, M. & Weinstein, J. (2018) School leadership in Latin America 2000-2016. *Educational Management Administration and Leadership*, 46(2), 182–206.

Foster, W. (1986). *Paradigms and promises: New approaches to educational administration*. Prometheus Books.

Foster, W. (1989). The administrator as a transformative intellectual. *Peabody Journal of Education*, 66(3), 5–18.

Getzels, J. W., & Guba, E. G. (1957). Social behavior and the administrative process. *The School Review*, 65(4), 423–441.

Goode, H., Drysdale, L., & Gurr, D. (2023). What we know about successful school leadership from Australian cases and an open systems model of school leadership. *Education Sciences*, 13(11).

Greenfield, T. B. (1975). Theory about organization: A new perspective and its implications for schools. In V. Houghton, R. McHugh, & C. Morgan (Eds.), *Management in education: The management of organizations and individuals* (pp. 59–84). Ward Lock.

Greenfield, T. B. (1979). Ideas versus data, or how can the data speak for themselves? In G. L. Immegart & W. L. Boyd (Eds.), *Problem finding in educational administration: Trends in research and theory* (pp. 167–190).

Greenfield, T. B. (1993). *Greenfield on educational administration: Towards a humane science* (T. B. Greenfield & P. Ribbins, Eds.). Routledge.

Griffiths, D. E. (1964). The nature and meaning of theory. In D. E. Griffiths (Ed.), *Behavioural science and educational administration* (pp. 95–118). National Society for the Study of Education.

Griffiths, D. E. (1965). Research and theory in educational administration. In W. W. Charters Jr (Ed.), *Perspectives on educational administration and the behavioural sciences* (pp. 25–50). Center for the Advanced Study of Educational Administration.

Griffiths, D. E. (1979). Intellectual turmoil in educational administration. *Educational Administration Quarterly*, 15(3), 43–65.

Griffiths, D. E. (1983). Evolution in research and theory: A study of prominent researchers. *Educational Administration Quarterly*, 19(3), 201–221.

Griffiths, D. E. (1988). Educational administration: Reform PDQ or RIP. *American Educational Research Association Annual Meeting.*

Griffiths, D. E., & Iannaccone, L. (1958). Chapter IV: Administrative theory, relationships, and preparation. *Review of Educational Research*, 28(4), 334–357.

Gronn, P. C. (1983). Rethinking educational administration: T.B. Greenfield and his critics. *Deakin University Press*.

Gunnulfsen, A. E., Jensen, R., & Møller, J. (2022). Looking back and forward: A critical review of the history and future progress of the ISSPP. *Journal of Educational Administration*, 60(1), 5–20.

Gunter, H. M. (2004). Labels and labelling in the field of educational leadership. *Discourse: Studies in the Cultural Politics of Education*, 25(1), 21–41.

Gunter, H. M. (2012). *Leadership and the reform of education*. Policy Press.

Gunter, H. M. (2016). *An intellectual history of school leadership practice and research*. Bloomsbury.

Habermas, J. (1971). *Knowledge and Human Interests*. Heinemann.

Hacking, I. (2008). *Scientific reason*. Taiwan University Press.

Haller, E. J. (1979). Questionnaires and the dissertation in educational administration. *Educational Administration Quarterly*, 15(1), 47–66.

Hallinger, P. (1992). The evolving role of American principals: From managerial to instructional to transformational leaders. *Journal of Educational Administration*, 30(3).

Hallinger, P. (2020). Science mapping the knowledge base on educational leadership and management from the emerging regions of Asia, Africa and Latin America, 1965–2018. *Educational Management Administration & Leadership*, 48(2), 209-230

Hallinger, P., Bickman, L., & Davis, K. (1996). School context, principal leadership, and student reading achievement. *The Elementary School Journal*, 96(5), 527–549.

Hallinger, P., & Heck, R. H. (1996). The principal's role in school effectiveness: An assessment of methodological progress, 1980–1995. In K. Leithwood, J. Chapman, D. Corson, P. Hallinger, & A. Hart (Eds.), *International Handbook of Educational Leadership and Administration* (pp. 723–783). Springer Netherlands.

Hallinger, P., & Heck, R. H. (1998). Exploring the principal's contribution to school effectiveness: 1980-1995. *School Effectiveness and School Improvement*, 9(2), 157–191.

Hallinger, P., & Kovačević, J. (2019). A bibliometric review of research on educational administration: Science mapping the literature, 1960 to 2018. *Review of Educational Research*, 89(3), 335–369.

Hallinger, P., & Murphy, J. (1985). Assessing the instructional management behavior of principals. The *Elementary School Journal*, 86(2), 217–247.

Hallinger, P., & Wang, W.-C. (2015). *Assessing instructional leadership with the principal instructional management rating scale.* Springer International Publishing.

Halpin, A. W. (1957). A paradigm for research on administrator behavior. In R. F. Campbell & R. T. Gregg (Eds.), *Administrative behavior in education* (pp. 155-199). Row.

Halpin, A. W. (1970). Administrative theory: The fumbled torch. In A. M. Kroll (Ed.), *Issues in American education: Commentary on the current scene* (pp. 156-183). Oxford University Press.

Hammad, W., Samier, E. A., & Mohammed, A. (2022). Mapping the field of educational leadership and management in the Arabian Gulf region: A systematic review of Arabic research literature. *Educational Management Administration & Leadership*, 50(1), 6-25.

Harris, A., & Jones, M. (2023). The importance of school leadership? What we know. *School Leadership & Management*, 43(5), 449–453.

Hattie, J. (2023). *Visible learning: The sequel: A synthesis of over 2,100 meta-analyses relating to achievement*. Routledge.

Heck, R. H. (1992). Principals' instructional leadership and school performance: Implications for policy development. *Educational Evaluation and Policy Analysis*, 14(1), 21–34.

Heck, R. H., & Hallinger, P. (2005). The study of educational leadership and management: Where does the field stand today? *Educational Management Administration & Leadership*, 33(2), 229–244.

Heck, R. H., & Marcoulides, G. A. (1990). Examining contextual differences in the development of instructional leadership and school achievement. *The Urban Review*, 22(4), 247–265.

Hitt, D. H., & Tucker, P. D. (2016). Systematic review of key leader practices found to influence student achievement: A unified framework. *Review of Educational Research*, 86(2), 531–569.

Hoy, W. K., & Miskel, C. G. (1991). Educational administration: Theory, research, and practice (4th ed.). McGraw-Hill.

Jackson, S. A. C. (1982). *Instructional leadership behaviors that characterize schools that are effective for low socioeconomic urban black students* [Doctoral dissertation]. Catholic University of America.

Jones, P. A. (1987). *The relationship between principal behavior and student achievement in Canadian secondary schools* [Doctoral dissertation]. Stanford University.

Karakose, T., Leithwood, K., & Tülübaş, T. (2024). The intellectual evolution of educational leadership research: A combined bibliometric and thematic analysis using SciMAT. *Education Sciences*, 14(4), 429.

Kellert, S. H. (2008). *Borrowed knowledge: Chaos theory and the challenge of learning across disciplines*. The University of Chicago Press.

Khalifa, M. A., Gooden, M. A., & Davis, J. E. (2016). Culturally responsive school leadership: A synthesis of the literature. *Review of Educational Research*, 86(4), 1272–1311

Krug, F. S. (1986). *The relationship between the instructional management behavior of elementary school principals and student achievement* [Unpublished doctoral dissertation]. University of San Francisco.

Kuhn, T. S. (1970). *The structure of scientific revolutions* (2nd Ed.). University of Chicago Press.

Lakomski, G. (1999). Against leadership: A concept without a cause. In P. Begley & P. Leonard (Eds.), *The values of educational administration* (pp. 36–50). Falmer.

Lakomski, G., & Evers, C. W. (2020). *Theories of educational leadership*. In Oxford Research Encyclopedia of Education.

Leithwood, K., Day, C., Sammons, P., Harris, A., & Hopkins, D. (2006). *Seven strong claims about successful school leadership*. NCSL.

Leithwood, K., Harris, A., & Hopkins, D. (2008). Seven strong claims about successful school leadership. *School Leadership & Management*, 28(1), 27–42.

Leithwood, K., Harris, A., & Hopkins, D. (2020). Seven strong claims about successful school leadership revisited. *School Leadership & Management*, 40(1), 5–22.

Leithwood, K., & Jantzi, D. (1990). Transformational leadership: How principals can help reform school cultures. *School Effectiveness and School Improvement*, 1(4), 249–280.

Leithwood, K., Louis, K. S., Anderson, S., & Wahlstrom, K. (2004). Review of research: How leadership influences student learning. *University of Minnesota*.

Leithwood, K., & Riehl, C. (2005). What do we already know about educational leadership? In W. Firestone & C. Riehl (Eds.), *A new agenda for research in educational leadership* (pp. 12–27). Teachers College Press.

Leithwood, K., & Sun, J. (2012). The nature and effects of transformational school leadership: A meta-analytic review of unpublished research. *Educational Administration Quarterly*, 48(3), 387-423.

Leithwood, K., Tomlinson, D., & Genge, M. (1996). Transformational school leadership. In K. Leithwood, J. Chapman, D. Corson, P. Hallinger, & A. Hart (Eds.), *International handbook of educational leadership and administration* (pp. 785–840). Springer Netherlands.

Lipham, J. M. (1988). Getzel's models in educational administration. In N. J. Boyan (Ed.), *Handbook of research on educational administration* (pp. 171–184). Longman.

Marzano, R. J., Waters, T., & McNulty, B. A. (2005). *School leadership that works: From research to results*. Association for Supervision and Curriculum Development.

Maxcy, S. J. (2003). The new pragmatism and social science and educational research. In E. A. Samier (Ed.), *Ethical foundations for educational administration* (pp. 155–177). Routledge.

Mertkan, S., & Gümüş, S. (2026). Review of systematic reviews in educational leadership and management: Methods used, topics explored and geographies covered. *Educational Management Administration & Leadership*, 54(3), 693-721.

Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & the PRISMA Group. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. BMJ, 339, b2535.

Muijs, D. (2011). Leadership and organisational performance: From research to prescription? *International Journal of Educational Management*, 25(1), 45–60.

Mulford, B. (2008). *The leadership challenge: Improving learning in schools*. Australian Council for Educational Research.

Murphy, J. (2003). *Reculturing educational leadership: The ISLLC Standards ten years out*. NPBEA.

Niesche, R. (2022). The sublime, affect phrasing, and les petits narratives in educational leadership. In E. A. Samier, *Existential Crises in Educational Administration and Leadership* (pp. 38–54). Routledge.

O'Day, K. A. (1984*). The relationship between principal and teacher perceptions of principal instructional management behavior and student achievement* [Unpublished doctoral dissertation]. Northern Illinois University.

Oplatka, I. (2010). *The legacy of educational administration: A historical analysis of an academic field*. Peter Lang.

Oplatka, I. (2022). Is a science of educational leadership possible? In F. W. English (Ed.), *The Palgrave handbook of educational leadership and management discourse* (pp. 1–15). Springer International Publishing.

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., ... Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, 372, n71.

Riffel, J. A. (1978). The theory problem in educational administration. *Journal of Educational Administration*, 16(2), 139–149.

Robinson, V. M. J., Lloyd, C. A., & Rowe, K. J. (2008). The impact of leadership on student outcomes: An analysis of the differential effects of leadership types. *Educational Administration Quarterly*, 44(5), 635–674.

Ruzicska, J. K. (1989). *The relationships among principals' sense of efficacy, instructional leadership, and student achievement* [Unpublished doctoral dissertation]. University of San Francisco.

Sergiovanni, T. J., & Starratt, R. J. (1989). *Supervision: Human perspectives* (4th ed.). McGraw-Hill Book Company.

Silver, P. F. (1983). *Educational administration: Theoretical perspectives on practice and research*. Harper & Row.

Simon, H. A. (1945). *Administrative behavior*. Free Press.

Simon, H. A. (1969). *The sciences of the artificial*. MIT Press.

Simon, H. A. (1978, December 8). Rational decision-making in business organizations. Nobel Memorial Lecture. Nobel Foundation.

Storgaard, M., Ragnarsdóttir, G., Ärlestig, H., Frederiksen, L. F., Gunnulfsen, A. E., Jónasdóttir, M., Mäkiharju, A., Sigurðardóttir, S. M., Leo, U. & Smeds-Nylund, A. S. (2025). Nordic research on educational leadership in times of crises. International *Journal of Educational Management*, 39(6), 1547-1564.

Thomson, P., Gunter, H. M., & Blackmore, J. (2013). Series foreword. In D. Gillies, *Educational leadership and Michel Foucault*. Routledge.

Tian, M., & Huber, S. G. (2020). Mapping educational leadership, administration and management research 2007–2016: Thematic strands and the changing landscape. *Journal of Educational Administration*, 58(2), 129–150.

Walker, W. G. (1986). IIP 66: Source of an operating manual for educational administration on spaceship earth? In E. Hoyle & A. McMahon (Eds.), *World yearbook of education 1986: The management of schools* (pp. 310–318). Kogan Page.

Waters, T., Marzano, R. J., & McNulty, B. (2003). *Balanced leadership: What 30 years of research tells us about the effect of leadership on student achievement*. McREL.

Willower, D. J. (1980). Contemporary issues in theory in educational administration. *Educational Administration Quarterly*, 16(3), 1–25.

Willower, D. J. (1985). Philosophy and the study of educational administration. *Journal of Educational Administration*, 23(1), 5–22.

Willower, D. J. (1991). Art and science in administration. *Education*, 111(4).

Willower, D. J. (1997). Inquiry in educational administration: Pitfalls and possibilities. *Educational Management & Administration*, 25(4), 437–449.