

A Systematic Review of Methodological Approaches in Educational Leadership Research from 2016 to 2019

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Abstract

This article offers a small-scale systematic review spanning three years of empirical research (from 2016 to 2019) on educational leadership. The purpose of the review is to explore the main methodological approaches used to research leadership in the field of education. To identify suitable empirical research studies a bounded search was carried out into specific bibliographic databases such as, “*Educational Resources Information Centre*” (ERIC), and “*The British Educational Leadership, Management and Administration Society*” (BELMAS). In total, 23 empirical studies on educational leadership were sampled from 11 peer-reviewed journals. The review employed a quantitative approach to analyse the sample studies especially focusing on three sets of variables: 1) research designs, 2) sample size, and 3) techniques of data analysis employed in the selected studies. The findings suggest that from 2016 onward mixed methods and case study research designs have become increasingly important in the field of educational leadership. Interviews, observations, focus groups and document analysis have been the most common data collection methods in the qualitative studies, while surveys and close-ended questionnaires have been dominant methods to collect quantitative data in this area. The average numbers of participants involved in the qualitative studies were 30, and 400 as a good sample size for quantitative studies. The most popular techniques used to analyse qualitative information were content analysis, thematic analysis and grounded theory. Wherein descriptive statistics analysis and factor analysis were the main techniques to analyse quantitative data.

Keywords

Educational Leadership, Research Methodologies in Education, Methodologies in Education

1. Introduction

A review undertaken by Heck and Hallinger (2005) on the state of research in educational leadership reveals that prior to 1950 the knowledge base in educational leadership was drawn from theoretical claims. Practice within the field focused on stories told by former educational leaders, and their prescriptions for practice were based on their ideological beliefs and personal experiences in life.

A more recent literature review of research on the development of school leadership conducted by Jensen (2016) covered the period from the 1950s to 2016, with the aim of identifying the primary research methodologies, strengths and weaknesses of the existing research. The review was based on the assumption that “what we know is the result of how we come to know it.” To support the analysis, Jensen (2016) applies Gunter’ (2006) conceptualisation of knowledge domains as a framework to analyse the underlying concerns that might have affected the research within three eras, from the 1950s, the 1980s onward, and from 2000 to 2016. According to Gunter (2006), “*knowledge provinces [domains] mean what is being asserted as constituting the truth underpinning the intention behind any leadership activity*” (2006, p. 263). In other words, the method by which we research educational leadership is consequential to our knowledge about the educational leadership phenomenon. Table 1 explains the types of knowledge production, containing six knowledge domains developed through a set of different approaches to purpose.

Similarly, in this systematic review, I have used Gunter (2006) knowledge domains as a comprehensive tool for identifying the main methodological approaches used to research educational leadership in the period from 2016 to 2019.

Table 1. Six types of knowledge domains by Gunter (2006).

Knowledge domains	Description
1. Conceptual perspective	Research products with conceptual purposes engage with philosophical questions of morality, ethical issues, understanding the nature of research and for conceptual clarity.
2. Descriptive perspective	Research products are interested with providing detailed reports about aspects related to leaders and leadership through surveys.
3. Humanistic perspective	These types of research are focused on gathering data, theorising experiences and biographies of leaders and managers.
4. Critical perspective	Research products with critical purposes deal with issues of power and social justice.
5. Evaluative perspective	This research is oriented to measure the impact and effectiveness of leadership and identify the conditions to improve.
6. Instrumental perspective	These types of research are interested to provide prescribed action for change.

Based on Jensen's (2016) interpretation it appears that in the 1950s educational leadership research had instrumental and descriptive purposes. Researchers used scientific approaches such as quantitative research methods, formulating hypotheses and testing collected data through surveys to develop effective strategies in order for school leaders and school staff to achieve organisational goals. Moreover, educational leadership programmes were focused on the behaviour science of school leaders, describing their characteristics and testing their actions. Research describes the period from 1947 to 1985 as "the behavioural science era", and Burns (1997) refers to the model of educational research in this period as the empirical "objective scientific model," using quantitative research methods and surveys and questionnaires as the main sources for collecting data.

However, in the mid-1970s scholars in the field of social sciences encountered a variety of issues which could not be quantified, and these required more intellectual work to understand. For instance, responding to philosophical questions of morality and life. Therefore, qualitative approaches were introduced in response to these types of issues. The diversity of research designs was especially evident from the 1980s onward, when the role of school leadership changed from being a manager (managing stability) to a leader, to influence others and complete the process of change (Connolly et al., 2019). Hence, to understand the process of change, scholars and practitioners found qualitative research methods more suitable for dealing with more naturalistic inquiries, as well as what Gunter (2006) called conceptual clarification. Observations and interviews were the most common methods for collecting information, while researchers using their own experiences and others involved in the research to understand the real nature of the research and find out what constitutes a fact. Burns (1997) describes the model of educational research as "qualitative, naturalistic and subjective" in nature; and Hallinger (2003) refers to this period as the "era of globalisation."

Subsequently, as declared by Jensen (2016), from 2000 to 2016, all six types of knowledge domains were apparent in educational leadership research, although studies had more evaluative purposes for measuring the effectiveness of school leadership and identifying the conditions to improve. Nevertheless, in terms of data collection methods, surveys and interviews were popular. The field began to adapt a variety of research designs and a wide range of data collection techniques such as case studies, document analysis, focus groups and video recording.

Gradually, significant increase in empirical research and diversity of methods in the educational leadership field made it difficult, especially for novice researchers and scholars, to accumulate knowledge and integrate the findings into single evidence to use as a guide. Accordingly, this review attempts to identify the main methodological approaches used for research leadership in the field of education. Comparable to the literature review carried out by Jensen (2016), the present review uses Gunter' (2006) knowledge domains as a comprehensive tool to identify the main methodological approaches in the field. In so doing, I have

selected 23 methodologically diverse empirical studies on educational leadership, conducted between 2016 and 2019. Additionally, I have taken a quantitative approach to analyse the selected studies, particularly focusing on three sets of variables: 1) research designs, 2) sample size, and 3) techniques of data analysis employed in the selected studies.

The following questions guide the review.

2. Review Questions

- 1) What types of research designs were employed?
- 2) How many participants took part?
- 3) Which data analysis techniques were employed?

3. Methods

This section of the review presents the methods employed to identify and collect data. This consists of the search strategy (the procedures for data collection), criteria for including/excluding sources and data extraction.

3.1. Search Strategy

To ensure scientific quality, only peer-reviewed journals were considered in this review. The review was sourced from eleven well-recognised journals, including *Educational Management Administration & Leadership* (EMAL); *Journal of Higher Education Policy and Management*; *Educational Administration Quarterly* (EAQ); *School Leadership and Management*; *Journal of Educational Administration* (JEA); *International Journal of Leadership in Education*; *Leadership and Policy in Schools*; *Africa Education Review*; *National Education Policy Centre*; *Universal Journal of Educational Research*; and *Eurasian Journal of Educational Research*, which were frequently used in earlier reviews of educational leadership and management researches (Oplatka & Arar, 2017; Hammad & Hallinger, 2017). Additionally, scholarly databases incorporated in the search included the Educational Resources Information Centre (ERIC) and The British Educational Leadership, Management and Administration Society (BELMAS) to increase the reliability of the selected sources.

This review aimed at selecting a representative sample of high-quality empirical research studies in educational leadership. The review employed search criteria that provided a bounded set of sources. The rationale behind choosing the period from 2016 to 2019 was that the time span was considered both substantial and sufficient for the purpose of the review, in order to include the most recent papers. A Boolean search string was used to select sources; using main keywords inspired by a comprehensive review of the research studies in the field (such as Leithwood & Jantzi's, 2005 review). I also tried several search strings to provide the most representative dataset such as *educational leadership and school improvement and UK*; *“educational leadership” and “school improvement” and UK*; *education and leadership and “primary and secondary schools” and “staff*

development and UK. Scanning the abstracts and the keywords provided (for example, methods, research methodology, and data analysis methods) with each paper confirmed the findings were empirical studies. This search produced 252 research and review articles. All the articles were carefully screened to eliminate those which did not fit the inclusion criteria in **Table 2**. For example, articles written in other languages and articles that were not peer-reviewed were identified and excluded from the dataset. Consequently, the number of articles drawn from the above dataset was reduced to 16.

To increase the certainty of identifying all relevant studies, I also went through bibliographic database searches of ERIC from the EBSCOhost platform within the same timeline (2016-2019), using keywords used by (Robinson, 2007) such as “DE Leadership Styles” OR DE “Transformational Leadership”, and found 685 papers. I then reviewed the titles and abstracts of each paper and found only seven papers aligned with the inclusion criteria (**Table 2**). The combined search methods provided me with a set of 23 studies.

3.2. Eligibility Criteria

Inclusion and exclusion criteria are summarised in **Table 2** below.

3.3. Data Extraction

Data extraction included gathering information relevant to my review questions from each of the 23 sample studies. The method I used for this purpose was as follows: initially, data were coded to facilitate quantitative analysis (Gough, 2007), and extracted into an excel spreadsheet (for example, author, year, type of journal and the studies’ locus). Following my judgements about the nature of the studies, I then entered information such as keywords, methods of data analysis, and sample size into a table (see **Table 3** below). Finally, as will be discussed in the following section on data evaluation and analysis, descriptive statistics were employed to examine aspects related to variables such as research designs, study sample sizes and techniques of data analysis.

Table 2. The inclusion & exclusion criteria.

Inclusion criteria	Exclusion criteria
<ul style="list-style-type: none"> • Empirical studies within the field of educational leadership • Peer-reviewed journals • Articles published in English • Articles published between 2016 and 2019 • Articles including primary and secondary school systems • Articles showing a relationship between educational leadership and at least one of the following keywords: school improvement, staff development and leadership styles. 	<ul style="list-style-type: none"> • Articles written in other languages • Articles which were not specified as empirical studies • Articles which were not peer-reviewed • Articles that were published prior to 2016

Table 3. Characteristics of sample size studies in educational leadership in 11 selected journals.

Author	Year	Journal	Keywords	Data analysis	Sample size
1. Mitchell & Sackney	2016	EMAL	High-capacity schools	Thematic analysis	Not specified
2. Kaparou & Bush	2016	International Journal of Educational Management	Impact of leadership on teacher & student learning	Cluster analysis	51 teacher & principal
3. Moorosi & Bantwini	2016	South African Journal of Education	Leadership styles & school improvement	1. Iterative process 2. Factor analysis	100 (quant.) & 8 (qual.)
4. Liu, Hallinger and Feng	2016	JEA	Leadership & teacher learning	1. Factor analysis 2. Structural equation modelling (SEM)	1259
5. Liljenberg	2016	School Leadership and Management	Leadership styles & classroom development	1. Thematic analysis 2. Content analysis	42 stakeholders
6. Day, Gu and Sammons	2016	EAQ	Leadership styles & student learning	1. Factor analysis 2. Structural equation modelling (SEM)	1775 (quant.) & qualitative not specified
7. Bradley-Levine	2016	International Journal of Teacher Leadership	Critical educational leadership	Pragmatic horizon analysis (PHA)	6
8. Erturk & Donmez	2016	Universal Journal of Educational Research	Leadership styles & teachers' behaviours	1. T-test 2. Regression analysis	393 teachers
9. Gorski	2016	Eurasian Journal of Educational Research	Leadership styles	1. Spearman's correlation analysis 2. Multiple linear regression analysis (MLRA)	402 teachers
10. Litz & Scott	2017	EMAL	Leadership styles	1. Descriptive statistics analysis 2. Iterative categorisation (IC)	130 (quant.) & 16 (qual.)
11. Timor	2017	School Leadership and Management	Teacher leadership	1. Content analysis 2. Grounded theory	79 teachers
12. Ho & Ng	2017	EAQ	Leadership styles	Activity theory	13 teachers & principals
13. Yakavets, Frost and Khoroshash	2017	International Journal of Leadership in Education	School leadership & capacity building	1. Descriptive statistics (NVivo 10 software) 2. (Not specified)	19 principals
14. Llorent-Bedmar et al.	2019	EMAL	School leadership & school improvement	1. Descriptive statistics (SPSS v.23 software) 2. Content analysis	282 teachers & 14 principals
15. Yakavets	2017	EMAL	School leadership development	1. Descriptive statistics (using NVivo 10 software) 2. Grounded theory	58 teachers & principals
16. Tahir, Thakib, Hamzah, Said and Musah	2017	EMAL	School leaders' professional isolation	1. Descriptive statistical analysis-standard deviation 2. Content analysis	170 (quant.) & 10 (qual.)

Continued

17. Morrison	2018	EMAL	Leadership & change in school	1. Descriptive statistics analysis 2. Thematic analysis	75 (quant.) & 5 (qual.)
18. Tran, Hallinger and Troung	2018	School Leadership and Management	Leadership & staff development	Thematic analysis	89 teachers & principals
19. Niño	2018	International Journal of Leadership in Education	Professional practice of superintendent	Conversational analysis	1
20. Marfan & Pascuala	2018	EMAL	Effective school leadership and student outcome	1. Descriptive comparative analysis 2. Cluster analysis	Not specified
21. Makgato & Mudzanani	2019	Africa Education Review	Leadership styles & teacher development	Content analysis	50 teachers & principals
22. Hallinger & Hosseingholizadeh	2019	EMAL	Leadership styles	1. Cronbach's alpha test 2. Grounded theory	535 (quant.) & 12 (qual.)
23. Aravena	2019	Leadership and Policy in Schools	Leadership behaviour	Categorisation	207 teachers

3.4. Findings

An empirical analysis of academic journals resulted in identification of twenty-three sample studies (see **Table 4** below). Of the 23 studies included in the review, 10 (44%) used mixed methods (a combination of qualitative and quantitative data), employing interviews, observations, focus groups and document analysis as their main methods to collecting data; 5 (22%) used case studies; 4 (18%) used qualitative methods; and equally 4 (18%) used quantitative methods, using surveys and questionnaires as their data collection methods.

The bulk of the evidence drawn from the sample studies carried out in 20 countries including the UK. As the table below shows, the majority of the evidence included in this review (22 out of 23 - 96%) was conducted outside of the UK, even though the term "UK" was in the search process, only one UK-based study was found (1 out of 23 - 4%).

3.5. Data Evaluation and Analysis**What types of research designs were employed? (first review question)**

To answer my first research question, I read the abstracts, research methods and data collection sections of each sample studies. The results indicated that the majority of studies (44%) adopted mixed methods, 22% adopted case study designs, 18% included qualitative and 18% included quantitative research designs. Furthermore, in terms of data collection methods, as **Table 5** presents, the most common techniques employed in both qualitative and quantitative research studies are interviews at 61%, with observations at 35%, focus groups 18%, document analysis 18%, surveys 35% and questionnaires at 31% (see **Table 5** below).

Table 4. Sample studies in educational leadership (2016-2019).

Author	Year	Locus	Research design
1. Mitchell & Sackney	2016	Canada	Case study
2. Kaparou & Bush	2016	Greek & England	Mixed methods
3. Moorosi & Bantwini	2016	South Africa	Mixed methods
4. Liu et al.	2016	China	Qualitative
5. Liljenberg	2016	Sweden	Case study
6. Day et al.	2016	UK	Mixed methods
7. Bradley-Levine	2016	USA	Qualitative
8. Erturk & Donmez	2016	Türkiye	Quantitative
9. Gorski	2016	Türkiye	Quantitative
10. Litz & Scott	2017	UAE	Mixed methods
11. Timor	2017	Israel	Mixed methods
12. Ho & Ng	2017	Singapore	Case study
13. Yakavets et al.	2017	Kasakhstan	Mixed methods
14. Llorent-Bedmar et al.	2019	Spain	Mixed methods
15. Yakavets	2017	Kasakhstan	Mixed methods
16. Tahir et al.	2017	Malaysia	Mixed methods
17. Morrison	2018	Hong Kong (China)	Mixed methods
18. Tran et al.	2018	Vietnam	Qualitative
19. Niño	2018	Texas	Qualitative
20. Marfan & Pascuala	2018	Chile	Quantitative
21. Makgato & Mudzanani	2019	South Africa	Qualitative
22. Hallinger & Hosseingholizadeh	2019	Iran	Mixed methods
23. Aravena	2019	Chile	Qualitative

Table 5. Data collection methods.

Data collection method	N	Percentage
Interview	14	61%
Observation	8	35%
Survey	8	35%
Questionnaire	7	31%
Focus group	4	18%
Document analysis	4	18%
PIMRS	1	4%
School principal scale	1	4%
Whistle blowing scale	1	4%
Shared leadership perception scale	1	4%
Distributed leadership scale	1	4%
Total studies	23	100%

(PIMRS: Principal Instructional Management Rating Scale).

How many participants took part?

To answer the second review question, I thoroughly reviewed all the sample studies to investigate the number of participants engaged in each individual study. Sadly, the sample section of some studies was blurred, for instance study (1) by *Mitchell and Sackney (2016)* and study (20) by *Marfan and Pascuala (2018)* only referred to the number of selected schools/case studies rather than the actual number of participants. Furthermore, some studies with mixed methods designs such as study (6) by *Day et al. (2016)*, study (11) by *Timor (2017)*, study (13) by *Yakavets et al. (2017)*, and study (15) by *Yakavets (2017)* were not specific regarding the number of people involved at either the qualitative or quantitative stage of their studies (see **Table 6** below).

Table 6. Research sample size.

Sample studies	Research design	Qualitative (sample size)	Quantitative (sample size)	Other
Study 1	Case study	Not specified (NS)	Not specified (NS)	
Study 2	Qualitative	51	-	
Study 3	Mixed methods	18	100	
Study 4	Quantitative	-	1259	
Study 5	Case study	42	-	
Study 6	Mixed methods	NS	1775	
Study 7	Qualitative	6	-	
Study 8	Quantitative	-	393	
Study 9	Quantitative	-	402	
Study 10	Mixed methods	16	130	
Study 11	Mixed methods	NS	79	
Study 12	Case study	13	-	
Study 13	Mixed methods	19	NS	
Study 14	Mixed methods	14	282	
Study 15	Mixed methods	58	NS	
Study 16	Mixed methods	10	170	
Study 17	Mixed methods	5	75	
Study 18	Case study	4	85	
Study 19	Qualitative	1	-	
Study 20	Quantitative	NS	NS	
Study 21	Qualitative	50	-	
Study 22	Mixed methods	12	535	
Study 23	Qualitative	207	-	
Total average:		30	400	

At the end, I used the sample mean statistic strategy (mean of sample values collected) to determine a representative number of the population participated in the entire 23 sample studies. As a result, 30 is the average number of participants taking part in the qualitative research studies, and 400 is the average number of sample size for quantitative studies.

Which data analysis techniques were employed?

As noted by Briggs and Coleman (2007), “the types of analysis you are engaged in will always depend very heavily on the nature of the project, the people involved and the focus of the investigation.” (2007: p. 353)

In the same vein, to explore the most common techniques of data analysis in the field, I reviewed all of the 23 sample studies in detail, attempting to associate the nature and the focus of each study with the particular technique(s) employed to analyse both qualitative and quantitative data. Table 7 below presents the number and percentages of the techniques used in these sample studies to analyse and interpret both qualitative and quantitative data.

4. Results

The findings reveal that since 2016 mixed methods (44%) and case studies (22%) have increasingly been used in educational leadership research. With regard to the data collection methods, interviews (61%), observations (35%), focus groups (18%) and document analysis (18%) were the most common methods of collecting qualitative data; while surveys (35%) and questionnaires (31%) were the dominant methods of collecting quantitative data.

Table 7. Data analysis techniques.

Data analysis	N	Percentage		N	Percentage
Qualitative			Quantitative		
1. Content analysis	5	56%	1. Descriptive statistics	7	70%
2. Thematic analysis	4	45%	2. Factor analysis	3	30%
3. Grounded theory	3	33%	3. Cluster analysis	1	10%
4. Categorisation	2	22%	4. T-test	1	10%
5. Structural equation modelling	2	22%	5. Cronbach’s alpha test	1	10%
6. Conversational analysis	1	11%	6. Number coding	1	10%
7. Cluster analysis	1	11%	7. Regression analysis	1	10%
8. Activity theory	1	11%	8. Spearman’s correlation analysis	1	10%
9. PHA (Process hazard analysis)	1	11%	9. Iterative process	1	10%
			10. Multi linear regression analysis	1	10%
Total	9	100%	Total	10	100%

In terms of data analysis techniques, content analysis (56%), thematic analysis (45%) and grounded theory (33%) were the top three techniques researchers used to make sense of qualitative data. On the other hand, descriptive statistics analysis (70%) and factor analysis (30%) were the most commonly used techniques to analyse quantitative data. Finally, referring to the population of people participated in the entire 23 sample studies, the average sample size for collecting qualitative information could be 30 participants, and 400 could be a good sample size for quantitative studies.

5. Discussion and Conclusion

The present review examined the methodological features of 23 empirical studies conducted between 2016 and 2019 in the field of educational leadership. The focus of the analysis centred on three sets of variables: 1) research designs, 2) sample size, and 3) techniques of analysis employed in the 23 selected studies. Following Jensen's (2016) literature review on the development of educational leadership, I used Gunter' (2006) knowledge domains, firstly to provide a brief background of the research in the field of educational leadership from 1950s to 2016. Secondly, I used the knowledge domains as a comprehensive tool to identify the main methodological approaches used to research educational leadership from the period 2016 to 2019. The results showed that in the earlier decades (from the 1950s onward) social science researchers had more instrumental and descriptive perspectives and were attempting to prescribe effective strategies related to leaders and leadership. Scientific or quantitative methods were the most relevant model of educational leadership research in those periods, and surveys and questionnaires were the common sources for collecting data in the field.

Gradually, with increased issues and changes in the field, scholars and practitioners used qualitative approaches for those issues to understand the processes involved, while using quantitative approaches for measuring the impact, effectiveness of leadership, and the relation between variables. As time passed, more complex research designs (mixed methods and case studies) were developed, and researchers became more flexible in applying the six knowledge domains to different extents according to the purpose of the research they aimed to explore. Surveys and interviews were still popular; however, a wide range of data collection methods began to emerge in the field (case study, document analysis, focus group and video recording).

Consequently, within this review's time frame (from 2016 to 2019), practically all of the six knowledge domains are still observable to different extents within the field, although most research has been concerned with humanistic and conceptual purposes, interpreting human experiences with the aim of gaining a deep understanding of the nature and the process involved for conceptual clarity. **Table 8** below portrays the research trajectory in the field of educational leadership and management from 1950s to 2019.

Table 8. Educational leadership and management research trajectory (1950-2019).

Eras	Descriptions
From 1950s onward	<ul style="list-style-type: none"> • Era of behavioural science • Objective scientific model (Burns, 1997) • Quantitative research methods • Survey & questionnaire were popular methods of data collection • Instrumental & descriptive perspectives (Jenson, 2016)
From 1980s onward	<ul style="list-style-type: none"> • Since mid-1986 onward researchers were more concerned with issues of ontology & epistemology • The era of globalization (Hallinger, 2003) • Qualitative, naturalistic and subjective (Burns, 1997) • Qualitative research methods • Arrival of conceptual perspective (Jensen, 2016) • Observation & interview were popular methods of data collection
From 2000 to 2016	<ul style="list-style-type: none"> • Researchers beginning to use all of the conceptual, descriptive, humanistic, critical, evaluative, and instrumental perspectives to solve the issues in the field • Mostly evaluative perspective • Still survey and interviews but start of using other methodologies (case study, document analysis, video recording and more)
From 2016 to 2019	<ul style="list-style-type: none"> • Viewing qualitative & quantitative as complementary and combing them (more mixed method research) • Greater interest in understanding social phenomenon of educational leadership in depth (more research toward ontology & epistemology) • Using more multiple case studies and mixed methods • Using a variety of data collection methods and analysis to interpret the experience of others and what they closely observe in a social context (interview, observation, focus group, document analysis, survey and questionnaire) • Use of all the perspectives in Gunter' (2006) framework, but mainly conceptual & humanistic perspectives • Using more interpretive techniques to analysis the data

Overall, the findings indicate that since 2016 there has been an increase in using mixed methods approaches and case studies in researching educational leadership and management. This could be explained in terms of Mackenzie and Knipe's (2006) claim, where they assert that most educational leadership researchers are showing interest in using qualitative data collection methods and analysis or a combination of both qualitative and quantitative (mixed) methods to observe the cause of events.

Additionally, excessive use of mixed methods can be described in relation to their advantages over using any single method (qualitative or quantitative), which limits the depth and richness of a research study. As specified by Briggs and Coleman (2007), mixed method approaches allow researchers to be creative when integrating data, and triangulate findings which can enhance the validity and utility of the work (ibid. 2007). However, mixed methods research studies have been criticised by educationists such as Zhang and Creswell (2013) since

their narrative frequently lacks descriptions of how the mixing or integration of the qualitative and quantitative elements was achieved. In addition, as demonstrated by O’Cathain (2010), the use of mixed methods does not necessarily make a study robust or rigorous; the quality of individual qualitative and quantitative components in a mixed method study may affect the quality of mixed methods researches if that component is under-resourced, under-developed or under-analysed in the whole study (ibid. 2010).

Furthermore, case studies were the second most popular methodology used in the sample studies included in this review. This is consistent with Burns’ (2000) statement that using a case study assists a researcher in gaining an in-depth understanding with meaning for the subject, focusing on process rather than products, and on discovery of facts rather than confirmation.

Regarding possible and adequate data collection methods in the field of education and leadership since 2016, the review identified the main methods, such as interviews, observations, focus groups, document analysis, surveys and questionnaires, to collect both qualitative and quantitative data. Consequently, more than half of the qualitative data drawn from interviews explored the in-depth experiences of research participants and the meanings they attribute to these experiences. Lastly, the review highlighted content analysis, thematic analysis and grounded theory as the best fit for interpreting qualitative data. According to Bengtsson (2016), the purpose of content analysis is to organise, elicit meaning from the data collected, and draw realistic conclusions from it. Similarly, grounded theory analysis enables researchers to focus on the main concern, explaining how the concern is resolved and finally generating a theory. In agreement with Thorne (2000), data analysis is the most complicated stage of qualitative research that unfortunately receives the least constructive discussion in the educational leadership field, since qualitative researchers often eliminate a detailed description of how analysis was conducted within published research. This issue is one of the current review’s limitations because two sample studies only explained the coding and developing themes instead of mentioning the intellectual process involved in generating results. As advised by Thorne (2000), researchers should be clearer about what they are doing, why they are doing it, and include a clear description of analysis methods.

Moreover, in respect to the techniques used to analyse quantitative data, the biggest portion of the data were analysed through using descriptive statistical analysis. It seems that this technique helps researchers to describe and simplify large amounts of data in a manageable and sensible way.

The second limitation of the review, as already discussed elsewhere, concerned the sample size recruited in the sample studies. For example, study (1), (6), (11), (15) and (20) did not mention the number of people engaged in their studies. It appears that the issue needs greater attention by researchers in order to enhance the credibility of research. The diverse context of the review not only supported the strength of the conclusion, but it also recognised the lack of educational and

leadership research in the UK during the period of 2016 to 2019. Nevertheless, this systematic review represents diverse and rich resources for current and future scholarship. Studying these resources provides a better appreciation of how methodological approaches have been developed in the field of educational leadership and management over time.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

- Aravena, F. (2019). Destructive Leadership Behavior: An Exploratory Study in Chile. *Leadership and Policy in Schools, 18*, 83-96. <https://doi.org/10.1080/15700763.2017.1384501>
- Bengtsson, M. (2016). How to Plan and Perform a Qualitative Study Using Content Analysis. *NursingPlus Open, 2*, 8-14. <https://doi.org/10.1016/j.npls.2016.01.001>
- Bradley-Levine, J. (2016). Demands for School Leaders. *International Journal of Teacher Leadership, 7*, 28-44.
- Briggs, A. R. J., & Coleman, M. (2007). *Research Methods in Educational Leadership and Management* (2nd ed.). SAGE.
- Burns, R. B. (1997). *Introduction to Research Methods* (3rd ed.). Addison Wesley Longman Australia.
- Burns, R. B. (2000). *Introduction to Research Methods*. SAGE Publications.
- Connolly, M., James, C., and Fertig, M. (2019). The Difference between Educational Management and Educational Leadership and the Importance of Educational Responsibility. *Education Management Administration & Leadership, 47*, 504-519. <https://doi.org/10.1177/1741143217745880>
- Day, C., Gu, Q., & Sammons, P. (2016). The Impact of Leadership on Student Outcomes: How Successful School Leaders Use Transformational and Instructional Strategies to Make a Difference. *Educational Administration Quarterly, 52*, 221-258. <https://www.researchgate.net/deref/https%3A%2F%2Fdoi.org%2F10.1177%2F0013161X15616863>
<https://doi.org/10.1177/0013161X15616863>
- Erturk, A., & Donmez, E. (2016). Relationship between Leadership Styles of School Principals and Whistleblowing Behaviors of Teachers. *Universal Journal of Educational Research, 4*, 55-62. <https://doi.org/10.13189/ujer.2016.041308>
- Gorski, P. C. (2016). Poverty and the Ideological Imperative: A Call to Unhook from Deficit and Grit Ideology and to Strive for Structural Ideology in Teacher Education. *Journal of Education for Teaching, 42*, 378-386. <https://doi.org/10.1080/02607476.2016.1215546>
- Gough, D. (2007). Weight of Evidence: A Framework for the Appraisal of the Quality and Relevance of Evidence. *Research Papers in Education, 22*, 213-228. <https://doi.org/10.1080/02671520701296189>
- Gunter, H. (2006). Knowledge Production in the Field of Educational Leadership: A Place for Intellectual Histories. *Journal of Educational Administration and History, 38*, 201-215. <https://doi.org/10.1080/00220620600555006>

- Hallinger, P. (2003). Leading Educational Change: Reflections on the Practice of Instructional and Transformational Leadership. *Cambridge Journal of Education*, 33, 329-352. <https://doi.org/10.1080/0305764032000122005>
- Hallinger, P., & Hosseingholizadeh, R. (2019). Exploring Instructional Leadership in Iran: A Mixed Methods Study of High- and Low-Performing Principals. *Educational Management Administration & Leadership*, 48, 595-616. <https://doi.org/10.1177/1741143219836684>
- Hammad, W., & Hallinger, P. (2017). A Systematic Review of Conceptual Models and Methods Used in Research on Educational Leadership and Management in Arab Societies. *School Leadership and Management*, 37, 434-456. <https://doi.org/10.1080/13632434.2017.1366441>
- Heck, R. H., & Hallinger, P. (2005). The Study of Educational Leadership and Management: Where Does the Field Stand Today? *Educational Management Administration & Leadership*, 33, 229-244. <https://doi.org/10.1177/1741143205051055>
- Ho, J., & Ng, D. (2017). Tensions in Distributed Leadership. *Educational Administration Quarterly*, 53, 223-254. <https://doi.org/10.1177/0013161X16681630>
- Jensen, R. (2016). School Leadership Development: What We Know and How We Know It. *Acta Didactica Norge*, 10, 48-68. <https://doi.org/10.5617/adno.3898>
- Kaparou, M., & Bush, T. (2016). Instructional Leadership in Greek and English Outstanding Schools. *International Journal of Educational Management*, 30, 894-912. <https://doi.org/10.1108/IJEM-03-2015-0025>
- Leithwood, K., & Jantzi, D. (2005). A Review of Transformational School Leadership Research 1996-2005. *Leadership and Policy in Schools*, 4, 177-199. <https://doi.org/10.1080/15700760500244769>
- Liljenberg, M. (2016). Teacher Leadership Modes and Practices in a Swedish Context—A Case Study. *School Leadership & Management*, 36, 21-40. <https://doi.org/10.1080/13632434.2016.1160209>
- Litz, D., & Scott, S. (2017). Transformational Leadership in the Educational System of the United Arab Emirates. *Educational Management Administration & Leadership*, 45, 566-587. <https://doi.org/10.1177/1741143216636112>
- Liu, S., Hallinger, P., & Feng, D. (2016). Learning-Centered Leadership and Teacher Learning in China: Does Trust Matter? *Journal of Educational Administration*, 54, 661-682. <https://doi.org/10.1108/JEA-02-2016-0015>
- Llorent-Bedmar, V., Cobano-Delgado, V., & Navarro-Granados, M. (2019). School Leadership in Disadvantaged Contexts in Spain: Obstacles and Improvements. *Educational Management Administration & Leadership*, 47, 147-164. <https://doi.org/10.1177/1741143217728084>
- Mackenzie, N., & Knipe, S. (2006). Research Dilemmas: Paradigms, Methods and Methodology. *Issues in Educational Research*, 16, 193-205. <http://www.iier.org.au/iier16/mackenzie.html>
- Makgato, M., & Mudzanani, N. (2019). Exploring School Principals' Leadership Styles and Learners' Educational Performance: A Perspective from High- and Low-Performing Schools. *Africa Education Review*, 16, 90-108. <https://doi.org/10.1080/18146627.2017.1411201>
- Marfan, J., & Pascual, J. (2018). Comparative Study of School Principals' Leadership Practices: Lessons for Chile from a Cross-Country Analysis. *Educational Management Administration & Leadership*, 46, 279-300. <https://doi.org/10.1177/1741143217732792>
- Mitchell, C., & Sackney, L. (2016). School Improvement in High-Capacity Schools: Edu-

- cational Leadership and Living-Systems Ontology. *Educational Management Administration & Leadership*, 44, 853-868. <https://doi.org/10.1177/1741143214564772>
- Moorosi, P., & Bantwini, B. D. (2016). School District Leadership Styles and School Improvement: Evidence from Selected School Principals in the Eastern Cape Province. *South African Journal of Education*, 36, 1-9. <https://doi.org/10.15700/saje.v36n4a1341>
- Morrison, A. R. (2018). Beyond the Status Quo-Setting the Agenda for Effective Change: The Role of Leader within an International School Environment. *Educational Management Administration & Leadership*, 46, 511-529. <https://doi.org/10.1177/1741143216682500>
- Niño, J. M. (2018). Superintendent's Leadership: The Cultural Aspects of The Role Enactment. *International Journal of Leadership in Education*, 21, 267-283. <https://doi.org/10.1080/13603124.2017.1279348>
- O' Cathain, A. (2010). Assessing the Quality of Mixed Methods Research: Toward a Comprehensive Framework. In A. Tashakkori, & C. Teddlie (Eds.), *SAGE Handbook of Mixed Methods in Social & Behavioral Research* (pp. 531-555). SAGE Publications, Inc. <https://doi.org/10.4135/9781506335193.n21>
- Oplatka, I., & Arar, K. H. (2017). The Research on Educational Leadership and Management in the Arab World since the 1990s: A Systematic Review. *Review of Education*, 5, 267-307. <https://doi.org/10.1002/rev3.3095>
- Robinson, V. (2007). *The Impact of Leadership on Student Outcomes: Making Sense of the Evidence*.
- Tahir, L., Thakib, M. T. M., Hamzah, M. H., Said, M. N. H. M., & Musah, M. B. (2017). Novice Head Teachers' Isolation and Loneliness Experiences: A Mixed-Methods Study. *Educational Management Administration & Leadership*, 45, 164-189. <https://doi.org/10.1177/1741143215587302>
- Thorne, S. (2000). Data Analysis in Qualitative Research. *Evidence-Based Nursing*, 3, 68-70. <https://doi.org/10.1136/ebn.3.3.68>
- Timor, T. (2017). Do Teachers Need to Be Leaders? Perceptions of Educational Leadership and Management in the Israeli Secondary Educational System. *School Leadership & Management*, 37, 94-119. <https://doi.org/10.1080/13632434.2017.1293636>
- Tran, N. H., Hallinger, P., & Truong, T. (2018). The Heart of School Improvement: A Multi-Site Case Study of Leadership for Teacher Learning in Vietnam. *School Leadership & Management*, 38, 80-101. <https://doi.org/10.1080/13632434.2017.1371690>
- Yakovets, N. (2017). Negotiating the Principles and Practice of School Leadership: The Kazakhstan Experience. *Educational Management Administration & Leadership*, 45, 445-465. <https://doi.org/10.1177/1741143216628537>
- Yakovets, N., Frost, D., & Khoroshash, A. (2017). School Leadership and Capacity Building in Kazakhstan. *International Journal of Leadership in Education*, 20, 345-370. <https://doi.org/10.1080/13603124.2015.1066869>
- Zhang, W., & Creswell, J. (2013). The Use of "Mixing" Procedure of Mixed Methods in Health Services Research. *Medical Care*, 51, e51-e57. <https://doi.org/10.1097/MLR.0b013e31824642fd>