

EVIDENCE-BASED SCHOOL
**LEADERSHIP AND
MANAGEMENT**

Sara Miller McCune founded SAGE Publishing in 1965 to support the dissemination of usable knowledge and educate a global community. SAGE publishes more than 1000 journals and over 800 new books each year, spanning a wide range of subject areas. Our growing selection of library products includes archives, data, case studies and video. SAGE remains majority owned by our founder and after her lifetime will become owned by a charitable trust that secures the company's continued independence.

Los Angeles | London | New Delhi | Singapore | Washington DC | Melbourne

EVIDENCE-BASED SCHOOL
**LEADERSHIP AND
MANAGEMENT**

A Practical Guide

GARY JONES



Los Angeles | London | New Delhi
Singapore | Washington DC | Melbourne



Los Angeles | London | New Delhi
Singapore | Washington DC | Melbourne

SAGE Publications Ltd
1 Oliver's Yard
55 City Road
London EC1Y 1SP

SAGE Publications Inc.
2455 Teller Road
Thousand Oaks, California 91320

SAGE Publications India Pvt Ltd
B 1/1 1 Mohan Cooperative Industrial Area
Mathura Road
New Delhi 110 044

SAGE Publications Asia-Pacific Pte Ltd
3 Church Street
#10-04 Samsung Hub
Singapore 049483

Editor: James Clark
Editorial assistant: Diana Alves
Production editor: Nicola Carrier
Copyeditor: Elaine Leek
Proofreader: Lynda Watson
Indexer: Gary Kirby
Marketing manager: Dilhara Attygalle
Cover design: Naomi Robinson
Typeset by: C&M Digital (P) Ltd, Chennai, India
Printed in the UK

© Gary Jones 2018

First published 2018

Apart from any fair dealing for the purposes of research or private study, or criticism or review, as permitted under the Copyright, Designs and Patents Act, 1988, this publication may be reproduced, stored or transmitted in any form, or by any means, only with the prior permission in writing of the publishers, or in the case of reprographic reproduction, in accordance with the terms of licences issued by the Copyright Licensing Agency. Enquiries concerning reproduction outside those terms should be sent to the publishers.

Library of Congress Control Number: 2018935960
British Library Cataloguing in Publication data

A catalogue record for this book is available from
the British Library

ISBN 978-1-5264-1167-9
ISBN 978-1-5264-1168-6 (pbk)

At SAGE we take sustainability seriously. Most of our products are printed in the UK using responsibly sourced papers and boards. When we print overseas we ensure sustainable papers are used as measured by the PREPS grading system. We undertake an annual audit to monitor our sustainability.

CONTENTS

<i>About the author</i>	vi
<i>Acknowledgements</i>	vii
<i>Foreword by Professor Chris Brown</i>	viii
Introduction	1
1 Why do we need evidence-based school leadership?	10
2 What is evidence-based school leadership?	31
3 Asking well-formulated questions	46
4 Systematically searching for and retrieving evidence	60
5 Appraising research evidence	88
6 Appraising research and statistics	113
7 Appraising school data, stakeholder views and practitioner expertise	136
8 Aggregating sources of evidence	159
9 Applying evidence to the decision-making process	177
10 Assessing and evaluating the outcome of the decision taken	197
11 Leading the evidence-based school	214
12 Some concluding thoughts	240
<i>Index</i>	247

1

WHY DO WE NEED EVIDENCE-BASED SCHOOL LEADERSHIP?

Chapter outline

This chapter aims to provide a clear justification to why evidence-based school leadership is needed. In doing so the chapter will look at issues related to:

- the ethics of evidence-based school leadership;
- the relationship between evidence-based school leadership, fallibility and professional standards;
- the problems of fads and faddism within education;
- how facts become 'rusty';
- the increasing role of social media and how this can leave school leaders vulnerable to bullshit;
- the impact of cognitive biases on decision-making.

The chapter then briefly explores why evidence-based school leadership is needed now. Finally, the chapter examines some of the potential benefits of evidence-based school leadership.

Key words: evidence-based practice, decision-making, ethics, cognitive biases, professional standards

Imagine going to the doctor because you are not feeling well. Before you had a chance to describe your symptoms, the doctor writes out a prescription and says,

‘Take two of these three times a day, and call me next week.’

‘But – I haven’t told you what’s wrong,’ you say, ‘How do I know this will help me?’

‘Why wouldn’t it?’ says the doctor. ‘It worked for my last two patients.’ (Christensen and Raynor, 2003)

Consider this hypothetical situation, which has been derived from Hill et al. (2016). You are the chair of the appointment panel who is looking to appoint a new headteacher for your school. The previous headteacher resigned after two years of GCSE results being well below expectations and a disappointing Ofsted inspection. At the end of the selection process you are left with two candidates, both of whom have quite different approaches to bringing about school improvement, and you have the ‘casting vote’ on the selection panel. Candidate A already has experience of successfully ‘turning around’ two schools similar to your school, and has two very clear priorities. First to improve pupil behaviour by introducing a ‘zero tolerance’ approach to behaviour management and suspending and expelling pupils who do not conform. Second, to improve GCSE results as fast as they possibly can by focusing resources on Year 10 and Year 11. They plan to do this by reducing class sizes, allocating the most effective teachers to classes in Year 10 and Year 11, and introducing revision classes during the Easter break. Candidate A is very well dressed, self-assured, extremely confident in their own abilities, and says they can get the job done in two years and will then leave.

Candidate B – who is a deputy headteacher at a school not known to you – takes a different view on what is needed to bring about

school improvement. Candidate B's priority is to focus on improving pupil behaviour by ensuring the curriculum offer is appropriate for different pupils, intending to develop relevant pathways for poorly behaved or performing pupils and does not intend to use a zero tolerance behaviour policy. Candidate B also wants to prioritise the creation of an all-through school by acquiring a primary school and creating a post-16 A-level provision. Candidate B also proposes to improve teaching in all year groups by introducing a substantial programme of continuing professional development, although this will only be done once both pupil behaviour has improved and a new school leadership and management structure has been implemented. Nevertheless, Candidate B acknowledges it may be at least three years before there is a major improvement in GCSE results. Candidate B, whilst being a confident and effective communicator, is far less charismatic and comes across as being very humble.

In making your decision as to whom to appoint as headteacher, what will you rely on? Experience, intuition, performance in the selection process or the advice of external experts? On this occasion, you decide to rely upon the advice of the external consultant on your selection panel, who from the very beginning of the appointment recommended the appointment of a so-called 'super head' who has a track record of turning around schools. This advice is consistent with your own intuition and 'gut feeling', which suggests Candidate A might be the 'charismatic leader' needed by the school. However, you decide not to adopt an 'evidence-based' approach as to whether Candidate A's or Candidate B's plans for the school are most likely to provide long-term success for the school. Unfortunately, this may be a major mistake.

Research by Hill et al. (2016) suggests that if you do appoint Candidate A, although after two years there may be impressive improvements in GCSE results, this will come at a significant cost to the long-term future of the school. School revenues decline as a result of a fall in pupil numbers due to a significant number of exclusions. After two years, Candidate A leaves, and GCSE results fall below their previous levels, as younger pupils who have been taught by less effective members of teaching staff move through the year groups. Hard-working, dedicated and long-serving teaching staff leave the school as they become despondent that things will only get worse as there are no resources to invest into the improvement of teaching and learning.

The local community, whose hopes have been raised by the initial improvements in the school's GCSE results, lose confidence in the new headteacher.

On the other hand, Candidate B is in all likelihood the better appointment. Although GCSE results may not improve rapidly, they do improve and continue to improve in years three, four and five of Candidate B's tenure as headteacher. A revised curriculum offer meets the needs of all pupils within the school, resulting in improved pupil behaviour, relatively few exclusions and stable school revenues. Although a number of staff leave the school on the appointment of Candidate B, those staff that do remain are committed and believe in the continued improvement and success of the school. Along with steady improvement in GCSE results, the acquisition of the primary school and the development of the sixth form provision increases the local community's confidence in the school as parents can see their commitment to their children's education from ages 4 through 18 (Hill et al., 2016).

Disappointingly, in school leadership and management, ignoring the best evidence and making decisions by relying on personal experience, intuition or the popular ideas of so-called educational experts, consultants and others is a regular occurrence. As Lewis and Caldwell (2005) state, many leadership and strategic decisions are based on 'evidence that is ill-informed, outdated, and incorrect' (p. 182). So instead of basing a decision on evidence that is ill-informed, outdated and incorrect an alternative is evidence-based school leadership.

Evidence-based school leadership helps school leaders and managers of whatever level – aspiring leaders, heads of department, senior leaders, headteachers, chief executives, governing bodies and boards of trustees – develop practical answers to important school-based problems by making use of the best available evidence. Moreover, evidence-based school leadership helps school leaders and managers make 'decisions through the conscientious, explicit and judicious use of the best available evidence from multiple sources ... to increase the likelihood of favourable outcomes' (amended from Barends et al., 2014: 2).

Chapter 2 will provide the full version of Barends et al.'s (2014) definition of evidence-based management and will help increase understanding of the 'what' and the 'how' of evidence-based school leadership. In doing so, Chapter 2 will address the unnecessary distinction between evidence-based and 'evidence-informed'. Whereas,

the remainder of this chapter will follow the advice of Sinek (2009) and ‘start with why’ and ask two questions: one, why is evidence-based school leadership needed; two, why is evidence-based school leadership needed now?

Evidence-based school leadership as an ethical endeavour

First and foremost, evidence-based leadership is an ethical endeavour and should be seen as a way of ensuring that those practices which can lead to favourable outcomes for pupils, staff, parents and the broader community are either continued with, or introduced to the school. Alternatively, evidence-based school leadership involves ensuring that those practices which lead to unfavourable outcomes for pupils, staff, parents and the broader community are withdrawn or never introduced. Writing about evidence-based practice in health, Gambrill (2006) cites Gray (2001) who states:

When evidence is not used during clinical practice, important failures in clinical decision-making occur: ineffective interventions are introduced; interventions that do more harm than good are introduced; interventions that do more good than harm are not introduced; and interventions that are ineffective or do more harm than good are not discontinued (Gambrill, 2006: 351).

		Practices	
		Introduced	Withdrawn
Net impact	Benefits exceed costs	Quadrant 1 NO	Quadrant 2 YES
	Costs exceed benefits	Quadrant 3 YES	Quadrant 4 NO

Figure 1.1 The consequences of the non-use of evidence-based practice

Figure 1.1 illustrates the consequences of the non-use of evidence-based practice. In Q1 there are new practices that are warranted by a comprehensive range of evidence, which are not introduced to the school due to a lack of awareness of the evidence. In Q2 there are

good practices that benefit pupils and/or staff, which are withdrawn without sufficient consideration as to whether the decision is warranted. In Q3 practices have been introduced for which there is little or no evidence, but where costs clearly outweigh the benefits. Finally, in Q4 we may have practices that continue to be used – and not withdrawn – despite the costs outweighing the benefits to pupils/staff.

On the other hand, if an evidence-based practice approach is adopted then practices or innovations that have the potential to bring about improvement in ‘outcomes’ are more likely to be introduced. Current practice, which may be causing harm where ‘costs outweigh the benefits’, may be withdrawn, or innovations that have negative consequences are less likely to be introduced (see Figure 1.2). In Q1 new practices with the potential to provide benefits that exceed the costs will be introduced. In Q2 existing practices where benefits exceed costs to pupils/staff are continued with and not withdrawn. In Q3 the introduction of interventions where costs exceed the benefits is avoided, whereas in Q4, using an evidence-based approach existing practices where costs exceed the benefits are withdrawn.

		Practices	
		Introduced	Withdrawn
Net impact	Benefits exceed costs	Quadrant 1 YES	Quadrant 2 NO
	Costs exceed benefits	Quadrant 3 NO	Quadrant 4 YES

Figure 1.2 The consequences of using an evidence-based approach to practice

Indeed, one way of thinking about evidence-based school leadership is to see it as a way of ensuring practices that are detrimental to pupils and the wider school are either withdrawn or never introduced. As Carl Hendrick states: ‘my view is that there is an ethical imperative to provide the best possible classroom conditions in which the students in our charge can flourish. This means rejecting what wastes time and embracing that which makes the most of it’ (Hendrick and MacPherson, 2017: 11).

Evidence-based school leadership and fallibility

However, it would be wrong to think that the evidence-based school leader is infallible and things will not go wrong. There will be occasions where the evidence-based school leader makes a decision that does not lead to favourable outcomes: what is hoped will work does not; benefits that are expected to appear fail to materialise; and costs, which are anticipated to be small, escalate. As such, the evidence-based school leader may fail in what they set out to do. However, not all failures are created equal with some failures being more acceptable than others.

To help understand ‘failure’ Gawande (2010) draws upon Samuel Gorovitz and Alasdair MacIntyre’s 1976 essay ‘Toward a theory of medical fallibility’, which identifies three reasons for failure. First, there is ignorance, with there being a limited understanding of what works, for example, in teaching, learning and management. Second, there is ineptitude – where the knowledge exists about what to do in certain situations, be it headteachers or other school leadership who do not apply that knowledge competently. Third, there is necessary fallibility and some things we want to do are beyond our capacity. Complex systems – such as schools – are beyond all-encompassing generalisations due to the differences in the circumstances of each individual school and complex feedback systems. In these circumstances, the best possible judgement may turn out to be incorrect – even if it is based on the best available evidence from multiple sources.

The interesting question then is: what does this mean for the practice of school leadership and management? At a simple level, it would suggest that school leaders who do not make use of the best available evidence, and avoidable mistakes are made, are leaving themselves unnecessarily open to charges of ineptitude. Perhaps another and more gentle way of putting it is that school leadership and management, at whatever level, is difficult enough without leaders unnecessarily disadvantaging themselves by denying themselves access to the best available evidence of what works, for whom, to what extent, in what context and for how long.

Evidence-based school leadership and professional ethics

The preceding discussion on ignorance, necessary fallibility and ineptitude naturally leads to a discussion of professional codes of conduct and ethics. In the context of educational leadership and management

within the English education system there are professional standards that either directly or indirectly make reference to the need for evidence-based school leadership and management. Examples of some of these professional standards are summarised in Table 1.1.

Table 1.1 Professional standards relevant to school leaders and managers

Role	Relevant professional standard(s)	Standards
Headteacher	Sustains wide, current knowledge and understanding of education and school systems locally, nationally and globally, and pursues continuous professional development Challenges educational orthodoxies in the best interests of achieving excellence, harnessing the findings of well evidenced research to frame self-regulating and self-improving schools	<i>National Standards of Excellence for Headteachers: Departmental advice for headteachers, governing boards and aspiring headteachers</i> (Department for Education, 2015)
School business manager	Engages with research to inform effective policy development and seeks to influence it	<i>National Association of School Business Managers Professional Standards, succeeded in November 2017 by the Institute of School Business Leadership</i>
Governor	Acts with honesty, frankness and objectivity taking decisions impartially, fairly and on merit using the best evidence and without discrimination or bias	<i>A Competency Framework for Governance: the knowledge, skills and behaviours needed for effective governance in maintained schools, academies and multi-academy trusts</i> (Department for Education, 2017)

As such, to reach and maintain those professional standards, it is difficult to see how school leaders, of whatever level or role, cannot actively engage in some form of evidence-based practice. To do otherwise would suggest these leaders are not being consistent with their own professional standards As Gambrill (2006) states:

Are these merely for window dressing, to impress interested parties that our intentions are good and therefore our outcomes are good, to convince others that we are doing the right things.

Or are these codes really meaningful? Is it ethical to agree to abide by the guidelines described in professional codes of ethics, for example, to draw upon practice-related research, and then simply not do so? (p. 351)

Evidence-based school leadership and fads and faddism

Regrettably school leadership and management is highly susceptible to crazes – fads and fashions that change as frequently as clothing styles. As Slavin (1989) states, ‘educational innovation is famous for its cycle of early enthusiasm, widespread dissemination, subsequent disappointment, and eventual decline - the classic swing of the pendulum’ (p. 752).

Examples of fads within education include the use of interactive whiteboards, BrainGym and learning styles. More recently there has been an explosion of interest in schools around growth mindsets, grit, resilience and character education. Helpfully, McGill (2016) provides a list of educational fads over the last 20 years, which include:

- Lesson outcomes
- Assessing pupil progress
- Chinese teaching
- Textbooks
- Sitting in rows
- Group work
- Zero tolerance
- Verbal feedback stamps
- Triple-marking
- Starters, middle and plenaries

However, fads in education are not confined to teaching and learning, they can also be found in leadership and management. Furnham (2015) identifies a number of fads and fashions in leadership and management going back to the 1950s and goes on to highlight a number of current management ideas which appear to be ‘hot’ such as employee engagement, leadership derailment, women in management, intrinsic motivation, outsourcing and heterogeneous teams and team-working. Whereas management ideas such as empowerment, total quality

management, the learning organisation, benchmarking and emotional intelligence appear to be ‘not hot’.

However, evidence-based school leaders can protect themselves from the worst excesses of some fads put forward by educational consultants, gurus and other experts by asking the following questions:

- What evidence is there that the new approach can provide productive outputs and outcomes? Are the arguments based on solid evidence from lots of schools followed over time?
- Has the approach worked in schools similar to our own that face similar challenges?
- Is the approach relevant to current priorities and strategies of our school or multi-academy trust?
- Is the advice specific enough to be implemented? Do we have enough information about implementation challenges and how to meet them within the context of our school?
- Is the advice practical for our school given our capabilities and resources?
- Can we reasonably assess the costs and prospective benefits? (Amended from Miller et al., 2004: 14)

Evidence-based school leadership and the half-life of facts

School leaders need to be constantly engaged in evidence-based school leadership practice, as evidence that might be used to support decisions can become ‘rusty’ (Hargreaves and Fullan, 2012). Evidence that we have relied on in the past may no longer be current or applicable; indeed advice based on ‘old’ research evidence may now be viewed as being no longer justified. For example, addressing low aspirations and confidence before teaching subject content does not appear to be consistent with the latest research (Coe et al., 2014). Arbesman (2012) argues that just like radioactive material, ‘facts’ have a half-life and decay over time. Arbesman states: ‘Facts, in the aggregate, have half-lives: We can measure the amount of time for half of a subject’s knowledge to be overturned. There is science that explores the rates at which new facts are created, new technologies develop, and even how facts spread’ (p. 3).

To illustrate this point, Arbesman cites the work of Poynard et al. (2002), who demonstrate that in a particular field of medicine – cirrhosis and hepatitis – the half-life of facts in this field was approximately 45 years. In other words, half of what we thought we knew about cirrhosis and hepatitis was within 45 years shown to be incorrect.

Given that careers in education can last over 40 years, there is every chance that what school leaders learnt at the beginning of their careers about teaching, learning and the management of people may have been superseded by better, more plausible accounts and explanations. School leaders who are actively engaged in evidence-based school practice will provide both themselves and their schools some degree of protection from the continued use of ideas and interventions which are no longer supported by the evidence.

Evidence-based school leadership, social media and the post-truth world

Increasingly teachers and school leaders are using social media – be it Twitter, Facebook or blogs – as a source of professional development. However, in what some would describe as the post-truth world it is necessary to provide teachers and school leaders with the tools necessary to help them ensure that they do not fall victim to ‘bullshit’ (Ball, 2017). It should be noted that bullshit is not confined to social media and may often be heard, dare I say it, on a regular basis in school staff rooms and senior leadership team meetings.

Ball draws upon the work of Frankfurt (2009) to distinguish between lies, untruths and bullshit and summarises Frankfurt’s argument as: ‘to tell a lie, you need to care about some form of absolute truth or falsehood, and increasingly public life is run by people who don’t care much either way – they care about their narrative’ (Ball, 2017: 6).

Ball goes on to cite Frankfurt who concludes:

Someone who lies and someone who tells the truth are playing on opposite sides, so to speak, in the same game. Each responds to the facts as he understands them, although the response of the one is guided by the authority of the truth, while the response of the other defies that authority, and refuses to meet its demands.

The bullshitter ignores these demands altogether. He does not reject the authority of the truth, as the liar does, and oppose himself to it. He pays no attention to it at all, by virtue of this, bullshit is a greater enemy of the truth than lies are. (Ball, 2017: 6)

So how can evidence-based school leadership protect the school leader from being susceptible to bullshit? Ball suggests a number of strategies that can be adopted, which are integral to evidence-based school leadership and which are more fully explored in later chapters.

- *Burst your bubble*: the evidence-based school leader makes sure they meaningfully engage with people who have different views to themselves, with the aim of this engagement being to understand the views of others, rather than seeking to convince others as to the strength of their own arguments.
- *Learn some statistics*: evidence-based school leaders will find it useful to get to grips with concepts such as p-values, confidence intervals, effect sizes, statistical significance and correlation (see Chapter 6).
- *Treat narratives you believe in just as sceptically as those you don't*: just because a plausible and believable narrative is being promoted in social media does not mean that it is right. On such occasions, the evidence-based school leader needs just to step back and say – is there an alternative view or views on this? If so, what is it? Are there any elements of these alternative views which are robust?
- *Remember Hanlon's Razor*: Ball argues that in a world of bullshit there is a tendency for there to be a rise in conspiratorial thinking and that others are 'out to get us'. When evidence-based school leaders begin to think conspiratorially – it is always worth remembering Hanlon's Razor. This concept can be described in a number of ways, for example: 'Never attribute to malice that which is adequately explained by stupidity' or 'Don't assume bad intentions over neglect and misunderstanding'.
- *Use deliberative thinking*: evidence-based school leaders need to engage in deliberative thinking rather than thinking which is far more intuitive and instinctive. This naturally leads us to the final reason for evidence-based school leadership – cognitive biases – which are now explored in more detail.

Evidence-based school leadership and cognitive biases

Our final, though possibly most compelling, reason for the use of evidence-based practice relates to how cognitive biases can get in the way of our ability to objectively evaluate data, form balanced judgements and make effective decisions. Wilke and Mata (2012) define cognitive biases as ‘systematic error(s) in judgment and decision-making common to all human beings which can be due to cognitive limitations, motivational factors, and/or adaptations to natural environments’ (p. 531). For example, people are often described as being cognitive misers who demonstrate a strong preference to rely on fast, intuitive processing (‘system 1’) rather than on more demanding, deliberate thinking (‘system 2’) (Kahneman, 2011). One consequence of this preference is that it leads to something called attribute substitution: when people are faced with a challenging and difficult question they will intuitively answer a less difficult question.

Let’s look at this example developed by Frederick (2005: 27) to illustrate the point:

A bat and a ball cost \$1.10 in total. The bat costs \$1.00 more than the ball. How much does the ball cost?

The answer that intuitively and immediately comes to mind is ‘10 cents’, which is incorrect. If the ball were to cost 10 cents, the bat would cost \$1.10 (i.e., \$1 more) and then the total cost would be \$1.20. The correct answer is 5 cents (so that the bat costs \$1.05) with a total of \$1.10. The explanation for this mistake is that people replace the critical ‘more than’ statement with a simpler statement. That is, the bat costs \$1 more than the ball is read as the bat costs \$1. So instead of working out the sum, people intuitively breakdown \$1.10, into \$1 and 10 cents which is easier to do. In other words, because of the substitution people give the correct answer to the wrong question.

Benson (2016) has identified 175 cognitive biases and four general problems, which are probably all too familiar to school leaders, that cognitive biases help to solve. First, there is ‘too much information’ and individuals need to identify the most useful information. Second, there is ‘not enough meaning’ so individuals need to find ways of connecting different bits of information to develop stories and models of how the

world operates. Third, individuals sometimes ‘need to act fast’ on the information becoming available to use, otherwise this may lead to inaction which may be extremely detrimental if not dangerous. Four, ‘what should we remember?’ There is so much information it is constantly necessary to work out what’s best remembered and also what’s best forgotten. Unfortunately, the use of these strategies and associated biases can lead to all sorts of distortions to the decision-making process.

Benson (2016) goes on to identify four drawbacks that arise from attempting to solve the above problems.

1. **We don’t see everything.** Some of the information we filter out is actually useful and important.
2. **Our search for meaning can conjure illusions.** We sometimes imagine details that were filled in by our assumptions, and construct meaning and stories that aren’t really there.
3. **Quick decisions can be seriously flawed.** Some of the quick reactions and decisions we jump to are unfair, self-serving, and counter-productive.
4. **Our memory reinforces errors.** Some of the stuff we remember for later just makes all of the above systems more biased, and more damaging to our thought processes. (Benson 2016, online)

So how can evidence-based practice help school leaders and managers to reduce the negative impact of cognitive biases? First, as Stafford (2015) notes, it is important to recognise that everyone is prone to cognitive biases, and it is not something which can be eliminated from individuals’ thinking. Second, evidence-based practice promotes critical thinking, the examination of claims, the underpinning argument and supporting evidence. Third, processes associated with evidence-based practice provide a framework to support ‘disciplined’ decision-making. Fourth, the role of research in evidence-based practice should help mitigate against over-reliance on ‘anecdotes’ and ‘case studies’ and create conditions for the use of potentially more robust evidence.

Evidence-based school leadership – why now?

Although the term evidence-based management (EBMgt) is relatively new, in a systematic review of evidence-based management

Reay et al. (2009) identified 144 articles relating to evidence-based management, with the first article appearing as early as 1948. However, evidence-based management only began to come to prominence in the 1990s and early 2000s, with Professor Denise M. Rousseau giving a 2005 Presidential Address to the Academy of Management entitled ‘Is there such a thing as “evidence-based management?”’. In 2006 the publication of Pfeffer and Sutton’s (2006) treatise on the dangerous half-truths and total nonsense prevalent in much of the popular management literature followed, which had its intellectual roots in the evidence-based medicine movement Sackett et al. (1996).

Rousseau (2012) goes on to identify three factors that explain ‘why the time is ripe for the emergence of evidence-based management’ (p. xxiv):

- Since World War II, a large body of social science and management research has investigated the individual, social and organisational factors that impact managerial performance.
- The Internet offers broad access to scientific knowledge.
- Increasing awareness of the consequences from managerial decisions prompts widespread concerns with improving its quality.

(Rousseau, 2012: xxiv–xxv)

In the context of education, around the globe there is growing interest in the use of research evidence to improve the quality of teaching and learning (Brown, 2015). However, as Collins and Coleman (2017) note, this interest in the role of evidence in education is not new in both the United Kingdom and the United States, and can be traced back to the 1970s. More recently, there has been an increase in political interest in the use of evidence in schools. In the United States, December 2015 saw the passing of *The Every Student Succeeds Act* (ESSA), which provides a definition of the evidence required for a program or practice to be considered ‘strong’, ‘moderate’, or ‘promising’. Prior to this in England, the Coalition government provided £125m of funding to set up the Education Endowment Foundation. So far the Education Endowment Foundation has committed more than £75m to fund 127 projects and has reached over 7,500 schools and 750,000 children and young people (EEF, 2016). In 2016/17

the Institute of Effective Education, based at the University of York, and the Education Endowment Foundation set up a network of 22 research schools. In addition, there has been an increase in teachers' interest in research and evidence, which is reflected in the rise of the researchED movement.

Nevertheless, within education, evidence-based practice has focused primarily around teaching and learning. However, over the last 30 years there have been significant changes in the roles of headteachers and other school leaders as a result of a move towards site-based management (Wood, 2017). Since 1988 England has seen the introduction of the local management of schools, changes in funding systems, academies outside of LEA control, multi-academy trusts, free schools, studio schools, university technical colleges (UTCs) and university training schools (UTSs).

These changes have led to the introduction of a number of new roles within the leadership and management of schools, be it school business leaders, executive headteachers and chief executive officers, all of which have significant responsibilities outside the leading of teaching and learning. The role of school bursar has morphed into being a school business leader having responsibility for activities such as finance, human resources management, facilities, marketing, information technology, risk and management information services, with headteachers within these schools being ultimately accountable for the success or otherwise of these activities (Wood, 2017).

Increasingly there are job advertisements for the post of executive headteacher who directly leads two or more schools in the form of a partnership arrangement. In a NFER (2017) report on the role of executive head, four broad role descriptors were outlined; strategic leadership, financial and business management, educational leadership and management, and people leadership and management. Within the strategic leadership there is reference to ensuring and monitoring consistent and ongoing implementation across the school groups of key policies and strategies (e.g. finance, HR, IT and behaviour). Within finance and business management, there is reference to providing financial leadership. Within people leadership and management there is reference to ensuring an effective approach to managing staff performance and staffing issues. Finally, within educational leadership and management, there is reference to leading outstanding teachers and innovative practice to enhance learning.

As for chief executive officers of multi-academy trusts, given that there are a number of academy chains, where the academy trust chief executive officer may have responsibility for anywhere between two and seventy schools, evidence-based practice is going to have to extend beyond maintaining and developing high educational standards across all the academies of the academy chain. Indeed, in all likelihood the chief executive officer of a multi-academy trust will be leading a team of senior managers who have a focus on finance, human resources, estates and performance management.

Evidence-based school leadership – the potential

However, for many school leaders, evidence-based school leadership might be seen as just another management fad, with there being a queue of other policies in ‘line’ ready to take its place (Collins and Coleman, 2017). Nevertheless, while there may be some justification in those claims, it has yet to be shown whether evidence-based practice leads to school improvement. However, there are numerous reported benefits to practitioners engaging in evidence-based practice (Jones and CEBMa, 2016). First, high-performing school systems appear to facilitate the collaborative examination of research evidence in order to identify both likely problem areas (in relation to teaching and learning) and potential solutions to these problems (Supovitz, 2015). Second, there is also evidence that indicates that where research is used as a component of high-quality initial teacher education and continuous professional development, there is a positive correlation with changes in teacher, school and system performance. Third, there is also evidence of a range of positive teacher outcomes that arise from evidence-informed practice, including improvements in pedagogical knowledge and skills and greater teacher confidence in what works (Cordingley, 2015). In addition, Sheard and Sharples (2016) have published a proof of concept of the relationship between the use of research evidence and school improvement.

As such, evidence-based school leadership would appear to have the potential to provide both leaders and members of a school community with a number of benefits. This benefits school leaders by focusing attention on ‘what works for who, in what context, for how, for how

long, to what extent, and why'. This potentially saves evidence-based school leaders time and money by focusing on what works and eliminating what does not. Evidence-based leadership also helps protect schools from unsubstantiated management and teaching fads. Finally, evidence-based school leadership, when done well, improves relational trust within schools.

Summary and key points

- Put simply, evidence-based school leadership helps school leaders and managers – of whatever level – help make decisions through the conscientious, explicit and judicious use of the best available evidence from multiple sources to increase the likelihood of favourable outcomes.
- Fundamentally, evidence-based leadership is an ethical endeavour and should be seen as a way of ensuring that those practices which can lead to favourable outcomes for pupils, staff, parents and the broader community are either continued with, or introduced to the school.
- Alternatively, evidence-based school leadership involves ensuring that those practices which lead to unfavourable outcomes for pupils, staff, parents and the broader community are withdrawn or never introduced.
- Evidence-based school leaders recognise the potential for fallibility and the need to reduce unnecessary ineptitude through the use of the best available evidence.
- Evidence-based school leaders recognise that if school leadership is to be recognised as a profession it is necessary to maintain and uphold professional standards that emphasise the role of evidence-based practice.
- Evidence-based school leadership has the potential to protect schools from fads, faddism, the 'half-life of facts' and 'post-truth' agendas.
- The existence of cognitive biases requires school leaders to take action in order to reduce the impact of such biases on decision-making processes.
- Change in the way in which schools are organised and led – particularly in England – is increasing the need for evidence-based

school leadership, not just on teaching and learning but for all aspects of the work of the school.

- The increased use of evidence-based school leadership is particularly timely, given the pressures on schools to both improve and make better use of resources.

References

- Arbesman, S. (2012) *The Half-Life of Facts: Why Everything We Know Has an Expiration Date*. Harmondsworth: Penguin.
- Ball, J. (2017) *Post-Truth: How Bullshit Conquered the World*. London: Biteback Publishing.
- Barends, E., Rousseau, D. and Briner, R. (2014) *Evidence-Based Management: the Basic Principles*. Amsterdam. Center for Evidence-Based Management.
- Benson, B. (2016) 'Cognitive bias cheat sheet: because thinking is hard'. *Better Humans* 2017. <https://betterhumans.coach.me/cognitive-bias-cheat-sheet-55a472476b18> (accessed 20 November 2017).
- Brown, C. (2015) *Leading the Use of Research and Evidence in Schools*. London: IOE Press.
- Christensen, C.M. and Raynor, M.E. (2003) 'Why hard-nosed executives should care about management theory', *Harvard Business Review*, 81 (9): 66–75.
- Coe, R., Aloisi, C., Higgins, S. and Major, L.E. (2014) 'What makes great teaching? Review of the underpinning research'. *Project Report*. London: Sutton Trust.
- Collins, K. and Coleman, R. (2017) 'Evidence-informed policy and practice', in P. Earley and T. Greany (eds), *School Leadership and Education System Reform*. London: Bloomsbury.
- Cordingley, P. (2015) 'The contribution of research to teachers' professional learning and development', *Oxford Review of Education*, 41 (2): 234–52.
- EEF (2016) *Annual Report 2015/16*. London: Education Endowment Foundation.
- Frankfurt, H.G. (2009) *On Bullshit*. Princeton, NJ: Princeton University Press.
- Frederick, S. (2005) 'Cognitive reflection and decision making', *Journal of Economic Perspectives*, 19 (4): 25–42.
- Furnham, A. (2015) 'Fads and fashions in management', *European Business Review*, 2017. www.europeanbusinessreview.com/fads-and-fashions-in-management/ (accessed 20 December 2017).
- Gambrill, E. (2006) 'Evidence-based practice and policy: choices ahead', *Research on Social Work Practice*, 16 (3): 338–57.
- Gawande, A. (2010) *The Checklist Manifesto*. Harmondsworth: Penguin Books.
- Gorovitz, S. and MacIntyre, A. (1976) 'Toward a theory of medical fallibility'. *The Journal of Medicine and Philosophy*, 1 (1), 51–71.
- Gray, J. (2001) *Evidence-Based Healthcare: How to Make Health Policy and Management Decisions*. London: Churchill Livingstone.

- Hargreaves, A. and Fullan, M. (2012) *Professional Capital: Transforming Teaching in Every School*. New York: Teachers College Press.
- Hendrick, C. and MacPherson, R. (2017) *What Does This Look Like in the Classroom? Bridging the Gap between Research and Practice*. Melton: John Catt.
- Hill, A., Mellon, L., Laker, B. and Goddard, J. (2016) 'The one type of leader who can turn around a failing school', *Harvard Business Review*, 20 October. Available at: <https://hbr.org/2016/10/the-one-type-of-leader-who-can-turn-around-a-failing-school> (accessed 29 April 2018).
- Jones, G. and CEBMa. (2016) *Evidence Based Practice: a Handbook for Teachers and School Leaders*. Available at: <http://evidencebasededucationalleadership.blogspot.co.uk/2016/02/evidence-based-practice-handbook-for.html> (accessed 29 April 2018).
- Kahneman, D. (2011) *Thinking, Fast and Slow*. London: Macmillan.
- Lewis, J. and Caldwell, B.J. (2005) *Evidence-Based Leadership*. London: Taylor & Francis.
- McGill, R. (2016) 'Trends: Twenty years of educational fads'. *Teacher Toolkit*. www.teachertoolkit.me/2016/07/10/education-fads/ (accessed 29 April 2018).
- Miller, D., Hartwick, J. and Le Breton-Miller, I. (2004) 'How to detect a management fad—and distinguish it from a classic', *Business Horizons*, 47 (4): 7–16.
- NFER (2017) *Executive Headship: A Summary of the Executive Headteacher (EHT) Role, with Practical Questions and Exemplar Role Descriptors to Consider When Creating the Position*. Slough: National Foundation for Educational Research.
- Pfeffer, J. and Sutton, R.I. (2006) *Hard Facts, Dangerous Half-Truths and Total Nonsense: Profiting from Evidence-Based Management*. Boston, MA: Harvard Business School Press.
- Poynard, T., Munteanu, M., Ratziu, V., Benhamou, Y., Di Martino, V., Taieb, J. and Opolon, P. (2002) 'Truth survival in clinical research: an evidence-based requiem?', *Annals of Internal Medicine*, 136 (12): 888–95.
- Reay, T., Berta, W. and Kohn, M.K. (2009) 'What's the evidence on evidence-based management?', *Academy of Management Perspectives*, 23 (4): 5–18.
- Rousseau, D.M. (2012) 'Preface' in D. Rousseau (ed.), *The Oxford Handbook of Evidence-Based Management*. Oxford: Oxford University Press.
- Sackett, D., Rosenberg, W., Gray, J., Haynes, R. and Richardson, W. (1996) 'Evidence based medicine: what it is and what it isn't', *BMJ*, 312 (7023): 71–2.
- Sheard, M. and Sharples, J. (2016) 'School leaders' engagement with the concept of evidence-based practice as a management tool for school improvement', *Educational Management Administration & Leadership*, 44 (4): 668–87.
- Sinek, S. (2009) *Start with Why: How Great Leaders Inspire Everyone to Take Action*. Harmondsworth: Penguin.
- Slavin, R. (1989) 'Pet and the pendulum: faddism in education and how to stop it', *Phi Delta Kappan*, 70 (10): 752–8.

- Stafford, T. (2015) 'Bias mitigation'. www.tomstafford.staff.shef.ac.uk/?p=342 (accessed 20 November 2017).
- Supovitz, J. (2015) 'Teacher data use for improving teaching and learning', in C. Brown (ed.), *Leading the Use of Research and Evidence in Schools*. London: Bloomsbury Press.
- Wilke, A. and Mata, R. (2012) 'Cognitive bias', in *Encyclopedia of Human Behaviour, 1*: 531–5.
- Wood, E. (2017) 'The role of school based business leaders', in P. Earley and T. Greany (eds), *School Leadership and Education System Reform*. London: Bloomsbury.