

SCHOOL LEADER EXPERTISE:

**WHAT IS IT AND
HOW DO WE
DEVELOP IT?**



**By Jennifer Barker
and Tom Rees**

Introduction

Although a growing body of research puts the work of school leaders at the heart of school improvement efforts, there is little consensus around the approaches or practices that school leaders should adopt which might lead to effective and ethical improvements to schools and more equitable pupil outcomes. This makes it challenging to design professional development for school leaders. How can effective training and development for a role be designed well, without first having clarity of what a role consists of?

In this paper, we explore the topic of school leadership, attempting to answer the question: **'school leader expertise, what is it and how do we develop it?'** Within it, we make four main arguments.

1. 'School leadership' is a recent and poorly defined concept. Despite decades of research, there is little definitive evidence to support many of the claims that are made about what leaders should do to successfully run a school or how they can improve. This is problematic when it comes to preparing individuals to deal with the responsibility and complex reality of senior responsibility within a school.

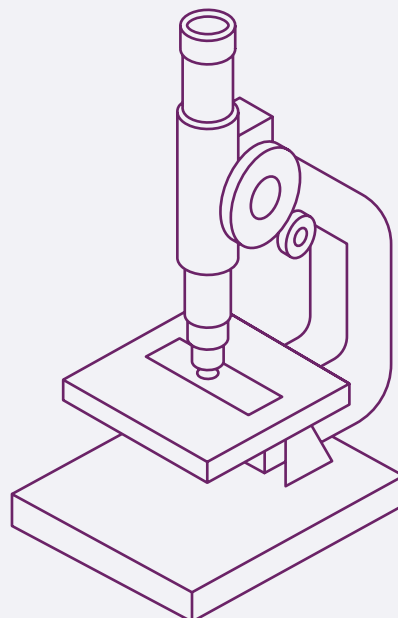
2. Over the last twenty-five years, approaches to school leadership in England have been dominated by abstract or 'generic' leadership theories at the expense of domain-specific expertise. A stronger focus on domain-specific expertise is required and the core responsibilities (or persistent problems) of leaders' roles are a good place to start when designing professional development.

3. Expertise in any field is predicated on knowledge and school leadership is no different. Through better understanding and codifying a broad range of knowledge relevant to leaders' work, we can provide a better platform for the design of professional development.

4. Professional development often fails to have the impact it intends to, however recent research into effective 'mechanisms' of professional development offer helpful considerations for those who design professional development programmes.

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Foreword

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I recently received three automated emails from a state department of education in Australia, requiring me to complete mandated courses on human rights and responsibilities, addressing workplace bullying, and equal opportunities. I received the emails, along with all leaders in the state's public schools, because I consult to the department on various leadership development contracts. I have no doubt that such mandated courses are important, but what puzzles me is why there are no such mandated courses on the core business of teaching and learning. Is it assumed that by the time teachers become leaders they will have sufficient educational knowledge, and therefore that it is knowledge of leadership and management that is important for their development as leaders?

Interrogating the validity of this assumption, as Ambition Institute is doing through its thought leadership and its new suite of professional programmes, is critical to achieving the goal of having effective leaders in every school. Effective leaders are those who have the ability to solve the kinds of complex social problems that arise in their organization (Mumford & Higgs, 2021). For educational leaders, this requires the ability to use relevant knowledge to resolve problems of teaching and learning while building trust with those involved (Robinson, 2011).

Two questions about the design of professional learning follow from this view of effective educational leadership. First, is it correct to assume that educational leaders in general have gained sufficient educational knowledge from their classroom teaching experience to warrant its absence from leadership development programmes? Second, which types of leadership and management content are most likely to



increase the effectiveness of educational leaders? Will educators benefit from generic leadership theory – that is, theory that is believed to be readily transferable from one type of organisation to another (Shamir, 2013)? If generic theory is appropriate, then programmes for educators can be designed and delivered by facilitators whose expertise is based in business or public service management. If, as passionately argued by Jen Barker and Tom Rees in this publication, generic leadership curricula are not fit for purpose, then domain-specific leadership should be taught, firmly anchored in the purpose and core business of educational institutions.

Ideally, these questions would be answered by multiple empirical studies, but in their absence, I put forward a few arguments in support of Ambition Institute's thoughtful consideration of the relationship between generic and domain-specific approaches to leadership development. Specifically, I argue that curricula are needed which integrate relevant generic theories with theories of teaching and learning. Such integration is accomplished, not by asking leaders to "apply" generic material to their educational contexts, but by designing and delivering a curriculum which shows how such integration can be achieved under the conditions each participant is working in.

With regard to my first question, about the sufficiency of experienced teachers' educational knowledge, it seems to me that the persistence of inequitable student outcomes suggests that there are thousands of teachers, who, despite trying their best, are struggling to lift the engagement or achievement of particular groups of students. A frequent cause of these teachers' difficulties is that they, and the leaders who are supporting them, lack the depth of knowledge required to diagnose the school and classroom-based contributors to such inequities, and to implement more effective solution strategies. In short, the knowledge needed to solve these problems has not been routinely acquired through their years of classroom teaching, nor through the professional learning they may have undertaken in that time.

If leaders need to deepen their educational knowledge, what implications does this have for my second question about the content and design of professional learning? This is where the debate between advocates of generic and domain-specific leadership development becomes critical.

Advocates of the former would argue that generic approaches to such leadership functions as strategic planning, goal setting, leading change, and exercising influence are highly applicable to educational leaders because these functions are required of leaders in any organisation. That is of course true, but the crucial question is whether or not the theories that guide how these functions are carried out in non-educational organisations are applicable to how the work is or should be carried out in education. By way of illustration, take the key leadership function of influencing others. I recently reviewed a module on this topic that was included in a government-funded aspiring principal programme. The module included nine possible "influence tactics", based on the work of Gary Yukl (1994), a widely cited management academic. At least half of the nine tactics e.g., ingratiation, pressure, and exchange of favours, are incompatible with the ethics and interpersonal values, such as respect and collegiality, that would be espoused by the great majority of educators.

That is why I would argue that the non-educational management theory of Yukl should not be used in professional learning for educational leaders.

Sometimes generic theories are useful for educational leaders, if they are taught in ways that enable them to be integrated into the contexts in which they are to be applied. Take the example of goal setting – a theory which has a rich research base in social psychology and is now widely used in management.

There is no doubt that knowledge of the conditions required for effective goal setting could assist educational leaders to improve their strategic and annual planning processes. Advocates of generic approaches could argue that the application of this generic theory to the specific educational context of participants is achieved by providing rich opportunities for discussion and work-based practical projects. But in my experience, limitations of educational knowledge, such as knowledge of age-related benchmarks and of curriculum progressions, often prevent leaders from using student data to identify priorities and set the challenging yet attainable goals that are required by goal theory. Designers and facilitators of professional learning should not assume, that having taught generic goal theory, participants will have the educational knowledge and skill required to apply it to their own data-based planning processes.

My second example of the limitations of a generic approach, is about the critical interpersonal skills that leaders need to address problems of teaching and learning while building trust with those involved. For many years, I have based my approach to this work on Argyris and Schon's (1974) theory and practice of interpersonal and organisational effectiveness – an approach that has been extensively researched and used in for-profit and not-for-profit organisations. Their theory teaches that a leader builds trust in such situations by, among many other skills, consistently providing reasons for their views. In hundreds of workshops with educational leaders I have found

little difficulty in teaching this generic interpersonal process, as most leaders are quite capable of giving reasons for their point of view.

The challenge comes not in providing a reason, but in providing one that is educational rather than managerial. For example, when leaders notice that a teacher has not, as expected, followed a lesson plan, provided students with success criteria, organised mixed ability groups, or followed protocols for moderation of assessments, rather than discussing the educational rationale for such requirements, many leaders reiterate a team or school agreement or an external policy requirement.

Their rationale, in other words, is based on the need for compliance, rather than on the educational rationale that supports their request. When leaders provide managerial rather than educational reasons, the source of their leadership influence, is their authority or the authority of those they represent, rather than their educational expertise. Such influence is unlikely to build trust.

Sometimes leaders provide managerial reasons because they do not have sufficient relevant educational knowledge. At other times the educational worth of what is requested is so taken for granted that leaders have difficulty articulating what they do know. That is why we no longer teach the content-free process of giving reasons for one's point of view. Instead, we teach the importance of giving relevant educational reasons, and in doing so provide opportunities for participants to discover and fill gaps in their ability to provide them.

I have used these two examples of goal setting and building relational trust to show how generic knowledge is made domain-specific when it is integrated with educational knowledge, and with the requirements of context-specific problems.

I applaud the fact that Ambition Institute is modelling such integration in their new leadership curricula through their twin emphases on domain-specific knowledge and on educational problems of practice. Their approach greatly increases the chances that participants in their leadership programmes will succeed in improving teaching and learning in their schools.

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Part 1: What is school leadership?

Context

Every day, a billion young people across the world spend their days in a school of some description (UNICEF 2019). Although schools have been in existence in some form since the early civilisations, mass formal education is still a relatively recent development. In England, for example, it is only in the last century that we have been addressing the complex challenge of educating every child in the country (Gillard, 2018).

Society demands a lot from schools, expecting them to ensure pupils develop academically and socially, as well as tackle wider challenges such as social disadvantage and public health. These demands, alongside pressures from regulatory bodies and public accountability, lead to a huge weight of responsibility resting on the shoulders of those who work in our schools.

Central to this story are those who hold responsibility for running schools: the decision-makers with titles such as headteacher, head of department, SENCOs or key stage co-ordinator. Over the years, this group of people has been referred to using different terminology: administrators, co-ordinators, managers and leaders.

Out of a total school workforce of almost a million staff, of which 450,000 are teachers, there are approximately 200,000 people working in leadership positions within England's schools (DfE, 2018). The work these school leaders do is broad and varied. Although the discussion about school leadership often focuses on headteachers or CEOs of school trusts, the large majority of school leaders are 'middle leaders' – classroom teachers with additional responsibilities for subjects, phases or other aspects of school life such as behaviour or Special Educational Needs

(Busher, 2005). This variation of role and remit is increased further as a result of the many different contexts in which school leaders work and means knowing how best to support school leaders is not always clear.

In recent years, there have been well-documented concerns raised regarding recruitment and retention to the wider teaching profession, including school leadership roles. Ensuring that we have enough people who are prepared, confident and hold the relevant expertise to assume leadership responsibility is a significant challenge and has been exacerbated due to the pressure of the Covid-19 pandemic on the school system (Zucollo, 2022).

In the last 10 years, we have seen insights from research flowing more widely into professional discourse and practice. This 'evidence-informed' movement in education has attempted to bring the relationship between evidence and practice closer together. An increasingly evidence-informed and intellectually-curious profession is reading, talking and debating more critically about concepts such as assessment, cognitive science and curricular thinking. But while we have made progress in developing a better collective understanding of what is going on in the classroom as a profession, there is more to do in understanding how evidence can inform our thinking about the work of school leaders.

What is school leadership?

Leithwood and Duke, in 1999, wrote that 'what has been learned about leadership in schools over the century has not depended on any clear, agreed-upon definition of the concept.' (Leithwood and Duke, 1999, p45). Many researchers have developed definitions

of leadership: such as leadership as behaviours (Hallinger et al, 1983), as personality traits (Colbert et al, 2012), as influence (Connolly et al, 2017) or – instead of being linked to an individual – as something which resides within the systems, roles and networks of an organisation (Ogawa and Bossert, 1995). The variation in perspectives on what school leadership actually is appears to be significant – so much so that we might question whether school leadership is even a thing at all.

Labelling senior staff in schools as ‘leaders’ is relatively recent; the term being introduced within the span of our own teaching careers. When Tom first took on responsibility outside of the classroom in 2001, he was given the title of ‘Key Stage Coordinator’ and paid an allowance, known then as a management point. By the time Jen took on management responsibility in 2006, she was given the grander title of ‘Phase Leader’ as a KS1 Leader and paid a ‘TLR’ (Teaching & Learning Responsibility).

There are reasons for the growth in leader roles and the associated practice of leadership. Leaders and leadership have been positioned as integral to school reform (Gronn, 2003) and the school improvement movement (Bush, 2008). Education has been subject to the influences of other sectors, notably business, industry and commerce (Bell, 1991) and to political or policy decisions. The National College for School Leadership undoubtedly played a significant role between 2000 and 2013 in advancing the concept of school leadership and was predicated on the idea that leadership is important in securing improved school and pupil outcomes (Bush, 2008).

What can literature tell us about school leadership?

A review of studies into educational leadership models from 1980 to 2014 by Gumus et al (2018) reveals how models of leadership developed over thirty years by tracking the use of different leadership-related terms during this period. The table below shows almost a thousand papers were written about fourteen different school leadership models between 1980 and 2014.

The authors report that distributed leadership, instructional leadership, teacher leadership and transformational leadership are – and continue to be – the most studied models. The number of different leadership theories demonstrates a ‘need to be sceptical about the leadership by adjective literature’ (Leithwood et al., 2004, p8). The pursuit of attempting to conceptualise leadership has led us to what John Macbeath describes as the ‘Alphabet Soup of Leadership’. Macbeath argues leadership is ‘a term full of ambiguity and a range of interpretations’ and goes on to call it a ‘Humpty Dumpty’ word that can mean ‘just what we want it to mean’ (Macbeath, 2003, p1).

The challenge of conceptualising school leadership may be, at least in part, explained by the complex nature of schools and problems that school leaders attend to. In leading a school, leaders work across many different areas, with many different individuals to undertake many different tasks. Within an environment as complex as a school, attempting to connect the work leaders do to the impact they have is challenging.

Table 4. Numbers of papers on different leadership models.

Models	Total	80-84	85-89	90-94	95-99	00-04	05-09	10-14
Distributed/Collaborative Leadership	205	2	2	4	3	15	61	118
Instructional Leadership	181	11	9	18	8	15	35	85
Teacher Leadership	151	1	5	9	13	13	47	63
Transformational Leadership	147	-	4	13	7	16	32	75
Curriculum Leadership	49	-	2	2	1	8	16	20
Technological Leadership	46	-	-	2	1	5	13	25
Transactional Leadership	40	-	-	5	-	-	8	27
Ethical/Moral Leadership	38	1	-	1	5	8	8	15
Charismatic Leadership	27	-	1	4	-	5	6	11
Administrative/Managerial Leadership	21	1	1	2	7	2	3	5
Strategic Leadership	20	-	-	-	-	2	6	12
Authentic Leadership	18	-	-	-	1	-	8	9
Visionary Leadership	18	-	-	-	4	1	6	7
Servant Leadership	16	-	-	-	1	1	7	7

Note. Some papers focus on more than one leadership model, so they were included in two or more categories.

It is clear that if we are to make progress in training and professional development for school leaders, we have to first be able to better identify and define what we mean by the concept.

Complexity

Hawkins and James (2018) argue that schools are 'complex' (as opposed to 'chaotic', 'complicated' or 'stable') places. That is, the 'interactions among [the school's] constituent parts are such that it cannot be fully understood simply by describing its components' and that 'the components interact and are changed by those interactions' (Hawkins and James, 2018, p730).

Unlike an engine or a production line where a component part can be replaced or altered with a predictable outcome, this complexity means that it is not possible to define set ways in which leaders should operate, because there are various possible consequences arising from one action or set of actions.

We can therefore think of school leadership as a low validity domain, that is, it is difficult to make predictions or ascertain causality within the environment (Kahneman and Klein, 2009). In practice, it is important for leaders to be aware of the way in which complexity can manifest itself and to understand more about the underlying problems they are attending to; the purpose of school leaders' work.

Purpose and problems

By looking at and understanding the purpose behind the actions school leaders take, it is possible to see school leadership as the process of addressing problems and challenges. This is not a new concept and researchers have used different definitions of 'problems' in the literature (Rittel and Weber, 1973; Plsek and Greenhalgh 2001; Wright, 2011). There are two important considerations when using the word problem to describe the work of school leaders.

Firstly, we know the word has negative connotations and this is not how we intend for it to be viewed. Instead, we draw upon Thomas Nickles' (1981) definition: 'the demand that a goal be achieved, plus constraints on the manner in which

it is achieved' (p111). Crucially, in this definition, the problem is firmly rooted in the work that needs doing, rather than relating to more superficial conceptions of leadership including processes, personality, persuasion, power and influence.

Secondly, a focus on problems might also lead us to think generic problem-solving skills should be prioritised to improve leadership. However, researchers find that to understand and solve problems, large amounts of knowledge of the specific domain in which you work is required (Willingham, 2008).

A focus on the domain-specific knowledge required by school leaders has been an unfashionable idea but one we think deserves a more prominent place in the discourse, particularly when thinking about designing leadership development. Orthodox conceptions of school leadership and approaches to leadership development over the last twenty years have been largely rooted in transformational leadership theory and 'generic leadership' approaches, often borrowed from sport, business or popular leadership literature. In part two we explore the generic and domain specific debate and try to offer an alternative that moves us forwards.



Part 2: Generic and domain-specific perspectives of school leadership

Firstly, let's look at what we mean by generic and domain specific.

Generic leadership:

Skills, knowledge and attributes linked to the field of leadership as opposed to a specific domain.

This often refers to the **individual traits and characteristics** of a leader themselves or to **leadership practices**, like setting a vision, implementing change or communication. The transferable nature of personal traits and leadership practices suggests they can be developed in any domain and could therefore be relevant in any organisation.

Domain-specific expertise:

Knowledge and skills with a specific field, domain or type of organisation.

The focus here is on a deep **knowledge and understanding of the domain** for which a leader has responsibility and the context they work in. In school leadership, this includes subjects or specialist domains such as behaviour, Special Educational Needs, teacher development or school finance. It could also relate to an age range or type of school.

In a paper considering the debate between generic and domain-specific approaches to school leadership, Neil Gilbride writes:

'Policy direction over the last 20 years has granted the impression that there is far less priority for the specific knowledge and experience of schools. Successive marketing has advertised how teachers can be senior leaders within schools in a short time scale, for example the "Fast Track" scheme (DfES 2005). In 2010, the UK Government introduced the Tomorrow's Heads programme, which allowed individuals without teaching experience to train as a headteacher (NSCL 2010).' (Gilbride 2018, p1)

Despite the importance of leaders holding deep domain-specific knowledge, it is often overlooked in the discourse around school leadership and in approaches to training and development. It is far more common to come across approaches which focus on leaders' **personal traits**, values and behaviours, or their **generic leadership skills** such as creating a vision, communication or leading change.

Personal traits

The personal traits or characteristics of individual leaders play a prominent role in the discourse around school leadership, as well as in leadership training and development programmes.

Throughout the last decade, for example, it has become commonplace for leadership programmes to include personality tests, designed to help leaders learn about themselves and to consider how they might work with others.

Adverts for Headteacher posts too can often focus on personal characteristics, for example seeking leaders who are dynamic, inspirational or charismatic. Ofsted reports are also known to praise the inspirational and passionate headteacher and praise their bold or uncompromising leadership.

Reasons for the influence of 'trait-based' leadership are complex. One seminal paper written in 2008 contributed to this perspective by stating that 'a small handful of personal traits explains a high proportion of the variation in leadership effectiveness' (Leithwood et al., 2008). However, in 2019, the same researchers revisited this claim and concluded that there was insufficient evidence to support it, writing that 'the claim that personal leadership traits, by themselves, explain a high proportion of variation in school leadership effectiveness cannot be justified' (Leithwood et al., 2019).

Generic Leadership Skills

As well as a focus on the traits or characteristics of an individual leader, a common focus for school leadership development is around 'generic leadership skills' such as creating a vision, leading change or project management.

Generic approaches to leaderships underpin a number of leadership development frameworks, including previous National Professional Qualifications (NPQs). For example, teachers undertaking an NPQ in Middle Leadership (NPQML) until recently were required to 'anticipate other peoples' views or feelings and moderate their approach accordingly' and 'adopt different leadership styles to ensure the team meets its objectives'. Each of these statements can be applied as easily to other sectors as they can to schools and education which implies that leadership is something that can be learnt as a generic skill, rather than within a specific domain.

Another, recent development is the apprenticeship levy, which has been used by some school trusts to fund leadership training for its leaders and rests on a general leadership and management qualification, rather than an education-specific framework. For instance, school leaders

undertaking leadership training linked to the Team Leader/Supervisor standard will be taught content including 'operational management', 'understanding learning styles' and 'project management' (Institute for Apprenticeships, 2019).

Despite their popularity, there is little evidence to suggest that generic leadership skills in themselves are something that can be developed in a way that allows leaders to have a positive impact on pupil attainment.

Having briefly explored these generic approaches to leadership (both personal traits and generic leadership skills), we now turn to the role of domain-specific knowledge.

The role of domain-specific knowledge in school leadership

The work of Professor Viviane Robinson provides significant support to the domain-specific argument. In 2019 she wrote that 'the [educational leadership] field has been dominated until quite recently by abstract theories of leadership which are not closely aligned to the specific work of educational leaders' (Robinson & Gray, 2019).

Robinson acknowledges that there has been important learning to come from research into generic approaches, but that a fresh focus on the leadership of teaching and learning has the 'potential to put education back into educational leadership – that is, to ground leadership in the core business of teaching and learning' (Robinson, 2006, p64).

Robinson suggests two ways that further research into the leadership of teaching and learning can be useful:

1. It tells us about what school leaders need to know and understand if they are to lead the improvement of teaching and learning.
2. It identifies some of the features of school and teacher culture which support principals or their designees in the leadership of teaching and learning. (Robinson, 2006)

More recently, Robinson has reiterated her argument that leaders 'need to be increasingly knowledgeable about the core business of teaching, learning, assessment and curriculum' and that 'they need to be able to use that knowledge to make good decisions' (Robinson, 2018, para 15).

In headteacher Matthew Evans' recent book, 'Leaders with substance: an antidote to genericism in schools', Evans argues that leaders should not rely on a toolkit of generic skills but on 'our schema of knowledge'. He suggests that the best leaders don't study the field of 'leadership', but build relevant knowledge which helps them to solve the educational problems they face in their school (Evans, 2019, p43).

Further critique of the generic approach to school leadership training lays some of the problems in our school system at the door of leadership genericism and the absence of domain-specific expertise amongst school leaders. Christine Counsell (2018), for example, argues eloquently for greater curricular knowledge, writing that:

"the absence of an adequate model of senior curriculum leadership seems to me to deepen fundamental and longstanding problems in schools with which we have all wrestled, from weak assessment systems to problems with generation and interpretation of data, from problematical judgements about teaching and learning, to attraction and retention of fine teachers, from teacher development to the effectiveness of CPD" (Counsell, 2018, para 7).

Expert Leadership

A relevant model when considering the domain-specific knowledge of school leaders is 'Expert Leadership', defined by Amanda Goodall (2016). She calls it a 'theory of expert leadership' (TEL) and it is based on evidence from psychiatry, higher education and sports. Goodall's research demonstrates that there is 'a strong relationship between a leader's knowledge and expertise in the organization's core business activity, and future performance' (Goodall, 2016, p232).

In the TEL model, the influence of expertise is thought to operate along two channels: first, through the decisions and actions expert leaders take including, for example, around goal setting, work evaluation and staff development; and secondly through the way they signal their expertise to internal and external stakeholders in relation to, for example, strategic priorities or working conditions.

This is important because often a domain-specific approach can be characterised as being limited to only formal textbook or 'technical' knowledge, when in fact Goodall finds that those with 'core business' expertise and experience in the domain are more likely to understand the challenges of their teams, show more empathy and form stronger professional relationships.

Domain knowledge therefore isn't just 'knowing stuff' or 'technical knowledge' (although it can often be relegated like this within debate), it is also the knowledge of the customs and cultures, the traditions and histories of different subjects and specialist areas. It forms the basis of conversations, relationships and intelligent, ethical leadership.

A shifting consensus?

There appears to be a shifting consensus on the limitations of a generic approach to school leadership development, both through research as we have outlined so far, and also through England's reforms to National Professional Qualifications which adopt a more domain-specific approach (more about this later).

We can also see that there is a greater acknowledgement of the role of domain-specific leadership development within the wider discourse. For example, in his 2020 paper, 'A new paradigm for leadership development?', Steve Munby, former CEO of the National College of School Leadership (NSCL), writes 'I welcome and applaud this new thinking on leadership development'. Munby goes on to state that, 'I believe that there needs to be a greater focus on domain-specific knowledge and complex problem solving, and that we need to move away from some of the stereotypical leadership models of

the past,” although goes on to say that ‘this should be combined with a focus on the development of more general leadership skills and behaviours’. (Munby, 2019, p9).

One way of navigating the dichotomy (between generic and domain specific approaches) would be to conclude that the answer is ‘both’, and that the answer is the right blend of the two (generic and domain specific). Whilst this might intuitively sound like a logical way to reconcile the dichotomy, this view is built on the assumption that they (generic leadership skills and domain specific bodies of knowledge) are two different things. We think this overly simplifies the situation and propose a different way to reconcile this debate.

In doing so, we aim to aim to:

1. Demonstrate that what are often described as generic leadership skills, are in fact underpinned by a great deal of knowledge – a large amount of which is drawn from the specific subject, domain and context in which a leader works.
2. Acknowledge that some of what we need to learn as leaders will be unique to our subject/ domain, some will be transferable across other fields, and some will have its origins in other domains to education.
3. Demonstrate that ‘generic leadership skills’ are a problematic focus for organising leadership development due to their abstract nature, poor definition and reliance on domain knowledge.

A dichotomy

Whilst it might intuitively sound right that leadership development should focus on both generic and domain-specific approaches, this view is built on the assumption that generic and domain-specific bodies of knowledge are two different things. We think such a view misses the important connection between them, specifically that a generic skill, when broken down into component parts, consists largely of knowledge from within a given domain, be that formal knowledge or knowledge of the context and people we work with. To illustrate this, Tom will use the example of his dad.

Dad was a secondary music teacher for over forty years. During this time, he led several music departments as head of music and, as a result, became quite expert in this. Towards the end of his career, he worked in several different secondary schools, teaching GCSE and A-Level classes and, from time to time, would offer less experienced and usually younger heads of music advice on what to do.

Dad’s experience enabled him to recognise the challenges that different heads of music encountered. He could understand the common pitfalls, see the likely misconceptions and identify more quickly the underlying root causes of problems that needing attending to, rather than being distracted by the symptoms or surface level features of these.

He was able to help colleagues attend to these problems more quickly and successfully than they would otherwise have been able to if left to their own devices. This led to some great things happening in music departments including academic success of students, wider participation in concerts and performances, success for individuals who learned musical instruments and many wonderful moments where music helped to bring communities together in ways that only music can. As a result, he was occasionally praised for being ‘visionary’, being able to make change happen and to take people with him.

Typically, these abilities such as creating a vision, leading people or building relationships can be seen as transferable leadership skills, and a generic leadership approach suggests that these can be developed in isolation and applied to different contexts. However, the limitations of this approach become clear when you consider the example of Tom’s dad. Whilst he may have appeared to have been visionary and to create change in a music department, if he were asked to advise the French department or an early years setting, he would certainly not have come across as visionary and his ability to make change happen would have been diminished significantly. This is because his apparent general leadership skills in fact rested on his wealth of experience from within a specific subject domain and age range.

Educational leadership requires knowledge from other fields

In defence of the generic leadership approach, it is sometimes argued that there is a lot to be learned from other sectors outside of education, and that an emphasis on domain-specific knowledge is insular or parochial. This is an important point. Education, by design, is a multi-disciplinary domain which draws on knowledge, not only from across the range of different subject disciplines taught within the school, but from fields including psychology, organisational management and politics. Clearly, it is therefore important both for school leaders to be open to learning from across many different subjects, fields and sectors.

And can knowledge be useful in more than one domain? Yes, of course – an understanding of how to influence behaviour change, for example, is useful in health, sport, education and many other fields. Implementation is another example of a body of knowledge that will be useful across many fields/sectors. We argue, however, that knowledge of implementation divorced from the context within which it is being deployed is limited. So, whilst leadership development programmes should include content on areas such as behaviour change and implementation, they should be delivered in such a way that inextricably links content to both the field of education and supports participants to make strong connections to their personal context.

It is important to acknowledge that there is valuable knowledge that can be learned from other sectors and that some knowledge will transfer into other fields. Despite this, we remain sceptical that 'generic leadership skills' are a useful focus for leadership development.

Problems with generic leadership skills

There are four reasons why we think a focus on developing generic leadership skills remains problematic, particularly when thinking about this question through the lens of leadership programme design.

1. Generic skills rely on specific knowledge
2. Knowledge doesn't transfer easily across domains

3. Generic concepts are often vague and poorly defined
4. There is so much to cover in any leadership development programme, we need to be really choosy about what to include (opportunity cost)

1. Generic skills rely on specific knowledge

When generic leadership skills are proposed (e.g. to lead change, create a vision or hold difficult conversations), they are usually couched in general and abstract terms. Their abstract nature is what allows them to be used to describe what leaders 'do' across a range of fields. But to observe that there are common things that leaders 'do' is different from understanding how we can develop such abilities.

To develop these skills in school leaders, we have to move beyond the abstract term and into more concrete and specific component parts of the skill, and we find that a lot of the component knowledge required within this skill is specific to the domain that is being led.

In our early example of Tom's dad above, we saw how the ability to create a vision, lead change or build relationships relies to a great extent on extensive knowledge and experience from within a specific subject or domain.

Another example would be that of 'difficult conversations' – a common module in leadership development programmes. Although there may be some knowledge of how to structure high-stakes conversations that can be applied in different contexts, the quality of any such discussion will rely to a great extent on a good understanding of the topic which the difficult conversation is about.

Being able to hold a difficult conversation with a parent about whether their child should undergo diagnosis for a particular special educational need requires different, and more specific knowledge, compared to having a difficult conversation with a member of staff about their punctuality. And this is again different from having a difficult conversation with an early career teacher about a misconception they might hold about an aspect of the mathematics curriculum.

Therefore, it is problematic for a leadership curriculum to focus on what leaders do, rather than what it is that underpins their ability to do it. Leadership development, we contend, must be rooted in the domain or field which is being led.

2. Knowledge doesn't transfer easily across domains

Having established that skills which might look like generic leadership skills are in fact closely tied to the knowledge within a given domain, it follows that these skills are therefore not as transferable as they might first appear.

A skill that appears to be generic, such as the ability to analyse or predict, is in fact deeply connected to the domain within which the analysis or prediction is taking place. Interpreting a rainfall graph is different from interpreting a painting. Predicting a story ending is different from what it takes to accurately predict the weather.

In a leadership context, a head of department's leadership skills will be enhanced if leading a subject in which they have sufficient expertise, but diminished if this changes or they take on a different department where they are a non-specialist. Equally, a successful head of sixth form's ability to lead does not transfer equally to an early-years setting.

Fundamentally therefore, it is hard to separate ability in any field from knowledge of that domain and evidence suggests contextualized knowledge is not easily generalized or transferred (Berliner, 2004). Evidence suggests the challenge of transfer is especially relevant when it comes to training and development; specifically, the low likelihood of transfer from a generalised concept to the specific circumstances of an individual's setting. Botke et al., 2018 for example, write that '[r]esearch shows that the most problematic type of training transfer relates to soft skills training' (p130) – '[t]he inability to transfer results from soft skills training is an extremely costly waste of time, energy and money' (p144). Citing Voegtlin et al., 2015, Botke et al., write that '[w]e found only one study [out of 34] on the relationship between soft skills training and organisational performance

improvement, and this study found no positive relationships between training and performance improvement (Botke, p141).

3. Generic concepts are often vague and poorly defined

Often, generic leadership skills are abstract terms which describe a very high-level concept like 'leading change' or 'managing people'. These definitions are very broad and, as such, are hard to define and therefore teach or develop in a reliable way. Although the high-level term might sound like something desirable for a leader to have, without being more granular and precise about the underpinning knowledge that lives behind the concept, it is not possible to translate the concept or knowledge into a leadership curriculum.

In his book 'Leadership BS', Jeffery Pfeffer critiques some of the popular approaches to leadership development and describes this problem as 'conceptual imprecision'. He writes that 'one cannot build a science this way, and more important, it is impossible to develop valid recommendations that leaders can implement given the sloppy thinking about leadership that is so much in vogue' (Pfeffer, 2015, p26).

4. Opportunity cost

Even if we were to identify generic and transferable knowledge or skills in a precise enough way that we thought could be developed in leaders and was transferable (noting the above challenges), we would also need to be convinced that it was more useful to include in a leadership development programme than rooting development in domain-specific knowledge. There is so much that is useful for school leaders to know yet time for professional development is so short and precious. The inclusion of any content in PD should only happen as a result of judicious and rigorous decision-making.

Currently, the body of evidence as to what is likely to enable success in any given domain does not support a prioritisation on the development of generic knowledge or skills (Bailin et al, 1999; Willingham, 2010; Perkins and Salmon, 1989).

When observing or describing successful school leaders (or indeed anyone), it is common to use abstract or generic concepts as part of our description. However, to inform effective leadership development, we must dig beneath what we observe on the surface and understand more about the knowledge that sits behind this.

Whilst we acknowledge that there is valuable knowledge that can be learned from other sectors, and that some knowledge will transfer into other fields, we have also highlighted several problems that exist with trying to develop 'generic leadership skills' and argued that when thinking about how to improve or develop, a focus on generic skills and attributes is of limited value.

We have argued also that it is problematic to see generic skills and domain-specific knowledge as two separate categories to choose between as they are almost always entwined. Rather, we think that generic or abstract concepts such as 'change' or 'having a vision' can be seen as composite – made of component knowledge and that this component knowledge is largely related to the domain and context a person works in.

Five challenges of 'domain-specific leadership'

Having argued that domain-specific knowledge and understanding is foundational for school leaders, we should also acknowledge some problems with the concept. When it comes to designing a programme curriculum for leadership development in particular, there are five challenges that we must consider:

1. Conceptual imprecision.
2. Grain size.
3. The multi-disciplinary nature of education.
4. The importance of context.
5. The purpose of leaders' knowledge.

1. Conceptual imprecision

Just as we were critical of the conceptual imprecision of generic leadership skills, a lack of consensus also exists about the meaning of the term 'domain'.

In relation to domain-specific expertise, the term 'domain' refers to a body of knowledge which a leader should become acquainted with. This body of knowledge is associated with their field of practice.

But how broad are the boundaries of any given domain. For example, does education constitute a domain of knowledge in which expertise may be gained? This seems rather broad and loose. Also, defining education as a domain may suggest that knowledge gained from outside of the field of education is not valuable to a school leader, which is clearly not true.

Perhaps it is more useful to define discrete fields of practice such as curriculum leadership, safeguarding, or early year's education. These domains certainly have specific knowledge associated with them, but we can also define smaller domains.

For example, we could define separate domains of knowledge for curriculum leadership in early years as opposed to post-16 education. It is not clear what level of granularity is helpful, or how we deal with overlap between these domains. School leaders, particularly those in more senior positions, will also draw on domains of knowledge which span various industries (such as employment law).

Such imprecision can therefore be misleading and lead to confusion as to what knowledge may be considered to be inside (or outside) of any given domain.

2. Grain size

Organising a curriculum of knowledge in such a way that supports development poses an additional challenge related to what has been termed 'grain size' (Kennedy, 2016). Kennedy says that if we break practice into very small bits, our lists become too long and our curriculum crowded with minutia. However, if the partitions are too large, we may have difficulty clarifying individual parts in a way that helps novices 'see' them.' (p6).

When it comes to designing leadership development therefore, there is a challenge in identifying the right grain size of knowledge to be most helpful to leaders.

3. The multi-disciplinary nature of education

Education is a field of practice rather than an academic discipline. However, it draws on a variety of disciplines (e.g. psychology, sociology, economics, organisational theory) to give insight into the complex dynamics of the school system. These disciplines each bring a different perspective. They have their own knowledge-domains which are quite well defined, each with their own traditions of enquiry and knowledge-building.

Because leaders' work requires them to draw on knowledge from such a broad range of domains, there is a danger that trying to define a curriculum based on domain specific knowledge that important knowledge from a particular field may be missed.

4. The importance of context

We know that context is important in education. So too is local knowledge important for school leaders, for example knowledge of the community, traditions, school culture, and the knowledge which underpins relationships with staff. An emphasis on domain-specific expertise alone can risk undervaluing the nuance and idiosyncrasy of such important contextual factors.

A methodology for understanding leadership development in ways which better connects the application of domain-specific knowledge to the school's context is crucial. Effective leadership is born out of the interplay between the leader's expertise and their environment. If we ignore context, we make the same mistake as those who overplay generic leadership skills by portraying leadership as a 'quality' possessed by the leader.

5. Leadership knowledge requires a purpose.

A focus on domain-knowledge can be oversimplified and caricatured to mean only formal knowledge such as that held in books or in documents, rather than a broader view which sees knowledge as central to leaders' relationships, decisions and behaviours. Such a focus on a body of knowledge, untethered to the work leaders are doing, risks it not being developed in such

a way that it is 'useable' i.e., it does not become assimilated into an individual's mental model, and therefore doesn't operate in a way that can guide an individual's action.

In practice, school leaders are confronted with a range of educational problems which require application of knowledge and skills as leaders attend to problems. School leaders' expertise is defined by their success in addressing or overcoming these challenges; it is these problems that provide purpose to leaders' work and which domain-specific knowledge must be organised around.

In summary, we are persuaded that rather than organising a curriculum for leadership development around a set of generic leadership capabilities, a better starting point is to organise leadership development around the core responsibilities of school leaders' roles. This is what we look at in part three.



Part 3: Persistent problems, expertise and leadership knowledge

Putting knowledge to work

In the previous section, we argued that the generic approach to leadership development is limited but have also acknowledged challenges with implementing a 'domain-specific' approach. So where do we start? How can we develop an approach which places sufficient emphasis on domain-knowledge whilst overcoming the challenges we have outlined above?

To answer this question, we focus on the core challenges that underpin school leaders' work. Rather than organise leadership development around generic skills or domains of knowledge, we are persuaded that a taxonomy organised around these core challenges school leaders face, offers us a better solution.

We borrow the term 'persistent problems' from Mary Kennedy (2016) who has defined teaching – and associated professional development – in relation to such problems. She describes five persistent problems that teachers face: containing student behaviour, exposing students' thinking, portraying the curriculum, enlisting student participation and accommodating personal needs. Kennedy argues it is important to look beyond the behaviours and actions of teachers, to the purposes served by them.

Persistent problems of leaders' work

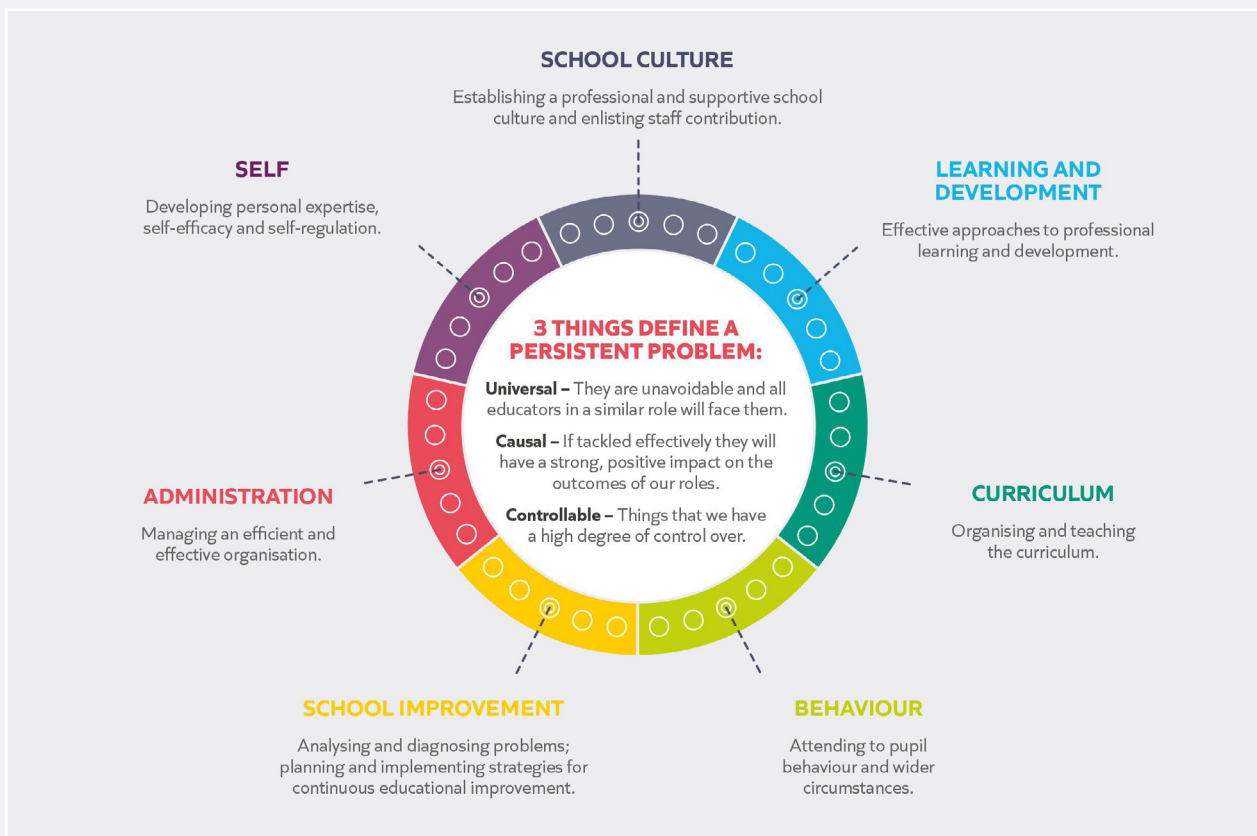
Based on our work with school leaders, and on a review of a considerable research base, we have identified seven 'persistent problems' we think school leaders face.

We think there are three things which define a persistent problem:

- > Universal – They are unavoidable and all educators in a similar role will face them.
- > Causal – If tackled effectively they will have a strong, positive impact on the outcomes of our roles.
- > Controllable – Things that we have a high degree of influence over.

These seven persistent problems underpin our revised framework for leadership development. They are the starting point for our programme design as we identify different domains of knowledge that expert school leaders need to respond to them.

- > School Culture - Establishing a professional and supportive school culture and enlisting staff contribution.
- > Learning and Development - Ensuring effective approaches to professional learning and development.
- > Curriculum - Organising and teaching the curriculum.
- > Behaviour - Attending to pupil behaviour and wider circumstances.
- > School Improvement - Analysing and diagnosing problems; planning and implementing strategies for continuous educational improvement.



- > Administration - Managing an efficient and effective organisation.
- > Self - Developing personal expertise, self-efficacy and self-regulation.

We believe there are several benefits to organising the work of school leaders around these persistent problems.

First, we remove the problem of 'grain size'. School leaders are responsible for hundreds of daily activities – an unwieldy, exhaustive list of behaviours and knowledge is unlikely to be useful, and at the very least, unhelpfully daunting. By organising the work of leaders around these seven problems, we can then explore problems at different levels, nested within these seven broad categories.

Second, school leaders have varied personalities and characteristics and they behave and fulfil their responsibilities in different ways. It is not generally possible to explain why one way of working is so much more (or less) effective than another. By starting with a focus on the problems that underpin leaders' work, rather than their personal characteristics or traits, we acknowledge that effective practice comes in many forms.

Third, by identifying the core work of school leaders, and the knowledge needed to make this possible, we can avoid being swayed by fads, fashions, and policy shifts. Rather than starting with initiatives such as assessment for learning, instructional coaching or knowledge organisers, we begin by asking what core problems need to be attended to.

Finally, a comprehensive understanding of the problems that leaders face and the knowledge needed to solve them means we can effectively structure and sequence leadership development. It focusses development on depictions of practice, not simply on developing formal knowledge. We think this can enable leaders to adapt their behaviour or approach to solve problems in a variety of ways and across different contexts.

Persistent problems in context

Taking this approach to leadership development should also take school context into account. Although these problems are universal and unavoidable, they will manifest themselves in different ways depending on the context within which the school leaders work.

For example, whilst attending to pupil behaviour is a common challenge across schools, the problem presents itself differently for an early rears co-ordinator planning transition from nursery than for the principal of an Alternative Provision school. Likewise, the challenge of managing an efficient and effective organisation for a small village primary will have both similarities and differences to the headteacher of an urban 1400-place secondary school, or a school trust Chief Executive running 20 schools.

We have proposed that the development of school leaders can be effectively underpinned by, and organised around, the persistent problems of their work. We think that such an approach can help us to move beyond a dichotomy between generic leadership skills and domain-knowledge, by placing both the knowledge and skills as subservient to the problems, or purpose of leaders' work.

A curriculum underpinning leaders' development needs to be rich with knowledge from a wide range of fields and structured in such a way that enables them to tackle the core challenges of their roles as they relate to the context they work in. Next we look at how a curriculum for leaders' development might best be conceived of. We start by examining the development of expertise in more detail, specifically at how individuals develop expert mental models and how these models guide action in such a way that enables them to more effectively address the persistent problems of their work. We do this by looking at:

1. Expertise.
2. Mental models.
3. Leadership knowledge.

1. Expertise

Most of us will be able to recognise a school leader we've worked with who consistently operates at a high level. Think of the colleague who commands control of any classroom or corridor, appearing to have eyes in the back of her head; the head of department who deals with complex staffing challenges serenely, or the headteacher who knows what to do in the most challenging of circumstances. Like experts in other fields,

these 'expert leaders' are able to respond to the challenges of their role in 'fast, fluid and flexible' ways, using less 'conscious effort' than their novice counterparts (Berliner, 1988).

The literature we can draw upon about expertise is helpful for understanding performance because it focuses on the mechanisms underlying achievement (Ericsson, 2000). Focussing on the observable characteristics of experts risks understanding (and possible imitation) of only a small part of what experts do. Observable behaviours are often arbitrary — they do not necessarily reflect what it means to be an expert and attending to only them misses the complex holistic nature of true expert performance.

It is common to hear people talk about 'natural' or 'born' teachers and school leaders, however, research across a number of fields consistently finds that expertise can be consciously developed. Ericsson et al., (2007) have gone so far as to claim that experts are 'made and not born' (Ericsson et al. 2007). This view corresponds to that of Bereiter and Scardamalia (1993), who write that expertise is 'effortfully acquired', that it is something that 'carries us beyond what nature has specifically prepared us to do' (Bereiter and Scardamalia, 1993, p3). These insights into expertise and the development of high performance are applicable to the expertise of leaders and managers as well as other domains such as music, sport or medicine:

'If you want to achieve top performance as a manager and a leader, you've got to forget the folklore about genius that makes many people think they cannot take a scientific approach to developing expertise' (Ericsson et al. 2007, para 4).

Having established expertise as a lens through which we can understand the high performance of school leaders, we now turn to the question of what it is that underpins expert performance. We consider the literature in this area that suggests that knowledge - organised to guide action - is significantly responsible for this. We call this a 'mental model'.

2. Mental models

Mental models are representations people hold about the enormous range of things they do. They are underpinned by knowledge and developed through instruction, experience and significant amounts of practice and feedback (Ericsson and Pool, 2016; Bereiter and Scardamalia, 1993). Once acquired, they result in a number of benefits including:

- + Intuition: being able to solve problems in less time or with less effort (Simon, 1992).
- + Improved pattern recognition: being able to spot where a problem is similar to one that has been dealt with previously, or to recognise where a situation poses a novel challenge (Kahneman and Klein, 2009).

The term 'mental model' is thought to have originated in the work of Kenneth Craik (1943) in his book *The Nature of Explanation*. In it, he writes '[i]f the organism carries a "small-scale model" of external reality and of its own possible actions within its head, it is able to try out various alternatives, conclude which is the best of them, react to future situations before they arise, utilize the knowledge of past events in dealing with the present and the future, and in every way to react in a much fuller, safer, and more competent manner to the emergencies which face it' (p61).

Mental models then, can be described as the knowledge held by an individual and the way it is organised to guide action. This is an important definition as simply acquiring formal or academic knowledge around a subject in itself does not lead to expert performance. Fundamental to the way in which knowledge is organised is an understanding of the persistent problems of an individual's role. Knowledge needs to be organised in such a way as to address these problems. We can therefore think of expertise in school leadership as being based on:

1. An iteratively better understanding of persistent problems
2. Progressive developments in knowledge
3. Resulting changes in behaviour

3. Knowledge

In their 1993 book *Surpassing Ourselves*, Bereiter and Scardamalia emphasise the importance of knowledge and the reluctance for it to be accepted as integral to the work of experts:

'Most people we talk to do not want to believe that research shows expert performance is mainly a matter of knowledge. They do not necessarily have an alternative explanation ready, but they feel there has to be more to expertise than that' (Bereiter and Scardamalia, 1993, p43).

Like others (Tricot and Sweller, 2014; Stein and Nelson, 2003; Timperley, 2011), we believe that expertise in school leadership is predicated on knowledge and that it is important to view knowledge broadly, encompassing skills, beliefs and values. If we want school leaders to become more expert, then it follows that we need to understand more about what leaders need to know and be able to do, and how we can help them to learn this.

Central to developing effective professional development, therefore, is to consider the codification of leaders' knowledge - how we can understand and arrange it into a structure, or taxonomy, that makes it easier to access, understand and talk about.

The codification of leadership knowledge

Codification can be thought of as the action or process of arranging knowledge in a systematic form. By identifying and codifying a taxonomy of school leadership knowledge, we are able to give leaders a starting point from which to better understand their work and continue their development. Codified knowledge can also offer a shared language for leaders, and those responsible for their development, to communicate with, and to enter debate.

Codification of knowledge is taking place all the time. With advances in various fields, we have access to and can understand knowledge that, for several decades, was either unknown or only tacit. Micheal Polanyi (1962) writes that:

The major difficulty in the understanding, and hence in the teaching of anatomy, arises in respect to the intricate three-dimensional network of organs closely packed inside the body... it is left to the imagination to reconstruct from such experience the three-dimensional picture of the exposed area as it existed in the unopened body, and to explore mentally its connections with adjoining unexposed areas around it and below it. The kind of topographic knowledge which an experienced surgeon possesses of the regions on which he operates is therefore ineffable knowledge (Polanyi, 1962, p. 92)

The knowledge of anatomy may have been ineffable in 1962, but developments in medicine mean that it no longer is. This process of creating, or revealing, knowledge is continuous. Cognitive load theory, for example, was developed by John Sweller in the 1980s. Before that, we didn't fully appreciate the impact of working memory on learning (although of course we started to learn about working memory many years before that). Research constantly reveals new insights into how we can support pupils to learn.

Any taxonomy of leadership should be informed by the knowledge that leaders use in their day-to-day work. It should also consider the knowledge that leaders don't yet have. and draw from the literature to understand what relevant – but as yet unknown – knowledge might most usefully support leaders to address the persistent problems of their roles. Defining this body of knowledge is a real challenge: who gets to have the final say on what it is that leaders should know? We think that this needs to be a collective endeavour, curated by individuals who work in the system and understand the work of leaders.

A good example of a process of codification that looks at only what individuals – in this instance teachers – already know is Lemov's *Teach Like a Champion* (Lemov, 2014). A series of techniques are captured in written and visual form, which many experienced teachers do all of the time but find hard to explain. As Lemov himself states, TLAC was simply an attempt to codify what effective people do; it is not underpinned by literature

and doesn't claim to be a comprehensive view of everything that teachers should know and be able to do.

An example of codification which attempts to bridge both leaders' knowledge and the literature are 'Walkthrus'; visual step by step guides, introduced recently by the talented Oliver Caviglioli and made popular through *Teaching Walkthrus* (Caviglioli and Sherrington, 2019). They are rooted in evidence about how pupils learn and demonstrate clearly how this can be brought to life.

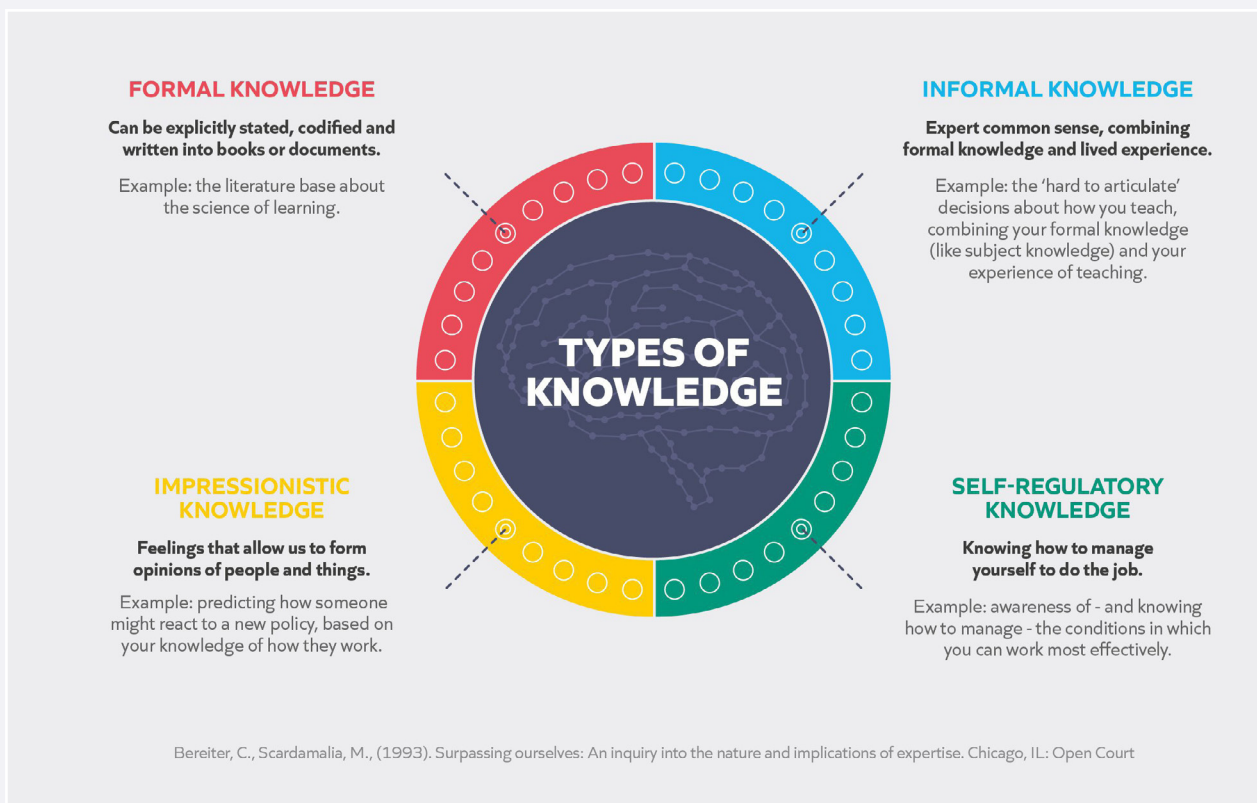
The process of codifying leadership knowledge is complex and requires us to have a broad conception of knowledge. This leads us to consider the different types of knowledge that leaders need to hold.

A broad understanding of knowledge

To define knowledge, we draw heavily on categories defined by Bereiter and Scardamalia who, in their 1993 book, *Surpassing Ourselves*, suggest that one of the reasons people do not readily accept the central role of knowledge in expertise is because they 'have too limited a conception of knowledge' (p44).

When thinking about knowledge, it's common for people to think initially of 'formal' knowledge: the type of knowledge that can be codified in books, compared, contrasted and relatively easily taught. Formal knowledge enables those who hold it to 'give justifications and explanations that will withstand critical examination' (p64).

Bereiter and Scardamalia argue that formal knowledge (declarative and procedural) represents just one of four categories of knowledge that, in areas of expertise, are developed to a high degree. Declarative and procedural knowledge have been described, respectively, as 'knowing that' and 'knowing how' (Roediger et al, 1989). The additional three categories of knowledge Bereiter and Scardamalia term the 'hidden knowledge of experts'.



Formal knowledge:

Description: Can be explicitly stated, codified and written into books or documents. A combination of declarative and procedural knowledge.

Example: The literature base about the science of learning.

Informal knowledge:

Description: A combination of formal knowledge and experience that is hard to explain or codify. Can be thought of as 'expert common sense'.

Example: Hard-to-articulate decisions about adapting classroom questioning to different groups or individuals.

Impressionistic knowledge:

Description: Feelings associated with knowledge that allow us to form opinions of people and things.

Example: Predicting how an individual teacher might react to a new policy or initiative.

Self-regulatory knowledge:

Description: Knowing how to manage yourself to do the job. Includes habits such as planning or practice.

Example: Habits built around planning or practice, or practice for high-stakes conversations/ meetings.

The hidden knowledge of experts

Leading schools is a complex task and requires high levels of relevant expertise. If we accept that expertise is largely predicated on knowledge, which is gained through a combination of study experience and practice, it follows that understanding the knowledge base needed by teachers and leaders is an essential part of supporting their development.

Hyle et al (2010) write that 'the development of expertise is dependent on [formal] knowledge provided by most preparation programs and on hidden expert knowledge obtained through experience and self-reflection' (p.173).

Professional development for school leaders must therefore, at the very least, involve access to rich sources of formal knowledge, alongside significant amounts of experience of the work. Leaders should have opportunities to make sense of formal knowledge, put it into practice in their own contexts and receive expert feedback on what they have learnt.

In practice, the knowledge held – and required – by individuals will vary according to factors like leader role, experience, seniority, remit and context, but to develop expertise requires knowledge from the four categories outlined above.

Of course, there is more to expertise than knowledge. Motivation, a desire for excellence and to some extent, innate talents, all enable the development of expertise. But we think it is important to argue the primacy of knowledge in to place for two reasons.

Firstly, because knowledge is broader than we might first realise. It encompasses what we know, believe and understand about every aspect of our lives.

Secondly, because we want to dispel the myth that expert knowledge is in any way mysterious or unobtainable. This is an exciting and empowering realisation because it means that, given the right conditions, progress towards expertise is a possibility for all of us.

Towards codification

The breadth of knowledge needed by leaders is significant and, as a profession, we are likely to have only scratched the surface of building a

comprehensive taxonomy of what leaders need to know and be able to do.

The new National Professional Qualifications (NPQs) provide a more granular focus on formal, domain-specific knowledge than previous iterations and offer us one starting point to build such a taxonomy upon. But like all knowledge they should be open to critique and ongoing development.

Continuing to explore and codify the body of knowledge that leaders' day-to-day practice rests on, represents a huge challenge, but is an important area for us to make progress on if we are to better prepare school leaders for success in their varied and challenging roles.

Having considered the persistent problems that leaders face in the roles, alongside the types of knowledge that help leaders respond to them, we now turn our attention to the ways in which this expertise can be most effectively developed - moving from the 'what' to the 'how' of leadership development. Firstly, we consider what it is that makes professional development effective, and secondly, what this means for the design and delivery of school leaders' professional development.



Part 4: Designing effective professional development

What is effective professional development (PD)?

Research suggests teachers spend approximately 10 days a year engaged in professional development. Across the teaching workforce, this equates to more than 5 million days. Being able to deliver professional development which has a good chance of impacting upon pupil learning is vital if this time (and cost) is to be worthwhile.

In recent years, a consensus has developed around what makes effective professional development (Fletcher-Wood, 2018). Researchers have argued for a combination of characteristics, which tends to include:

- > Subject-specificity
- > Collaboration
- > A sustained duration
- > Active learning
- > External expertise
- > Teacher buy-in

But when examined more closely, it appears that many instances of professional development programmes which had adopted all of these characteristics did not always have the intended impact. Currently therefore, we don't know exactly why it is that some professional development programmes work and others don't.

In focusing on building expertise, research suggests we should consider carefully how professional development is designed, looking beyond the **forms** (such as reading, keynotes or coaching), the **characteristics** (such as

collaborative, domain-specific or asynchronous) and into the '**mechanisms**' or '**active ingredients**' that are more likely to lead to learning and behaviour change.

A recent report by the Education Endowment Foundation (Sims et al., 2021) identifies 14 such mechanisms which they find are more likely to lead to impactful teacher PD. They describe mechanisms as 'empirically-evidenced general principles about how people learn and change their practice' (Sims, et al., p62). Mechanisms enable us to better understand what is happening during professional development that is making a difference to individuals' behaviour, giving us language to be specific about what might be causing the changes we want professional development to achieve. The report tells us, for example, that it is the specific act of creating a cue to elicit a certain behaviour that is making a difference, not just instructional coaching (which is a **form** of professional development that can be delivered in different ways). It tells us that it is the specific act of daily self-monitoring of a certain behaviour that is making the difference, not the opportunity for weekly collaboration with a more experienced teacher (which is a **characteristic** of many types of professional development).

The 14 mechanisms the study reports are listed below, grouped into one of four categories. Importantly, the report argues, professional development containing at least one mechanism from each category is three times more likely to have an impact on pupil standardised test scores.

Purpose	Mechanism
Instil insight (1)	0.1 Manage cognitive load 0.2 revisit prior learning
Motivate goals (G)	1.1 Goal setting 9.1 Credible source 10.4 Praise/reinforce
Teach techniques (T)	4.1 Instruction 3.2 Practical social support 6.1 Modelling 2.2, 2.7 Feedback 8.1 Rehearsal
Embed practice (P)	7.1 Prompts/cues 1.4 Action planning 2.3, 2.4 Self-motivating 8.3 Context-specific repetition

Notes: Numbers (e.g.2.3) refer to the codes used in Michie et al. (2013). Mechanisms 0.1 and 0.2 are additions to the Michie taxonomy for this project. Some mechanism labels have been adapted from Michie et al. (2013) – for example, we have adopted ‘Modelling’ for ‘Demonstration’ and ‘Context-specific repetition’ for ‘Habit formation’.

Along with the importance of mechanisms, the study underlines the value of aligning professional development with the broader needs and priorities of the school, specifically the ‘fit between the intervention, the school’s priorities, and the reality of the classroom’ (Sims et al., p58). Any professional development should therefore build upon and enhance existing policies and practices, make participation straightforward and convenient and ensure clear communication and simple to use resources at all times. An especially important consideration they report are the significant constraints on individuals’ time.

What does this mean for school leaders’ professional development?

The design of professional development is a complex undertaking but a range of literature – including the recent study above - provides us with the following four key insights that can support the design of more effective development opportunities for school leaders:

1. Consider that school leaders learn like anyone else.
2. Incorporate evidence-based ‘mechanisms’.
3. Attend to the conditions in which professional development takes place.

4. Focus on the ‘priority problems’ that a leader is facing in their school.

1. Consider that school leaders learn like anyone else

School leaders, like teachers and students, are subject to many of the same challenges when it comes to learning. They may lack motivation, they can be distracted, they can easily forget things and struggle to transfer learning from one piece of content into another. Fortunately, we have a good evidence base about how humans learn (for example, managing individuals’ cognitive load, ensuring opportunities for retrieval practice and revisiting ideas over time), and we can also apply this evidence to teacher and leader development.

Example: Programmes of professional development should be to be designed and sequenced in such a way that means leaders are introduced to concepts which they continually revisit, alongside the use of techniques such as low stakes quizzing which make it more likely that knowledge is retained over time. The addition of opportunities for this knowledge to be applied in a school context alongside carefully curated opportunities for practice and feedback gives the highest chance that relevant information will be retained and embedded into practice.

2. Incorporate evidence-based 'mechanisms'

Professional development should support individuals to know or be able to do something new or different, but research tells us that it often fails to make a lasting difference to individuals' practice (Copur-Gencturk, 2014). By incorporating specific mechanisms, or active ingredients, professional development is more likely to have the effect we want it to have. Importantly, professional development should incorporate a 'balanced design' that is, it should include at least one mechanism from each of the four categories (IGTP) identified by Sims et al (2021).

Example: In designing the new Ambition Institute leadership programme content, we have incorporated a wide range of models (e.g. EEF implementation framework, simple model of memory), artefacts (e.g. extracts of literature, school based resources or mock-conversations that have been held) or worked examples (e.g. scenarios depicting authentic challenges leaders face). These are selected from literature or provided by serving leaders to ensure they are highly relevant to participants. These worked examples are then analysed and unpicked by participants throughout the programme, supporting them to both understand what it is about the example that made it effective and increase the likelihood that participants are able to translate the examples into their own practice. Sense-making opportunities provide an additional opportunity to retrieve, apply and evaluate knowledge alongside peers and an experienced facilitator.

3. Attend to the conditions in which professional development takes place

When focusing on the 'what' and 'how' of professional development, there is a danger we might overlook the conditions within which it takes place, which research suggests are just as important (Kraft and Papay, 2014). The conditions in a school can lead to any CPD-related activity being viewed as developmental or threatening depending on how it is experienced. Professional development will be most effective in a school culture where the participating individual feels supported, valued and trusted, where the purpose

of the PD is clear and aligns with the individuals' goals, and where the school (and leaders) have thought carefully about how to protect the time needed to engage in professional development.

Example: Ensuring that professional development is designed in such a way that it fits around school timetables is key. Individuals working in schools have many responsibilities they need to maintain, whether teaching or not and so the incorporation of content which can be completed flexibly, at a time that suits participants is one way of overcoming this challenge. Within our new NPQ design at Ambition, we have increased the proportion of online modules so that participants can access these at a time which suits them, rather than relying on face-to-face events at fixed times.

4. Focus on the 'priority problems' that a leader is facing in their school

Evidence suggests that more effective leaders develop staff consensus around clear pedagogical goals and priorities. Professional development has also been found to be more effective when it is selected on the basis that it relates to and enhances individuals' ability to address identified priorities of their work. Supporting staff to engage in professional development which can be clearly connected to the current priorities of the school (and the particular problems they are addressing) is therefore important.

Example: Within the new Ambition NPQ programmes, we have designed 'communities' sessions which are focused on a personal challenge which a participant is facing. Through a carefully crafted sequence (underpinned by research from medical rounds) this challenge is unpicked and explored through peer questioning, challenge and advice. Rooting developmental conversations around personal challenges ensures professional development closely connects to the priorities individuals' need to respond to in school.

Summary – designing effective professional development:

Alongside a focus on what school leaders should learn as part of their professional development, it is also important to consider how - through programme design - learning should be structured



and sequenced. But designing effective PD is challenging: the work teachers and leaders do is complex, and the circumstances within which they work are hectic and challenging, and so making the time, consistently, to prioritise personal development can be incredibly hard.

To address this challenge, we can draw on some key insights including what we know about how humans learn, alongside recent research into the mechanisms, or active ingredients, that underpin successful professional development. Doing so

gives us more insight into what is actually causing the behaviour change we want to see within professional development. We should also pay attention to the conditions in which professional development takes place, acknowledging the limited time and attention that school leaders have. Finally, we should ensure that professional development links to the priority problems that leaders are addressing in their schools so that we can ensure it tackles what is most important for the school and builds coherence in the work of the wider school staff.

Summary and 'what next'?

In this paper we have put the topic of school leadership under the spotlight, attempting to answer the question: **'school leader expertise, what is it and how do we develop it?'**

This is an important question given the important roles that school leaders play in society, and the responsibility that we have at Ambition Institute to provide effective professional development for tens of thousands of colleagues who lead in schools.

In part 1 we asked, 'what is school leadership?', exploring the evidence base which shows school leadership to be a recent and poorly defined concept. We argued that despite decades of research made about 'school leadership', there is little evidence to support many of the claims that are made within the field and that this is problematic when it comes to preparing individuals to deal with the responsibility and messy reality of leading in a school.

In part 2, we explored the debate between generic and domain-specific perspectives of school leadership, arguing that over the last twenty years, approaches to school leadership have been dominated by abstract or 'generic' leadership theories. We made the case for a stronger focus on domain-specific expertise within leadership development and any conception of school leadership.

In part 3, we looked at school leaders' development through the lens of expertise, suggesting the core responsibilities (or persistent problems) of leaders' roles as a starting point to build professional development around. Drawing on the literature that demonstrates expertise

to be predicated on knowledge, we argued that better understanding and codifying a broad range of leadership knowledge are important steps for system improvement of professional development.

In part 4, we acknowledged that professional development often fails to have the impact it intends to, ke

and examined recent research which explores effective 'mechanisms' of professional development and are important considerations for those who design professional development programmes.

Although we have said a lot within this paper, there is so much more still to for us to learn and understand if we are to make more progress in improving professional development for school leaders. To finish, here are five areas that we think require much greater focus and which we look forward to exploring further.

1. Understand more about what 'persistent problems' look like in different leadership roles and contexts

There are so many things we could help school leaders get better at, and relatively little time for leaders to address them. Using 'persistent problems' as a starting point, it is possible to narrow or constrain what we want to focus the time leaders might have to focus their development on. By eliciting the relevant knowledge that school leaders need to respond to these problems – the substance of school leadership – this can then form the basis of a curriculum for school leaders' development. Crucial to an understanding of the persistent problems is an appreciation of the context within which leaders work, which

influences how the problems manifest. Similar challenges such as curriculum design, professional development, or teacher recruitment, all require nuanced responses tailored around the people and the place in question. Local contextual knowledge makes up much of the 'hidden knowledge of experts', which is why experience is a necessary (if not sufficient) ingredient in the development of expertise.

2. Establish a structured body of educational knowledge over time that informs school leaders' work

Defining and codifying relevant educational knowledge more explicitly can help establish a body of professional knowledge for school leaders to work from and root their methods in, as well as create a shared language for them to communicate with. Work has begun here, for example, in professional standards and national professional qualification frameworks but it is worth acknowledging that our education system is not, by design, conducive to knowledge building. Unlike other professions or fields, it is unclear within the system where the guardianship of different bodies of educational knowledge resides, or what the process is to contest and renew such knowledge. The new ECF and NPQ frameworks are a positive development, and an example of a codification of knowledge related to teacher development that should be debated and refined over time. A question remains for us over how we develop the structures, relationships and mechanisms to do this effectively.

3. Sequence and structure school leaders' development carefully

Leadership, like teaching, is a complex undertaking and the feedback loop between action and impact is noisy, invisible and delayed. It is therefore challenging and inefficient for leaders to learn from trial and error. Developing expertise takes a long time and to enable meaningful shifts in leaders' knowledge and behaviour, they will need significant experience alongside a carefully sequenced curriculum. A curriculum for development must give individuals access to knowledge that has been developed in a reliable way; knowledge from research which has tested and reliably identified the most effective and

efficient ways of working. We know that simply providing individuals with evidence or theory and examples of what this looks like in practice still does not enable them to cross the 'knowing-doing gap', that is, to assimilate new ideas into their practice. For individuals to do this they need structured and sequenced opportunities for instruction, coaching, practice and feedback outside of their normal, busy working environment so they can deliberately attend to and embed the specific changes they want to make.

4. Respect and utilise specialist knowledge and expertise

Understanding where specialist expertise lies within schools or trusts is challenging, but important if leadership is to be distributed to those who can most effectively address different challenges. Knowing the school, the staff and the specific challenges that are present can enable leaders to deploy staff expertise to the places it is most likely to lead to the greatest impact.

5. Attend to the school and system conditions

We have focused primarily on the purpose and mechanisms of developing school leaders' expertise within this paper however, research also shows us that the most well-designed and structure professional development requires the right professional climate or 'conditions' for it to be successful. Without the necessary time, funding and supportive climate that are pre-requisites for developing expertise, any professional development is unlikely to have its desired impact.

Professional development remains an important focus for school system reform. Progress and system improvement now relies on us not only attending to the knowledge and mechanisms of professional development itself, but also to the conditions in which professional development takes place.

And finally...

Education, and particularly educational leadership, is a highly contested area and because of what we know about leadership being a low-validity domain, we're a long way from having a final word in what is still both a relatively young and immature field. If we are to make progress in

understanding how we can better equip school leaders to run schools successfully, it's vital that we are able to propose, contest and refine ideas in ways that bring together the work of researchers and school leaders in discussion and debate. We believe that it is possible to do that in respectful ways that critique ideas and theories rigorously, whilst retaining respect for those individuals and organisations with whom we may disagree with.

It is in this spirit that we publish this paper which summarises what we have learned over the last four years whilst working on the challenge of school leadership development at Ambition Institute.

We are grateful to everyone we've talked to about school leadership over the last few years as we've developed the ideas within this paper. Thanks, to our colleagues at Ambition Institute who read, think and write with ferocious intelligence and

commitment to improving educator development, and to the many people across the sector who have taken the time to comment and offer us feedback on our work. We're particularly grateful to those who have taken the time to disagree and argue with us (respectfully of course). We learn more with every conversation we have and paper or blog we read. A final word of thanks to Professor Viviane Robinson whose work has become so influential and to who we are grateful for her engagement in our work and for writing the foreword to this paper.

Making progress requires us to continue to enter into debate in good faith, to accept that our beliefs are provisional and that changing our mind should always remain an option. We accept that there will be other models of school leadership that will be important and useful but, for now, remain convinced that a special place should be reserved in any of them for educational expertise.



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