

Leading Teachers' Professional Learning and Development for Outstanding Teaching

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ABSTRACT

In a 2016 special issue of the *Wales Journal of Education* focused on professional learning for teachers, the editors concluded:

If Wales is to create a successful and equitable education system in the future, it seems clear that one of the key factors in this will be ongoing work to improve the quality of teaching in our schools and professional learning has a critically important part to play in achieving this. (Egan and Grigg, 2016: 10)

The recent national mission articulated by the Welsh Government includes a central commitment to reforming and improving teachers' professional development from initial teacher education through to continuing professional learning, leadership development and schools as learning organisations (Education Wales/Welsh Government, 2017). To contribute to continuing dialogue and actions for school leadership and teachers' professional learning in Wales, this article explores the international research concerning the significance of professional learning to teacher development, the features of effective professional learning and how school leaders' leadership can support teachers' professional learning. Drawing on data from a large international study of professional learning in Canada (Campbell et al., 2016, 2017), we offer some discussion of what may be considerations for continuing developments in supporting school leaders' and teachers' professional learning in Wales. However, as Egan and Grigg (2016) also cautioned against, the intent of reviewing the international research literature is not to

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propose that existing policies should be ‘borrowed’ and applied unilaterally to Wales. As we have argued in our work in our home country of Canada, ‘there is no one size fits all approach to professional learning for teachers and nor should there be’ (Campbell et al., 2017: 41). Rather, the intention is to discuss the existing evidence concerning professional learning to inform conversations, debates and potential contextualisation, adaptation or rejection in the context of Wales nationally and for the diversity of schools, professionals, students and communities locally.

Key words: Canada, leadership, teaching, professional learning and development.

What is professional learning and development?

An important starting point is to clarify what is meant by professional learning and/or professional development. Conceptions, terminology, intended purposes and processes of professional learning and development have evolved over time, both internationally (Darling-Hammond et al., 2009) and in Wales (Egan and Grigg, 2016). For example, in our review of relevant research literature for our study of *The State of Educators’ Professional Learning in Canada*, we summarised:

Approaches to teachers’ professional development and learning have evolved over time and in different contexts; ranging from a focus on external experts providing direct instruction with little opportunity for teacher reflection and interaction (Fullan, 2001; Gall and Renchler, 1985) to a growing emphasis on developing professional reflection linked to teachers’ practices at work (Schön, 1983) and a view of schools as ‘not only places where teachers work ... but ... as places where they learn’ (Smylie, 1995: 95). The purpose of professional development is to support professional learning through both internal reflection and individual knowledge development, and also engaging in professional interaction, collaborative inquiry, and co-development of knowledge (Lieberman, 1995; Timperley, 2011). Wenger developed the concept of learning as social participation through the development of ‘communities of practice’ (Wenger, 1998), which can shape not only what teachers do but also who teachers are and how teachers interpret what they do. The need to develop collaborative professional learning, for example through professional learning communities, teacher inquiry, and teacher networks, has become widely recognized (Cochran-Smith and Lytle, 1992; DuFour, 2004; DuFour and Eaker, 1998; Hord, 1997; Lieberman and Wood, 2003; McLaughlin

and Talbert, 1993; Newmann and Wehlage, 1995; Sparks and Hirsh, 1997). Furthermore, teachers' professional needs for learning and development will vary by individual, in different contexts, in light of changing experiences and over time (Day and Gu, 2007). Recently, Hargreaves and Fullan (2012) have proposed the concept of professional capital composed of three inter-related dimensions – human capital of individual talent development; social capital through the collaborative and collective development of the teaching profession; and decisional capital of valuing and enabling experienced educators to exercise their own professional judgement and insight to make decisions in complex situations. (Campbell et al., 2017: 11–12)

Egan and Grigg (2016) trace similar developments in Wales with shifts in the nature and terminology from INSET to continuing professional development to professional learning communities, professional learning and learning organisations, including coaching and mentoring, action research inquiry and reflective practice.

Some scholars have attempted to distinguish between 'professional development', where teachers are the recipients of externally designed experiences, and 'professional learning' as 'an internal process in which individuals create professional knowledge through interaction' (Timperley, 2011: 5). These distinctions are much less visible in reality, however, with many initiatives branding themselves as professional learning opportunities without any innovation with respect to structure, content, or mode of engagement. At the same time, many jurisdictions and organisations use the term professional development to include activities that run the gamut from traditional workshops to collaborative, inquiry-based experiences. For instance, the Teaching and Learning International Survey (TALIS), conducted by the Organisation for Economic Cooperation and Development (OECD), uses the following definitions:

TALIS adopts a broad definition of professional development as activities that aim to develop an individual's skills, knowledge, expertise and other characteristics as a teacher. This definition recognizes that development can be provided in many ways, ranging from formal approaches (such as courses and workshops) to informal approaches (such as collaborate with other teachers or participation in extracurricular activities). Professional development can be conducted outside of school in the form of courses, workshops or formal qualification programmes; through collaboration between schools or teachers (in the form of observational visits to other schools); or within schools where teachers work. Professional development within schools can be provided through coaching or mentoring, collaborative planning and teaching and sharing good practices. A high-quality professional development programme is aligned with classroom conditions, school context and teachers' daily experiences. (OECD, 2014: 64)

Professional development is defined by the OECD (2014) as a broad umbrella encompassing a range of what some might characterise as professional learning. Adding another perspective, Fullan and Hargreaves (2016) recently proposed that it is the overlap between learning something new that is potentially of value (professional learning) and the growth that happens once learning occurs (professional development) that is critical, which they refer to as professional learning and development (PLD).

While we recognise this important discussion within the research literature, in our home country of Canada, as well as in Wales, professional learning and professional development are often used interchangeably in practice. Hence, we use the terms professional development and professional learning to include the wide range of approaches and activities that are involved in school leaders' and teachers' continuing development throughout their career.

Why does teachers' professional learning and development matter?

While decades of school effectiveness research indicate that factors external to schools, particularly a student's family background, have significant effects on students' academic achievement, school effectiveness and improvement research also suggests that *within* a school, teacher effectiveness is the most important factor (National Commission on Teaching and America's Future, 1996; Sanders and Rivers, 1996). Consequently, there has been growing attention paid to teacher quality and to effective instruction internationally, often prompted by the phrase that 'the quality of an education system cannot exceed the quality of its teachers' (Barber and Mourshed, 2007: 16). This focus on teachers and teacher quality, however, is a double-edged sword, with differing views on how teachers and school leaders can be best supported to improve their knowledge, skills and practices in order to improve students' outcomes. As Hargreaves and Fullan (2012) have argued:

Teaching is at a crossroads: a crossroads at the top of the world. Never before have teachers, teaching, and the future of teaching had such an elevated importance. There is widespread agreement now that of the factors inside the school that affect children's learning and achievement, the most important is the teacher – not standards, assessments, resources, or even the school's leadership, but the quality of the teacher. Teachers really matter. And the good news is that there is now a sense of great urgency in politics, in the teaching profession, and also among the public

about the need to get more high-quality teachers. More and more people care about the quality of teaching. And this is putting teachers and teaching at the forefront of change.

But alongside the urgency, or perhaps even because of it, there is a lot of argument and more than a little aggravation about what high-quality teaching looks like and what's the best way to get it and keep it. The crossroads are shrouded in a fog of misunderstandings about teachers and teaching, and if we take the wrong road forward, precipices are looming on many sides. (Hargreaves and Fullan, 2012: xxi)

On one side of these crossroads are punitive approaches to improving teacher quality through externally imposed accountability schemes and mandated reforms affecting teachers' professionalism, work and identity. Fullan (2010) has often referred to these kinds of measures as the 'wrong drivers of educational reform' as they do not create learning cultures that are conducive to sustainable, long-term improvement in teaching and learning. On the other side of the crossroads is an acknowledgement that teaching is a highly complex professional responsibility, requiring the continuous development of knowledge, skills and practices in order to support the diverse needs of students across different ages, subjects, school context and background circumstances. Here, the focus is on developing professional capital of teachers' judgement and expertise to strengthen the teaching profession and promote internal accountability, where continuous improvement is a function of teachers' sense of responsibility to each other and their students, as opposed to some externally imposed policy (Fullan, Rincón-Gallardo and Hargreaves, 2015).

As Linda Darling-Hammond and colleagues explain in a study of the status of teacher development in the USA and internationally:

Professional learning can have a powerful effect on teacher skills and knowledge and on student learning if it is sustained over time, focused on important content, and embedded in the work of professional learning communities that support ongoing improvements in teachers' practice. When well-designed, these opportunities help teachers master content, hone teaching skills, evaluate their own and their students' performance, and address changes needed in teaching and learning in their schools. (Darling-Hammond et al., 2009: 7)

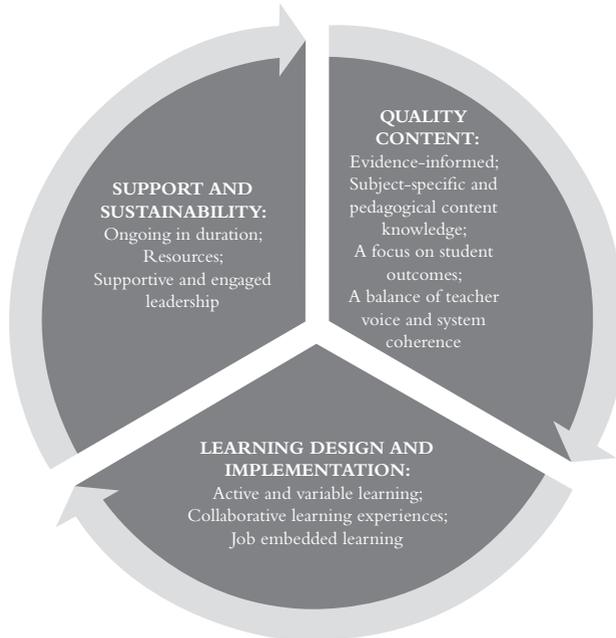
It is this view of teaching as the 'learning profession' (Darling-Hammond et al., 2009: 5) that underpins this article. Yet, as pointed out in existing international synthesis studies, all professional learning is not equal (Campbell et al., 2017; Cordingley, 2018; Darling-Hammond et al., 2009; Timperley, 2008). Rather, attention to the design, content and support for

professional learning are important considerations when creating systems to support ongoing teacher development.

What are the features of effective professional learning and development for teachers?

In this section, we provide an overview of key features of effective professional learning and development previously identified in substantial literature reviews and syntheses. We then discuss our findings about the nature of professional learning in practice from our recently completed research study on *The State of Educators' Professional Learning in Canada* (Campbell et al., 2016, 2017).

Figure 1: Key Research-Informed Features of Effective Professional Learning (Campbell et al., 2017: 7)



What features of effective professional learning and development for teachers have been identified in previous literature reviews and syntheses?

Several substantial reviews and meta-syntheses of literature concerning professional learning and development already exist. In Table 1, we summarise the key findings from four major existing syntheses.

In our study of *The State of Educators' Professional Learning in Canada* (Campbell et al., 2016, 2017), we synthesised these findings and identified three main components (quality content, learning design and implementation, support and sustainability) and ten related features of effective professional learning (see Figure 1).

Consequently, the research literature on effective professional learning is clear – teachers need access to ongoing, collaborative learning that is embedded in their daily work, focused on student learning, widely supported by school leaders and system structures, and makes use of both teacher expertise and appropriate external facilitation. There should be an opportunity to engage in both subject-specific professional learning, which pays attention to the details of learning in various disciplines, and more broad-based professional learning that can be contextualised across a variety of school or subject-area contexts. When teachers have opportunities to engage in these sorts of learning activities they build the capacity to make changes in their own classrooms, while supporting and enabling their peers to do the same. Inevitably this further builds teachers' ability to make judgements about student needs, decide what sorts of professional learning would best support student needs and evaluate the success of new practices within their own contexts. This cycle of collaboration, experimentation and reflection on practice is a critical component of enabling teachers to successfully support all students. In other words, if we want twenty-first-century learning for students, we need twenty-first-century learning for teachers.

It is important to stress, however, that the research-informed features are not a checklist or a blueprint. Rather, the nuanced manner in which each of the features of professional learning play out in distinct contexts and for individual teachers is an important consideration. For example, Cordingley et al. (2018) recently released a report on the importance of subject-specific professional learning in the UK. The report notes that several factors influence specific needs related to subject-area learning, including grade-level teaching assignments, the stage of school improvement and the existing school culture around professional learning.

Table 1: Features of effective professional learning identified in existing research syntheses

<i>Title of research synthesis</i>	<i>Summary of key findings</i>
Timperley (2008), Teacher Professional Learning and Development	<p>Professional learning and development demonstrated to have a positive impact on valued student outcomes involves:</p> <ul style="list-style-type: none"> • a focus on the links between particular teaching activities and valued student outcomes • worthwhile content that has been established as effective in achieving valued student outcomes • the integration of essential teacher knowledge and skills • information about what students need to know and do to identify what teachers need to know and do • multiple opportunities to learn and apply information • different approaches depending on whether or not new ideas are consistent with the assumptions that currently underpin practice • opportunities to process new learning with others • external expertise to challenge existing assumptions and develop new kinds of knowledge and skills • active leadership in promoting engagement in professional learning opportunities • supportive organisational conditions to maintain momentum
Darling-Hammond et al. (2009), Professional Learning in the Learning Profession: A Status Report on Teacher Development in the United States and Abroad	<p>Professional learning should:</p> <ul style="list-style-type: none"> • be intensive, ongoing and connected to practice • focus on student learning and address the teaching of specific curriculum content • align with school improvement priorities and goals • build strong working relationships among teachers <p>Benefits identified also for use of coaching, mentoring and induction.</p>

Professional learning for teachers is more likely to benefit students if it is:

- collaborative
- supported by specialist expertise
- focused on aspirations for students
- sustained over time
- exploring evidence from trying new things

Professional learning approaches that demonstrated the characteristics linked to effectiveness included:

- collaborative inquiry
- coaching and mentoring
- networks
- structured dialogue and group work

To have a significant impact on student achievement professional learning should:

- be prolonged, lasting a year or longer
- carefully consider participant needs, stepping away from one-size-fits-all approaches and focusing on teachers' day-to-day experiences with their student
- ensure alignment between professional development processes, content and activities
- consider both subject knowledge and subject specific pedagogy
- provide opportunities for discussions, experimentation and the analysis of and reflection on relevant student data
- use external input to challenge orthodoxies, acting as coaches and mentors
- empower teachers through collaboration
- actively involve school leaders in teacher learning to embed cultural change

CUREE (2012),
Understanding What
Enables High Quality
Professional Learning

Cordingley et al. (2015),
Developing Great
Teaching: Lessons from the
International Reviews into
Effective Professional
Development

What did we learn from The State of Educators' Professional Learning in Canada study?

Across the evidence, experiences and examples of educators' professional learning that we researched in Canada, we found practices consistent with the ten features of effective professional learning identified from our review of research literature. However, we also identified important differences in the conception and implementation of professional learning within Canada compared to the existing (international) research literature. Table 2 summarises our key findings from *The State of Educators' Professional Learning in Canada* study contrasted with the ten key features of effective professional learning that we identified from our review of the previously existing research literature. Similarly, the diversity of local geographical and school contexts and their respective differences in professional needs and student needs, as well as national contextual specificities and nuances, are an important consideration for Wales.

Overall, we found professional learning and teacher development in Canada to be a mosaic of diverse learning experiences. This is positive considering the variety of both teacher and student needs in a country as vast as ours. Available data revealed that participation in professional development was relatively high across the country (up to 95 per cent in some jurisdictions), with teachers often attending some combination of both mandated and self-selected experiences. There was recognition that the format and content of teacher learning should be rooted in the research literature around the features of high-quality professional learning and draw on teachers' experience and expertise.

We saw several innovative examples of promising practices, including communities of practice, teacher action research initiatives, collaborative inquiries and mentoring programmes, often taking on unique features in each province or territory within Canada. There truly is no one Canadian approach to teacher learning or ongoing teacher development. This is an important takeaway for both Wales and the international educational community as a whole. That being said, variation should not result in inequities of access, experiences or outcomes for educators' professional learning (and for the students they serve). Across our research, however, we heard and observed substantial variations in access to professional development between and among provinces and territories, districts, geographical communities, career stages and other contextual factors. In particular, we found inequities in access with greater opportunities to engage in

Table 2: Features of professional learning and key findings from State of Educators' Professional Learning in Canada study

<i>Key components and features of effective professional learning identified in review of research literature</i>	<i>Key findings from Study of Educators' Professional Learning in Canada</i>	
Quality content	<p>Evidence-informed</p> <p>Subject-specific and pedagogical content knowledge</p> <p>A focus on student outcomes</p> <p>A balance of teacher voice and system coherence</p>	<p>Evidence, inquiry and professional judgement are informing professional learning policies and practices</p> <p>The priority area identified by teachers for developing their knowledge and practices is how to support diverse learners' needs</p> <p>A focus on a broad range of students' and professionals' learning outcomes is important</p> <p>The appropriate balance of system-directed and self-directed professional development for teachers is complex and contested</p>
Learning design and implementation	<p>Active and variable learning</p> <p>Collaborative learning experiences</p> <p>Job-embedded learning</p>	<p>There is 'no one size fits all' approach to professional learning: teachers are engaging in multiple opportunities for professional learning and inquiry with differentiation for their professional needs</p> <p>Collaborative learning experiences are highly valued and prevalent within and across schools and wider professional networks</p> <p>Teachers value professional learning that is relevant and practical for their work: 'job-embedded' should not mean school-based exclusively as opportunities to engage with external colleagues and learning opportunities matter also</p>
Support and sustainability	<p>Ongoing in duration</p> <p>Resources</p> <p>Supportive and engaged leadership</p>	<p>Time for sustained, cumulative professional learning integrated within educators' work lives requires attention</p> <p>Inequitable variations in access to funding for teachers' self-selected professional development are problematic</p> <p>System and school leaders have important roles in supporting professional learning for teachers and for themselves</p>

Source: Campbell et al., 2017a: 8.

self-directed professional development in urban areas contrasted with rural areas. Teachers who were not in full-time contracts often did not have access to quality professional learning and development opportunities. Consequently, equitable provision of high-quality learning experiences remains as an area in need of additional attention in Canada.

Another important takeaway from our work in Canada is that effective professional learning is *professional*. This may seem obvious, but in practice it is not always the case. As we noted in the previous section, professional learning is part of the responsibility of an individual for their own development and for the collective development of the profession (Hargreaves and Fullan, 2012). A key debate is the balance between the professional autonomy of an educator to be in control of their own learning needs based on school and student context, contrasted with system-required and/or district- or school-directed professional learning. These issues are not unique to Canada, however. Indeed, this was identified by Cordingley and colleagues (2018) as being a prominent issue in the UK as well. In their case study summary of nine schools, they noted:

Most participating teachers (60% at primary level and 70% at secondary) indicated having some level of choice over their CPD activities. Approximately one quarter reported having a larger amount of choice, having chosen three or more of their five most recent CPD activities at the time of the survey. Equally, between two thirds and three quarters of teachers had had at least one CPD activity identified for them by a member of SLT or a line manager, with primary schools more likely to limit individual choice. Teachers in higher performing schools (in Ofsted terms) reported higher levels of control over their CPD choices. For example, in the 'Requires Improvement' and 'Inadequate' schools, 49% of teachers had chosen none of their last five CPD activities (compared to 27% for 'Good' or 'Outstanding' schools), and only 16% had chosen the majority. There was no single model for balancing individual and whole school needs, although considerable effort was put into trying to achieve such a balance. (Cordingley et al., 2018: 37)

As illustrated in that report, this does not have to be an 'either' 'or' proposition. Similarly, in our research, teachers were – in varying degrees – engaging in provincial capacity building, district professional development, school professional development opportunities and communities, and in self-directed learning, often in their own time and sometimes with peers and networks for teacher-led knowledge co-development and de-privatisation of practices. The nature of the balance between these and how they are experienced were, however, contested. Some teachers reported having more autonomy over their learning, while others reported

having less. Consequently, additional attention needs to be paid to the appropriate balance between individual teacher autonomy and system coherence.

The final takeaway from the Canada study on professional learning is that *learning* is the priority. As we outline earlier, the goals of professional learning are to support the growth and development of educators and to support the learning of their colleagues and students. We heard of the importance of mental and physical space for educators to engage in reflection, dialogue, meta-cognition, critical inquiry, critique, innovation, experimentation and deep learning. Teachers identified high learning needs particularly in the areas of supporting diverse learners in inclusive classrooms. In general, teachers wanted a combination of both subject-specific and equity-based professional learning, with preferences growing and changing over the course of their career. For instance, a Canadian Teachers' Federation survey (2014) revealed that early career teachers tended to identify learning needs around pedagogy and content knowledge, while more experienced teachers were more interested in further developing their knowledge of, and practices for, social justice and equity issues. This aligns with other studies that have confirmed that teacher learning needs evolve over the course of their career (Broad and Evans, 2006). Major policy changes or new initiatives, such as curricular reform, assessment redesign and/or integration of new technologies, also need to be accompanied by an appropriate range of professional learning and development supports.

We observed a strong focus on the use of evidence to inform the design of new forms of teacher professional learning, with several jurisdictions having developed frameworks for professional learning based on existing research literature. Teachers were also engaging with evidence through various teacher inquiry and research projects. Teachers' professional judgement also played a role in how teachers determined what kinds of evidence they used to inform their practice. In particular, the focus on student outcomes was broadly conceived and, therefore, so too was the idea of evidence. Hence, while many teachers were exploring the positive impact of various learning initiatives on student achievement results, there was also attention to students' self-regulation, awareness, identity, engagement and joy of learning, and for teachers' subject and pedagogical knowledge, instructional and assessment practices, capacity to support and differentiate for students' needs, teachers' leadership experiences and skills, and professional collaboration. There were benefits for both students' and teachers'

self-efficacy, confidence, mindsets and attitudes. Therefore, while the existing literature positions a focus on student outcomes as a key element of professional learning, this should not be interpreted narrowly or conceived as exclusively or primarily as achievement results and test scores. Effective professional learning supports and improves a broad range of outcomes for students and for professionals.

Looking across the existing international literature and the data from the Canada study, it is apparent that, if Wales is to realise the teaching quality that Egan and Grigg (2016) discuss, careful attention to the design, content and delivery modes of a wide variety of professional learning opportunities is critical going forward. Moreover, as we highlight in the next section, support for high-quality professional learning is needed across a range of areas. While financial supports and time are obviously needed resources (for more direct analysis on this aspect, see Faubert et al., 2018), in this paper we specifically focus on supportive and engaged leadership for professional learning. As we note below, there are important roles for both school and system leaders in the creation of structures and conditions to support systems of high-quality professional learning for teachers.

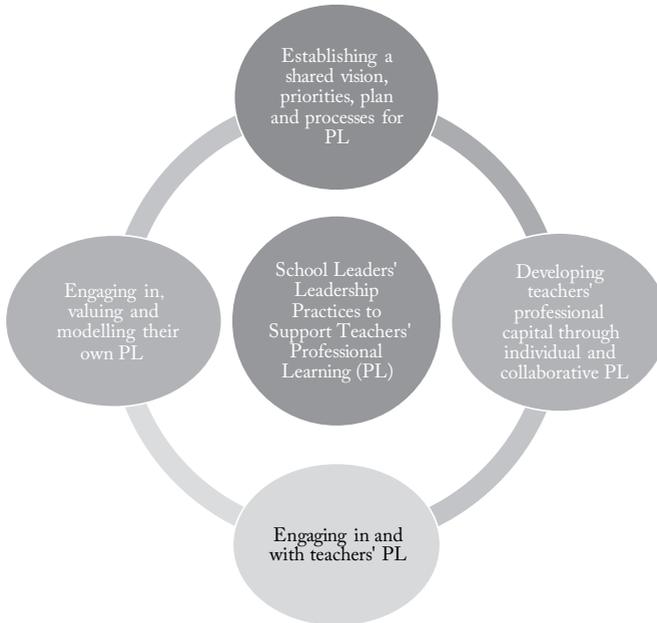
How can school leaders' leadership support teachers' professional learning?

So far we have highlighted many nuanced features of high-quality professional learning. There is very little debate, however, that school and system leaders need to be actively engaged in leading, encouraging and supporting a climate of shared learning and experimentation if high-quality professional learning is to be pervasive in their schools. Although teachers are the strongest in-school link to improved student's success, school leaders play an important indirect role in improving student learning by developing and sustaining a shared culture of learning across the school. As Kenneth Leithwood and colleagues concluded in their study of *How Leadership Influences Student Learning*: 'Leadership is second only to classroom instruction among all school-related factors that contribute to what students learn in school' (Leithwood et al., 2004: 5). It is, therefore, key that school leaders know the features of high-quality professional learning and development and reflect and act on how best to engage in, model, lead and support professional learning for staff in their school.

What features of effective school leadership to support teachers' professional learning and development have been identified in previous literature reviews and syntheses?

Several large-scale research syntheses have unquestionably demonstrated the significant role leaders play in supporting teachers' professional learning (Leithwood et al., 2004; Fullan, 2015; Hargreaves and Fullan, 2012; Robinson et al., 2009; Sharratt and Planche, 2016). More importantly, for practice, however, these studies have also identified several important ways in which school and system leaders might go about this important aspect of their work. Before exploring this in fuller detail below, we summarise four key features of school leaders' leadership practices to support teachers' professional learning in Figure 2. We note that this is not an exhaustive list but rather a summary of what has been identified as some of the most impactful practices. Moreover, we acknowledge the inter-related and often overlapping nature of these practices and again caution that this is not a checklist,

Figure 2: School leaders' leadership practices to support teachers' professional learning



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but rather a concise way of presenting the complex nature of this work for the purposes of clarity and space.

Establishing a shared vision, priorities, plan and processes for professional learning

The development of a clear, shared vision for professional learning and development, aligned to school improvement priorities, and linked to cultivating a culture and implementing a plan to support quality professional learning opportunities are key activities for school leaders. In their review of research about effective professional development for *Developing Great Teaching*, Cordingley et al. (2015) identify key roles for school leaders in developing vision and in managing and organising professional learning:

Developing vision involved a number of aspects, including: developing an ‘alternative reality’ for student outcomes (i.e. helping teachers believe that alternative outcomes were possible, particularly in schools with a history of low levels of pupil attainment and progress), an alternative vision of ways to think about curriculum content and how to teach it (particularly in maths and science), and creating coherence so that teachers understood the relevance of their CPD to wider priorities.

A *managing and organising* role included establishing priorities, resolving competing demands, sourcing appropriate expertise and ensuring appropriate opportunities to learn (including funding and time) are in place. (Cordingley et al., 2015: 9–10)

Similarly, Leithwood and colleagues (2004) identified the importance of school leaders ‘setting directions’ through a vision and goals embodied within school improvement plans.

The allocation of quality professional development opportunities is necessary. A crucial – and challenging – factor for school leaders to consider is how best to allocate adequate time for professional learning. According to Jensen et al.’s (2016) analyses, ‘creating time’ for professional learning is a key strategy for education systems seeking to improve teachers’ practices and students’ learning. Based on a review of relevant research, Darling-Hammond et al. (2009: 9) concluded:

An analysis of well-designed experimental studies found that a set of programs which offered substantial contact hours of professional development (ranging from 30 to 100 hours in total) spread over six to 12 months showed a positive and significant effect on student achievement gains. According to the research, these intensive professional development efforts that offered an average of 49 hours in a

year boosted student achievement by approximately 21 percentile points. Other efforts that involved a limited amount of professional development (ranging from 5 to 14 hours in total) showed no statistically significant effect on student learning.

Furthermore, it is not simply a matter of quantity of time: sustained professional learning needs to be cumulative in offering a progression of knowledge, skills and practice development over time (Darling-Hammond et al., 2009). This requires also careful attention to the balance of school-wide professional learning priorities and teachers' self-selected professional learning needs and activities. Timperley (2008), for instance, identified the importance of school leaders working with teachers to decide appropriate directions for school-based professional learning, creating an atmosphere of collective responsibility for student learning to drive professional learning, and ensuring that adequate resources are in place to support the initiatives that are decided upon. Careful consideration to the balance between professional learning (self- or peer-facilitated) in school and the need to bring in external expertise and providers is also critical, particularly to ensure quality content to inform teaching practices (Cordingley et al., 2015).

School leaders play a vital role therefore in creating a shared vision, embedding that vision in specific goals aligned to a school improvement plan and – ideally – integrated in a coherent professional learning and development plan that includes attention to allocation of resources for an integrated and cumulative sequence of professional learning opportunities. In research with high-performing education systems, Ben Jensen and colleagues describe how school improvement and professional development plans become part of a continuous improvement cycle with the following components:

1. School improvement is organized around effective professional learning (that reflects the principles of adult learning);
2. Distinct roles are created to lead professional learning in schools and throughout the system;
3. Schools and systems recognize the development of teacher expertise (with expertise regularly developed through school-based research of how to improve student learning and then shared and recognized across multiple schools and districts);
4. Teachers and school leaders share responsibility not only for their own professional learning but the learning of other teachers;

5. Collaborative professional learning is built into the daily lives of teachers and school leaders. (Jensen et al., 2016: 4)

Central to such visions, plans and processes, is the development of teachers' professional capital.

Developing teachers' professional capital through individual and collaborative professional learning

Building the individual and collective skills of teachers to use their professional judgement in the best interest of student learning as a whole is what Hargreaves and Fullan (2012) refer to as professional capital. They identify three inter-related components that comprise professional capital. The first, human capital, is about individual talent: 'having and developing the requisite knowledge and skills. It is about knowing your subject and knowing how to teach it, knowing children and understanding how they learn' (Hargreaves and Fullan, 2012: 89). While the skills of individual teachers are important to the students in one classroom, it is the skills of the collective that will lead schools in supporting the learning of all students and teachers. Consequently, teachers learning in isolation will not suffice. Rather, opportunities to develop collective talent and collaborative professional work are vital. As Hargreaves and Fullan (2012) argue:

you cannot increase human capital just by focusing on it in isolation. Some of the most powerful, underutilized strategies in all of education involve the deliberate use of teamwork – enabling teachers to learn from each other within and across schools – and building cultures and networks of communication, learning, trust, and collaboration around the team as well. (Hargreaves and Fullan, 2012: 89)

This is what they refer to as social capital: collaborative and collegial relationships among people and the resource and information sharing that occurs because of these relationships:

Social capital increases your knowledge – it gives you access to other people's human capital. It expands your networks of influence and opportunity. And it develops your resilience when you know there are people to go to who can give you advice and be your advocates. (Hargreaves and Fullan, 2012: 90)

Establishing, cultivating and valuing opportunities for informed professional judgement, decisions and actions is also important. This is decisional

capital: 'capital that enables them [teachers] to make wise judgments in circumstances where there is no fixed rule or piece of incontrovertible evidence to guide them' (Hargreaves and Fullan, 2012: 94). They suggest, in fact, that exercising decisional capital is what defines a skilled professional: 'The pros do this all the time. They come to have competence, judgment, insight, inspiration, and the capacity for improvisation as they strive for exceptional performance' (2012: 5). Building on Fullan (2015), then, school leaders need to support the professional learning and development of teachers' professional learning individually and, importantly, collaboratively and collectively.

For teachers' individual development, school leaders play an important role in the formal and informal support, appraisals, feedback and opportunities that they provide for teachers. Providing effective feedback as part of performance appraisals and for observations' of teaching practices and/or discussions of students' work and progress can be powerful approaches to supporting individual teachers' development if done effectively. Evidence across OECD countries in TALIS (OECD, 2014) suggests that school leaders' supportive and specific feedback to teachers can positively support teachers' knowledge, practices and development, and support improvements for the students they serve; however, the provision of appropriate feedback, mentoring and coaching is an area requiring further development.

School leaders can also play an important role in identifying, supporting and enabling individual teachers to take on developmental responsibilities and leadership roles. Cordingley et al. (2015) identified 'Developing the leadership of others' as a key role for school leaders in developing great teaching. Individual and collective teacher leadership is vital to developing teachers' professional judgement and expertise – their decisional capital (Hargreaves and Fullan, 2012) – to lead improvements in teaching (Lieberman et al., 2017).

The collective development of teachers through collaborative professional learning is also vital. One of the most meaningful ways in which school leaders can go about supporting a culture of professional learning is by creating conditions for teacher collaboration and continuing professional learning. Drawing on decades of international research, Michael Fullan recently described leading learning as the first key to maximising the impact of school principals. He noted:

Research establishes that groups of teachers, working together in purposeful ways over periods of time, will produce greater learning in more students. Thus, if

principals directly influence how teachers can learn together, they will maximize their impact on student learning. (2015: 65–6)

School leaders can also have a critical role in developing school-wide professional learning communities and the school as a learning organisation. As Hord proposed: ‘It seems clear that transforming the school organization into a learning community can be done only with the leaders’ sanction and active nurturing of the entire staff’s development of as a community’ (1997: 6). School leaders can support teacher learning by making arrangements for teachers to engage in collaborative forms of professional learning during the school day. This can take a variety of forms, including arranging common preparation time for collaborative partners, opportunities for co-teaching and/or moderated marking and discussion of student work, using time for collaboration during staff meetings, and support for peer-mentoring and peer-coaching programs.

Fullan is careful to point out, however, that improving student learning by supporting teacher collaboration is not as simple as providing time for teachers to gather together:

The key to generating widespread impact on student learning, then, resides in mobilizing the group to work in specific, intense, sustained ways on learning for all students. We have seen that this work involves teachers working together to examine individual student progress, decide on and implement best instructional responses, learn from each other what is working and build on what they are learning. (Fullan, 2015: 67)

Consistent with our review of the effective features of professional learning, school leaders need to pay careful attention to quality content, appropriate professional learning design and processes, and the provision of adequate resources and support.

Engaging in and with teachers’ professional learning

But how does a school leader go about building a culture of professional capital to achieve the goal of schools as learning organisations? According to Fullan (2015), learning alongside teachers is essential. This not only engages school leaders in the learning, it also helps build the relational trust that is necessary to foster a shared vision around improvement and student success. The notion that learning alongside teachers is key to leading school learning is supported by Vivian Robinson’s work on *Student-Centered*

Leadership, where a meta-analysis of over 130 studies revealed that 'the most powerful way that school leaders can make a difference to the learning of their students is by promoting and participating in the professional learning and development of their teachers' (2011: 104). This leadership practice was calculated to have an effect size of 0.84, double the effect size of the next two most impactful practices – 'establishing goals and expectations' and 'planning, coordinating and evaluating teaching and the curriculum' – each with an effect size of 0.42. Sharratt and Planche (2016) refer to this as 'collabor-ability' (the willingness to co-labour alongside teachers), one of their five dimensions of leading collaborative learning alongside knowledge-ability (a solid understanding of teaching and learning), mobilise-ability (inspiring self and others), sustain-ability (creating leadership opportunities for others) and imagine-ability (thinking ahead to a new possible future).

Consistent with Fullan's (2015) concern above that the focus of such professional learning needs to connect with teachers' work and students' learning, Robinson's discussions of student-centred leadership (Robinson, 2011) and pedagogical leadership (Robinson et al., 2009) conclude that the following approaches to promoting and participating in teacher learning and development are the most impactful:

When promoting and participating in teacher learning and development, leaders in high performing schools:

- ensure an intensive focus on the teaching-learning relationship;
- promote collective responsibility and accountability for student achievement and well-being;
- provide useful advice about how to solve teaching problems. (Robinson et al., 2009: 42)

While school leaders' depth of knowledge of subject-specific professional development varies, their support for the importance of professional learning linked to teachers' knowledge, efficacy and practices and to benefit students' efficacy, knowledge and achievements matters (Cordingley et al., 2015).

Engaging in, valuing and modelling their own professional learning

School leaders' own professional learning and development are also critical. Looking across high-performing education systems, Darling-Hammond and colleagues (2017) identify that quality professional development, leadership standards, coaching or mentoring and support for educators to move into formal leadership roles and for their continuing learning are important. All of the previously identified features of effective professional learning apply also to school leaders. In addition, for these formal leaders, opportunities to be part of a wider network of leaders extending beyond their individual school can be particularly beneficial (Robinson et al., 2009).

Leadership development to support school improvement is key. Leithwood and colleagues' discussion of school leadership practices to support teachers' development and student outcomes includes 'developing people' by:

The ability to engage in practices that help develop people depends, in part, on leaders' knowledge of the 'technical core' of schooling – what is required to improve the quality of teaching and learning – often invoked by the term 'instructional leadership'. (Leithwood et al., 2004: 24)

However, they caution that this is not a technical activity and identify also the importance of school leaders developing their emotional intelligence to be empathetic, nurture positive relationships with colleagues, encourage motivation and optimism, and provide individualised support and feedback when appropriate. Furthermore, to develop people effectively, Cordingley and colleagues (2015) indicate that school leaders need to also learn about the features, content and processes of effective professional learning to support ensuring such features for their staff and their school.

What did we learn about the role of school leaders in supporting teachers' professional learning from The State of Educators' Professional Learning in Canada study?

Across the promising practices we highlighted in our Canada study, the learning context and conditions provided by school leaders mattered. Teachers across our case studies appreciated when school leaders supported

their professional learning with resources and time, took an interest in what they were learning and celebrated their work. We saw evidence of promising practices to support teachers' professional learning – school leaders who arranged common preparation time, who allocated substitute days cover classes for groups of teachers working on special projects, who arranged time for coaching and peer mentoring during the regular school day, and who have replaced staff meetings with weekly memos so that time can be used for teacher learning.

We also saw some strong visionary school leaders that were working alongside teachers to create and promote a variety of teacher leadership opportunities. In Jasper Place High and Dr. Donald Massey School, both in Edmonton, teachers were heavily engaged in deep learning with their colleagues. In Jasper Place, this took the form of teacher-led learning teams and at Donald Massey the collaboration was a teacher-led peer-mentorship initiative. In both instances, teachers identified their principal as being an integral support:

[The principal's] leadership of being able to say 'yes, go for it, do this thing and try it out.' And I can't speak enough for how that has been able to shift the entire school culture to this idea of 'let's try it. Why not?' So one of the things that I am really seeing is just that on the staff level and on the student level, there's really this embracing of being able to take risks and being comfortable with messy. [Teacher, Jasper Place]

That being said, the manner in which formal leaders supported professional learning varied and there were some tensions in conceptualisation and practice. Supportive and engaged leadership could be interpreted as formal leaders championing and co-learning with their staff, with positive intent and outcomes; however, for some teachers, formal leaders' attempts to create coherence and coordination could be perceived as controlling and undermining teachers' own professional judgement. For example, in Elk Island School Division, Alberta, rather than being in charge of developing professional development for teachers, principals support teachers in identifying their own learning needs and providing access to time and other required resources.

We heard of the desire for, and importance of, opportunities for leaders to collaboratively engage in their own professional learning, both within and beyond their own schools. For example, Ontario's Leading Student Achievement (LSA) initiative involves principals working in professional learning communities (PLCs) within their school and principal learning

teams (PLTs) with principals across their school districts. Research indicates that principals found involvement in both their school's PLCs and district's PLTs beneficial (Massey and Kokis, 2010). Using a seven-point rating scale (1 = strongly disagree, 7 = strongly agree) principals strongly agreed that learning with teachers in the PLCs help them better identify areas of need for improvement (average rating of 6.15 out of 7). Likewise, for principals, the ability to come together with other school leaders in the PLT to develop their instructional leadership capacities was reported to be beneficial. The overall rating for: 'Participation in a principal learning team is beneficial to me' was 6.37; and the overall rating for 'Participation in a principal learning team has improved my own instructional leadership capacities' was 6.16 (Massey and Kokis, 2010: 13).

Nevertheless, as with our evidence concerning teachers, school leaders across our case studies commented on challenges and issues of time, work load and work intensification which could be obstacles to engaging in their *own* professional learning, as well as facilitating and enabling their teachers' and other staffs' professional development. The goals of instructional leadership where school leaders engage in and support teachers' professional learning can be challenging to achieve, when principals' days are consumed with operational matters (Pollock et al., 2014). As well as time concerns, the availability of external support and/or mentoring for leaders at different stages in their career trajectory was noted.

Conclusions

If – as research suggests – the most impactful factors within a school for students' learning outcomes are, first, teachers and teaching, and second, school leadership, it is no surprise that the question of how school leaders support teachers' professional learning in order to support students' learning is a hot topic globally, including in our context of Canada and also in Wales. The need to reform, improve and support professional learning from initial teacher education (Furlong, 2015), in continuing professional learning connected to changing curriculum, assessments and pedagogy (Donaldson, 2015), and in leadership development are high-priority considerations in Wales. *Education in Wales: Our National Mission* (Education Wales/Welsh Government, 2017) sets out an action plan including priority commitments to professional learning through all stages of a teacher's career, including Professional Standards for Teaching and Leadership and

the new National Academy for Educational Leadership. The vision articulated in *Education in Wales: Our National Mission* includes that the teaching professional will be: 'Well led by leaders who will ensure that every teacher can improve through effective collaboration, innovation, professional learning and opportunities to provide professional learning to others' (Education Wales/Welsh Government, 2017: 10). And key actions to support goals to improve student outcomes include the development of schools as learning organisations – where the adults' learning as well as the students' learning really matters. These are important visions, actions and intended outcomes.

We have suggested four key leadership practices for school leaders supporting teachers' professional learning. First, establishing a shared vision, priorities, plan and processes for professional learning is needed. This includes important attention to allocation of resources – particularly time and expertise – to ensure availability and delivery of sustained professional learning. Secondly, professional learning takes many forms and it is important to enable and attend to the individual development of teachers and also to the collaborative and collective development of teams and entire school staff. Balancing school-wide priorities and opportunities with teachers' own self-selected and self- or peer-directed learning is also important: this is not an either or, it is a both. Finally, three and four, engaging in and with teachers' professional learning and engaging in, valuing and modelling their own professional learning as a leader, as a learner and as a colleague matters.

If school leaders are to be enablers of teachers' professional learning, they also need to know what the features of effective professional learning are. We have identified three main components (including ten features) of professional learning from reviews of research and from our own research. It may seem obvious but quality content matters. Quality content needs to include a range of evidence, cover a range of topics – including subject, pedagogical, curricular and assessment knowledge but also attention to issues of student equity, diversity and inclusion and to integration of technology, support a range of professional learning and student learning outcomes, and successfully integrate and balance school and system priorities with teacher voice and choice. Effective professional learning also needs to attend to learning design and implementation. There is no one-size-fits-all approach to professional learning and nor should there be. However, professional learning that is active, collaborative, relevant and practical to teachers' needs, work and contexts is beneficial. Finally,

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support and sustainability need to be considered from the outset: the creation of time without further work intensification, the equitable and appropriate allocation and availability of resources, and the vital role of school and system leaders' support for professional learning.

In our work in Canada, we have researched, observed and participated in all of the above features of leadership and professional learning. However, an important and necessary caution is that the features must be contextualised, adapted, sometimes nuanced, sometimes fundamentally changed and also monitored for their impact in different contexts, for different schools, for different professionals with varying professional needs and personal preferences, and for the diversity of students whose learning we are seeking to benefit.

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