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Schools as Learning Organisations in Wales: Exploring the Evidence

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ACADEMIC ABSTRACT

Within the Welsh education system, ‘Schools as Learning Organisations’ (SLOs) remains a centrepiece of current education policy. This article considers some of the key evidence base(s) that connect to and underpin the SLO model in Wales. This is not a review of the literature but rather an overview of the main empirical evidence that reinforces the SLO approach in Wales. The article highlights that there is a supportive, empirical evidence base for each of the 7 dimensions of the Welsh SLO model. It concludes, however, that more practical guidance, particularly about implementation processes, are needed to assist schools in their journey towards becoming stronger learning organisations.

PRACTICAL ABSTRACT

Schools within Wales are currently aiming to become strong learning communities. This article considers the evidence that underpins the idea of schools as learning organisations in Wales. This is not a review of the literature but rather the article looks at the key evidence base (s) that connect to the idea of schools as learning organisations. The article reinforces that there is a strong evidence base that supports the idea of schools as learning organisations in Wales. It concludes, however, that more

practical guidance is needed to help schools move forward in their journey towards becoming stronger learning organisations.

Keywords: Schools as Learning Organisations, School and System Transformation, Educational Change.

Introduction

The contemporary policy landscape in Wales includes a major focus on ‘Schools as Learning Organisations’¹ with clear links to the new curriculum,² the National Professional Standards³ and the ‘National Mission’.⁴ This article considers the origins of the concept of the learning organisation (LO) and then explores how the LO idea shaped the development of the ‘school as a learning organisation’ as outlined by the OECD⁵ that has heavily informed the Welsh SLO model.⁶ This overview of selected evidence draws particularly on the bodies of knowledge that connect to the idea of a learning organisation and offer empirical support for the 7 dimensions of the SLO model in Wales.

This is not a systematic review of the literature and does not claim to be. Rather, it is an overview of selected, international evidence relating, broadly and generally, to schools as learning organisations in Wales. The international evidence surrounding SLOs is extensive and wide ranging. Similarly, the literature on learning organisations is vast and therefore this article does not attempt a synthesis. Instead, this overview touches upon some of the key theoretical, conceptual, and empirical work that connects to the SLO model in Wales. The article will illuminate how different evidential bases have shaped and informed the SLO model in Wales.

Initially, a broad mapping approach was undertaken to identify the main knowledge bases of relevance to the idea of schools as learning organisation in Wales. It was clear from this mapping exercise that there were many evidence bases that could be directly related to the notion of the Welsh SLO. It was also clear that within these connected literatures, there was considerable conceptual overlap and complex, multi layered empirical work surrounding the idea of schools as learning organisations. Hence given this volume of evidence, the decision was made to select only the work that directly related to the idea of schools as learning organisations in Wales. In summary, the literature pertaining to:

1. Learning Organisations
2. Schools as Learning Organisations
3. The 7 dimensions of the Welsh SLO model

It is fully acknowledged that by focusing only on these three macro areas of the literature that other perspectives, interpretations, and empirical insights are omitted. The core purpose of this article, however, is to consider key knowledge bases and the evidence therein, that connect directly to the Welsh SLO model.

Consequently, this overview of the evidence explores:

- Learning organisations (LO) – specifically, the origins, definitions, and features
- Schools as Learning Organisations (SLO) – specifically, the common features of the SLO with reference to the Kools and Stoll (2016) SLO model
- The Welsh SLO model – specifically, an exploration of knowledge bases that offer empirical confirmation of each of the 7 Dimensions and their underlying elements.

Learning Organisations

Looking initially at the evidence base focused on Learning Organisations, this term was initially popularised with the publication of Peter Senge's (1990) book *The Fifth Discipline – The Art and Practice of The Learning Organisation*. This book utilised the work of seminal organisational learning theorists who examined how individuals and organisations learn (Argyris 1997; Lewin 1999; Argyris and Schön 1978). Senge (1990) considered how individual learning could be systemised and scaled up within an organisation, hence using the term 'learning organisation' which is

an organization that is continually expanding its capacity to create its future. For such an organization, it is not enough merely to survive. 'Survival learning' [adaptive learning] is necessary.

(Senge 1990, p. 14)

Senge's (1990) definition highlights five characteristics of a learning organisation, described as the 'Five Disciplines' (personal mastery, team learning, building a shared vision, mental models and systems thinking) all of which,

he proposes, need to be integrated for a LO to be fully realised and sustained.

Senge's (1990) view of a learning organisation suggests that it is premised on individuals reflecting on their own actions, values and perspectives in conjunction with others in the organisation. Like the SLO approach that followed it, the LO is premised on high levels of trust, mutual interaction, collaboration, and clear communication within an organisation.

Overall, the literature on learning organisations, tends towards broad, aspirational, principles rather than concrete, practical and applied advice. As this article argues much of the LO and SLO theory does not move easily or readily into practical application.

In their work, Yang et al. (2004) offer a useful four-fold summary of the learning organisation that does border on some practical steps:

- (1) Systems Thinking – *ability to see the organisation as an integral part of a wider system*
- (2) Learning Perspective – *activities are focused on continuous learning and are integral to the norms and operating systems. Continuous learning is a priority for every member of the organisation*
- (3) Strategic Approach – *attention is placed on establishing organisational structures that actively facilitate knowledge exchange and by doing so, build the capacity of the organisation to respond to change*
- (4) Integrated Perspective – *builds the capacity to bring people together through planned systems and structures that ensure continuous learning and collective responsiveness to change (pp. 32–4.)*

This four-fold model specifies the key elements that are needed to underpin the learning organisation and moves far closer to the practical actions needed to create an LO. This model, however, does not fully address the issue of *how* to become a LO. It largely advocates and proposes what *should* happen without any detailed, practical steps about exactly how to achieve it.

As already noted, the idea of the school as a learning organisation (SLO) is derived directly from the learning organisation literature which explains some of the conceptual and theoretical overlap. For example, the SLO model outlined by Kools and Stoll, (2016) draws upon some of the ideas embedded in the 'Integrated Perspective' on LOs (Yang et al. 2004) and from the LO literature more generally. As highlighted in the next section, this is one way that Kools and Stoll (2016) address some of the practical challenges related to becoming a SLO.

To summarise, it is clear from the LO literature, that the SLO is a derived concept. It extensively borrows ideas that emanate from the LO work and from the generic literature on organisational learning.

Schools as Learning Organisations

The writing about *schools* as learning organisations is diverse, expansive, and variable in nature. The international literature on SLOs is far too extensive to cover comprehensively in this overview. Hence, in this article we have selected literature that has directly informed the SLO model in Wales (Kools and Stoll 2016; Kools et al. 2018) and that reflects the SLO policy (Welsh Government 2017).

In their writing, Kools and Stoll (2016) note:

This paper should be seen as an attempt to work towards a common understanding of the school as a learning organisation concept that is both solidly founded in the literature and is recognisable to all parties involved, i.e. educators, policy makers, parents and others alike.

(Kools and Stoll 2016, p. 3)

The SLO model outlined by Kools and Stoll (2016) suggests that this ‘common understanding’ means that any school, regardless of context, growth stage or performance should be able to adapt and respond to a rapidly changing external environment. They note that schools should adapt and grow in response to change. They emphasise the importance of learning that stimulates change and innovation, characterised by:

- Continuous individual learning
- Individual, group and organisational learning
- Team learning and collaboration
- Inquiry, problem-solving and experimentation
- Investigative and adaptive approaches
- Creating the conditions for learning where experimentation and innovation flourish.

In many respects, these aspects reflect key features also identified in the school improvement literature, however, it is relatively unclear from this list whether these are input or output factors. In other words, are these the outcomes of a SLO or the drivers for becoming an SLO or both?

Kools and Stoll (2016) propose that the SLO

has the capacity to change and adapt routinely to new environments and circumstances as its members, individually and together, learn their way to realising their vision. (p. 10)

This ‘adaptive capacity’ is viewed as the key to building professional capacity and extending professional capital in Wales. How schools create such capacity and what steps need to be taken to generate the changes needed to move from the model to the practice is not explicitly covered.

Kools and Stoll (2016) reinforce that collaborative professional learning has to be a prevailing and critical feature of realising the school as a learning organisation. They suggest that *individual* and *collaborative* learning are integral in establishing and stimulating productive and positive change. The emphasis on *collaboration* within the Welsh SLO model reinforces the importance of shared responsibility, in both team and organisational learning, which is upheld in the broader LO/SLO literature (Bowen et al. 2007; Yang et al. 2004; Kools and Stoll 2016; Kools et al. 2020; Stoll and Kools 2017). The Welsh SLO model also reinforces the importance of genuinely *collaborative* practices and the need for ‘collaborative professionalism’ among teachers (Hargreaves and O’Connor 2018).

The next section of this article focuses specifically on each of the seven dimensions of the Welsh SLO model, highlighting where each dimension finds relevant and confirmatory empirical support.

SLO Model in Wales

In considering the 7 dimensions of the SLO model in Wales, it was clear that a wide range of international evidence could be useful in making connections and offering empirical support. Taking a pragmatic approach, looking at the detail of each of the 7 dimensions, it was clear which evidence bases could be most helpful. These evidence bases were also identified in the broader mapping hence had already been identified as relating, in some way, to the SLO model in Wales. The international evidence bases related to the 7 dimensions were as follows:

1. school improvement
2. school/teacher reform
3. professional learning

4. school and system leadership
5. professional capital
6. school networks and networking
7. professional learning communities
8. leadership/distributed leadership/system leadership

Each of the 7 dimensions and the relevant evidence to support them, will be outlined and summarised next.

Dimension 1 – Developing a shared vision centred on the learning of all learners

Within dimension 1 of the Welsh SLO model, school vision is described as needing to focus upon achieving positive and holistic outcomes for *all* learners. The school improvement literature reinforces the need to establish a *shared* vision around learner needs, developing teacher expertise and establishing clear curriculum aims (Dufour 1997; Hargreaves 2010). This wider literature reinforces that such a shared vision must be practical and meaningful to all for organisational improvement to result:

Building a shared vision of what students should know and be able to do. Defining student outcomes that bring the vision to life

(Fullan 1993, p. 60)

Within the Welsh SLO model, it is argued that,

This vision focuses on enhancing all students' learning experiences and outcomes, both now and for the future. The process involves all staff, students, parents and other stakeholders. It gives everyone a sense of direction, serving as a motivating force for sustained action and aligned practice to achieve individual and school goals

(Sinnema and Stoll 2020, p. 15)

The school improvement literature also proposes that a collegiate approach to vision-setting must be a goal for *all* members of any organisation, serving to embrace opportunities for growth and improvement:

Organizations seeking to develop a shared vision need to continually encourage each member to collaborate in the development of the learning organization's vision.

(Rana et al. 2016, p. 479)

The shared or *distributed* leadership opportunities (Spillane et al. 2001; Harris and Spillane 2008; Supovitz et al. 2019; Harris and DeFlaminis

2016) that underpin the SLO model in Wales are intended to reinforce the importance of co-creating a common purpose and a collective pathway to improvement:

If the school as a learning organisation is to be more than just the latest label, then leaders at all levels in schools will need this to be their shared ambition, their core purpose, and their collective focus for school improvement.

(Harris and Jones 2018, p. 353)

Along with the *process* of vision-setting, the *content* of the vision also has to be clearly specified, according to the SLO approach in Wales (Kools and Stoll 2016). The Welsh SLO model focuses on ‘enhancing learners’ cognitive, social-emotional outcomes and their wellbeing.

The Welsh SLO model is premised upon high expectations of the learning and the wellbeing of all learners. The school improvement literature confirms that this is best achieved through engaging with other schools and the wider community,

In particular, teachers, especially those in senior positions, have to see themselves as having a wider responsibility for all children and young people, not just those that attend their own schools. They also have to develop patterns of working that enable them to have the flexibility to cooperate with other schools and their wider communities.

(Ainscow 2016, p. 169)

Finding ways to value, respond to, and assess student learning / wellbeing are at the heart of successful SLOs and are reinforced in the literature that looks at effective system reform and organisational development (Harris and Jones 2020).

Within the Welsh SLO model, the idea of vision setting is premised on inclusivity. It is primarily concerned with improving the outcomes of all learners, reflecting a deep commitment to equity and inclusion which the school reform literature would endorse (Azorín and Ainscow 2020; Chapman et al. 2016; Harris and Jones 2020). The Welsh SLO model therefore embodies a deep commitment for schools to meet the holistic needs of the most disadvantaged and vulnerable learners as part of their school improvement efforts.

Dimension 2 – Creating and supporting continuous learning for all staff

Dimension 2 places an emphasis on improving teacher quality through professional engagement and collaboration, a stance which is supported by

the extensive literature on professional learning (Cordingley et al. 2015; Timperley et al. 2007; Robinson et al. 2009; Sims and Fletcher-Wood 2018; King 2016; Harris and Jones 2017a). This dimension is also supported by the international evidence base on improving the progress of all students in all settings (Hattie 2003; Kennedy 2016; Netolicky 2016; Godfrey et al. 2019; Azorín et al. 2019).

The vast body of professional learning literature consolidates the need to establish a *continuous professional learning culture* if learner improvement is to be the main goal (Brandt 2003; Coppieters 2005; Gil et al. 2019; Tan 2019). The evidence base about effective forms of professional learning confirms the validity of certain approaches (Cordingley et al. 2015; Netolicky 2020; Cordingley et al. 2020; Robinson et al. 2009; Timperley et al. 2007). The Welsh SLO model also outlines the importance of professional learning that is collaborative, continuous, and focused on all learner needs.

In their work, Hargreaves and Fullan (2012) propose that schools need to focus on establishing professional learning programmes that support staff to acquire ‘decisional capital’ so that they can increase their knowledge and expertise in ways that improves professional practice and meets the learning needs of all students. Such a commitment to high quality teaching and professional learning is clearly articulated in Dimensions 2, 3 and 4 of the Welsh SLO model. It also connects to the evidence bases relating to professional capital, organisational change along with equity and excellence (Harris and Jones 2020).

Using evidence from teachers’ engagement in research and enquiry is another a key feature of the Welsh SLO model.

The involvement of practitioners – teachers, other education staff in producing, interpreting and translating research evidence into policy can give these practitioners a strong sense of ownership and strengthen their confidence in the reform process. (Schleicher 2018, p. 218)

The teaching profession will be ... research-engaged, well informed and learning from excellence at local, national and international levels

(Education Wales 2017, p. 11)

The professional learning literature consistently notes that such enquiry is a potent form of changing professional practice. When teacher enquiry is done well, evidence shows that it can be a powerful catalyst for change and improvement (Hemsely-Brown and Sharp 2004; Cordingley 2008; Schildkamp 2019; Younie et al. 2016).

Dimension 3 – Promoting team learning and collaboration among all staff

Dimension 3 reflects the importance of collaboration among staff and this is also implicit in all 7 dimensions within the model. According to the school improvement literature, trust is a critical component of the forms of professional collaboration most likely to be most effective in securing organisational change and improvement (Bryk, 2003).

The importance of establishing and sustaining professional trust is continually emphasised as a critical factor of success in the school improvement literature, (Tschannen-Moran and Gareis 2015; Hallam et al. 2015; Hallam and Hausman 2009; Bryk and Schneider 1996; Bryk and Schneider 2003). In this body of work, trust is viewed as essential in establishing a collegiate school culture connected to the shared purpose of the organisation as a whole:

Relational trust creates an environment where individuals share a moral commitment to act in the interests of the collectivity. It sustains an ethical imperative among organizational members to do what is right and good, broadly defined. This ethical basis for individual action constitutes a moral resource which the institution can draw upon to initiate and sustain change. (Bryk 1996, p. 34)

Dimension 3 reflects the need to create school cultures where high levels of trust enable positive, professional relationships to develop (Daly 2015):

the more an organization provides opportunities for members to enter the stream of social activity, the more actors are exposed to multiple others, and the more likely new ideas can be exchanged and practices created. (p. 2007)

The international literature on system improvement similarly reinforces how establishing a culture of trust facilitates both in-school (Demerath 2018; Forsyth et al. 2011; Brown et al. 2016) and between-school collaboration (Bryant et al. 2016; Daly and Finnigan 2012). It is posited, therefore, that the development of trust and knowledge sharing practices (Hubers et al. 2018) are essential if schools in Wales are to realise Dimensions 4, 5 and 6 of the SLO model (OECD 2018).

Dimension 4 – Establishing a culture of enquiry, innovation and exploration

Dimension 4 focuses on developing a culture of enquiry, innovation, and exploration. As already highlighted in this literature overview, establishing a culture of collaborative professional learning characterised by ‘team learning’, ‘collaborative enquiry’ and ‘innovation’ is central to the Welsh SLO model.

The system leadership and improvement literature (Harris 2020) highlight some ways of achieving such a culture through collaborative enquiry and effective professional learning, at scale. Such action-based approaches include coaching and mentoring (Netolicky 2020; Lofthouse 2019); Lesson Study (Cajkler et al. 2014; Godfrey et al. 2019) Professional Learning Communities (Harris 2011b; Turner et al. 2018; Hord 2008; Joo 2020) Communities of Practice (Wenger 1999; Lieberman and Mace 2008) and enquiry and action research programmes (Harris, Jones and Cooze 2020; Donohoo 2017; Timperley et al. 2014; Halbert and Kaiser 2016).

In the literature on SLOs, it is proposed that opportunities for some of these action-based approaches should be provided to support collaborative professional learning among staff. This literature also underscores that staff should be able to experiment and to explore new instructional ideas as part of their routine work (Muijs et al. 2014; Earl and Timperley 2015; Osmond-Johnson 2019; Timperley et al. 2014; Katz et al. 2008; Halbert and Kaiser 2016). Within the Welsh SLO model, dimension 4 encompasses such approaches to promote innovation and risk taking.

The literature on organisational and teacher learning suggests that the school should operate as an 'eco-system' promoting high levels of teacher agency (Priestley et al. 2015), teacher leadership (Berg and Zoellick 2019) and, jointly, teacher learning and leadership (Campbell et al. 2017).

schools that are learning organisations create the kinds of conditions necessary for responding to the challenges and learning demands. In such schools the considerable individual, collaborative and collective learning needed at many levels is recognised.

(Sinnema and Stoll 2020, p. 9)

The 'culture of inquiry, innovation and exploration' (Sinnema and Stoll 2020, p. 17) supports the type of curriculum leadership that is aligned to the current policy context in Wales (Education Wales 2017; Welsh Government 2019).

Instead of teachers simply being the passive recipients of change, they are actively leading the change process and jointly responsible for the delivery of a major system-level change. This is not to suggest that the process of co-constructing a new national curriculum is free of challenges or tensions or critics, in fact the reverse is true. Engaging teachers in curriculum reform at scale is a major task and some would argue, a significant risk. Whatever the outcomes of this reform process, it serves to underline the importance of curriculum leadership, not as a sub-set or variant of teacher leadership but as a distinctive form of teacher agency.

(Harris, Jones and Crick 2020, p. 3)

The importance of establishing a positive school culture for improvement to occur is also reinforced in the literature on school and teacher reform.

the vast majority of teachers could be as good as the very best if their leaders provide the right learning environment for those they lead – creating a culture in which all teachers improve so that all teachers succeed.

(Wiliam 2016, p. 242)

Dimension 5 – Embedding systems for collecting and exchanging knowledge for learning

In Dimension 5, emphasis is placed upon what some writers in the professional learning field term as information or knowledge exchange or sharing (Shin et al. 2017). This knowledge exchange approach is also reflected in the literature on school to school ‘networks’ and networking (Díaz-Gibson et al. 2014; Díaz-Gibson et al. 2017; Brown and Duguid 2001; Prenger et al. 2019) and where networks create a ‘knowledge net’ in which to capture new or extended knowledge (Gibson et al. 2010).

In such networks, leadership is often described as shared or distributed (Azorín et al. 2019; Munby and Fullan 2016; Turner et al. 2018; Day and Grice 2019; Harris and Jones 2017b; Spillane et al. 2015; Harris and Jones 2017a) and occurring ‘from the middle’ (Munby and Fullan 2016; Day and Grice 2019) where the intersection of internal and external networks evolves, thus creating

effective boundary crossing within and across organizations.

(Turner et al. 2018, p. 5)

The Welsh SLO model embodies a clear commitment to purposeful and systemic knowledge exchange to bring about the changes in professional practice that most benefit learners (Spillane et al. 2018; Timperley et al. 2007; Wenger 1999).

The international literature on professional learning communities, resonates with dimension 5 of the SLO model in Wales. Most specifically, the National PLC model in Wales highlights the importance of teacher agency, teacher leadership and teacher collaboration (Harris and Jones 2017b). It is underpinned by certain core principles that also reinforce dimension 5 and its underlying elements.:

- (a) an absolute focus on improving learner outcomes
- (b) purposeful collaboration

- (c) professional autonomy and accountability
- (d) the theory of *distributed* leadership
- (e) teacher agency, teacher leadership and teacher collaboration

Harris and Jones 2017b, p. 26)

Establishing knowledge systems within schools to share ideas and to evaluate the impact of activity on pupil learning is a key finding from the improvement and professional learning literature (Bragg et al. 2004; Chen et al. 2016; Timperley et al. 2007; Harris and Jones 2017a). This professional learning literature also broadly supports Dimension 5 of the Welsh SLO model which concentrates on providing systemic opportunities to facilitate dialogue and deepen understandings of pupil learning experiences (Timperley et al. 2007; Schnellert et al. 2015; Hord 1997; James and Connolly 2009; Dogan et al. 2019).

Dimension 6 – Learning with and from the external environment and the wider learning system

Dimension 6 addresses the need for schools to extend learning beyond their own organisation and to connect with other schools and other parts of the system. The SLO literature suggests that, by extending learning in this way, knowledge and expertise can be accessed and circulated *beyond* the school. Dimension 6 finds further support for this contention in the systems thinking literature which confirms the importance of organisations connecting with the external environment in order to think differently and more expansively (Senge 1990; Yang et al. 2004; Kools and Stoll 2016; Harris 2020).

The Welsh SLO model emphasises the importance of teachers learning from and with each other, across schools, clusters and communities in order to build social and professional capital as part of wider system reform (Hargreaves and Fullan 2012; Hargreaves and O'Connor 2017; Daly and Finnigan 2010; Díaz-Gibson et al. 2020). The idea of building social capital across all layers of the education system is reflected throughout all 7 Dimensions of the Welsh SLO model.

Dimension 7 – Modelling and growing learning leadership

Dimension 7 focuses specifically on the importance of leadership at all levels. The international school improvement literature repeatedly

underlines that such leadership is required to realise and to sustain organisational improvement (Leithwood et al. 2020). This evidence is clear, namely school leadership at all levels is associated with securing better outcomes for all learners. The underlying elements of the 7th Dimension are exclusively concerned with the leadership *practices* required for the organisation's vision to be realised and fulfilled (Pont 2020; Leithwood et al. 2019) and uphold the underlying elements of Dimension 7.

Within dimension 7, it is suggested that the school leader must grow 'leadership' rather than 'leaders', thus reflecting a *distributed* leadership perspective. This aspect of the SLO model in Wales is supported by the international evidence base on *distributed* leadership which highlights its positive relationship with organisational improvement (Harris 2011a; Hallinger 2011; Seashore Louis et al. 2010).

The within and cross-school collaboration implicit in the Welsh SLO model reflects the notion in Spillane et al. (2001) of *distributed* leadership as being stretched and shared. The importance of leadership at all levels is also reinforced in the contemporary literature on school-to-school networks and networking:

Distributed leadership encompasses leadership exercised by multiple leaders who work collaboratively across organisational levels and boundaries. (Azorín et al. 2019, p. 7)

The SLO model in Wales also connects directly to the literature concerning *distributed system leadership* (Hargreaves 2012):

These system leaders (i) share a distinctive value, a conviction that leaders should strive for the success of other schools and their students, not just one's own; and (ii) a practice that flows from this value, namely a readiness to work with, and usually in, another school to help it to become more successful. (Hargreaves 2012, p. 16)

Coda

In summary, the three main bodies of evidence explored in this overview underscore that there is a great deal of empirical support for the various theoretical and conceptual dimensions of the Welsh SLO model. From the international literature selected, there is empirical confirmation for the 7 Dimensions of the Welsh SLO model. In essence, the Welsh SLO model, and its 7 dimensions, are grounded in a secure international knowledge base and supported by a substantive weight of empirical evidence.

It is also clear, from this overview, that definitions of SLOs vary widely in the available literature and there is far less evidence about the practical realisation of SLOs, possibly because studies have not focused their attention far enough on the implementation processes.

As Kools and Stoll (2016) note

The lack of advance of the concept of a school as learning organisation in research and practice partly stems from many different understandings of the concept. Part of the problem also lies in the shortage of systematic empirical investigations (p. 13)

Within the academic literature, considered as part of this overview, the dominant discourse remains largely theoretical and conceptual in nature. Of course, there are some practical resources available to help schools in Wales on the journey to becoming a learning organisation⁷. The core question is whether this practical guidance is useful, impactful and relevant to schools?

In 2018, in their OECD report, Kools et al noted that ‘the majority of schools in Wales seem well on their way towards developing as learning organisations however, a considerable proportion of schools are still far removed from realising this objective’ (p.15).

This somewhat contradictory statement is based on data from a SLO survey that is reliant on self-report. It is suggested that finer grained, mixed method, longitudinal studies of engagement with the SLO model in Wales are now needed to accurately and fully understand the degree and extent of implementation.

It is interesting to note that many of those writing about SLOs and advocating this approach shy away from many of the practical considerations, leaving issues of implementation sketchy and solid steps to achieving a SLO blurred or even opaque. There is a view, that schools and systems should find their own SLO model and develop an implementation strategy that is contextually and culturally appropriate. This is a reasonable and potentially convincing argument, however, given the enormous amount of writing and advocating on behalf of SLOs internationally and particularly within Wales, this seems an odd side-step that essentially lays responsibility for designing an implementation strategy with the schools or the school system.

To conclude, the evidence, selected in this overview, would suggest that the SLO idea has the potential to be a catalyst for change within the Welsh education system, but only under the right conditions (Elder 2022). The

writing about the concept or theory of an SLO far outweighs any detailed guidance about the practical processes that make it happen and sustain it over time. It is evident that a robust SLO implementation process needs to accompany the model, not follow it, underpinned with clear and consistent practical guidance. Within Wales, without a grounded, theory of action that schools can engage with, there is a real possibility that SLOs will remain yet another policy imperative without the adequate infrastructural support, expertise or capacity required for realisation.

Notes

- 1 <https://gov.wales/schools-learning-organisations-slo-overview>
- 2 <https://gov.wales/curriculum-wales-2022>
- 3 <https://hwb.gov.wales/professional-development/professional-standards>
- 4 <https://gov.wales/sites/default/files/publications/2018-03/education-in-wales-our-national-mission.pdf>
- 5 <http://www.oecd.org/education/school/school-learning-organisation.pdf>
- 6 <https://gov.wales/sites/default/files/publications/2018-04/171122-schools-in-wales-as-learning-organisations.pdf>
- 7 <https://www.oecd.org/education/Developing-Schools-as-Learning-Organisations-in-Wales-Highlights.pdf>, <https://gov.wales/schools-learning-organisations-slo-overview>

References

- Ainscow, M. (2016). Collaboration as a strategy for promoting equity in education: possibilities and barriers. *Journal of Professional Capital and Community* [Online], 1/2, 159–72. Available from <https://doi.org/10.1108/jpcc-12-2015-0013>.
- Argyris, C. (1997). Learning and teaching: A theory of action perspective. *Journal of Management Education* [Online], 21/1, 9–26. Available from <https://doi.org/10.1177/105256299702100102>.
- Argyris, C. and Schön, D. (1978). *Organizational Learning: A Theory of Action Perspective*. Addison Wesley Longman Publishing Co.
- Azorin, C. and Ainscow, M. (2020). Guiding schools on their journey towards inclusion. *International Journal of Inclusive Education* [Online], 24/1, 58–76. Available from <https://doi.org/10.1080/13603116.2018.1450900>.
- Azorin, C., Harris, A. and Jones, M. (2019). Taking a distributed perspective on leading professional learning networks. *School Leadership & Management* [Online], 1–17. Available from <https://doi.org/10.1080/13632434.2019.1647418>.

- Azorín, C.M. and Muijs, D. (2017). Networks and collaboration in Spanish education policy. *Educational Research* [Online], 59/3, 273–96. Available from <https://doi.org/10.1080/00131881.2017.1341817>.
- Berg, J. H. and Zoellick, B. (2019). Teacher leadership: toward a new conceptual framework. *Journal of Professional Capital and Community* [Online], 4/1, 2–14. Available from <https://doi.org/10.1108/JPCC-06-2018-0017> [Accessed 14 August 2019].
- Bowen, G. L., Ware, W. B., Rose, R. A. and Powers, J. D. (2007). Assessing the functioning of schools as learning organizations. *Children and Schools* [Online], 29/4, 199–208. Available from <https://doi.org/10.1093/cs/29.4.199>.
- Bragg, S., Craig, J., Cunningham, I., Eraut, M., Fielding, M., Gillinson, S., Horne, M., Robinson, C. and Thorp, J. (2004). *Factors influencing the transfer of good practice*.
- Brandt, R. (2003). Is this school a learning organization? 10 ways to tell. *Staff Development*, 24/1, 1–11.
- Brown, C., Daly, A. and Liou, Y.-H. (2016). Improving trust, improving schools. *Journal of Professional Capital and Community* [Online], 1/1, 69–91. Available from <https://doi.org/10.1108/jpcc-09-2015-0004>.
- Brown, J. S. and Duguid, P. (2001). Knowledge and Organization: A Social-Practice Perspective. *Organization Science* [Online], 12/2, 198–213. Available from <https://doi.org/10.1287/orsc.12.2.198.10116> [Accessed 16 September 2019].
- Bryant, A. Ben, Davis, M., Farrar, M. and Rea, S. (2016). Strategies for transforming local education systems. *Education Development Trust and iSOS* [Online], 20. Available from https://www.educationdevelopmenttrust.com/~media/EDT/files/insights/eddevtrust_transforming_local_education_sytems.pdf.
- Bryk, A. S. and Schneider, B. (1996). *Social Trust: A Moral Resource for School Improvement* [Online]. Available from <https://files.eric.ed.gov/fulltext/ED412630.pdf> [Accessed 13 June 2019].
- Bryk, A. S. and Schneider, B. (2003). Trust in schools: A core resource for school reform. *Educational Leadership* [Online], 60/6, 40–4. Available from https://lps.lexingtonma.org/cms/lib2/MA01001631/Centricity/Domain/124/Trust_in_Schools-1.pdf [Accessed 13 June 2019].
- Cajkler, W., Wood, P., Norton, J. and Pedder, D. (2014). Lesson study as a vehicle for collaborative teacher learning in a secondary school. *Professional Development in Education* [Online]. Available from <https://doi.org/10.1080/19415257.2013.866975>.
- Campbell, C., Lieberman, A., Yashkina, A., Rodway, J. and Alexander, S. (2017). *Teacher Learning & Leadership Program: Research report for 2016–17*.
- Chapman, C., Chestnutt, H., Friel, N., Hall, S. and Lowden, K. (2016). Professional capital and collaborative inquiry networks for educational equity and improvement? *Journal of Professional Capital and Community* [Online], 1/3, 178–97. Available from <https://doi.org/10.1108/jpcc-03-2016-0007>.

- Chen, P., Lee, C. Di, Lin, H. and Zhang, C. X. (2016). Factors that develop effective professional learning communities in Taiwan. *Asia Pacific Journal of Education* [Online], 36/2, 248–65. Available from <https://doi.org/10.1080/02188791.2016.1148853>.
- Coppieters, P. (2005). Turning schools into learning organizations. *European Journal of Teacher Education* [Online], 28/2, 129–39. Available from <https://doi.org/10.1080/02619760500093131>.
- Cordingley, P. (2008). Research and evidence-informed practice: Focusing on practice and practitioners. *Cambridge Journal of Education* [Online], 38/1, 37–52. Available from <https://doi.org/10.1080/03057640801889964>.
- Cordingley, P., Higgins, S., Greany, T., Buckler, N., Coles-Jordan, D., Crisp, B. and Saunders, L. and Coe, R. (2015). *Developing Great Teaching Lessons from the international overviews into* [Online]. Available from educationnext.org.
- Cordingley, P., Higgins, S., Greany, T., Crisp, B., Araviaki, E., Coe, R. and Johns, P. (2020). *Developing Great Leadership of CPDL*. (January).
- Daly, A. (ed.), (2015). *Social Network Theory and Educational Change*. 2nd edn, Harvard Education Press.
- Daly, A. J. and Finnigan, K. S. (2010). A bridge between worlds: Understanding network structure to understand change strategy. *Journal of Educational Change* [Online], 11/2, 111–38. Available from <https://doi.org/10.1007/s10833-009-9102-5>.
- Daly, A. J. and Finnigan, K. S. (2012). Exploring the Space Between: Social Networks, Trust, and Urban School District Leaders. *Journal of School Leadership*, 22.
- Day, C. and Grice, C. (2019). *Investigating the Influence and Impact of Leading from the Middle: A School-based Strategy for Middle Leaders in Schools* The Association of Independent Schools Leadership Centre New South Wales.
- Day, C., Sammons, P., Hopkins, D., Harris, A., Leithwood, K., Gu, Q., Brown, E., Ahtaridou, E. and Kington, A. (2009). The Impact of School Leadership on Pupil Outcomes Final Report. NCSL [Online]. Available from <https://doi.org/10.1177/1091581811407934>.
- Demerath, P. (2018). The emotional ecology of school improvement culture: Charged meanings and common moral purpose. *Journal of Educational Administration* [Online], 56/5, 488–503. Available from <https://doi.org/10.1108/JEA-01-2018-0014>.
- Díaz-Gibson, J., Civiés-Zaragoza, M. and Guàrdia-Olmos, J. (2014). Strengthening education through collaborative networks: Leading the cultural change. *School Leadership and Management* [Online], 34/2, 179–200. Available from <https://doi.org/10.1080/13632434.2013.856296>.
- Díaz-Gibson, J., Daly, A. J., Diego, S. and Balslev, G. (2020). The SchoolWeavers Tool: supporting school leaders to weave learning ecosystems. *Journal of School Management and Leadership* (June).

- Díaz-Gibson, J., Zaragoza, M. C., Daly, A. J., Mayayo, J. L. and Romani, J. R. (2017). Networked leadership in Educational Collaborative Networks. *Educational Management Administration and Leadership* [Online], 45/6, 1040–59. Available from <https://doi.org/10.1177/1741143216628532>.
- Dogan, S., Yurtseven, N. and Tatik, R. ?. (2019). Meeting agenda matters: promoting reflective dialogue in teacher communities. *Professional Development in Education* [Online], 45/2, 231–49. Available from <https://doi.org/10.1080/19415257.2018.1474484>.
- Donohoo, J. (2017). Collective teacher efficacy research: implications for professional learning. *Journal of Professional Capital and Community* [Online], 2/2, 101–16. Available from <https://doi.org/10.1108/jpcc-10-2016-0027> [Accessed 14 August 2019].
- Dufour, R. (1997). The School as a Learning Organization: Recommendations For School Improvement. *National Association of Secondary School Principals. NASSP Bulletin* [Online], 4, 230–5. Available from <https://doi.org/10.1080/00405849509543685>.
- Earl, L. and Timperley, H. (2015). *Evaluative thinking for successful educational innovation* [Online]. Paris. Available from <https://doi.org/10.1787/5jrxtk1jtdwf-en>.
- Education Wales (2017). *Education in Wales: Our national mission Action Plan 2017–2021* [Online]. Available from <https://gov.wales/sites/default/files/publications/2018-03/education-in-wales-our-national-mission.pdf>.
- Elder, Z. (2022). *Schools in Wales as Learning Organisations*, unpublished PhD thesis
- Forsyth, P. B., Adams, C. M. and Hoy, W. K. (2011). *Collective Trust: Why Schools Can't Improve Without It* [Online]. New York, NY. Available from <https://doi.org/10.1007/978-1-4419-1111-1>.
- Fullan, M. (1993). *Change Forces: Probing the Depths of Educational Reform*. Palmer Press, Taylor & Francis Inc., 1900 Frost Road, Suite.
- Fullan, M. and Quinn, J. (2016a). *Coherence: The Right Drivers in Action for Schools, Districts and Systems*. Corwin.
- Fullan, M. and Quinn, J. (2016b). *Coherence*. Corwin.
- Garvin, D.A. (1993). Building learning organizations. *Harvard Business Overview* [Online]. Available from <https://hbr.org/1993/07/building-a-learning-organization>.
- Gibson, J. D., Zaragoza, M. C., Mayayo, J. L. and Murat, L. (2010). The Study of Educative Network Organizations in the City of Barcelona. *International Journal of Knowledge Society Research* [Online], 1/2, 26–37. Available from <https://doi.org/10.4018/jksr.2010040103>.
- Gil, A. J., Carrillo, F. J. and Fonseca-Pedrero, E. (2019). Assessing a learning organization model: A teacher's perspective. *Management in Education* [Online], 33/1, 21–31. Available from <https://doi.org/10.1177/0892020618783815>.
- Godfrey, D., Seleznyov, S., Anders, J., Wollaston, N. and Barrera-Pedemonte, F. (2019). A developmental evaluation approach to lesson study: exploring the

- impact of lesson study in London schools. *Professional Development in Education* [Online], 45/2, 325–40. Available from <https://doi.org/10.1080/19415257.2018.1474488>.
- Greany, T. and Brown, C. (2017). *The Evidence Informed School System in England: Where Should School Leaders Be Focusing Their Efforts?*
- Halbert, J. and Kaiser, L. (2016). Spirals of Inquiry – Overview. *Bridging the research Practice Gap (The Association of Independent Schools of New South Wales Limited)*, 2, 1–6.
- Hallam, P. R. and Hausman, C. (2009). Principal and Teachers Relations: Trust at the Core of School Improvement. *International Handbook of Research on Teachers and Teaching*, [Online]. 403–16. Available from https://doi.org/10.1007/978-0-387-73317-3_26.
- Hallam, P. R., Smith, H. R., Hite, J. M., Hite, S. J. and Wilcox, B. R. (2015). Trust and Collaboration in PLC Teams: Teacher Relationships, Principal Support, and Collaborative Benefits. *NASSP Bulletin* [Online], 99/3, 193–216. Available from <https://doi.org/10.1177/0192636515602330>.
- Hallinger, P. (2011). Leadership for learning: lessons from 40 years of empirical research. *Journal of Educational Administration* [Online], 49/2, 125–42. Available from <https://doi.org/10.1108/09578231111116699>.
- Hargreaves, A. (2010). Presentism, individualism, and conservatism: The legacy of Dan Lortie’s Schoolteacher: A sociological study. *Curriculum Inquiry* [Online], 40/1, 143–54. Available from <https://doi.org/10.1111/j.1467-873X.2009.00472.x>.
- Hargreaves, A. and Fullan, M. (2012). *Professional Capital*. Routledge.
- Hargreaves, A. and O’Connor, M. T. (2017). Cultures of professional collaboration: their origins and opponents. *Journal of Professional Capital and Community* [Online], 2/2, 74–85. Available from <https://doi.org/10.1108/jpcc-02-2017-0004> [Accessed 14 August 2019].
- Hargreaves, A. and O’Connor, M. T. (2018). *Collaborative Professionalism* [Online]. First. Corwin Press. Available from 1506328156.
- Hargreaves, D. (2012). *A self-improving school system: towards maturity*.
- Harris, A. (2011a). Distributed leadership: Implications for the role of the principal. *Journal of Management Development* [Online], 31/1, 7–17. Available from <https://doi.org/10.1108/02621711211190961>.
- Harris, A. (2011b). System improvement through collective capacity building. *Journal of Educational Administration* [Online], 49/6, 624–36. Available from <https://doi.org/10.1108/09578231111174785>.
- Harris, A. (2020). System Leaders and System Leadership?: Overviewing the Evidence. (December), 1–24.
- Harris, A. and DeFlaminis, J. (2016). Distributed leadership in practice: Evidence, misconceptions and possibilities. *Management in Education* [Online], 30/4, 141–6. Available from <https://doi.org/10.1177/0892020616656734>.

- Harris, A. and Jones, M. (2017a). Disciplined collaboration and inquiry: evaluating the impact of professional learning. *Journal of Professional Capital and Community PCC*, 2/4, 200–14.
- Harris, A. and Jones, M. (2017b). Leading professional learning: putting teachers at the centre. *School Leadership and Management* [Online], 37/4, 331–3. Available from <https://doi.org/10.1080/13632434.2017.1343705>.
- Harris, A. and Jones, M. (2018). Leading schools as learning organizations. *School Leadership and Management* [Online], 38/4, 351–4. Available from <https://doi.org/10.1080/13632434.2018.1483553>.
- Harris, A. and Jones, M. (2020). *System Recall: Leading for Equity and Excellence*.
- Harris, A., Jones, M. and Cooze, A. (2020). Leading professional enquiry: connect to learn. *School Leadership and Management* [Online], 40/5, 379–83. Available from <https://doi.org/10.1080/13632434.2020.1830233>.
- Harris, A., Jones, M. and Crick, T. (2020). Curriculum leadership: a critical contributor to school and system improvement. *School Leadership and Management* [Online], 40/1, 1–4. Available from <https://doi.org/10.1080/13632434.2020.1704470>.
- Harris, A. and Jones, M. S. (2017a). Disciplined collaboration and inquiry: evaluating the impact of professional learning. *Journal of Professional Capital and Community* [Online], 2/4, 200–14. Available from <https://doi.org/10.1108/jpcc-05-2017-0011>.
- Harris, A. and Jones, M. S. (2017b). Professional Learning Communities: A Strategy for School and System Improvement? *Cylchgrawn Addysg Cymru / Wales Journal of Education* [Online], 19/1, 16–38. Available from <https://doi.org/10.16922/wje.19.1.2>.
- Harris, A. and Spillane, J. (2008). Distributed leadership through the looking glass. *Management in Education* [Online], 22/1, 31–4. Available from <https://doi.org/10.1177/0892020607085623>.
- Hattie, J. (2003). Teachers make a difference: What is the research evidence? *Australian Council for Educational Research (ACER) T*, [Online]. Available from http://research.acer.edu.au/research_conference_2003%0Ahttp://research.acer.edu.au/research_conference_2003.
- Hemsey-Brown, J. and Sharp, C. (2004). The use of research to improve professional practice: a systematic overview of the literature. *Oxford Overview of*, 29/4, 449–70.
- Hord, S. M. (1997). Professional learning communities: What are they and why are they important? *Issues ... about Change*.
- Hord, S. M. (2008). Evolution of the Professional Learning Community. *Journal of Staff Development*.
- Hubers, M. D., Moolenaar, N. M., Schildkamp, K., Daly, A. J., Handelzalts, A. and Pieters, J. M. (2018). Share and succeed: the development of knowledge sharing and brokerage in data teams' network structures. *Research Papers in*

- Education [Online], 33/2, 216–38. Available from <https://doi.org/10.1080/02671522.2017.1286682>.
- James, C. and Connolly, M. (2009). An analysis of the relationship between the organizational culture and the performance of staff work groups in schools and the development of an explanatory model. *International Journal of Leadership in Education* [Online], 12/4, 389–407. Available from <https://doi.org/10.1080/13603120902980804>.
- Joo, Y. H. (2020). The effects of distributed leadership on teacher professionalism: The case of Korean middle schools. *International Journal of Educational Research* [Online], 99 (November 2019). Available from <https://doi.org/10.1016/j.ijer.2019.101500>.
- Katz, S., Earl, L., Ben Jaafar, S., Elgie, S., Foster, L., Halbert, J. and Kaser, L. (2008). Learning Networks of Schools: The key enablers of successful knowledge communities. *McGill Journal of Education* [Online], 43/2, 111–37. Available from <https://doi.org/10.7202/019578ar>.
- Kennedy, M. M. (2016). How Does Professional Development Improve Teaching? *Overview of Educational Research* [Online], 86/4, 945–80. Available from <https://doi.org/10.3102/0034654315626800>.
- King, F. (2016). Teacher professional development to support teacher professional learning: Systemic Factors from Irish case studies. *Teacher Development* [Online], 20/4, 574–94. Available from <https://doi.org/10.1080/13664530.2016.1161661>.
- King Smith, A., Watkins, K. and Han, S. (2020). From silos to solutions?: How one district is building a culture of collaboration and learning between school principals and central office leaders. *European Journal of Education* [Online], 1–18. Available from <https://doi.org/10.1111/ejed.12382>.
- Kools, M. (2020). Schools as Learning Organisations: the concept, its measurement and HR outcomes.
- Kools, M. and Stoll, L. (2016). *What makes a school a learning organisation?* (OECD Working Papers, 137). Paris.
- Kools, Marco and Stoll, L. (2016). What Makes a School a Learning Organisation? A guide for policy makers, school leaders and teachers. *OECD Education Working Papers* [Online], 137, 1–89. Available from <https://doi.org/10.1787/5JLWWM62B3BVH-EN> [Accessed 18 October 2019].
- Kools, M., Stoll, L., George, B., Steijn, B., Bekkers, V. and Gouëdard, P. (2020). The school as a learning organisation?: The concept and its measurement. [Online], 1–19. Available from <https://doi.org/10.1111/ejed.12383>.
- Kools, M. T. J., Pont, B., Gouëdard, P., Rodriguez, T., Stoll, L., and George, B. R. J. (2018). *Developing Schools as Learning Organisations in Wales*. doi:10.1787/9789264307193-en
- Leithwood, K., Harris, A. and Hopkins, D. (2019). Seven strong claims about successful school leadership revisited. *School Leadership and Management* [Online], 1–18. Available from <https://doi.org/10.1080/13632434.2019.1596077>.

- Leithwood, K., Harris, A. and Hopkins, D. (2020). Seven strong claims about successful school leadership revisited. *School Leadership and Management* [Online], 40/1, 5–22. Available from <https://doi.org/10.1080/13632434.2019.1596077>.
- Lewin, K. (1999). *The Complete Social Scientist: A Kurt Lewin Reader*. New York, NY: American Psychological Society Press.
- Lieberman, A. and Mace, D. H. P. (2008). Teacher learning: The key to educational reform. *Journal of Teacher Education* [Online], 59/3, 226–34. Available from <https://doi.org/10.1177/0022487108317020>.
- Lofthouse, R. (2019). Coaching in education: a professional development process in formation. *Professional Development in Education* [Online]. Available from <https://doi.org/10.1080/19415257.2018.1529611>.
- Marsick, V. J. (2002). Learning organizations. *Learning Organizations*, [Online], 5–20. Available from <https://doi.org/10.1201/noe1420052756.ch227>.
- Moloi, K. C., Grobler, B. R., Gravett, S. J. and Park, A. (2002). Educators' perceptions of the school as a learning organization in the Vanderbijlpark-North District, South Africa. 22/2, 88–94.
- Moolenaar, N. M., Slegers, P. J. C. and Daly, A. J. (2011). Ties with potential: Social network structure and innovative climate in dutch schools. *Teachers College Record*, 113/9, 1983–2017.
- Muijs, D., Kyriakides, L., van der Werf, G., Creemers, B., Timperley, H. and Earl, L. (2014). State of the art – teacher effectiveness and professional learning. *School Effectiveness and School Improvement* [Online], 25/2, 231–56. Available from <https://doi.org/10.1080/09243453.2014.885451> [Accessed 8 July 2019].
- Mulford, B. and Silins, H. (2010). Leadership and organizational learning in schools. *Educational Change*, 107–32.
- Munby, S. and Fullan, M. (2016). Inside-out and downside-up. How leading from the middle has the power to transform education systems. *Education Development Trust* [Online], (February), 1–14. Available from <https://cassalberta.ca/wp-content/uploads/2017/08/EdDevTrust-Global-Dialogue-FINAL-3.pdf> [Accessed 14 August 2019].
- Netolicky, D. M. (2016). Rethinking professional learning for teachers and school leaders. *Journal of Professional Capital and Community* [Online], 1/4, 270–85. Available from <https://doi.org/10.1108/jpcc-04-2016-0012>.
- Netolicky, D. M. (2020). *Transformational Professional Learning*. Routledge.
- OECD (2013). *Innovative Learning Environments* [Online]. Paris: OECD. (2013). Innovative learning environments. Educational research and innovation. Paris, France: Harris. Available from <https://doi.org/https://doi.org/10.1787/9789264203488-en>.
- OECD (2018). Realising Schools as Learning Organisations in Wales. *Developing Schools as Learning Organisations in Wales*, [Online]. Paris: OECD Publishing, pp. 255–81. Available from <https://doi.org/https://doi.org/10.1787/9789264307193-9-en>.

- Örtenblad, A. (2004). A typology of the idea of learning organization. *Essential Readings in Management Learning* [Online], pp. 53–70. Available from <https://doi.org/10.4135/9781446211571.n4>.
- Osmond-Johnson, P. (2019). Becoming a teacher leader: building social capital through gradual release. *Journal of Professional Capital and Community* [Online], 4/1, 66–80. Available from <https://doi.org/10.1108/JPCC-05-2018-0016> [Accessed 14 August 2019].
- Pont, B. (2020). A literature overview of school leadership policy reforms. *European Journal of Education* [Online], 55/2, 154–68. Available from <https://doi.org/10.1111/ejed.12398>.
- Prenger, R., Poortman, C. L. and Handelzalts, A. (2019). The Effects of Networked Professional Learning Communities. *Journal of Teacher Education* [Online], 70/5, 441–452. Available from <https://doi.org/10.1177/0022487117753574>.
- Priestley, M., Biesta, G. and Robinson, S. (2015). *Teacher Agency: An Ecological Approach*.
- Rana, S., Ardichvili, A. and Polesello, D. (2016). Promoting self-directed learning in a learning organization: tools and practices. *European Journal of Training and Development* [Online], 40/7, 470–89. Available from <https://doi.org/10.1108/EJTD-10-2015-0076>.
- Retna, K. S. and Tee, N. P. (2006). The challenges of adopting the learning organisation philosophy in a Singapore school. *International Journal of Educational Management* [Online], 20/2, 140–52. Available from <https://doi.org/10.1108/09513540610646127>.
- Robinson, V., Hohepa, M. and Lloyd, C. (2009). School Leadership and Student Outcomes?: Identifying What Works and Why. *ACEL Monograph Series*.
- Robinson, V. M. J. and Timperley, H. S. (2007). The leadership of the improvement of teaching and learning: Lessons from initiatives with positive outcomes for students. *Australian Journal of Education* [Online], 51/3, 247–62. Available from <https://doi.org/10.1177/000494410705100303> [Accessed 8 July 2019].
- Santiago, R.-G. (2016). Essential features of effective networks in education. *Journal of Professional Capital and Community* [Online], 1/1, 5–22. Available from <https://doi.org/10.1108/JPCC-09-2015-0007>.
- Schildkamp, K. (2019). Data-based decision-making for school improvement: Research insights and gaps. *Educational Research* [Online]. Available from <https://doi.org/10.1080/00131881.2019.1625716>.
- Schleicher, A. (2018). *World Class: How to build a 21st-century school system, Strong Performers and Successful Reformers in Education* [Online]. Available from <https://www.oecd-ilibrary.org/docserver/9789264300002-en.pdf?expires=1542016330&id=id&accname=guest&checksum=6BE294A9E6ABDFC5AED6B31E013629A4>.
- Schnellert, L., Kozak, D. and Moore, S. (2015). Professional Development That Positions Teachers as Inquirers and Possibilizers. *LEARNing Landscapes* [Online], 9/1, 217–36. Available from <https://doi.org/10.36510/learnland.v9i1.754>.

- Seashore Louis, K., Leithwood, K., Wahlstrom, K. L. and Anderson, S. E. (2010). Learning from Leadership: Investigating the Links to Improved Student Learning. *ERS Informed Educator* [Online], (2012), pp. 1–11. Available from <http://stats.lib.pdx.edu/proxy.php?url=http://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=66564929&site=ehost-live>.
- Senge, P. M. (1990). *The Fifth Discipline*. Random House Business.
- Shin, H. W., Picken, J. C. and Dess, G. G. (2017). Revisiting the learning organization: How to create it. *Organizational Dynamics* [Online], 46/1, 46–56. Available from <https://doi.org/10.1016/j.orgdyn.2016.10.009>.
- Sims, S. and Fletcher-Wood, H. (2018). Characteristics of effective teacher professional development: what we know, what we don't, how we can find out. [Online], 1–25. Available from <https://doi.org/10.08.18>.
- Sinnema, C. and Stoll, L. (2020). Learning for and realising curriculum aspirations through schools as learning organisations. *European Journal of Education* [Online], 9–23. Available from <https://doi.org/10.1111/ejed.12381>.
- Spillane, J. P., Halverson, R. and Diamond, J. B. (2001). Investigating School Leadership Practice: A Distributed Perspective. *Educational Researcher* [Online], 30/3, 23–8. Available from <https://doi.org/10.3102/0013189x030003023> [Accessed 18 September 2019].
- Spillane, J. P., Harris, A., Jones, M. and Mertz, K. (2015). Opportunities and challenges for taking a distributed perspective: Novice school principals' emerging sense of their new position. *British Educational Research Journal* [Online], 41/6, 1068–85. Available from <https://doi.org/10.1002/berj.3166>.
- Spillane, J. P., Shirrell, M. and Adhikari, S. (2018). Constructing 'Experts' Among Peers: Educational Infrastructure, Test Data, and Teachers' Interactions About Teaching. *Educational Evaluation and Policy Analysis* [Online], 40/4, 586–612. Available from <https://doi.org/10.3102/0162373718785764>.
- Stoll, L. and Kools, M. (2017). The school as a learning organisation: a overview revisiting and extending a timely concept. *Journal of Professional Capital and Community* [Online], 2/1, 2–17. Available from <https://doi.org/10.1108/jpcc-09-2016-0022>.
- Supovitz, J. A., Auria, J. D. and Spillane, J. P. (2019). Meaningful & Sustainable School Improvement with Distributed Leadership. *CPRE Research Reports* [Online]. Available from https://repository.upenn.edu/cpre_researchreports/112/?utm_source=repository.upenn.edu%2Fcp_researchreports%2F112&utm_medium=PDF&utm_campaign=PDFCoverPages.
- Tan, C. (2019). The School as a Learning Organisation in China. *Journal of Professional Capital and Community* [Online], 5/1, 15–26. Available from <https://doi.org/10.1108/JPC-09-2019-0024>.
- The Sutton Trust (2011). Improving the impact of teachers on pupil achievement in the UK – interim findings. *The Sutton Trust* [Online], (September), 1–17. Available from <https://doi.org/10.1017/S1355617713000313>.

- Timperley, H., Kaser, L. and Halbert, J. (2014). A framework for transforming learning in schools: Innovation and the spiral of inquiry. *Centre for Strategic Education, Seminar Series 234* (April), pp. 1–24.
- Timperley, H., Wilson, A., Barrar, H. and Fung, I. (2007). Teacher Professional Learning and Development. Best Evidence Synthesis Iteration. *Education* [Online], 33/8, 3–15. Available from <https://doi.org/10.1111/j.1744-7984.2007.00116.x>.
- Tschannen-Moran, M. and Gareis, C. (2015). Principals, Trust, and Cultivating Vibrant Schools. *Societies* [Online], 5/2, 256–76. Available from <https://doi.org/10.3390/soc5020256>.
- Turner, J. C., Christensen, A., Kackar-Cam, H. Z., Fulmer, S. M. and Trucano, M. (2018). The Development of Professional Learning Communities and Their Teacher Leaders: An Activity Systems Analysis. *Journal of the Learning Sciences* [Online], 27/1, 49–88. Available from <https://doi.org/10.1080/10508406.2017.1381962>.
- Welsh Government (2017). Schools in Wales as learning organisations (PDF) [Online]. Available from <https://beta.gov.wales/sites/default/files/publications/2018-04/171122-schools-in-wales-as-learning-organisations.pdf>.
- Welsh Government (2019). Our National Mission: A Transformational Curriculum. [Online], (January). Available from <https://ico.org.uk/%0Ahttps://gov.wales/sites/default/files/consultations/2019-01/consultation-document-transformational-curriculum.pdf>.
- Wenger, E. (1999). Learning as social participation. *Knowledge Management Overview* [Online], 6, 30–3. Available from <http://lancaster.myreadinglists.org/link?url=https%3A%2F%2Fmodules.lancaster.ac.uk%2Fmod%2Fresource%2Fview.php%3Fid%3D447628&sig=53f2c63fc0891dce17d0cfe52da1098bc3169aa4bb6da1bed63cd4b9d862a314>.
- Wiliam, D. (2016). *Leadership for Teacher Learning*. West Palm Beach, FL: Learning Sciences International.
- Yang, B., Watkins, K. E. and Marsick, V. J. (2004). The construct of the learning organization: Dimensions, measurement, and validation. *Human Resource Development Quarterly* [Online], 15/1, 31–55. Available from <https://doi.org/10.1002/hrdq.1086>.
- Younie, S., Procter, R., Noakes, J., Davis, G. and Audain, J. (2016). Developing Evidence-informed practice: engaging teachers with research. 250, 1–11.