



# Making research engagement part of the life force of the school

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explore the concept of the school as part of an ecosystem and the contribution of research engagement at all its levels.

## ■■■ Enquiry as the bedrock of the school system

How can research be integrated into the lives of teachers and leaders as part of the structures and cultures of the school? Research-engaged schools promote enquiry stances by teachers as an integral part of their ongoing professional development. Such schools encourage the use of published research and other school evidence; they are outward looking and connect to the research community. This engagement occurs through interconnections from the macro to the micro level of



the school ecosystem and ultimately affects the lives of young learners. In this article we will explore the dimensions and elements of what we mean by the school ecosystem and how we see research engaged professional learning as a fundamental part of this.

### ■■■ Ecosystems and levels

The concept of the school as an ecosystem has been influenced by Urie Bronfenbrenner's (1992) ecosystems model used in developmental psychology. Bronfenbrenner suggested that in order to study

children in a way that led to high “ecological validity”, - i.e. applying to real life contexts - then we needed to take account of the various subsystems within which children developed. For instance, if we were studying children's classroom behaviour or mental health, we may wish to analyse their peer group interactions (the micro system) and their family's economic and social context (mesosystem). In addition, if the child misses school or otherwise gets into difficulties adapting to school life, policies to do with truancy or exclusion may have an impact on how he or she is subsequently punished or supported by the school (the exosystem). In turn, cultural and societal beliefs about school and family life (the macrosystem) influence the exo, meso and microsystems by shaping the way that schools are valued, funded, organized and evaluated. The developmental rate of the changes at each level – e.g. the child's physical, cognitive and emotional development (the chronosystem) could also be studied in relation to their transition through school years, or alongside curriculum reforms. Bronfenbrenner believed that by studying children in such a way we avoid over simplifying the causal links that lead to various outcomes in their lives; we also consciously connect the values and beliefs of society to the eventual impact they have at the micro-level.

This model has much potential when applied to a school system. Here the *institution* or *organisational* level is in sharpest focus (meso-level) and we are challenged to think about the nature of influence of political values on the types of schools we have; the working environments they create for staff and children; and the ways that schools work together to meet the aims of the education system. Ultimately, these higher-level elements of the ecosystem will have an effect on the micro systems that most impact on children's lives, shaping the way that teachers and other adults *educate* them. Box 1, below, outlines how such a model can be applied to the school system and later sections in this article focus on how such an ecosystem can be enhanced or enriched through research engagement.

### Box 1. Ecosystem levels as applied to the school system

- The macrosystem: This consists of the overarching beliefs and values in society that affect the school system, such as belief that parents should be able to choose their children's schools and that school's need to be measured, ranked and held accountable for 'outcomes'.
- The exosystem: This is the concrete manifestation of the macrosystem. This might include government policies to increase school autonomy and the use of school inspections and the publication of school league tables. This level is also sometimes used to describe the indirect environment, for instance networks or other organisations that connect to the school.
- The mesosystem: This is the interaction between elements of the microsystem with the immediate environment, specifically the 'workings' of a school as an organization or institution. This could include a school policy to set up professional learning communities or in the use of data to inform decisions by school leaders.
- The microsystem: This is the immediate educational environment of the child, especially the child as 'learner' in the classroom, their relationships with teachers, peers, parents and other staff. The above levels may influence the methods by which children are taught and assessed, placed into ability groups and so on.
- The chronosystem: The pace of change or development at each and any sub level of the ecosystem. For instance, a child's cognitive maturation can be studied alongside transitions from the primary phase to the secondary phase of education. Attempts to improve or change teaching practice can be contrasted or set within the context of often rapid policy changes introduced by new governments, eager to force through reforms to the school system.

### ■■■ Some key issues

This ecosystems framing addresses three key issues that we consider essential to the study of research-engaged schools: First, the need to connect all school change ultimately to its intended educational impact on children, and by corollary to society; second, to ensure that elements of the system - especially at the individual school level - are not viewed in isolation; and third, to see system change as both interconnected and working in patterns of multi-directional cause and effect.

The first issue addresses the need to understand the way the macro system indirectly impacts on the microsystems of school children. As such, tracing the effect of educational policies purely on the performance of schools in inspection reports or league tables is insufficient - this both stops short of the child's microsystem and too narrowly measures outcomes. In order to link the values that drive school policies to their eventual impact on students, each reform must be

judged in terms of its stated aim; for instance to develop children's mental and physical well-being, to eliminate inequalities in student educational outcomes, or to build citizens fit to enter democratic society and to have the means to influence it.

In terms of the second issue, we recognize that research-engaged schools are meso and exo-level organisations with numerous vertical and horizontal connections in the ecosystem. We know from previous work on school effectiveness that the effect of the teacher on a child's academic attainment is more than the indirect effect of the school's overall effectiveness (Barber and Mourshed, 2007). More generally we might conclude that the quality of the child's parenting and the home environment has considerable effect on educational outcomes for children and is more important than teaching and that teaching has more importance than the quality of school leadership (Robinson, 2011). Thus the extent to which the school

contributes to a system that fosters high quality teaching, support and parental engagement to emerge, should be our main concern. In turn, we need to consider that there are factors outside of the school itself, e.g. the support of local educational authority/district or the role of teacher professional bodies, that also impact on the quality of teaching, the ability of parents to engage in their children's education and so on.

The above point also links to the third area that the ecosystems approach addresses, the interconnectivity of levels and multiple directions of cause and effect. Commonplace in many nations' education policies (exo-level) has been the promotion of school-led improvement, coupled with the encouragement of new types of networks of schools (Greany and Higham, 2018). Such policies emphasise horizontal connections in the ecosystem, specifically at the meso- and exo-levels, through school-to-school collaborations or teachers and school leaders working across schools.

Lastly, focusing on the chronosystem helps remind us of the need to examine the relative developmental pace of change from the perspective of actors at different levels in the ecosystem. For instance, governments can impose policy changes that have dramatic implications

for the school curriculum in the space of a few weeks. However, it can take teachers months or years to implement the new curriculum, to build new skills, introduce new materials and refine strategies to context.

Ecosystems thinking necessitates theoretical approaches that acknowledge the complex and open nature of systems within which schools operate and the factors that impact on young people's educational outcomes. No one factor at any level can be taken to have a function in isolation of the wider ecosystem; and the effects of particular features – for instance the promotion of research use by school principals – must be taken alongside other elements, such as the nature of initial teacher training.

Below we offer a more thorough conceptualization of the research-engaged school in relation to this ecosystem model. Later we outline models to think about two further issues: how to create a highly research-engaged school ecosystem and also how to study it.

### ■ ■ ■ The research-engaged school

The article on *Professional Learning through Enquiry* also in this issue of PDT (Handscomb, 2018) reflects on the value of enquiry and research being an integral



part of the continuing professional development for practitioners – and the personal, professional dividends that can accrue. However it has also been suggested that there are implied benefits for the whole school and indeed for the wider system. The concept of the *research-engaged school* (RES) is helpful here in articulating how practitioner enquiry, embedded within professional learning, is in a symbiotic and dynamic relationship with other cultural elements within the school ecosystem (Godfrey, 2016a; Godfrey and Brown, 2018).

When the term “research-engaged school” was first coined it was identified as having four inter-related dimensions: it would have a *research-rich pedagogy* – i.e. manifest in the school’s teaching and learning and classroom practice; it would have a *research orientation* – exemplified in the school’s values and culture; it would *promote research communities* – within and beyond the school; and research would be at *the heart of school policy and practice* (Handscomb and MacBeath, 2003b).

There has been much exemplification and development of these features since. For Wilkins (2011) the term research-engaged entailed the practitioner combining the undertaking of one’s own action research whilst concurrently accessing and making judicious use of published research. Godfrey (2016b) used the focus on research orientation to emphasise that “such schools create a culture in which research provides a richer professional discourse.” This is particularly significant in helping to illuminate the reciprocal relationship between practitioner research and professional learning. Engaging in enquiry and research provides teachers with the language and context with which they can explore and evaluate their own practice, and share and critique these insights within their professional communities.

Combining the work of various authors, there are five key aspects of a RES:

- 1) They promote practitioner research among staff (especially teachers).
- 2) They encourage staff to read and make sense of published research.
- 3) They welcome participation in research projects led by outside organisations such as universities.
- 4) They use research to inform decision-making at every

level of the school - individual, departmental, whole school and in collaborative work.

- 5) They have an outward looking orientation, which may be aided by maintaining research-based links with other schools, universities or professional/academic entities.

(Handscomb and MacBeath, 2003a; Sharp *et al.*, 2005; Wilkins, 2011)

Dimmock develops the notion of the RES as a unifying concept, addressing three systemic concerns:

- 1) How to bridge the research–policy–practice gap by mobilising knowledge more effectively through knowledge producers and consumers working collaboratively.
- 2) Valuing and integrating both tacit knowledge and academic coded (explicit) knowledge.
- 3) Raising the professionalism and reflectivity of teachers and leaders.

(adapted from Dimmock, 2014)

Dimmock argues that RESs provide a way to leverage the mobilisation of knowledge across the school system, and they do so by: facilitating research-engaged teachers and leaders; creating schools and networks as research-engaged Professional Learning Communities (PLCs) and using a methodology that enables research to be scaled up, while being tailored to context.

We can map the five features of RESs and Dimmock’s ‘linchpin’ concept onto three overlapping dimensions at the meso-level of the ecosystem of research-informed practice (see Table 1).



Table 1. Key characteristics of research-engaged schools mapped onto the mesosystem of research-informed practice in schools (from Godfrey, 2016b)

Features of research-engaged schools (Handscomb and MacBeath, 2003b; Sharp et al., 2005; Wilkins, 2011)	Human and organisational infrastructure for research-engaged schools (Dimmock, 2014)	Mesosystem dimensions of research-informed practice
1. Promotes practitioner research among its staff		
2. Encourages its staff to access, read, use and engage critically with published research	Research-engaged teachers and leaders	Research-informed professional practice
3. Uses research to inform its decision-making at every level	Use of design-research-development	The school as a learning organisation
4. Welcomes being the subject of research by outside organisations	Schools and networks as PLCs	Connectivity to the wider system
5. Has “an outward looking orientation”		

**Interplay between enquiry, leadership and professional development**

Building on the first dimension above, we prefer to use *research-informed practice* over Dimmock’s ‘research-engaged teachers and leaders’. By doing so we focus on two concerns:

- i) The need to encompass the practices of a wider range of professionals - other than teachers - that work in and with schools and that have a direct effect on learners, such as teaching assistants (TAs) and other support staff.
- ii) The need to see leadership alongside professional practice – sometimes as a ‘separate’ practice and sometimes as integral to the idea of the professional

endeavour. Thus, there is an important role of formal leadership in establishing, maintaining and building research engagement in schools (e.g. Brown, 2015 and Sharp *et al.*, 2006b). However, a broader view of leadership also takes into account a distributed model, including how teacher leadership can be enhanced through engagement with research (e.g. Frost, 2000). Thus, it is not always possible to separate out membership of ‘leaders’ from the work of practitioners.

There is compelling case for enabling research engagement as a core element of all staff development programmes. Indeed some have seen this in terms of a fundamental professional expectation and right:

*“All teachers should have an entitlement to research training in order to develop their role as critical users of research ... All schools and colleges should have an entitlement, and perhaps a responsibility, to participate in a relevant research partnership for appropriate periods”* (Dyson, 2001).

More recently such an entitlement has been seen as a fundamental feature within the context of the self-improving school system. Thus the BERA-RSA Inquiry into the Role of research in Teacher Education made the case for the development of self-improving education systems in which all teachers become research literate and many have frequent opportunities for engagement in research and enquiry (Furlong 2014).

Sachs (2011) reflects the views of many that sadly much CPD does not enable teachers to be “researchers of their own and their peer’s practice” and thus contribute to increased understanding and transformation of practice. To redress this she calls for a range of learning opportunities “supported by school cultures of inquiry and be evidenced-based, where evidence is collected and evaluated” (Sachs, 2011). This appeal resonates with a British Education Research Association’s call for ‘close to practice’ research, in which educational research is based on problems in practice, often involves researchers working in partnership with practitioners, may address issues defined by the latter as relevant or useful, and will support the application of critical thinking, and the use of evidence in practice<sup>1</sup>.

Perhaps the common element in all the explorations of what a research-engaged school might comprise is agreement around the central tenet that “...research and enquiry is at the heart of the school, its outlook, systems, and activity” (Handscorn and MacBeath, 2003b). This in turn brings into sharp focus the crucial contribution of leadership to both school-based enquiry and to professional development, and indeed to the relationship between them.

The leadership role is seen as pivotal not just in terms of an authoritative “gatekeeping” function, whereby leaders permit, enable and support teachers’ research engagement (Sharp and Handscorn, 2007), but also by the way in which they foster a culture of research

engagement through their own outlook, values and behaviour. Stoll (2015) characterises this as senior leaders developing “an enquiry habit of mind” which provides role modelling through, for instance, actively looking for a range of perspectives, consciously seeking relevant information from many diverse sources, and constantly exploring new ways to tackle recurrent problems. Indeed the relationship between leadership and research engagement can be seen to be in a mutually beneficial reciprocal relationship with professional development dividends for leaders themselves: “Research engagement provides an opportunity for school leaders to share leadership and for staff to develop their leadership skills” (Sharp, Eames, Sanders, D. and Tomlinson 2006).

The interplay between these ecosystem elements of enquiry, leadership and professional development is also implicitly bounded within the overall ethos of the school as a learning enterprise. Thus teachers are characterised as leaders of learning and as continually learning themselves through enquiry:

*“teachers see themselves increasingly as learning from their students, as well as being leaders of learning, of both their students and one other”* (Durrant, 2014).

### Enquiry, self-evaluation and accountability

For the second meso-level dimension, the school is a learning organisation in as much as it connects research knowledge, alongside other forms of knowledge, to internal school decision-making and practices. Learning organisations also need to engage in rigorous cycles of self-evaluation. Knowing thyself has never been so important. In the febrile accountability culture in England, of unannounced inspection, maintaining robust self-evaluation processes has become crucial. So there is much perceived value in being able to harness the enquiry and reflection of its staff to feed in to this.

The move from a stark over reliance on external inspection towards an emphasis on schools continuously evaluating themselves is a very welcome development that has taken many decades to gestate in England. Other schools systems have also engaged in self-

evaluation to a greater or lesser degree. However, self-evaluation carries with it the risk of schools establishing their own crude overbearing internal inspection regimes: “With the imperative for self-evaluation there is a danger that managers will scurry to precipitate judgements about their schools without taking ... a due regard to the evidence. This requires a set of skills that clearly sit within the realm of enquiry and research” (Handscomb and Ramsey, 2008). Effective self-evaluation entails taking the opportunity to grow a rich school ethos of enquiry as part of its professional learning culture. Indeed there is clearly a fertile reciprocal correspondence between these two vibrant forces of research engagement and self-evaluation, with increasing evidence that research cultures significantly enhance schools’ capacity for self-evaluation and improving themselves:

*“Teachers and students thrive in the kind of settings that we describe as research-rich, and research-rich schools and colleges are those that are likely to have the greatest capacity for self-evaluation and self-improvement”* (Furlong, 2014).

### ■■■ Only connect!

Thus, the final dimension looks at ‘connectivity’ to the wider system. Here, we can analyse meso level interactions with levels above and below this level, as well as laterally. ‘Connections’ can be seen as an inclusive term to look at ‘collaborations’ as well as other kinds of interactions, forms of communication, spreading of ideas and knowledge, and so on.

Godfrey (2016a) states that in order for teachers to become “research literate, enquiring professionals” they need to be “supported in developing the skills of research through in-house and externally supported expertise.” This raises the significant contribution of collaboration within and beyond the school. The forming of research communities was seen as an integral part of the research-engaged school. It has perhaps gained increased profile with the dawn of new forms of school organisation and the proliferation of alliances, trusts, and other school improvement collaboratives:

*“In England, increasingly, evidence-based teacher enquiry and joint practice development between schools are*

*perceived by teaching school alliances as impetus for CPD and part of the mainstream school-to-school improvement”* (Handscomb, Gu and Varley, 2014).

Often school-university partnerships play an important part in effective research and professional learning collaboration. This can take the form of teacher research coordinators operating across and between schools and universities (McLaughlin & Black-Hawkins, 2006), or the role of “the ‘blended professionals’ who work across institutional boundaries (HEA, 2012). Such partnerships are not always smooth sailing because of the cultural differences between schools and universities.). However, much of the literature on successful research partnerships points to a common set of conditions which include “the importance of shared leadership, shared goals, development of social and intellectual skills needed for collaborative work, and adequate time” (Arhar et al, 2013).

Perhaps one of the biggest challenges is how to foster and utilise the potential of collaboration between schools. The educational landscape has changed dramatically to that which would have been unrecognisable at the turn of the century:

*“The pattern of education in England is shifting. Schools that once were islands are becoming connected. Indeed, it is increasingly rare to find outstanding schools that do not have a web of links with other schools. Competition remains, but now co-exists with collaboration and the creation of formal alliances through federations and chains”* (Matthews et al, 2011).

Such an environment has been uniquely termed *coopetition* (Muijs and Rumyantseva, 2014). Many other countries will find this a familiar picture. Within this collaborative environment the imperative is to draw upon the expertise that resides within the self-improving school system, “to learn from each other, within and between schools, to tap into the professional expertise that lies latent in the system, and to learn from what works!” (Handscomb, 2012). However, this is no easy task because the sharing of knowledge to bring about genuine “transfer” of practice from

one setting to another has always been difficult and highly problematic (Hargreaves, 1998). It is here that professional development grounded in enquiry can make a significant contribution.

For this to happen there needs to be a shift in perspective in both policy and practice which sees enquiry not just as a desirable add on but as a fundamental part of the how we develop educational professionals. When considering schools as ecosystems we need to envisage the forces of collaboration, enquiry and professional learning in dynamic interplay within an intimate relationship:

*“For teacher development...to occur commitment to certain kinds of collaboration is centrally important. However, collaboration without reflection and enquiry is little more than working collegially. For collaboration*

*to influence personal growth and development it has to be premised upon enquiry and sharing” (Harris, 2002).*

There is much to do to explore what this would look like in practice within collaborative research settings and a range of initiatives have begun to do this (Brown, 2017; Stoll, 2015b). It will entail asking searching questions about not only what effective research engagement across an alliance looks like but also what does being part of an alliance bring to enhance the capacity of a school to be research engaged.

### NOTES

1. <https://www.bera.ac.uk/project/close-to-practice-research-project>

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