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# **Developing the capacity to support Beginning Teachers in Wales: Lessons learnt from the MEP**

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## **Abstract**

One of the key requirements for any system level reform to be effective is to ensure that ‘at the point of delivery’ the necessary capacity is available to those responsible for its implementation (Mourshed, 2010; Robinson *et al.*, 2011). The Masters in Educational Practice (MEP) was a key element of the Welsh Government’s strategy for professional development and school improvement. The paper does not seek to evaluate the MEP programme’s effectiveness (forthcoming) but, instead, considers its design and ‘enactment’ (Ball, Maguire & Braun, 2012). The paper approached the issues of the enactment of the MEP: how the programme was shaped by the interaction of individual and collective agency in overlapping contexts, from the theoretical perspective of capacity building at a system level (Hadfield and Chapman, 2009). The analytical focus of the paper is on the nature of the temporary intermediate organisation (Asheim, 2002) constructed to lead the implementation of the MEP and the challenges it faced in accessing, cohering and aligning sufficient capacity from within, and external to, the Welsh education system.

## **Introduction**

This paper is concerned with the 'enactment' issues (Ball, Maguire & Braun, 2012) associated with a systemic approach to improving the quality of professional learning of beginning teachers. The Masters in Educational Practice was a major strategic development in UK teacher education, aimed at providing masters accredited professional learning for all new teachers in Wales throughout the first three years of their career. The MEP commenced in 2013 and some 900 beginning teachers were enrolled over three years.

The MEP was from its commencement constructed as more than just another accredited professional development programme, from its design to its delivery, it was intended to build capacity in an 'underperforming' education system (OECD, 2014). The MEP was a targeted system-wide initiative intended to support future improvement efforts, whether centrally or locally driven, by developing the human and social capital of whole cohorts of beginning teachers. Studying how this policy ambition was enacted presents an opportunity to learn lessons of relevance to all those attempting to develop effective system wide interventions, especially within relatively smaller education systems.

## **Background**

The policy context in which the MEP was commissioned was one in which there was increased political pressure on the Welsh education system to improve its relative under-performance in comparison to the rest of the UK on international tests, specifically PISA, and its overall decline in performance in the previous decade.<sup>1</sup>

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<sup>1</sup> There have, of course, been debates in relation to PISA as an indicator of academic success. See for example Hoppman *et al.*, (2006); Goldstein, (2007); or for a balanced account within a Welsh context Rees, (2012).

The reformist Education Minister, Leighton Andrews, initiated a raft of reforms to Wales' education system expressed in a 20-point improvement plan with the overarching aim of breaking the link between social deprivation and educational under-achievement. (Andrews, 2011a; 2011b). The plan included new national tests in reading and numeracy, baseline assessments in the Foundation phase, the establishment of a School Standards and Delivery Unit in the Welsh Government, banding for secondary schools and the re-organisation of school improvement provision from 22 local authorities to four regional consortia. The improvement plan marked a distinct shift from previous policies in that it increased the powers of oversight of centrally run accountability systems, while simultaneously attempting to move towards a more collaborative school-led system.

The MEP was part of the improvement plan, in policy terms it was seen as an interim response to the perceived failings of an ITE<sup>2</sup> system and Early Professional Development offer which had been identified as being in need of reform (Furlong *et al.*, 2006; Tabberer, 2013). The MEP was focussed on beginning teachers because of a lack of confidence about the quality of support offered to NQTs in schools, and a growing belief in the desirability of a more distinct national response to issues of underachievement (Welsh Government, 2014).

The situation within Wales with regards to on-going professional development was highly dynamic at the time of the MEP's initiation with the education system undergoing a form of 'disintermediation' (Lubienski, 2014). Prior to the MEP being launched, and with a few notable exceptions, professional development opportunities were based primarily on local authority provision, although there was a small but growing element of school based provision. The presence of 22 local education authorities in an education system totalling

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<sup>2</sup> We use the term 'initial teacher education' throughout this paper to describe the professional preparation of teachers. We are aware that use of 'education' as opposed to 'training' (as is common in many policy documents within the UK- especially from the Westminster government) may be read as taking a position in relation to the craft/profession debate. However, we have followed the lead taken by Donaldson (2011) and Furlong (2015) in his use of 'education' as a more inclusive term.

only some 205 secondary and 1,300 primary schools was seen as not only having produced a fragmented system, with few robust structures for collaborative working across authority boundaries, but also one in which too many authorities had the capacity to support schools that required improvement. The structural response in the Welsh Government's improvement plan was to form four regional consortia from the professional development and school improvement services of existing local authorities. A review of the working of the consortia shortly after their inception (Hill, 2013) highlighted an initial lack of clarity about roles and duplication of services across the system. The review also painted a picture of initiative overload and fatigue in which a limited school-based capacity was spread increasingly thinly across a range of initiatives while facing increased workloads.

### **The Masters in Educational Practice (MEP)**

The MEP programme was formulated by a group of international experts brought together by the Welsh Government. The aim was to develop a cadre of early career professionals who would support each other, and colleagues, to innovate and improve practice at the classroom and school level. The cadre of teachers who graduated from the MEP would constitute a source of future school improvement capacity. The intended outcomes for individual participants in the MEP programme, reflected these longer-term aspirations as it would be designed to support them:

- enhance practice to improve educational outcomes for children
- develop and extend understanding of current evidence base in key areas
- develop and extend ability to analyse, critique
- engage in and learn to lead professional learning communities within and between schools.

The reference to leading professional learning communities reflected not only the desire to build capacity within schools, but also to link this initiative with an earlier programme of capacity building based upon the roll out of a national model for the development of PLCs across Wales (Harris and Jones, 2010).

The overall design characteristics of the MEP programme were broadly prescribed by the original tender specification, which was based upon the expert group's recommendations. It was to be practice based and enquiry driven, it would utilize a 'blended' programme involving a combination of learning relationships, including mentors and academic tutors, and school based enquiry tasks combined with an on-line learning resources that would provide access to the existing knowledge base around effective teaching and learning, enquiry and leading school based change. The design drew heavily on existing research into effective professional development as well as reflecting areas of professional concern raised by beginning teachers in Wales.

The tender to deliver the MEP programme was eventually awarded in 2012 to an alliance of four HEIs led by Cardiff University, that included the Institute of Education, University of London; and the universities of Bangor and Aberystwyth. The first cohort enrolled in January 2013 and the MEP would be free to all NQTs, as long as they enrolled in their first year of teaching and were:

- registered with the General Teaching Council for Wales
- employed for a period of at least one full term in one or more maintained schools, equivalent to at least a 0.4 contract;
- have an initial contract up to the end of Spring term
- have the agreement of their headteacher.

The funding to schools to release students to work on the MEP varied across the three years. In year one it was deemed as part of the 10% non-contact time all teachers in Wales are provided with as part of their statutory induction. In years 2/3 additional funding was to be provided to cover any supply teaching costs incurred through MEP release time to attend the directly taught elements of the MEP, and initially to provide students with additional release days in which to develop their inquiries in schools.

The MEP 's capacity building agenda was based on creating cohorts of new teachers with the necessary dispositions and skills to develop their own and others practices, via undertaking inquiries and engagement in joint practice development. The MEP programme would provide participants with opportunities to network and collaborate with their peers within the programme and colleagues inside and outside of their schools. A secondary source of capacity would come from the creation of a national network of mentors who, via involvement in the MEP programme, would develop their ability to support others to improve their practice utilising a range of enquiry and professional development tools.

The potential for a single professional development programme to have a system wide impact needs to be understood in the context of the Welsh system. The system employs approximately 20,000 teachers with around 1,000 -1,500 newly qualified teachers entering the system each year. Offering the MEP free to each cohort of new qualified teachers meant it had the potential to enrol, and therefore directly influence, some 15% of the total teaching profession in Wales over the three year period for which it was initially commissioned. The programme was based around a series of classroom-based inquiries that would require a degree of engagement and support from colleagues, it was therefore envisaged it might indirectly affect a further 30% of the workforce. In a system that had not previously been extensively engaged in inquiry based approaches to professional development, or joint practice development, these direct and indirect effects were seen in combination as having

the potential to influence at a cultural level teachers and school leaders notions of effective professional development and its role in school improvement.

### **Capacity building and system change**

The paper considers the design and 'enactment' (Ball, Maguire & Braun, 2012) of the MEP: how the programme was shaped by the interaction of individual and collective agency in overlapping contexts, from the theoretical perspective of capacity building at a system level (Hadfield and Chapman, 2009). Capacity building as a lens through which to view system level change stresses the importance of cohering, aligning and developing existing capacity at multiple levels; the individual, the team and the whole organisation (Mitchell and Sackney, 2000; Hadfield *et al.*, 2001). It focuses attention upon the development of positive dispositions towards the possibilities of change and collaboration, enhancing individuals' and groups' understanding of change processes, improving skills and knowledge in the substantive area of improvement efforts and the development of organisational structures and norms that are supportive of the exchange of information and expertise and are aligned with improvement aims. **From the perspective of**

The notion of capacity building is central to what have been described as Third and Fourth Wave approaches to systemic improvement (Fullan, 2009; Hargreaves and Shirley 2010). It is a necessary, but not sufficient, element to systemic reforms whether constructed as 'tri-level reform' driven by middle tier organisations (Resnick, 2009) or as part of a more school-led 'self-improving systems' (Hargreaves, 2012). Individual and organisational capacity building needs to be combined with an overarching vision, either generated from the top down by central government or by wider system engagement, and supported by lateral learning and collaboration within and between different levels of an educational system. In order for capacity building to be sustained it requires the development of new routines, norms and

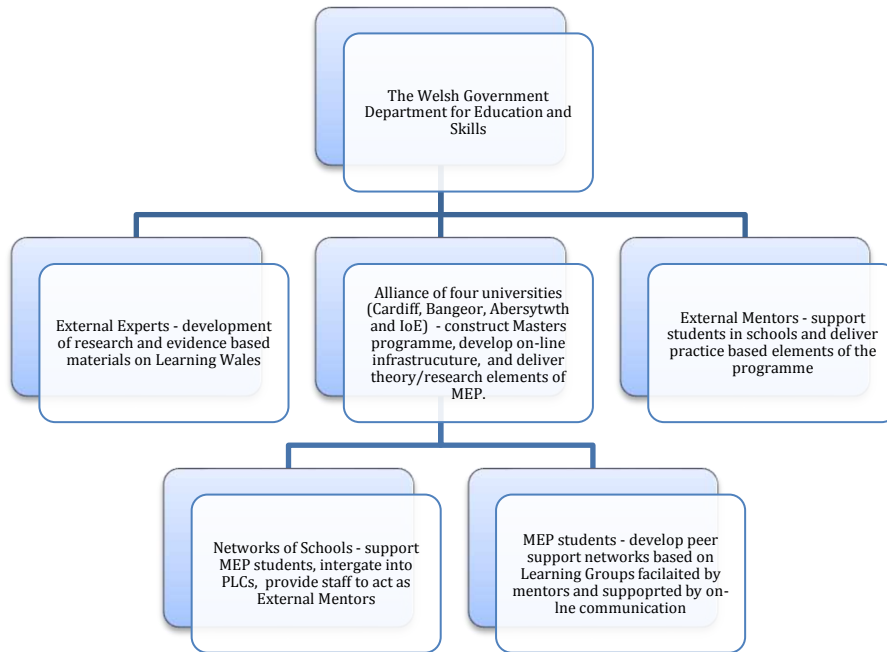


structures that ensure that new capacities are not dissipated and ensure they can be accessed by different elements of the system when required.

The key challenge facing the Welsh Government was how, in an education system whose existing capacity for improvement had already been described as being too thinly spread across too many improvement efforts (OECD, 2014), was how to implement yet another new initiative, even one that was intended to develop capacity in the future? Under political pressure to commence the MEP as quickly as possible the approach adopted was to build a new but temporary intermediary structure, or network, of organisations and individuals. The creation of such temporary structures has been a feature of a number of regional and district level improvement initiatives both within education systems (NFER, 2007; Claeys, 2015) and in the business sector (Asheim, 2002).

Temporary intermediate structures are a means of drawing in previously unexploited capacity within a system, with elements of external resource, to create sufficient capacity at the point of delivery of a new initiative to ensure successful implementation. Intermediate structures are designed to avoid stripping capacity from other improvement efforts, to the extent that they might fail or be impeded, while not importing capacity from outside the system to the extent it limits opportunities for building indigenous capacity. The structures are temporary in that their strategic aim is to access, cohere and re-align existing capacity into new generative formats. Once these new formats become sustainable the temporary structures are either incorporated or disbanded. The intermediate structure to implement the MEP is set out in figure 1.

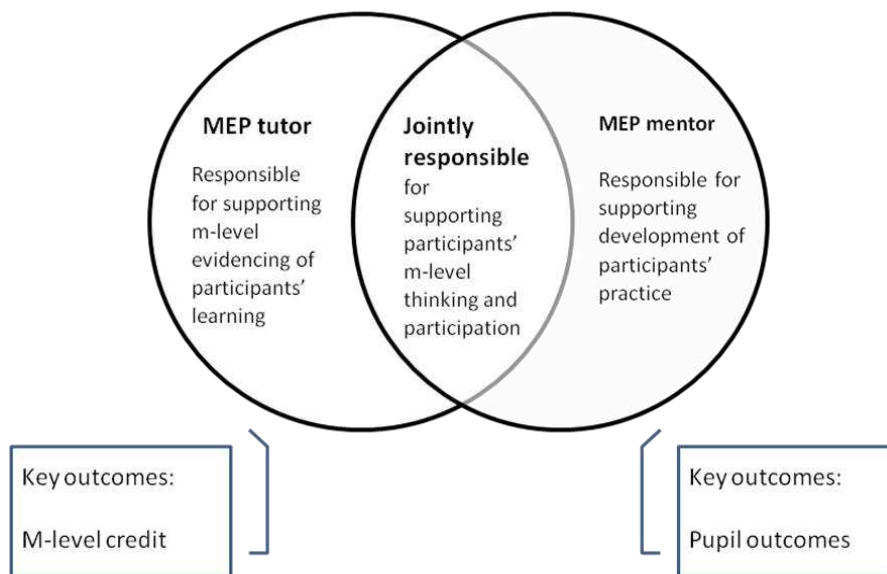
Figure 1. The temporary initiation structure for the implementation of the MEP programme



The implementation structure for the MEP aimed to draw on existing but previously untapped capacity in the Welsh system and external expertise. The Alliance of HEIs drew a research intensive university, Cardiff, into an area of provision in which it not previously been highly engaged and formed new working relationships with two other Welsh universities. The HEI alliance accessed external capacity from the Institute of Education who had developed considerable expertise through their experience with an earlier national programme of professional learning in England, the Masters in Teaching and Learning funded by the then Teacher Development Agency, that had been in piloted in several regions in England before being cancelled by the new Coalition Government in 2011. The structure intended to bring in further academic capacity by commissioning external experts to create a set of on-line research based materials that would form the basis of the MEP programme. The experienced practitioners, who would become the MEP mentors, would lead on delivering the practice elements of the programme, and in doing so draw on the wider profession from their position within professional learning communities operating across networks of schools.

The ‘point of delivery’ for the MEP programme was based around beginning teachers engaging in enquiry based learning, framed within two sets of learning relationships formed with academic tutors and external mentors. The success of the intermediate structure in supporting the implementation of the MEP would be judged on the quality of the enquiry processes and the interactions and learning supported within these learning relationships. The initial construction of the roles of mentors and academic tutors treated them as jointly responsible for ‘masters-level thinking and participation’ with, the tutor responsible for assessment of m-learning and the mentor for development of practice, this relationship is set out in figure 5.

Figure 5. Initial model of the external mentor and academic tutor roles



The capacity that needed to be provided at this ‘point of delivery’ included the ability to develop on-line materials, hosted on the Learning Wales site, that could form the basis of the modules on the MEP, the recruitment and training of a cohort of mentors capable of supporting masters-level thinking and practice development, and a team of academic tutors across four universities that had sufficient understanding of the use of enquiry that they

could design an accredited programme at masters-level that would meet the needs of beginning teachers.

### **The challenges involved in initiating and implementing the MEP**

The implementation strategy for the MEP was based on a number of assumptions about the extent of the existing capacity in the system, the ability of the new structure to access and cohere it, and the speed at which this could be aligned in order to meet the demands of a programme that increased in scope and complexity year on year. The following analysis focuses upon two strategic challenges faced by the initiation structure that affected the implementation of the MEP, and due to its interconnected nature impacted on the overall coherence and re-alignment of the capacity drawn from the system. The first challenge, the development of an external mentor team that could support masters-level learning while supporting improvements in classrooms, was primarily an issue of accessing and cohering existing capacity. The second challenge, how to design an enquiry based masters that would 'fit' with the capacity of the MEP team to deliver it, meet with Welsh Government's aspirations with regard to supporting wider improvement, while fulfilling the requirements of masters-level learning, was an example of the difficulties in aligning different aspects of capacity.

#### *The external mentor team - accessing and cohering capacity*

The make up of the mentor team created to deliver the MEP was affected by the difficulties the Welsh Government faced in recruiting sufficient high quality practicing teachers and school leaders to the role. A number of reasons were initially proffered as to the low take up by schools to become involved in the MEP, from a lack of clarity about the mentor role to confusions about the financial arrangements concerning practitioners 'buy-out' from schools. The persistence of this problem over the three rounds of recruitment pointed to broader

systemic issues around school leaders' willingness to share school based expertise in order to challenge systemic underperformance.

The recruitment of mentors took place as other key elements of the 20-point improvement plan had started to increase accountability pressures and require a range of changes in schools curricula and pedagogy. As schools' internal capacity was being increasingly drawn in to respond to external initiatives the degree of external support being offer changed due to the move towards regional consortia. Headteachers' reluctance to release staff to act as mentors was framed by concerns about the potential short-term impact on school performance but also scepticism around the longer-term potential benefits of staff being mentors. There was widespread concern amongst headteachers that the removal of funding to schools for internal mentors to support beginning teachers' induction and the switching of these monies to external mentors, including those who worked on the MEP, had cast doubt on the quality of the previous school based induction system and by association headteachers judgements.

The process of moving from 22 local authorities to 4 regional consortia undermined the ability of the intermediate structure to engage with practitioners and school leaders. Neither school leaders or practitioners were heavily involved in the development of the MEP. There was a failure to build a coherent understanding of the role of the MEP in system wide improvement, instead it become constructed as an externally imposed programme, as one headteacher stated in a meeting with MEP staff;

"No national programme can be as good as the one I run for the NQTS in my school."

(Secondary school headteacher, Regional Headteacher's Meeting, Summer 2014)

Centrally driven interventions in systems where schools are self-managing will to an extent be associated with failure and remedial action. The construction of the MEP as a remedial

intervention in the Welsh systems approach to professional learning limited the programme's ability to reach out to and draw in many experienced practitioners.

Failure to recruit sufficient school based external mentors resulted in the appointment of a large number of consultant mentors, eventually they made up some 80% of the 130 or so mentors working on the programme. These consultant mentors were in the main recently retired headteachers, but also consisted of seconded staff from university ITE departments and local authority officers. The switch in the recruitment profile of mentors had a number of immediate and longer impacts on the capacity of the implementation structure. The immediate impact was that the consultant mentors could not individually take on the same number of students as mentees as school based mentors this quickly increased the overall number of mentors required from 30-40 per cohort to 60-80. The increase in mentor numbers placed a series of demands upon the implementation structure and eventually led to a separate group being contracted to manage them, and additional appointments within the HEI Alliance.

The main negative impact of such a high percentage of consultants was that it undermined the Welsh Government's wider aspiration to develop local networks of school based mentors, with extensive knowledge of how to support professional learning and enquiry, that would take a lead in future improvement efforts. The failure to access existing capacity in the system, draw it into the programme and develop it, affected the perception of the mentors within the structure: despite their experience and knowledge they quickly became constructed as a 'cost' rather than 'investment' in future capacity. The 'cost' of mentors' training and support programme became a source of tension between groups and the pressures of the recruitment process and training programme began to limit the resources available to work on the approach to mentoring best suited to support enquiry and research informed practice change.

*The design of an enquiry based masters – aligning capacity*

The original curriculum design process for the MEP was based on the commissioning of high quality sets of on-line materials from groups of external experts that would then be hosted on the Learning Wales site. This approach reflected the Welsh Government's initial assumptions around drawing on external capacity and making it available at the point of delivery.

Drawing in external capacity would be justified on the basis of it representing a type of 'expertise' that was missing in the system and that it met a somewhat loosely defined notion of being 'world leading'. The legacy of drawing on this external expertise would be in the materials they created not on the process of their construction with others within the system, a construction of external capacity that treated it as something that could be 'banked' or 'deposited' in the system. There was little consideration of the potential of the materials being co-constructed within those within the system in order to develop local capacity.

A key benefit of using external experts to create the learning materials, in comparison with a more traditional model of curriculum development at masters-level, was that they would be made accessible to practitioners across Wales access, not just those on the MEP, and so form an on-going resource for professional learning. The original conception of the role of the academic teams was that they would be responsible for 'plotting' a path through these externally created materials, so the MEP students would draw on them as they undertook a series of classroom based interventions, the outcomes from which would then be assessed by the same team.

At this point relatively little consideration was given to the issues the intermediate structure might face in aligning the capacity provided by external experts, in a range of curriculum and pedagogical areas, with that it which it was busy drawing together internally. Synchronising the delivery of the commissioned materials with the HEI Alliance's cycles of curriculum development was problematic, and insufficient consideration had been given to the design of

on-line materials that could stand alone and be of general use to a wide range of practitioners and those required support masters-level learning on an accredited course. The technical alignment issues associated with the external experts materials distracted those in the implementation structure from considering how to align the internal capacity that had so rapidly been cohered around a shared vision of how to design the MEP to support BTs transition into classrooms, the nature of M-level learning, and the role of critical enquiry within a programme of professional learning, and expectations that the MEP would support the wider implementation of Welsh government policy.

The professional alignment issues centred around how to design the programme so it would 'fit' (Blumenfeld et al., 2000) with the existing capacities of the students, schools and the wider system. To be usable, and therefore prompt the kinds of reflection, learning and improvements to practice being sort the enquiry element needed to fit within the boundaries set by beginning teachers workloads and stresses, their limited experience of enquiry, the cultures of schools that may be relatively unsupportive of classroom based changed, and mentors and academic staff new to their roles. If demands of the enquiry elements outstripped the capacities of the student, and the programme to support them, the consequences on such a large-scale programme would be difficult to recover from in the short term.

The notion of 'fit' is of course dynamic, as the programme progressed the capacities of both students and mentors in respect of undertaking an enquiry would develop and the amount of challenge could vary accordingly. Managing the dynamic 'fit' between capacity and challenge had to be based on rapid cycles between modules, based primarily on reducing the challenge in subsequent module if necessary, set within much longer-term annual cycles, based primarily on assessment of mentors growing capacity to support classroom based enquiry that was more challenging. Establishing agreement within the implementation structure as to the correct 'fit'



and managing this in real time highlighted the failure to align its members understanding of the role of theory and data within enquiry, appropriate notions of 'rigour' and 'experimentation', and the necessarily complicated and contested judgments about improvement and effectiveness.

Political alignment issues overlapped with the professional particularly in respect of who should be involved in making judgments as to what constitutes an improvement in practice, and on what basis these were made. Issues of professional autonomy and critique central to professional learning began to be discussed in the intermediate structure, particularly when expressed in relation to other aspects of Welsh Government policy, in terms of who 'owned' the MEP programme and its materials.

### **Conclusion**

The implementation of the MEP in such a short period of time reflected the ambitious nature of the Welsh Government's plans for improvement based upon instigating a range of cultural shifts in the education system as well as structural reforms. Practically, the MEP's contribution to changing the culture of professional learning in Wales was to be embodied by cohorts of beginning teachers committed to the use of research and data in their decision-making and who would be comfortable with enquiry based approaches to practice development. Symbolically, the MEP was intended to model new norms around the nature of effective professional learning and to challenge expectations around teachers' levels of engagement in practice experimentation, particularly in a key early career phase.

The analysis of the issues faced by the intermediate structure in accessing, cohering and aligning different elements of capacity within, and external to, the Welsh system at the 'point of delivery' accounted for a process of policy enactment that resulted in an implemented programme that differed considerably to that which had originally been envisaged. The capacity that was eventually assembled by the intermediate structure was sufficient to

implement the MEP programme but in a form that had a much more limited ability to develop new capacity in the system in the medium and longer term. The tensions caused by these issues affected how the structure operated in practice as the rhetoric of partnership working was gradually replaced by a more hierarchical 'funder and client' relationship between the Welsh Government and other groups, a retrenchment to a more traditional approach to implementation that limited subsequent attempts to reconfigure the programme

The focus of the MEP programme on beginning teachers was controversial not only for its implied criticism of the current ITE system, and the quality of school-based induction, but also because it was seen as an unwarranted additional pressure on new teachers. In retrospect from the perspective of the growing evidence base around the forms of support required by beginning teachers (Avalos, 2016) and the increased emphasis on supporting them in education systems across the world, the MEP should be considered as a ground breaking approach to supporting those under going a key transition.

In a context marked by an increasing amounts of research on the shared characteristics of high performing systems there is a danger in treating these studies as indicating how to achieve improvement rather than indicating what needs to be improved. Studies of policy enactment have highlighted the complex role played by context and power in shaping any attempt to improve different types of education systems. The possibility exists, to parody Tolstoy slightly, that all successful system are alike, but each less successful systems is unsuccessful in its own 'contextualised' way. The issues faced by the temporary implementation structure for the MEP, and the nature of its responses, illustrated not only the challenges faced in Wales when centrally implementing a system wide change but more generally those faced by small, fragmented and underperforming systems. The failure to align external and internal capacity, and to access and engage with key elements of existing capacity in the system, challenges simplistic appeals to 'import' expertise from elsewhere and

the belief that the strong shared professional identities, so often characteristic of smaller systems, easily translates to agreement as to what are the best 'interests' of that system.

## References

Andrews, L. (2011a) Teaching Makes a Difference. Cardiff: Welsh Government.

(Speech at the Reardon Smith Lecture Theatre, Cardiff, 2 February) [Online].

Available at:

<http://wales.gov.uk/topics/educationandskills/allsectorpolicies/ourevents/teachingmak>

[esadifference/?jsessionid=zDkvNBbKs4NZHXYzTJswvTRTVpnjTx1SGVt6BXGBkC2](http://wales.gov.uk/topics/educationandskills/allsectorpolicies/ourevents/teachingmakeadifference/?jsessionid=zDkvNBbKs4NZHXYzTJswvTRTVpnjTx1SGVt6BXGBkC2)

[PYQQ7Zv1b!1895062788?lang=en](http://wales.gov.uk/topics/educationandskills/allsectorpolicies/ourevents/teachingmakeadifference/?jsessionid=zDkvNBbKs4NZHXYzTJswvTRTVpnjTx1SGVt6BXGBkC2) (Accessed: July 1st 2015).

Andrews, L. (2011b). Raising School Standards. Cardiff: Welsh Government (Speech

at Cardiff University, 29 June) [Online]. Available at:

<http://wales.gov.uk/topics/educationandskills/schoolshome/raisingschoolstandards/?l>

[ang=en](http://wales.gov.uk/topics/educationandskills/schoolshome/raisingschoolstandards/?lang=en) (Accessed: July 1st 2015).

Ainscow, M., Muijs, D., and West, M. (2006). Collaboration as a strategy for improving schools in challenging circumstances, *Improving Schools*, 9, (3), 192-202.

Asheim, B.T., (2002). Temporary organisations and spatial embeddedness of learning and knowledge creation. *Geografiska Annaler: Series B, Human Geography*, 84 (2), 111-124.

Ball, S.J., Maguire, M., & Braun, A. (2012). *How schools do policy: Policy enactments in secondary schools*. London: Routledge, Taylor and Francis Group.

Blumenfeld, P., Fishman, B. J., Krajcik, J., Marx, R. W., & Soloway, E. (2000). Creating usable innovations in systemic reform: Scaling up technology-embedded project-based science in urban schools. *Educational Psychologist*, 35(3), 149–164.

Claeys, A., Kempton, J. and Paterson, C. (2015). *Regional Challenges: A collaborative approach to improving practice*. London: CentreForum

- Donaldson, G. (2011). *Teaching Scotland's Future*. Report of a review of teacher education in Scotland. Edinburgh: The Scottish Government
- Fullan, M. (2009). Large-scale reform comes of age *Journal of Educational Change*, (10), 101-113
- Furlong, J., Hagger, H. Butcher, C. and Howson, J. (2006). *Review of Initial Teacher Training Provision in Wales; A report to the Welsh Assembly Government (the Furlong Report)*. Oxford: University of Oxford Department of Education
- Furlong, J. (2015). *Teaching tomorrow's teachers: options for the future of initial teacher education in Wales*. Oxford: University of Oxford Department of Education
- Goldstein, H. (2008). *How May we Use International Comparative Studies to Inform Education Policy?* Bristol: Centre for Multilevel Modelling, Bristol University [Online]. Available as: <http://www.bristol.ac.uk/cmm/team/hg/full-publications/2008/howuseful-are-international-comparative-studies-in-education.pdf> (Accessed: July 1st 2015).
- Hadfield, M. and Chapman, C. (2009). *Leading School Based Networks*. London, Routledge
- Hadfield, M. Chapman, C. Curryer, I. and Barrett, P. (2001). *Capacity Building for Leadership and School Improvement*. Nottingham, National College for School Leadership
- Hadfield, M., Barnes, Y. Connolly, M. and Snook, J. (2016). *Interim evaluation report on the Masters in Educational Practice*. Cardiff, Cardiff University
- Hargreaves, A., & Shirley, D. (2010). *The fourth way*. Thousands Oakes, CA, Corwin.
- Hargreaves, D.H. (2012). *A self-improving system in international context*. Nottingham: National College for School Leadership.
- Harris, A. and Jones, M. (2010). Professional learning communities and system improvement. *Improving Schools*, 13 (2), 172-181
- Hill, R., Dunford, J., Parish, N., Rea, S. and Sandals, L. (2012). *The growth of academy chains: implications for leaders and leadership*. Nottingham: National College for School Leadership

- Hill, R. (2013) The future delivery of education services in Wales. Welsh Government. Cardiff
- Hopmann, S., Brinek, G. and Retze, M. (Eds.) (2007). PISA According to PISA Does PISA Keep What it Promises? Wien, Lit-Verlag.
- Lubienski, C. (2014). 'Re-making the middle: Disintermediation in international context', *Educational Management Administration and Leadership*, 42 (3), 423-440.
- Mitchell, C., & Sackney, L. (2000). *Profound improvement: Building capacity for a learning community*. Lisse, NL, Swets & Zeitlinger.
- Mourshed, M. Chijioke, C. and Barber, M. (2010). *How the worlds most improved school systems keep getting better*, McKinsey & Company. London
- NFER (2007). Inter-school collaboration a literature review, Slough, NFER
- OECD (2014). Improving Schools in Wales: An OECD perspective, Paris, OECD Sahlberg,
- Orlikowski, W. (2002). Knowing in practice: Enacting a collective capability in
- PISA (2012). Programme for International Student Assessment. OECD. Available at: <http://www.oecd.org/pisa/keyfindings/PISA-2012-results-UK.pdf> (last accessed 04/09/15)
- Rees, G. (2012). A Crisis in Welsh Education? New approaches in harsh times, WISERD Policy Briefing Series Cardiff: Wales Institute of Social & Economic Research, Data & Methods. Available at: [http://www.wiserd.ac.uk/files/3013/9574/4655/WISER\\_PBS\\_004\\_-\\_A\\_crisis\\_in\\_Welsh\\_education\\_New\\_approaches\\_in\\_Harsh\\_Times.pdf](http://www.wiserd.ac.uk/files/3013/9574/4655/WISER_PBS_004_-_A_crisis_in_Welsh_education_New_approaches_in_Harsh_Times.pdf) (Accessed: July 1st 2015)
- Resnick, L. (2009). Nested Learning Systems for the Thinking Curriculum Educational Researcher, 39 (3), 183-197
- Robinson, V., McNaughton, S. and Timperley, H. (2011). Building capacity in a self-managing schooling system: The New Zealand Experience, *Journal of Educational Administration*, 49 (6), 720-738
- Tabberer R. (2013). A Review of Initial Teacher Training in Wales. Cardiff: Welsh Government
- Welsh Government (2014). Qualified for Life. An education plan for 3 to 19-year-olds in Wales. Cardiff, Welsh Government.

