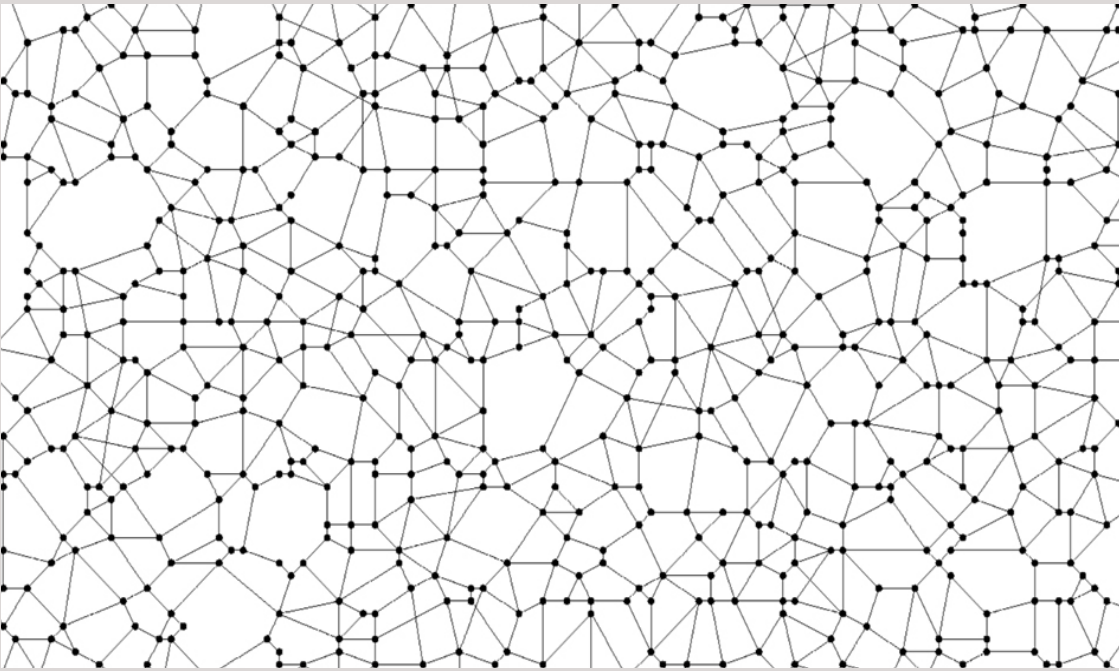
Collaborative overreach

Why collaboration probably isn't key to the next phase of school reform

James Croft

Research report 7



CENTRE FOR THE STUDY OF MARKET REFORM OF EDUCATION

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James Croft

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Foreword

All too frequently, policy elements which should form part of a complex, interconnected set of actions and objectives take on a life of their own. They become ends in themselves – something to be achieved at all cost. James Croft's sophisticated review could not come at a better time, when school 'collaboration' has all the hallmarks of entering a phase of mutation into an 'end in itself'.

In education, history tells us that uncritical reification of a single policy objective is inevitably self-defeating and often not only fails to deliver, but does damage in the process. Without dismissing the intuitive persuasiveness of the idea that schools may achieve gains through collaboration, Croft finds the theoretical basis for much collaborative enterprise wanting. Collaboration-for-its-own-sake is seen as a passive and somewhat voyeuristic conceit of analysts curious to see how it unfolds in different settings. By contrast, under certain wider market conditions, clearly purposed and organisationally integrated forms of collaboration would be likely to emerge that would be at once both more effective and more sustainable.

This paper focuses, with discipline, on the purposes of collaboration and – rightly – on evidence associated not only with improved pupil performance, but also the foregone opportunities and assets which can be threatened by diversion of institutions into certain forms of collaborative exchange. He outlines well the potential for risks to high-performing institutions of any mechanistic

requirement that they engage in collaborative effort. It is worth noting in this connection that transnational comparisons show us that other models for disseminating and embedding what works can be deployed as alternatives.

Croft reminds us that the merit of educational ideas in the practices 'transferred' or developed through collaboration must be considered forensically. Collaboration blind to the educational merit of the practices exchanged or created is revealed as both patently risky and morally defective. His text covers the errors of naïve assumptions regarding 'natural benefits', whilst being highly pragmatic in respect of impact and real costs, including foregone gains that may arise through unreflective commitments to collaboration-as-an-end-in-itself.

I commend this paper as a vital corrective to 'collaboration' as a sloganistic pre-occupation divorced from the moral and technical aims which should lie at the heart of modern improvement strategy.

Tim Oates
Cambridge
October 2015

Executive summary

- Collaboration between schools has come to be regarded as an important way in which they may find the means to improve their educational performance. Yet little is known definitively about what impact this has for improving pupil attainment.

- Given the nature of the theory on this subject, the lack of robust evidence of the impact of school-to-school collaboration for pupil attainment is unsurprising.

- Research in this area has been dogged by weak methodology. The literature is overwhelmingly qualitative, essentially providing textbook examples of a consensus view regarding what is important in collaboration for generating school improvement. The focus is on successful schools that collaborate to problem-solve and share resources, and essentially supposes that this must contribute to their success. This does not take account of those that do this and don't succeed. This 'best practice' approach is of limited use to finding out what actually makes the difference for pupil progress and attainment.

- In seeking to identify the critical features of success, the method relies heavily on the judgement and authority of its authors, whose expertise is deemed to be self-authenticating. This makes research of this nature especially vulnerable to the shaping influences of underlying value commitments. Teachers are posited as the guardians and arbiters of the public interest in education. They should therefore take an active concern for how other schools are faring, and collaborate in a spirit of mutual aid. Hence

collaboration and networking are regarded as good things in and of themselves.

- Research proceeding on this basis does not aim to test the impact of the collaborative school-improvement infrastructure on pupil learning outcomes. Instead, the principal goal is to underscore the importance of collaboration between schools for staff development and support, professional collegiality, and for the maintenance of a particular conception of the public service ethos. The result is confusion around the nature and definition of what should be schools' primary task.

- Proponents of collaboration often confuse chain and federation effects with collaboration effects, but these are different. The latter arise following corporate structural merger and integration. Recent research in this area, though unable to draw causal inferences, has opened up promising lines of enquiry. This research suggests that those types of federation most expressly purposed to improving pupil attainment, and which have organised themselves to deliver, are likely to be most impactful. Tightness of focus and management appears to make a difference. While far from definitive, this suggests that corporatisation may be more important than collaboration for school improvement.

- The influence of the theoretical frameworks and underlying value commitments shaping practice in the area of collaboration influence school leaders toward local, small-scale, and less binding/formal arrangements, designed to preserve participating schools' independence. The evidence suggests that these arrangements do not spur improvements in pupil attainment.

- Such arrangements are less likely to be subject to rigorous cost-benefit analysis. They are thus prone to a lack of clarity around objectives, what resources are likely to be

required to achieve them, and to problems with oversight and accountability. This makes them time-consuming and potentially costly undertakings for teachers and administrators alike – which may very well in turn deplete the time, effort and resources available for staff to focus on their own school and students.

- It is likely that this problem can only be ameliorated consistently in the chain, and more specifically, hard-federation context, as scale frees resources for investment in quality control and management of inefficiencies arising from variable school performance within the group. There may be much collaborative trial and error involved, however, before individual school leaders and governors become receptive to this proposition.

- Under more competitive market conditions, the process of forging effective partnerships would be more efficient. Such partnerships would be likely to emerge, alongside the establishment and growth of hard federated structures, to precisely the degree to which these competitive incentives are operable in the market.

- Devolutionary school reform has already supplied many of the conditions necessary for more competitive collaboration; what is needed is more careful alignment of other features of the system to support trialling of different school curricula and changes to leadership, management structure, and staffing – those facets of autonomy consistently cited in the literature as crucial for improvement.

- There is also much scope for further progress towards more competitive provision in respect of liberalising school supply, better information provision, and reforms to the way schools are funded. The international evidence for the effectiveness of such reforms is persuasive and growing.

Introduction: collaborative overreach

Collaboration and networking between and among schools have come to be regarded by policymakers and school leaders over the past two decades as an important way in which schools may find the means to improve their educational performance (Arnold 2006: i-ii; Kampfner 2005; House of Commons Education Committee 2013a). Diverse collaborations and networks – both voluntary and government-directed (West and Ainscow 2006) – have emerged in a range of contexts and countries, and been taken forward on a range of different, though often convergent, agendas (Chapman and Muijs 2013). Accordingly, collaboration has become an important theme in PISA's evolving narrative of education reform (OECD 2013).

In England, successive governments have published numerous reports in support of greater collaboration across schools (DfES 2003a, 2003b, 2005, 2006, 2010). The same governments have supported a variety of approaches to fostering co-operation among schools and school leaders since the early 2000s, in the hope of securing the conditions for systemic school self-improvement (Glatter 2003). A range of legal structures have been provided for the purpose of formalising relationships between them – including Federations, Collaborations, and Trust Schools for maintained schools, as well as Multi-academy Trusts, Umbrella Trusts, and Collaborative Partnerships for academies (House of Commons Education Committee 2013a: 6-7). At the same time, governments have also encouraged informal collaboration and school-to-school

support. Support for national programmes has been a feature of this broad strategy. The National College for Teaching and Leadership (NCTL), for example, has stronger schools taking on responsibility to support weaker ones for the purposes of effecting improvement, while National Teaching Schools require evidence of partnership track-record to join the programme, whereupon schools become hubs for the development of cross-sector school alliances (House of Commons Education Committee 2013a: Ev46.4; DfE 2013).

The government does not monitor the extent to which schools are engaged in different forms of partnership and collaboration, but it is estimated that the majority of Secondary schools in England are in some form of collaborative arrangement, with many engaging in multiple different partnerships for different reasons (House of Commons Education Committee 2013a: Ev19, Q98). At the same time, up to 20 per cent of schools at this stage are in some form of 'hard' federation, involving more formal, structurally merged and integrated relationships between schools (House of Commons Education Committee 2013a: Ev55 and Ev15, Q74). Yet little is known definitively about what impact any of this has had for improving pupil attainment. School-to-school partnerships and networks have to date been promoted by theoreticians and (historically) by policymakers far in advance of any real understanding of the value they add (House of Commons Education Committee 2013a: 15-16; 2013b: Ev64).

Contrary to the widely held view that these alternative collaborative relationships differ only in degree rather than in kind, this paper argues in favour of a theoretical distinction between collaboration and 'hard federation' – or what might be better termed 'corporatisation'. What evidence we have suggests this distinction may be crucial for understanding what kinds of school-to-school relationships are likely to

make a difference for school improvement. The paper shows how theoretical confusion around the purpose of collaboration between schools has obscured this distinction, while also clouding the primary purpose of collaborative or federal ventures.

Given the nature of the theory on this subject, the paper also argues that the lack of robust evidence of the impact of school-to-school collaboration for pupil attainment is unsurprising (House of Commons Education Committee 2013a: 15-16; 2013b: Ev64). Moreover, it is no coincidence that, escaping the theoretical frameworks that have dominated the agenda in this area, more recent research into chain and federation effects has already opened up promising alternative lines of enquiry.

The general poverty of evidence of collaboration effects, particularly on the efficacy of those partnerships and networks of a more local and informal nature, should signal cause for great concern for leaders at every level of the system. But as the government moves to justify its policy of forced academisation on the multi-academy trust model, so too should the limited nature of the evidence we have on chain and federation effects. The potential gains are not yet clear enough to warrant wider application (to 'coasting' schools) of the heavily interventionist strategy proposed in recent draft legislation.

A more evidence-informed policy approach would be to focus on sharpening competitive incentives on schools via de-regulation, protecting and enhancing academy freedoms, opening up new school supply, better information provision and further reforms to the way schools are funded. Theory suggests that a more competitive schools market would give rise to more focused, efficient and effective partnerships (Muijs and Rumyantseva 2014). While many in the profession may resist it, the future of school collaboration is in fact competitive and corporate.

Methodological issues

Though there is no shortage of studies considering the importance of collaboration for schools, research in this area has been dogged by weak methodology. In quantitative terms, at the macro level, OECD's analysis and press comment, overlooking the inadequacies of its approach for drawing causal inference, makes much of a strong correlation between 'collaborative culture' at the country level and high PISA scores (OECD 2013; Schleicher 2013; Tomlin 2013). Convincing critiques of this approach and its consequences have been mounted by, for example, Heller Sahlgren (2015) and Greene (2012). Few testable hypotheses have been generated, due to a pervasive lack of clarity around how collaborative practice is defined and of attention to other factors which might influence outcomes.

There is little else to go on for gauging the importance of collaboration for improvement at a country level. The most promising study – a quasi-experiment by Chapman et al. (2009, 2010, 2011, 2012) – examines the impact of schools joining different types of federation. It raises the question of whether the effect detected should be regarded as collaborative at all, and in any case should be treated with caution because the method utilised can only control for observables and are therefore prone to unobservable confounding variables, such as differential motivation among schools' head-teachers.[1]

1 The method utilised is called propensity score matching, which seeks to match schools joining different types of federation based on their observable characteristics, such as pupil composition and results.

Only a handful of studies analysing the impact of specific school partnerships on learning have been undertaken and there has been little theoretical exploration of factors which might mediate the effects of different collaborative arrangements. This is important because evidence indicates that school leaders are far from equipped to be able to determine when and when not to enter into such relations, and how the relationships should be conducted and evaluated (CUREE, 2005; Muijs, West, and Ainscow, 2010; House of Commons Education Committee 2013b: Ev64).

In the single existing systematic survey of the international literature, carried out by the Networked Learning Group and the Centre for the Use of Research and Evidence in Education (CUREE 2005), a full review of 14 studies meeting the selection criteria (discussed below) purportedly found positive impacts reported for pupil outcomes in 9 studies. However, the majority of these did not use comparison or control groups. Analysing the weight of evidence presented across the 11 studies reporting impacts (both positive and negative) for pupils against a range of descriptors of pupil attainment, achievement and engagement, the reviewers described six of these as 'weak' due to the data being derived solely from teachers' and pupils' perceptions of improved behaviour/skills/knowledge/attitude. Overall, therefore, the survey is not particularly useful as evidence in favour or against the supposed impact of collaboration on pupil attainment, but instead indicates the lack of proper evidence in this respect.

More broadly, the literature concerned with the importance of collaboration in general is overwhelmingly qualitative (e.g. West and Ainscow 2006; Goddard and Goddard 2007; and Caldwell 2008: 27-39, and comments by Caroline Kenny to the House of Commons Education Committee 2013b: Ev13, Q61). This literature essentially provides textbook

examples of a consensus view regarding what is important in collaboration for generating school improvement – akin to the country case study approach taken to exploring correlation in the PISA analysis (OECD 2013). The focus is on successful schools that collaborate to problem-solve and share resources, and essentially supposes that this must contribute to their success. But of course this doesn't take account of those that do this and don't succeed: a problem shared isn't always halved, especially if a lack of resources is part of the problem.

So this 'best practice' approach is of limited use to finding out what actually makes the difference for school performance on test score indicators. In research terms, it is referred to as 'selection on the dependent variable'. The method does not allow for variation in the dependent variable because researchers only look at what makes successful schools successful. Non-random selection of only successful cases results in inferences that are not statistically representative, over-representing cases at one or the other end of the distribution spectrum. Indeed, the same processes may be going on in underperforming schools. Merely by observing what is going on in these schools, researchers are not in a position to judge which aspects of the way they function contribute to their success, which have no effect, or indeed whether there are features of their operations that inhibit them from being more so. We may even miss those factors that are most strongly determinative (e.g. Heller Sahlgren 2015; and Greene 2012).

Since it does not include any scientific method to identify the critical features of success, the approach rests on the plausibility of the narrative – which in turn relies entirely on the judgement and authority of its authors, whose expertise as such is self-authenticating. This makes the research especially vulnerable to the shaping influences

of underlying value commitments. Evaluation, therefore, is 'dependent on the beliefs of researchers and interested parties and the approaches and interests they represent' (Kerr et al. 2003). Overall, this type of research is simply unable to analyse the causal impact of collaboration on pupil outcomes.

Preoccupations in the research

Moreover, this literature, in seeking to describe the benefits of collaboration, has only rarely been concerned to ascertain direct impacts for learners. According to Evans-Stout (1998), this is characteristic of the literature going back as far as the 1970s, but more than ever so from the early 1990s, with most researchers turning attention thereafter to emphasising the advantages of collaboration for teachers. Of 4,670 studies of school collaboration undertaken in the period 1995-2005 initially assessed in the CUREE review as having potential to analyse the impact of networks with at least three schools on pupils, only 133 met the first stage inclusion criteria. These purported to be 'studies of network initiatives that aimed to enhance pupil learning or aspects of wellbeing known to affect learning' (p. 24). Excluded studies described a range of other benefits, in the main held to accrue to teachers, and at the organisational level.

Full document screening of the 133 studies that met the initial inclusion criteria, meanwhile, found that the analysed outcomes 'predominantly affected the adults involved in the interventions', rather than pupils themselves (p. 38). This vetting process, which also included appraisals whether studies' methodologies were rigorous enough to provide evidence of impact, narrowed the number of studies down to 40 and later to 19. Again, outcomes reported in the excluded studies were those affecting adults only: 'Adult learning, attitudes and beliefs, knowledge and skills were the most common outcomes from the network collaborations' (p. 45).

The emphasis in the literature, then, is on the importance of collaboration and networking for teacher development and support, in order to improve organisational functioning. As Goddard and Goddard (2007: 878) note, these studies typically draw on interviews and survey data gathered from successful collaborations, which aim to capture such indicators as teachers' perceptions of improved efficacy (Shachar and Shmuelevitz 1997), more positive attitudes toward teaching (Brownell, Yeager, Rennells, and Riley 1997), and higher levels of professional trust (Tschannen-Moran 2001). The assumption is that there is a link between teacher empowerment and improved organisational functioning. Yet the research does not establish such a link.[2]

2 Furthermore, analysis of teacher empowerment, and its impacts, is fraught with theoretical and methodological difficulties in respect of both definition and measurement (Hardy 2009).

Unhelpful theory

Seeking to shed light on 'the forms and likely effectiveness of networks' relative to the different 'goals educational networks may have', Muijs et al. (2010, p. 23) identify a number of different theoretical frameworks. In the view of the authors, each of these, in different ways, supports the research's preoccupation with teachers and organisation, rather than pupils.

Much research appears to stem from a Durkheimian conviction that networking and collaboration may help to alleviate personal and organisational 'anomie'. On this account, working with other schools is paramount if teachers are to overcome the sense of political alienation many experience, and maintain their morale and commitment in a climate of competition, and what are perceived as an increasingly rigid accountability frameworks (see, for example, Keddiea 2014). Accordingly, collaboration helps schools establish organisational legitimacy, empowers teachers, and reduces workforce uncertainty.

The preoccupation with teacher support and organisational well-being is shared by social constructivists. They hold that school communities form their own unique perceptions of reality, anchored heavily in the contexts in which they form and operate. New knowledge emerges as actors work together to share ideas, innovate, and problem solve (Ainscow and West 2006; Katz and Earl 2007), but this process can also stagnate in the absence of challenge. Schools must network with others to overcome this problem. But to overcome the cognitive distance that is

said to exist between them, they must invest in creating channels and forums for dialogue (Muijs, West, and Ainscow 2010: 10-14). This means joint continuing professional development, regular contact between staff across schools and at all levels within them, and relationships based on the view that all staff and all schools in the network have an equally valuable contribution to make (see, for example, Hargreaves 2004; 2010).

Since the theory holds that schools must collaborate to avoid stagnation – and at an even more basic level to exist as viable educational institutions – it is not hard to see why the research it informs does not focus on pupil outcomes. At the same time, the bottom-up nature of the networking model it suggests, with dynamic 'knowledge creation' at its heart, entails a certain reinvention of the wheel every time existing networks are re-configured or new networks are formed. This gives rise to a demand for research of its own – research, unsurprisingly, that is that is overwhelmingly qualitative and of poor quality.

For others, the purpose of collaborative networks is to unlock latent social capital through knowledge transfer. The focus is on mobilising knowledge for purposeful deployment across the system (Lin 1999). For social capital theorists, individual and organisational know-how is 'sticky'; networking helps move it around, so plugging the gaps where information and skills are lacking.

Social capital theory has been particularly influential on the development of the 'stronger helps weaker' model of school turnaround. Application of this theory is essentially about unlocking the capacity of outstanding schools to effect improvement elsewhere. The challenge, therefore, lies with motivating those with know-how to take that knowledge where it is needed most. However, as acknowledged in

several submissions to the recent House of Commons Education Committee enquiry, the leading school bears disproportionate risk in respect of the possibility that it might compromise the educational standards and practices that made it outstanding in the first place (2013a: 12-14). The only way, ultimately, to manage this risk is through importing practices more commonly utilised in the context of takeover. This is common practice among performance federations, but is clearly not the relationship collaboration proponents envisage subsisting between schools. In order to maintain the credibility of this theory, those invested in it must make the case that gains accrue to *all* participants – to those reaching out to span the gaps as much as to those in them – albeit in different ways. They do so, primarily, by appealing to a deeply communitarian sense of collective responsibility for the system and its improvement.

Underlying value commitments

This moral dimension, which posits teachers as the guardians and arbiters of the public interest in education, is implicit not just in social capital approaches to collaboration, but also in all of the other theoretical frameworks described. If the object is that we work for 'the most equitable outcomes that society can afford' (Bridges and Husbands, 2005), then, so the argument runs, practitioners and schools should take an active concern for how other schools are faring. Thus, schools should collaborate in a spirit of mutual aid. Consistent with prevailing thinking in health and other fields of social policy (House of Commons Education Committee 2013a: Ev15, Q77), collaboration and networking understood in this way are regarded as good things *in and of themselves*. Commitment to such comes first, and ultimately ahead of, considerations of value added for pupils. As Bridges and Husbands (2005:5-6) put it, 'For educators who continue to be attached to notions of "an educational service" and professional collegiality in the provision of such a service, inter-institutional collaboration is something to be valued independently of the instrumental benefits which it provides'.

The assumption, of course, is that when and wherever there is investment in professional collegiality and inter-institutional collaboration, we will find conducive, socio-economically integrated learning environments, which enable the kind of rounded outcomes that we should wish for all young people. Equity, in terms of both opportunity and outcome, features prominently and is integral to the vision of education for citizenship – and individual achievement correspondingly receives less emphasis.

This is not to imply that individual pupil achievement is unimportant for researchers taking forward this agenda, but it should serve to highlight the degree to which broadly communitarian ideology determines the priorities. Research that proceeds on the theoretical and value bases outlined here does not aim to test the impact of the collaborative school-improvement infrastructure on pupil learning outcomes. Instead, the principal goal is to underscore the importance of collaboration and networking for staff development and support, professional collegiality, as well as the maintenance of a particular conception of citizenship and the public service ethos. To the extent that these goals are prioritised, the provision of effective teaching and learning for pupils – which may be called schools' 'primary task' (James and Jule 2005) – is likely to be eclipsed.

This ideological confusion may result in organisational dysfunction at various levels – due to the introduction of dissonance between an institution's official (defined) remit and what workers believe to be their true calling (Lawrence 1977) – and may result in a tendency towards 'task avoidance' (as in Obholzer and Roberts 1994) or even 'anti-task behaviour' (Turquet 1977), by which work on the primary task is avoided or even actively undermined.

It is not difficult to see how the theoretical frameworks and underlying value commitments explored may contribute to confusion around the nature, let alone the definition, of what *should* be schools' primary task: to improve pupil outcomes. A preoccupation with the importance of collaboration for staff development and support, professional collegiality, and the maintenance of a public service ethos, has at any rate quite clearly diverted research attention from establishing what added value such arrangements between schools bring in terms of benefits to pupils.

The little we know

On the strength of the few studies that have been undertaken with a view to establishing quantifiable impacts for pupils then, we in fact know very little. At the conclusion of its systematic review CUREE (2005) gave a high weighting to just six studies, though none were good enough to justify causal inference. Only two involved controlled trials, neither of which were randomised. Five of the studies focused on collaborations purposed to improving outcomes for disadvantaged pupils, or pupils with special educational needs (Montgomery 2001; Zetlin, MacLeod, and Michener 1998; Adler 1995; Thurlow et al. 1999; Greenberg 1996), and one on a network whose purpose was pedagogical change to improve technology skills (Bielefeldt et al. 1999). The conclusion of this review exercise was that 'networks with broader aims were not associated with high levels of impact on pupils' (p. 16).

Yet the import of the CUREE (2005) verdict on the limited nature of the evidence base, and where, if anywhere, further efforts should be focused, seems quickly to have been lost on the research community. Muijs et al. (2010: 14-15) casted about for further methodologically robust studies undertaken since its publication, but found only interview or survey-based evaluations of more generic programmes geared to school improvement. Thus, while claims regarding the supposed efficacy of school collaborations abound, there have been surprisingly few attempts to rigorously analyse whether these claims hold true.

More recently, the Education Endowment Foundation has commission two ambitious projects that ostensibly are supposed to improve this situation. The first, 'Challenge the Gap', aims to measure 'whether schools can work together to successfully narrow the gap and raise attainment' for the most vulnerable groups of learners, including those entitled to free school meals (EEF 2013a). The research questions focus initially on exploring patterns and associations, but move quickly beyond the methodology's purview in proposing to find out what aspects of collaboration are most effective in generating any improvements identified. This is certainly the most relevant question, yet the methodology – a matching method – is simply not fit for purpose. Much as researchers might wish it so, this approach cannot yield definitive answers regarding underlying causal relationships.

The second project, 'Achieve Together' – a combined initiative of Teach First, Teaching Leaders, and Future Leaders – aims to find out 'if greater collaboration can improve results' and attainment among disadvantaged pupils with low prior attainment (EEF 2013b). Unfortunately, while the initial research design was proposed as a randomised controlled trial, in the final analysis there were not enough schools to make this strategy viable and researchers had to settle for yet another matching method.

Yet the problem with such methods is that they cannot control for 'unseen' variables that may confound the relationship between collaboration and outcomes. For example, one may think that head-teachers more (or less) likely to engage in collaboration are also more (or less) motivated. Quality of leadership is another such factor (Muijs 2015). The purpose of randomisation is to avoid such confounding factors, and matching methods that can only control for 'seen' variables are thus a poor substitute.

This is likewise problematical for evaluation of the London and Manchester Challenge 'successes' explicitly cited as part of the rationale for the Challenge the Gap intervention. Without the proper research framework, it's impossible, much as researchers may wish to, to get a clear picture of what made the difference. Insights gained via focus group interviews after the fact, and other such qualitative techniques, as adopted for example by CfBT and the Centre for London (Barrs et al. 2014), are insufficient for identifying aspects of policy that contributed to the success of London schools. We can only evaluate what we have measured.

Accordingly, two studies are worth citing in this connection. The first, by Simon Burgess of the Centre for Market and Public Organisation at the University of Bristol, found that the only reason London secondary schools are doing better in terms of pupil progress is because of a more favourable ethnic composition, likely to be related to immigration (Burgess 2014). On 2012/13 data, by merely holding constant the ethnic background of the pupils, the London advantage evaporated. London schools have been blessed with high-achieving Asian pupils who, as Wilson et al. (2005, 2011) and Burgess et al. (2009) have previously convincingly argued, most probably have greater ambition, aspiration, and work harder in school. The phenomenon is down to composition, not policy.

The second study, by Blanden et al. (2015), considered the extent to which pupil and school characteristics can explain the improved performance specifically of disadvantaged pupils in London over time. This confirmed that ethnicity plays a major role in London's currently higher level of performance. Arguing, however, that this could only explain improvements over time if there had been changes in the ethnic mix of Londoners over time or changes in the effects of fine-grained ethnicity on attainments, the

authors consider a much extended panel of ethnicity data and find that 'the overall contribution of ethnicity to the *improvement* in performance is small. Instead, the two key factors driving London's current success are the improvements in the age 11 English and Maths test scores of pupils entering secondary schools in London and a reduction in the negative contribution made by having lots of peers from a deprived background' (p. 8). Accounting for the current improved performance of disadvantaged pupils in London, the authors provide a range of simple statistics documenting the rise, indicating the beginnings of a trend across both primary and secondary schools as far as the mid-1990s, well ahead of the launch of the London Challenge in 2003.

The main points to take away from the debate about what research can tell us about improvement interventions in general, and collaboration effects in particular, are that, after the fact, qualitative approaches are insufficient, and that outside of an experimental or quasi-experimental research environment, we are not in a position reliably to be able to evaluate the impacts of policy innovations. The quantitative studies discussed above have been sufficient to rule out various popular explanations, but do not claim to have established that the effects in question have been due to alternative causal influences.

Randomising collaboration for the purposes of quantifying its impact is certainly challenging, but the Achieve Together project, even if ultimately frustrated, showed potential. Whether researchers will find what practitioners and policymakers are looking for is another matter. The research community has yet to face, in earnest, the challenges of navigating the interplay between different factors at work in the system and of sorting out the relative influence of multiple simultaneous initiatives (a problem

Achieve Together appears to have overlooked), as also of multiple overlaying collaborative structures, and again of distinguishing these from the underlying effects of school autonomy and competition (as discussed below). Large-scale interventions may yet prove beyond tracking.

At the same time, few appear to have attempted to do so. Given that prevailing theory and values are not oriented to this end, it is fair to assume that the Education Endowment Foundation's commissioning efforts may be the last of their kind. Though politically attractive, it is difficult to envisage 'sustainable and successful policy' emerging in this area. (See comments by Caroline Kenny to the House of Commons Education Committee 2013b: Ev13, Q61).

Chain effects and federation effects

However, some findings in regard to related phenomenon – chain membership and what happens when tightly purposed collaborations harden into unified federations with corporate governance practices – may warrant quite different conclusions than such as proponents of collaboration may wish to permit. Hill et al. (2012) in seeking to establish the existence, or otherwise, of a generic effect for pupil outcomes arising from being part of an academy chain, has commonly been regarded as positive for school-to-school collaboration. Analysing data spanning academic years 2008–09 to 2010–11, the authors found the proportion of pupils gaining 5 A*-C grades at GCSE (including equivalents) to have increased slightly more in chains of 3 or more academies, compared with smaller chains and stand-alone academies.

There are methodological problems with the study. The findings cannot be considered more than suggestive of chain effects, partly because of the small number of schools involved and the variation of performance within each category and within some chains, but also because the matching methods employed, and the extent of their application, can only offer very broad comparability. A fairly narrow range of variables is given only superficial consideration, which may skew the results in favour of a stronger 'chain effect' than is actually the case. Most importantly however, the method can only control for observable differences between pupils, not unobservable characteristics such as pupil motivation. So it's difficult to

judge how real, or how significant, is the slight increase in the proportion of pupils reaching the required attainment level.

In regard to the purpose of this paper, the study does not extend to differentiating the effects of 'softer' collaborations within the group of chains examined and 'hard' federations. This is an important distinction. Soft collaborations are those which maintain participating schools' independence and institutional integrity. Hard federations take participating schools beyond collaboration as such and into structurally merged and more integrated relations. Because the study does not extend to consideration of the difference between these types, it is difficult to gauge whether the authors capture an inter-organisational collaboration effect as such – or whether such as effects as there may be should be attributed to what we may term 'corporatisation'.

That said, findings from a survey of CEOs included in the report suggest that for roughly 70 per cent of the chains, two levels of governance were apparent: the chain level of governance and the individual school level of governance. Across the academies in the chain, a multi-academy or umbrella trust holds strategic responsibility and coordinates educational support (Hill et al. 2012: 45; House of Commons Education Committee 2013a: Ev17, Q87). This suggests that fairly consolidated accountability structures were prevalent. In the light of the findings of research (considered below) into federation effects by Chapman et al. (2009, 2010, 2011, 2012), emerging more or less concurrently with Hill et al.'s, this finding of the qualitative aspect of the study is interesting.

Following an early survey aimed at discovery of the effectiveness of the early federations programme, in which some respondents reported positive benefits from their network activities on learners (Lindsay, Harris, Chapman,

and Muijs 2005), Chapman et al.'s research on federation effects, as Hill et al. (2012), has generally been regarded as an enquiry into generic effects arising from inter-institutional collaboration. In a series of reports (2009, 2010, 2011, 2012), the authors comment on a quasi-experiment using propensity score matching methods, which looks at changes in student outcomes in federated schools of a number of different types and compares these with national trends and results for similar schools with similar intake characteristics (in terms of school phase, type, size, rural/urban location, and pupil intake characteristics, and performance levels).

In terms of method, this is an improvement on Hill et al. (2012), albeit ultimately insufficient. In so far as these intake characteristics go, 'no statistically significant differences were found between federation and control schools on any of [the above] variables following matching' (Chapman, Muijs, and MacAllister 2011: 30). Nevertheless, it should be stressed that the method can only control for observable characteristics. In this case, confounding variables, such as prior capacity for improvement, may have exerted a distorting influence. Though suggestive that merged and integrated governance and leadership structures (in addition to a missional focus on pupil attainment) may be important for raising standards, this means that the study cannot ultimately draw causal inference regarding federation effects.

Nevertheless, its findings give rise to some interesting questions about the nature of the relationships between schools, suggesting that a clearer conceptual framework and terminology may be required to understand how schools within federations relate to one another. Commonly, when independent competing or collaborating organisations merge to become a new firm, whatever

relations previously subsisted between them are fundamentally altered. If this is the case with schools, then it would be better to dispense altogether with the language of collaboration after the merger has taken place. For this reason it is worth giving more detailed consideration to Chapman et al.'s work.

Chapman, Muijs and Collins (2009) was based on a sample of schools that federated in academic years 2003-04 to 2007-08, and a sample of comparator schools. The authors developed a typology to distinguish six different types of federation (cross-phase, performance, size, mainstreaming, faith, and academy), and the findings suggested those types most rigorously focused on raising pupil attainment were enjoying greater efficacy. The study suggested positive effects of federations, but especially from 'performance' federations. These federations bring together two or more high achieving and underperforming schools with a view to spurring improvement in the latter. The evidence for cross-phase federations was mixed, while there was no significant difference in outcomes between academies and comparator schools.[3]

With the benefit of an extended panel of data, and employing the same methodology, Chapman, Muijs, and MacAllister (2011) were able to provide a fuller picture of this suggested 'federation effect'. By type, the main differences in performance between federation and comparator schools appeared in performance and academy federations – those types most expressly purposed to improving pupil attainment. The findings on other types of federations suggested no impact.

The authors also noted that some federations had changed their governance arrangements from 'soft federation' to

3 In the cases of faith, mainstreaming, and size federations, there were too few to create a meaningful sample.

'hard federations'. The former type (which the authors refer to as 'collaboratives') is composed of essentially separate schools, with separate governing bodies, which delegate some but not all of their powers to a special purpose subcommittee. The latter, however, are merged and have a single governing body. The authors found that the impact of federation was more profound in more recent years, coinciding with this change in governance arrangements. However, the relative performance of collaboratives was patchier.

In addition, early findings of further research in this area by Muijs, Reynolds and Chapman (2013; forthcoming) suggest that the extent of central steering may explain chain effectiveness: tightness of focus and management may thus account for some of the difference in the performance of hard federations and collaboratives. The authors offer the explanation that it is only when they enter into formal federation – involving shared governance and leadership and integrated systems of quality control, etc. – that schools in the chain begin to make real and consistent gains.

These findings are certainly not definitive, but they are nevertheless inconvenient for proponents of school-to-school collaboration who wish to co-opt these findings in support of its importance. Indeed, the rationale and impetus for hard federation may rather be attributable to the influence of corporatisation. They suggest that collaborative arrangements with a clear focus on raising attainment may make a difference. Yet those that preserve partner schools' independence, such that they continue to be 'headed, inspected, league-tabled and funded' separately (Chapman et al.'s definition), appear to have little effect.

Conclusion: incentivising efficient and effective collaboration

At present, the federation process envisaged to generate improvements may take some time. Chapman et al. see the journey from stand-alone to hard-federated school as a gradual process, which may involve a number of transitions – necessarily so, because 'strong levels of trust and confidence must be developed in order for schools to make the formal and binding commitments that federation requires' (2009:2). A number of collaborative links and different networks may be tried before settling on a viable longer-term partner or existing federation.

At one level this may be natural, if not necessary, but it is not difficult to see how the influence of the theoretical frameworks and underlying value commitments shaping practice in the area of collaboration may protract the process. Just as these tend to obscure from view the primary task of schools to generate higher pupil attainment, they also work against discovery of effective means to work upon it. Durkheimian collaborations, designed for the purposes of organisational validation and to counteract perceived attritive effects of competition, are unlikely to harden or discover the dynamics necessary to scale. The same may be said of social constructivist projects, which are inherently local and resistant to formalisation: for social constructivists, the harder the federation, the more likely it is to promote systemisation and scale over innovation and personalisation. Meanwhile, social capital theorists are mistrustful of merged corporate structures because

of the limitations they tend to impose on the scope of individual teachers and school autonomy via changes to management structure, new divisions of labour, and tighter definition of professional roles and responsibilities. Each of these frameworks, in different ways, influence school leaders toward local, small-scale, and less binding/formal arrangements, designed to preserve participating schools independence. Yet the evidence does not suggest that these arrangements will spur improvements in pupil attainment.

These kinds of arrangements are also less likely to be subject to rigorous cost-benefit analysis, which one might expect of other improvement interventions, and are thus prone to a lack of clarity around objectives, what resources are likely to be required to achieve them, and to problems with oversight and accountability (NAO 2009: 5-6; House of Commons Education Committee, 2013a: Ev49.8-9). This makes them time-consuming and potentially costly undertakings for teachers and administrators alike (House of Commons Education Committee, 2013a: Ev w33, para. 51). Time is generally subsumed within salary budgets, and yet is in reality an off-balance sheet cost to participating schools that gives both the collaboration and the organisations themselves a misleading impression of sustainability. Investing in such may very well deplete the time, effort and resources available for staff to focus on their own school and students – a problem, the effect of which Hill et al. (2012) and Chapman et al. (2011) suggest is ameliorated consistently only in the chain context, and more specifically the hard-federation ones, as scale frees resources for investment in quality control and managing inefficiencies arising from variable school performance within the group. However, given the counter-veiling theory and qualitative evidence obscuring these issues, the extent to which school leaders and governors are receptive to this proposition is

not clear. And there may be much collaborative trial and error involved before they become so.

Cognisant of these problems, and of the need to reconcile actors to the demands of an essentially choice-based system, Muijs and Rumyantseva (2014) have sought to re-align school-to-school collaboration to competitive and more explicitly outcome-oriented ends. Drawing on theory developed by Brandenburger and Nalebuff (1996), they show that co-operation between organisations for the purpose of innovation, in order to gain strategic advantage in the wider market-place (a phenomenon termed 'co-opetition'), has plenty of precedents in regular and indeed some of the most competitive of markets – where there is significant demand uncertainty and where the costs of innovation, and accordingly risks and rewards, are high. In other words, wider competitive incentives and pressures in the market stimulate instrumental co-opetitive corporate partnerships. This is an entirely different relationship between collaboration and competition than that supposed by most proponents of collaboration in education – who typically regard the two as inimical (Hargreaves 1996; Chapman and Allen 2005) due to the narrow theoretical lens through which they typically view the schools market.

If this is the case, in turn, competitive school collaborations should not require engineering as some have argued (see, for example, O'Shaughnessy 2012). On the contrary, the appearance of such partnerships would be expected, alongside the establishment and growth of hard federated structures via merger and sponsor 'acquisition', to precisely the degree to which competitive incentives are operable in the market. And while the evidence base is admittedly sparse, this is the only type of collaboration that the research indicates has the potential to generate improvements in pupil achievement.

Accordingly, the government has been right to mute earlier support for collaboration in general (DfE 2010) in favour of a stress on the opportunities offered academies by more formal arrangements (House of Commons Education Committee, 2013a: Ev49.5-9), while safeguarding school leaders' freedom to opt otherwise. Reforms to governance to encourage the emergence of more rational, corporate structures (DfE 2015) have also been sensible. Unfortunately, the welcome restraint shown by government in face of calls to hold converter academies to account for failing to meet (undefined) expectations that they should engage with others (e.g. Husbands et al. 2013), appears to be giving way to greater emphasis on engineering. An aggressive expansion of the Regional School Commissioners' brief and further investment in academy brokerage on the sponsored multi-academy trust model is proposed. At the time of writing, it looks likely that academy trust sponsors will come under increasing pressure to scale – regardless of their capacity for such and a strong business case for doing so.

But having explicitly recognised the advantages of the corporate governance and management practices associated with multi-academy and umbrella trusts, there are ways in which the government could encourage their growth without having to be involved in the actual brokering of new arrangements. Schools should be encouraged to scale through unpicking the disincentives that work against them and rewarding them to do so. In the same way, there is scope for policy initiative to discourage informal collaborative ventures – especially where they are inadequately purposed to improving pupil outcomes – on workload and cost-benefit grounds. But increasing school autonomy, and ensuring the right competitive incentives to sharpen the focus on attainment and ensure optimal operational efficiency in schools intent on partnership, will

in the long run be more effective than efforts to engineer this outcome from the centre. Under such conditions, schools would move expeditiously in the direction of merger, integration, and autonomous rationalisation, of their own volition, without need for the instruments of the current academisation process.

It is important to recognise that devolutionary school reform has already supplied many of the conditions necessary for more competitive collaboration; what is needed is more careful alignment of other features of the system to support trialling of different school curricula and changes to leadership, management structure, and staffing – those facets of autonomy consistently cited in the literature as crucial for improvement (Hanushek and Woessmann 2011; Hanushek, Link and Woessmann 2012; Machin and Vernoit 2011; Eyles and Machin 2015; Heller Sahlgren 2013). Despite their greater freedoms, many academies are inhibited by continued regulation of the rest of the school system, in particular by national frameworks in curriculum and assessment, and pay and conditions (Bassett et al. 2012; Bassett 2014; Allen and Burgess 2010). There is considerable scope for the government to trial various extensions to academy freedoms, albeit that this would need careful design and management. There is much scope also for further progress towards more competitive provision in respect of opening up new school supply, better information provision, and reforms to the way schools are funded. The evidence for the effectiveness of such reforms is persuasive and growing (Heller Sahlgren 2013), and theory suggests that a more competitive schools market would give rise to other focused, efficient and effective partnerships of a co-opetitive nature also (Muijs and Rumyantseva 2014).

Thus, while collaboration certainly has a place in education, it is not the type of collaboration frequently conjured up

by market opponents. Instead, it is the type that grows organically in markets, provided that a healthy incentive structure exists. In short, proponents of school collaboration should seriously consider the possibility that its future, in fact, is both competitive and corporate. This may not chime well with established orthodoxy, but it is the way in which the (admittedly sparse) existing evidence indicates that we should proceed. If we seek to improve pupil outcomes, that is.

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