

Research-based school improvement: How highly effective and improving schools in England apply research¹

Roland Bernhard
University of Salzburg/University of Oxford

Katharine Burn
University of Oxford

Pam Sammons
University of Oxford

Abstract

Drawing on the growing field of educational effectiveness and improvement research (EEIR), this paper investigates the perspectives of school headteachers in highly effective and improving schools, both in London and in England's opportunity areas. Expert interviews with 22 headteachers in schools in London and the opportunity areas provide rich qualitative data on a range of topics, such as their perspectives on school effectiveness and improvement, school leadership and the professional development of teachers. Interview data shows that the headteachers of the highly effective schools in London and the opportunity areas describe their institutions in ways that are very much in line with what has been defined in educational literature as "professional learning communities". Furthermore, interviewees' responses suggest that research engagement is established in the culture in many of the analysed highly effective schools. The study is intended to increase our understanding of successful school improvement by taking into consideration the perspectives of headteachers who have demonstrated their capacity to improve outcomes, especially in schools with large proportions of disadvantaged students. It thus provides practically-relevant knowledge to inform decision-making at different levels in education systems.

To cite this article: Bernhard, R., Burn, K., Sammons P. (2020, April 17). Research-based school improvement: How highly effective and improving schools in England apply research. Paper accepted at the 2020 annual meeting of the American Educational Research Association, San Francisco, CA, United States.

¹ This paper is part of the *School Quality and Teacher Education* Project, funded by the Austrian Science Fund FWF (P31965).

Objectives

Schools in inner-city boroughs in England are often associated with poor educational attainment. This pattern has been challenged in London, where the outcomes for students have improved considerably since around 2000 (Greaves, Macmillan, & Sibieta, 2014; Baars et al., 2014). Indeed “[r]ecent analysis suggests that the attainment and progress of pupils in London is the highest in the country” (Burgess, 2014, p. 2). This effect is strongest for disadvantaged pupils who live in poor neighbourhoods (Blanden, Greaves, Gregg, Macmillan, & Sibieta, 2015). There has been considerable interest in determining what the decisive factors were in London in bringing about what has been called a “genuinely exceptional achievement” that is “worth understanding, but, above all, worth learning from.” (Woods, Husbands, & Brown, 2013, p. 57; see also Greaves et al., 2014). Baars et al. (2014, p. 7) identify four key school improvement interventions which provided the impetus for improvement in London: 1. the London Challenge; 2. Teach First; 3. the Academies programme; and 4. improved support from local authorities. All the improvement initiatives depended strongly upon “effective leadership at every level of the system” (Baars et al., 2014, p. 12; see also Sammons, Matthews, Day, & Gu, 2007). Attempts have since been made to extend the so-called “London Effect” to other English regions with large numbers of schools in difficult circumstances, namely the government’s 12 designated ‘Opportunity Areas’. These areas were selected from local authority districts which were the weakest in the *Social Mobility Index* (SMI) and the *Achieving Excellence Areas Index* in 2016 and 2017

(Department of Education, 2017a, 2017b, 2018).

This paper investigates the perspectives of school headteachers in highly effective and improving schools, both in London and in the opportunity areas, on the processes of improvement and the strategies and actions adopted to support improvement and foster better outcomes in general, and for disadvantaged students in particular. The project was approved by the *Central University Research Ethics Committee* (CUREC) of the University of Oxford.

Theoretical framework

This paper draws on the growing field of educational effectiveness and improvement research (EEIR), including earlier research on school effectiveness and improvement (Sammons, Davis, & Gray, 2016). Theoretical models of educational effectiveness such as the Dynamic Model and the more recent Dynamic Approach to School Improvement (DASI) provide a conceptual basis that informed the study (Creemers & Kyriakides, 2006, 2008, 2010, 2012). This model seeks to study schools and their improvement as an inherently dynamic process (involving change rather than a static perspective). The paper also draws on the broad literature on research-engagement in schools (Godfrey & Handscomb, 2019; Godfrey & Brown, 2018; Dimmock, 2016; Brown & Zhang, 2016).

Methods

In order to draw a sample of highly effective and improving non-selective schools from the most deprived local authorities in London and

the English social mobility and opportunity areas we used the following criteria:

- (1) an inspection judgment of “outstanding” according to the Office for standards in Education (OFSTED), the national inspection agency in England²;
- (2) strong progress for its students (a national benchmark Progress 8 score of more than 0.40);
- (3) a high proportion of disadvantaged students in the school (as measured by the students’ Free School Meal Score); and
- (4) improvement in the school’s Ofsted inspection judgment from a lower grade to outstanding in the last 15 years.

We searched for schools fitting these criteria in seven of the most deprived boroughs in London (Camden, Southwark, Islington, Hackney, Tower Hamlets, Lambeth, Westminster) and in the government designated social mobility and opportunity areas (West Somerset, Derby, Bradford, Doncaster, Blackpool, Oldham, Norwich, Scarborough, Ipswich, Fenland and East Cambridgeshire, Hastings, Stoke-on-Trend). We found 13 schools that met our criteria and contacted them. Eight schools agreed to participate in our mixed methods case study research.³ On average, more than 50% of the students who visited these schools (using data from 2017) were disadvantaged (average Free School Meal Score: 51.11 %). In addition, we contacted six schools from a successful academy chain dedicated to school turn-around

in London. The headteachers of three of these schools with practical experience in school turn-around also agreed to take part in the study.⁴

Data

This paper thus draws on ‘expert interviews’ (Bogner & Menz, 2009) with 22 headteachers in schools in London and the opportunity areas, which provide rich data on a range of topics, such as their perspectives on school effectiveness and improvement, school leadership and the professional development of teachers. These interviews were taken from a larger sample of 43 interviews with headteachers and other senior leaders, conducted in 17 schools of different kinds and different areas of England within the funded *School Quality and Teacher Education* project. Care was taken that interview questions were as open as possible in order to allow the headteachers to explain what they held to be relevant with respect to questions of school improvement and thus to avoid the interviewer imposing particular patterns of interpretation beforehand (Gläser & Laudel, 2004). All the interviews were fully transcribed and subject to content analysis (Dresing & Pehl, 2013). Among the dominant themes emerging in the interviews were the crucial importance of professional development and, more specifically within this context, engagement with research at different levels in the school. In this paper we specifically explore the dimension

² This was done in recognition that Ofsted inspections are not uncontroversial and may lead to unintended side effects in schools and in the school system (Shaw, Newton, Aitkin, & Darnell, 2003; Ehren et al., 2015). However, an Ofsted judgment might provide an approximation to the relative performance of schools within different categories, looking beyond the attainment of students in standardised tests.

³ Seven of these were so called “turn-around schools”, having improved in their Ofsted judgement from “inadequate” or “requires improvement” to “outstanding” in the last 15 years. One school in an opportunity area that changed from “good” to “outstanding” was also included within the sample.

⁴ One of these schools was rated “inadequate” by Ofsted in 2017. After an academy trust took over the school, the school was rated “good” in a 2019 inspection.

“research engagement”, drawing on categories from the research literature.

Results

Professional learning communities

The interview data shows that the headteachers of highly effective schools in London and the opportunity areas describe their institutions in ways that are very much in line with what has been defined in educational literature as “professional learning communities”. These are communities “in which the teachers in a school and its administrators continuously seek and share learning, and act on their learning. The goal of their actions is to enhance their effectiveness as professionals for the students' benefit” (Hord, 1997, p. 1). Interviewees in all the schools (S1-S11) stress the crucial importance of continuous professional development (CPD) for their teachers and the establishment of strong structures to support this development: “So, the CPD is, you know, the best thing” commented H11_m and shared his conviction that through CPD he has the “most direct impact” in school leadership (S6_L_H11_m)⁵. Heads identify the central focus of CPD as being on improving “teaching and learning”, spreading the idea of collective responsibility for students’ learning and not admitting excuses: “So, it is not acceptable whoever, to say, ‘Oh, he is not achieving because of this.’ Let's work together to find a solution [...] being clear that we have to provide high quality teaching and learning every day and we are going to monitor that. And we will provide support to help you if there are issues around that.” (S3_L_H3_m).

Furthermore, headteachers from all the case-study schools explained in the interviews

that they promote a strong open classroom door policy as part of their culture. School leaders frequently carry out “learning walks” which consist of short lesson observations in classrooms with a feedback subsequently given to teachers. These are intended to provide teachers with a tailored individual pathway to improvement. Headteacher H1_m from a London school (S1_L) which experienced a radical turn-around between 2009 and 2013, that has since been sustained, holds that this policy of learning walks “makes a big difference, probably the biggest.” (S1_L_H1_m). In a highly effective turn-around school in an opportunity area, headteacher S10_Op_H19_m⁶ explains his philosophy regarding learning walks: “every lesson, every day – so senior leadership will be walking around the school during the day and going in and out of every single classroom, every single lesson.”

From the accounts of the headteachers it seems that all of these highly effective and improving schools in London and the opportunity areas can be conceptualized as “professional learning communities” exhibiting many of the characteristics of such schools as described by Stoll (2010, p. 153).

Research engaged schools

Godfrey and Brown (2018, p. 138) describe “research-engaged schools” as institutions in which the conditions are created for headteachers, teachers and other school staff “to learn through conducting research or by using existing, published research”. Interview data indicates that many headteachers in highly effective schools in difficult circumstances are

⁵ S6_L_H11_m stands for School 6, London, Head 3, male

⁶ S10_Op_H19_m stands School 10, Opportunity areas, Head 19, male.

strongly inspired by research. In a research-engaged school, teaching and learning are “underpinned by evidence informed ideas and practices, drawn from both research evidence of ‘what works’ and tacit knowledge, knowledge based on teachers’ practical experience” (Dimmock 2016, p. 45) with the ultimate purpose of changing and improving practice. That is why an important feature of such a school is research-informed decision making at every level (Godfrey 2016, p. 305).

Drawing on the works of Brown and Zhang (2016), Godfrey and Brown (2018) and Dimmock (2016), a coding system was established with which we analysed the interviews in order to determine which dimensions of research engagement headteachers hold especially relevant for improving schools and sustaining high quality. For the present article, we examined the category “research-based decisions” and the sub-categories “based on published research” and “based on (head-) teachers’ own research”. We applied the code “research-based decisions” to all sections within the interviews in which headteachers speak about coming to decisions after having engaged in reading published research or after having conducted research in their own school. We also used the code to identify all those occasions on which the headteacher explains that teachers in their schools conduct small research projects on site to come to conclusions about, and to develop, their own teaching.

In the interviews, headteachers of some of the schools subject to analysis describe a process by which staff research a specific topic

in the school in order to inform decisions to be made. Relevant examples include: a problem within their area of responsibility (S1_L); different teaching strategies (S3_L, S11_Op); school data and research into students’ and staff voices (S3_L, S11_Op). In school S9_Op headteacher H_18_f conducted a study into why their boys don’t perform as well as their girls: “*We were looking at how boys and girls were being spoken to by the teachers and we discovered that the boys were being given far more closed questions and were being allowed to answer informally*”. After discussing the findings with her staff, they developed strategies to change the ways in which teachers talk to boys within the school: “*So, once I’d kind of got that evidence, so I went back to the staff and I did some training for the staff and presented that data TO them and then we talked about STRATEGIES to do more in-depth questioning, strategies to engage boys to have higher expectations.*”

When talking about strategies that make their schools effective, many interviewees shared their belief that decisions to be made in the school, especially in the area of teaching and learning, have to be grounded in (published) research: “*So, we’ve got to know that what we’re saying is as aligned with the evidence.*” (S10_Op_H20_m). In the course of the interview, headteacher H20_m referred to a range of research in the areas of cognitive science, feedback, metacognition and self-regulation. As three other heads did (H1, H22, H21), he also described his practice of using the *Teaching and Learning Toolkit* produced by the *Education Endowment Foundation*⁷: “*So, the*

⁷ The toolkit is according to the EEF an “accessible summary of the international evidence on teaching 5-16 year-olds” Online:

<https://educationendowmentfoundation.org.uk/evidence-summaries/teaching-learning-toolkit/>

Education Endowment Toolkit is always where I start and always where I point people towards). He also claimed to read “*a lot of the original papers*” and to filter out “*the unhelpful, the irrelevant, the bad science*” to base his decisions about implementing teaching and learning strategies in his school on evidence.

In those parts of the interview where they discussed research-based decisions, heads brought up the topics of “cognitive science” or “memory retrieval” (H19, H20, H22, H11), fostering self-regulation and using metacognition strategies (H20, H22), dealing with high ability students (H2), using differentiation strategies (H19), fostering growth mindset (H21) and stopping certain ways of working that are not evidence-based, such as using learning styles, i.e. providing content in ways that match students' self-reported preferences related to the medium of instruction (H1, H22, H13). However, headteachers who claim that research strongly informs their decisions do not seem to engage uncritically with supposedly incontrovertible research findings, based on prescriptive models. When asked about why she thinks that her school is effective S11_Op_H22_f answered: “*we used to have slightly smaller classes [...] and I know studies have said that class size shouldn't really matter, but I think it has. I think it did have a big difference on the outcomes*”. Also, for headteacher S9_Op_H18_f the introduction of a smaller class size had a big impact in her school even though “*research says that by itself it doesn't have much of an impact*”⁸. This points towards the importance of experience within (head-)teachers' learning and

decision-making, and the need to test the ideas offered to them on the basis of research (Burn & Mutton 2015, p. 225).

Overall, it seems that research engagement is established in the culture of more than two-thirds of the highly effective schools in London and in the opportunity areas (S1_L, S2_L, S3_L, S4_L, S5_L, S9_Op, S10_Op, S11_Op) that were analysed; whereas four headteachers from the academy trust in London that specialized in school turn-around (S5_L, S6_L, S7_L, S8_L) did not talk much about using research to underpin their decisions. This might be due to the strongly centralized organisation of the particular trust, in which the degree of standardisation across schools seems to be very high. Even in those schools in which headteachers do not seem to refer explicitly to research very often or to staff conducting research projects, it seems from their accounts of CPD within their schools that research indirectly influences professional development. This is, however, organised from a higher level within the academy trust. Thus, the headteachers themselves do not seem to need to engage so much in reading or conducting research. Another explanation could be that since the trust is specialised in turning around “failing schools”, research engagement might not be a first priority for the core mission they are carrying out. As Godfrey (2016, p. 315) stated, “a policy of research engagement would be more appropriate in good or effective (and presumably excellent) schools.” The turn-around of most schools we visited for the project and which were strongly research-engaged was achieved several years ago, so that

⁸ About reducing class size and its small cost-benefit effect see for example Coe, Aloisi, Higgins, & Major (2014).

now their main focus lies in maintaining the level. For this purpose, research engagement seems to play a very important role.

Significance

The aims of the project *School Quality and Teacher Education* (SQTE) are directed towards gaining insights through systematically exploring and reconstructing the expert knowledge and beliefs of headteachers of highly effective and improving schools in England. Increasing our understanding about successful school improvement by taking into consideration the perspectives of headteachers who have demonstrated their capacity to improve outcomes especially in schools with large proportions of disadvantaged students may provide practically-relevant knowledge to inform decision-making at different levels in education systems. A number of key dimensions of leadership behaviour identified in previous studies of effective leadership were supported and extended by this case study research. In particular, the importance of “Redesigning the organisation” and “Setting directions for school improvement” linked to a focus on “Developing people” and the “Use of data and research evidence” (Sammons, Davis, Gu, & Day, 2014; Day, Gu, & Sammons, 2016) has been demonstrated in changing teaching and learning conditions that in turn support better outcomes for students. Such leadership effects operate indirectly to change student outcomes through direct effects on the conditions in the school that support teachers’ work.

The present study emphasises the links between such leadership strategies and actions in the case study schools, as articulated in the interviews. Working from the basis of a clear

vision, headteachers of many highly effective and improving schools focus strongly on developing teachers through research-based professional development and they claim to let their decisions be informed by published and self-conducted research. On the basis of these findings, headteachers, school authorities and other stakeholders within the school system should be provided with opportunities to reflect on the findings of this study which offer inspiration for their work developing schools, and providing effective teacher education and continuous professional development. They might consider the crucial role that research engagement seems to play in improving learning outcomes in schools in London and in the opportunity areas. Research engagement seems to be an important part of the explanation as to why the attainment and progress of pupils in London schools and in some schools in the opportunity areas is so high.

References

- Baars, S., Bernardes, E., Elwick, A., Malortie, A., McAleavy, T., McInerney, L., Riggall, A. (2014). *Lessons from London Schools: Investigating the Success*. London, UK: CfBT Educational Trust.
- Blanden, J., Greaves, E., Gregg, P., Macmillan, L., & Sibietta, L. (2015). *Understanding the improved performance of disadvantaged pupils in London*. London, UK: Centre for the Analysis of Social Exclusion.
- Bogner, A., Littig, B., & Menz, W. (Eds.) (2009). *Interviewing experts. Methodology and Practice*. Basingstoke, UK: Palgrave Macmillan.
- Bogner, A., & Menz, W. (2009). The theory-generating expert interview: Epistemological interest, forms of knowledge, interaction. In A. Bogner, B. Littig, & W. Menz (Eds.), *Interviewing experts. Methodology and Practice* (pp. 43–80). Basingstoke, UK: Palgrave Macmillan.
- Brown, C., & Zhang, D. (2016). Is engaging in evidence-informed practice in education rational? What accounts for discrepancies in teachers' attitudes towards evidence use and actual instances of evidence use in schools? *British Educational Research Journal*, 42(5), 780–801. <https://doi.org/10.1002/berj.3239>
- Burgess, S. M. (2014). Understanding the success of London's schools. *Centre for Market and Public Organisation (CMPO) Working Paper*, 14(333).
- Burn, K., & Mutton, T. (2015). A review of 'research-informed clinical practice' in Initial Teacher Education. *Oxford Review of Education*, 41(2), 217–233. <https://doi.org/10.1080/03054985.2015.1020104>
- Coe, R., Aloisi, C., Higgins, S., & Major, L. E. (2014). What makes great teaching? Review of the underpinning research. *Centre for Evaluation & Marketing (Durham University)*. Retrieved from <http://dro.dur.ac.uk/13747/>
- Creemers, B.P.M., & Kyriakides, L. (2006). Critical analysis of the current approaches to modelling educational effectiveness: The importance of establishing a dynamic model. *School Effectiveness and School Improvement*, 17(3), 347–366. <https://doi.org/10.1080/09243450600697242>
- Creemers, B.P.M., & Kyriakides, L. (2008). *The dynamics of educational effectiveness: A contribution to policy, practice and theory in contemporary schools*. London, UK: Routledge.
- Creemers, B.P.M., & Kyriakides, L. (2010). School factors explaining achievement on cognitive and affective outcomes: Establishing a dynamic model of educational effectiveness. *Scandinavian Journal of Educational Research*, 54(3), 263–294. <https://doi.org/10.1080/00313831003764529>
- Creemers, B.P.M., & Kyriakides, L. (2012). *Improving quality in education: Dynamic approaches to school improvement*. London, UK: Routledge.
- Day, C., Gu, Q., & Sammons, P. (2016). The Impact of leadership on student outcomes: How successful school leaders use transformational and instructional strategies to make a difference. *Educational Administration Quarterly*, 52(2), 221–258. <https://doi.org/10.1177/2F0013161X15616863>
- Department of Education (2017). *Implementation of Opportunity Areas: An independent evaluation. Final Research report*. London, UK.
- Department of Education (2017a). *Opportunity Areas Selection Methodology*. London, UK.
- Department of Education (2018). *Opportunity Areas Selection Methodology*. London, UK.
- Dimmock, C. (2016). Conceptualising the research-practice-professional development nexus: mobilising schools as 'research-engaged' professional learning communities. *Professional Development in Education*, 42(1), 36–53. <https://doi.org/10.1080/19415257.2014.963884>
- Drehsing, T., & Pehl, T. (2013). *Praxisbuch Interview, Transkription & Analyse. Anleitungen und Regelsysteme für qualitativ Forschende*. Marburg.
- Ehren, M. C. M., Gustafsson, J. E., Altrichter, H., Skedsmo, G., Kemethofer, D., & Huber, S. G. (2015). Comparing effects and side effects of different school inspection systems across Europe. *Comparative Education*, 51(3), 375–400. <https://doi.org/10.1080/03050068.2015.1045769>
- Gläser, J., & Laudel, G. (2004). *Experteninterviews und qualitative Inhaltsanalyse als Instrumente rekonstruierender Untersuchungen*. Wiesbaden: Springer.
- Godfrey, D. (2016). Leadership of schools as research-led organisations in the English educational environment cultivating a research-engaged school culture. *Educational Management Administration & Leadership*, 44(2), 301–321. <https://doi.org/10.1177/2F1741143213508294>

- Godfrey, D. (2017). What is the proposed role of research evidence in England's 'self-improving' school system? *Oxford Review of Education*, 43(4), 433–446.
- Godfrey, D., & Brown, C. (2018). How effective is the research and development ecosystem for England's schools? *London Review of Education*, 16(1), 136–151.
<https://doi.org/10.18546/LRE.16.1.12>
- Godfrey, D., & Brown, C. (Eds.) (2019). *An ecosystem for research-engaged schools. Reforming education through research*. London/New York: Routledge.
- Godfrey, D., & Handscomb, G. (2019). Evidence use, research-engaged schools and the concept of an ecosystem. In D. Godfrey & C. Brown (Eds.), *An ecosystem for research-engaged schools. Reforming education through research* (4–21). London/New York: Routledge.
- Greany, T. (2014). *Are we nearly there yet? Progress, issues and possible next steps for a self-improving school system*. London, UK: IOE Press.
- Greany, T., & Brown, C. (2015). *Partnerships between teaching schools and universities: Research report*. London, UK: UCL Institute of Education.
- Greaves, E., Macmillan, L., & Sibieta, L. (2014). Lessons from London schools for attainment gaps and social mobility. *London: Social Mobility and Child Poverty Commission*. Retrieved from http://www.cemmap.ac.uk/uploads/publications/docs/london_schools_june2014.pdf
- Hord, S. M. (1997). *Professional learning communities: communities of continuous inquiry and improvement*. Austin, TX: Southwest Educational Development Laboratory.
- Peterson, P., Baker, E., & McGraw, B. (Eds.) (2010). *International Encyclopedia of Education*. Oxford: Elsevier.
- Sammons, P., Davis, S., & Gray, J. (2016). Methodological and scientific properties of school effectiveness research: Exploring the underpinnings, evolution and future directions of the field. In *The Routledge International Handbook of Educational Effectiveness and Improvement: Research, policy, and practice* (pp. 25–76). London, UK: Routledge International Handbooks of Education.
- Sammons, P., Davis, S., Gu, Q., & Day, C. (2014). Using mixed methods to investigate school improvement and the role of leadership: An example of a longitudinal study in England. *Journal of Educational Administration*, 52(5), 565–589. <https://doi.org/10.1108/JEA-10-2013-0121>
- Sammons, P., Matthews, P., Day, C., & Gu, Q. (2007). Exploring the impact of aspects of the London leadership strategy. *Journal of Education for Students Placed at Risk*, 12(4), 425–439.
<https://doi.org/10.1080/10824660701758991>
- Shaw, I., Newton, D., Aitkin, M., & Darnell, R. (2003). Do Ofsted inspections of secondary schools make a difference to GCSE results? *British Educational Research Journal*, 29(1), 63–75.
<https://doi.org/10.1080/0141192032000057375>
- Stoll, L. (2010). Professional learning community. In P. Peterson, E. Baker, & B. McGraw (Eds.), *International Encyclopedia of Education* (pp. 151–157). Oxford: Elsevier.
- Woods, D., Husbands, C., & Brown, C. Transforming education for all: The Tower Hamlets story. Retrieved from https://discovery.ucl.ac.uk/id/eprint/1570688/1/Transforming_Education_final.pdf