Development of Cluster Based approaches to School Improvement

Final Report

Moira Hulme, Emilee Rauschenberger & Ben Haines

Acronyms & Abbreviations

ACE	Adverse Childhood Experience
ALN	Additional Learning Needs
CA	Challenge Adviser
CAT	Cognitive Abilities Tests
EAS	Education Achievement Service
FSM	Free School Meals
LNF	National Literacy and Numeracy Framework
LA	Local Authority
LAC	Looked After Children
MAT	More Able and Talented
NACE	National Association for Able Children in Education
PDG	Pupil Deprivation Grant
PRU	Pupil Referral Unit
SNRB	Special Needs Resource Base
WG	Welsh Government

Contact details for further information:

Professor Moira Hulme
Education and Social Research Institute
Manchester Metropolitan University
Brooks Building, Bonsall Street,
Manchester, M15 6GX
m.hulme@mmu.ac.uk

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Executive summary

In February 2018, the Education and Achievement Service (EAS) commissioned a research team from the Education and Social Research Institute of Manchester Metropolitan University to evaluate the development of cluster-based school improvement. The aim of the project was to assess the extent to which the potential rewards of the cluster approach initiated in South East Wales in 2017 have been achieved across the region in the first year of the programme.

Research Questions

- What are the key drivers toward cluster and network-based approaches to school improvement?
- How do clusters and networks of schools deliver improvement in the highest performing systems?
- What are the facilitators and barriers to cluster-based improvement in schools in the region?
- What benefits have been delivered by the move toward cluster-based approaches in the last year?
- How can Welsh Government, EAS, Local Authorities and schools improve the impact of cluster-based working?

Research Design

This report is based on a review of international research literature and stakeholder interviews with Advisers and leaders of cluster activity in South East Wales. Forty-three peer-reviewed research articles and 49 commissioned research reports were selected for review. Between April and June 2018, semi-structured interviews were conducted with 5 Challenge Advisers and 23 school leaders (12 primary and 6 secondary schools, 3 special schools and 2 Pupil Referral Units) in 9 of the 35 clusters across the region. In addition, a review was conducted of contextual documents and school-level performance data (Cluster Improvement Plans and periodic FADE reports i.e. Focus of Evaluation, Analysis, what to Develop/Do, Evaluation).

Summary of findings

1. Inter-school collaboration is widely promoted as a catalyst for system improvement, a strategy to address place-based educational inequity, and an alternative to hierarchical, target-driven reform.
2. School networks vary in size, spread, purpose and form.
3. The evidence base on the outcomes of school networks is limited. Many studies rely on self-report at the early stages of partnership development. Assessing the impact of innovation at cluster level is methodologically complex. Few larger and longer studies connect processes of inter-school collaboration with pupil outcomes.
4. Partnership or collaborative competence is a key attribute for school leaders. Key challenges in brokering inter-school collaboration include relationship building, peer accountability, and achieving coherence across multiple streams.

Facilitators to cluster-based improvement in South East Wales

5. Collaboration is enhanced where schools have previous experience of working together and can draw on existing network relationships.

6. Cluster working that is inclusive of all sectors, especially settings outside mainstream education, can reduce fragmentation in service provision.

7. Devolution of responsibility and resources to clusters supports school-led decision-making that is responsive to local priorities and contextual conditions.

8. The establishment of clear protocols, roles and responsibilities, with attached funding streams, supports effective cluster administration.

9. The formation of cluster goals involves partners agreeing on common targets that reflect that schools are at different stages in the improvement journey.

Challenges to cluster-based improvement in South East Wales

10. Inter-school collaboration demands skills in collaborative competence that cannot be assumed among the education workforce.

11. Heterogeneous clusters need to invest time in identifying and articulating common interests and priorities.

12. Opportunities for joint working are restricted where high quality replacement teaching is limited or costs exceed the available resource.

13. School leaders contend with multiple accountabilities that can be seen as judgemental rather than developmental.

14. Assessment of impact requires careful consideration of appropriate timescales and measures.

Benefits of cluster working, 2017-18

15. Some clusters have engaged in joint practice development to improve experiences of transition and are developing common school policies.

16. Cluster working is supporting the development of a collaborative culture across institutional and stage boundaries.

17. Cross-phase cluster working is promoting collective responsibility for outcomes by focusing attention on the progression of learning.

18. Distributed leadership of cluster activity can provide rich professional development opportunities that support professional renewal and the development of adaptive expertise.

19. Close cluster working has provided opportunities for enhanced peer support and reciprocal learning among senior colleagues at different stages of headship.

Recommendations

Across the twenty-three schools and education settings that participated in this study, school leaders offered unanimous support for the continuation and development of the cluster model. This report has a formative purpose. The following recommendations are offered to improve the impact of cluster working.

Recommendations for schools

1. Reflect on the extent of shared governance within clusters and at governor level, and consider what additional measures (or structures) of support may help promote and/or sustain such collaboration.

2. Extend participation opportunities for leadership of learning across the wider school community and use cluster activity to build teacher leadership capacity, including skills of systematic evaluation.

3. Ensure that cluster activity enables joint practice development i.e. collaboration that supports co-construction between schools of better professional practice.
4. Where appropriate, consider the formal involvement of young people as leaders, co-enquirers and consultees, and the value of investigating pupil experience of transition within cluster self-evaluation plans.

Recommendations for the middle tier - regional consortium and local authorities

5. Sustain and extend funding to allow school clusters to mature and plan more effectively.
6. Continue to support the development of collaborative leadership capacity through the provision of rich professional learning opportunities and coordinated cross-network activity.
7. Extend collaboration to include work on the collaborative development of accountability processes premised on principles of co-production and professional accountability.
8. Review strategies to build evaluation capacity among the wider school workforce and consider a theory of change approach to connect processes of change with outcomes.
9. Agree a realistic timeframe for assessments of short, medium and longer-term impact, which are subject to regular review and adjustment as necessary. Continue to promote the use of a range of measures of valued activity, and support schools in articulating what matters most.
10. Enhance the visibility of cluster working and promote inter-cluster dialogue. Review strategies for communication and knowledge sharing. Assess and potentially scale-up promising approaches by including attention to transferability.
11. Engage in robust longitudinal evaluation of the processes, impact and sustainability of cluster working across the EAS region.

Recommendations for the Welsh Government

12. Harness the potential of collaborative working to support engagement with the new school curriculum and professional learning framework. The cluster model has the potential to build collective capacity for reform at a time of significant educational change.
13. Strengthen the capacity of regional consortia to broker school-to-school collaboration.
14. Make optimal use of external expertise in supporting school-led improvement activity to ensure that informed local experimentation builds cumulative capacity.

1 Introduction

1.1 Purpose and objectives

In February 2018, a research team from Manchester Metropolitan University was commissioned to evaluate the development of cluster-based school improvement in South East Wales. This report presents findings and recommendations emerging from a review of the first year of the cluster-based improvement model. Specific reference is made to the views, experiences and observations of school leaders engaged in leading cluster work streams in South East Wales. The report addresses five key evaluation questions:

- What are the key drivers toward cluster and network based approaches to school improvement?
- How do clusters and networks of schools deliver improvement in the highest performing systems?
- What are the facilitators and barriers to cluster-based improvement in schools in the region?
- What benefits have been delivered by the move toward cluster-based approaches in the last year?
- How can Welsh Government, EAS, Local Authorities and schools improve the impact of cluster-based working?

In addition to reporting the findings of primary research, the report draws on a review of relevant literature on the attributes of effective cluster and network-based approaches to school improvement. This review locates the EAS initiative within the wider evidence base on effective practice. Analysis of primary and secondary sources supports the formation of recommendations for future action to realise the full potential of the model.

1.2 National context

In 2014, the Welsh Government invited the Organisation for Economic Co-operation and Development (OECD) to conduct a review of the quality and equity of the Welsh school system. *Improving Schools in Wales* (OECD, 2014) identified a number of strengths and challenges: (1) a comprehensive school system with below-OECD average student performance; (2) an inclusive school system which needs to better address students' learning needs; (3) positive school climate with varying workforce quality; and, (4) increased focus on evaluation and assessment that lacks synergy between arrangements. The report recommended the development of a Welsh strategy for school-to-school collaboration, led from the middle (regional consortia and local authorities), and integrated with other continuous professional development strategies.

Subsequently, *Qualified for Life* (WG, 2015a) set out the strategic objective of building a system of self-improving schools by enhancing the collaborative capacity of professionals. The Welsh Government is actively promoting the idea of 'schools as learning organisations' (WG, 2017:12) that support 'collaborative working and collective learning' (OECD, 2016: 4). *Education in Wales: Our National Mission (*WG, 2017) outlines an ambitious programme of reform that includes: the new school curriculum (Donaldson, 2015); new assessment and evaluation framework; new professional standards for teaching and leadership; strengthened programmes for professional preparation (Furlong, 2015) and leadership development. Across these strands of activity, the Welsh Government has recognised a need to: (1) link professional and organisational learning; and (2) develop collaborative leadership of learning at all levels of the system.

In contrast to hierarchical top-down approaches to system improvement, the 'Welsh model' is premised on an education community that works cooperatively. The National Model for Regional Working (Welsh Government, 2015b) reflects a shared endeavour between schools, their leaders and governors, local authorities, diocesan authorities, regional consortia and the Welsh Government. The Learning Network and Pioneer Schools further exemplify a commitment to networked learning. It is within this context that the regional consortium for South East Wales initiated the development of a cluster-based model of school improvement.

1.3 Regional context

The Education Achievement Service (EAS) is the regional school improvement consortium formed by the five local authorities of Blaenau Gwent, Caerphilly, Monmouthshire, Newport and Torfaen. In 2018, the EAS supports 240 maintained schools with 71,234 pupils, 19% of all school age pupils in Wales. Schools in the region serve communities with comparatively greater levels of social deprivation. The region had a higher proportion of schools within the *Schools Challenge Cymru* programme (2013-17). The region has the second highest level of eligibility for Free Schools Meals (18.5%) of the four regional consortia in Wales (EAS, 2018).

In May 2017, the EAS introduced a cluster-based model of school improvement. Cluster-based working aims to strengthen current efforts to develop a more socially inclusive curriculum for Wales (Donaldson, 2015) and identify more effective models for the professional development of the teacher workforce (Furlong, 2015). The school-cluster model is intended to become the 'anchor' for professional practice and capacity building. School clusters occupy an important strategic role in the regional approach to delivering a Self-Improving System.

The regional definition of a self-improving system is one in which:

- ***Resources*** *shift from the centre to the system, from the EAS to schools, so that schools have the time, money and people in place to support their own improvement in other schools.*
- ***Activities*** *shift from central locations to schools*
- ***Responsibilities and Accountability*** *shift from the centre to the place where improvement is happening, so that schools share accountability for improvement of schools* (EAS, 2017:14)

In August 2018, there were 35 clusters across the five Local Authorities (see Appendix 1).

Cluster Improvement Plans were directed to address the following priorities:

- Improving leadership, teaching and learning to secure sustained improvement in outcomes for learners (in literacy/ Welsh / English and numeracy / mathematics) at least in line or above the rate of progress in Wales.
- Increasing the pace of improvement for groups of learners across the region, particularly those eligible for Free School Meals and more able learners across the key stages, particularly in key stage 4.
- Improving regional capacity to implement a self-improving system.

Individual Cluster Improvement Plans were submitted for review by the Headteacher Strategy Group and each Local Authority Director in April 2017. Funding was transferred in May 2017 (£20k per cluster). Progress was evaluated and reported in periodic FADE reports i.e. **F**ocus of Evaluation, **A**nalysis, what to **D**evelop/Do, **E**valuation) submitted by each cluster in December 2017 and March 2018.

2 Review of Literature

Key points summary

- Inter-school collaboration is widely promoted as a catalyst for system improvement.
- Networks vary in size, spread, purpose and form; the rationale for cluster-based school improvement may be pedagogic, economic, administrative and political.
- The evidence base on the outcomes of school networks operating in diverse contexts is limited. There are few studies that assess the impact of inter-school collaboration on pupil outcomes.
- Partnership or collaborative competence is a key attribute for school leaders.
- Key challenges in brokering inter-school collaboration include relationship building, peer accountability, and achieving coherence across multiple streams.

2.1 Definition, purpose & form

School networks are variously described within the literature as 'alliances, coalitions, collaborations/collaborative, clusters, consortia, development groups, families, partnerships, federations, groupings, territories, trusts, and zones' (Lima, 2010, p. 3). Schools collaborate for a multitude of reasons, over different periods of time, with contrasting levels of intensity and varying degrees of success in terms of impact and sustainability (Armstrong, 2015). Hadfield et al. (2006) define networking in education as 'groups or systems of interconnected people and organisations (including schools) whose aims and purposes include the improvement of learning and aspects of well-being known to affect learning' (p. 1). In short, the aim of inter-school collaboration can be defined as 'pooling resources, expertise and effort to achieve more together than can be done alone' (Jopling and Spender 2005, p.20). A 'partnership dividend' (Kendall et al., 2005) is most evident in clusters of schools that demonstrate and sustain high levels of engagement.

> *Clusters are a grouping of schools with a relatively stable and long-term commitment to share some resources and decision making about an area of school activity. The arrangements are likely to involve a degree of formality such as regular meetings to plan and monitor this activity and some loss of autonomy through the need for negotiated decision making (Lunt 1994, p.17)*

> *Networks are purposeful social entities characterised by a commitment to quality, rigour, and a focus on outcomes. They are also an effective means of supporting innovation in times of change. In education, networks promote the dissemination of good practice, enhance the professional development of teachers, support capacity building in schools, mediate between centralised and decentralised structures, and assist in the process of re-structuring and re-culturing educational organisations and systems (Hopkins 2003, p.154).*

Networks take a variety of forms. Partnerships can be informal or underpinned by a formal legal structure e.g. federations, trust schools and academy chains. Network size varies. Collaborations can range from two schools to 75 schools, with most involving between two and eight partner schools (Atkinson et al., 2007). Some reports suggest the quality of the collaboration between local clusters is more likely to be associated with effectiveness than size, scale and geographical spread (CUREE, 2005). Others emphasis the advantages of geographic proximity in building and sustaining strong local collaboration (HoC, 2013).

Administrative

Development of structures to handle network development from within schools and through regional support;

Identification & development of school personnel (individuals or teams) that can focus and give direction to specific targets;

Acting as a focal point for communication and local decision making;

Providing a framework for enhanced self-evaluation.

Pedagogic

Encouraging teacher development and reducing professional isolation;

Promoting curriculum co-development;

Providing an environment for innovation;

Encouraging co-operation and mutual support;

Better integration of provision across phases;

Integration of school with non-formal education;

Focus on raising standards by developing the quality of learning and the effectiveness of teaching.

Political

Raising consciousness about the causes of educational inequity and of the actions that can be taken by individuals and communities;

Increased community participation in local education decision making;

Reduced regional and social inequalities.

Economic

Sharing of facilities;

Sharing personnel;

Access to new funding streams;

Targetting resources to local priorities;

Economies of scale e.g. joint professional development;

Fostering community financial support;

Developing network links outside school sector: third sector, private sector.

(Adapted from Bray 1987, p.9)

Figure 1. Purposes of school cluster schemes

2.2 Policy convergence

There is international convergence on the desirability of school clusters or networks as an instrument of school reform. For more than a decade, academic and policy literature has positioned inter-school collaboration as a catalyst for system improvement, a strategy to address place-based inequities, and an alternative to hierarchical, target-driven reform (Ainscow, 2015; Chapman, 2008; Trotman, 2009; Wohlstetter et al., 2013). Local lateral collaboration is viewed as more responsive to specific contexts than generic top-down strategies. Cross-school initiatives are seen as possessing greater potential for system improvement than single school innovation (Muijs, 2015).

The use of inter-school collaboration accelerated from the mid-1980s in North America (Fullan, 1991; Lieberman and McLaughlin 1992; Wohlstetter et al., 2003) and the United Kingdom (Hargreaves, 2003; Hopkins, 2005). Cross-school collaboration built on initiatives to promote school-based management. The development of devolved and connected public bodies is part of a putative move towards 'network governance' (Ehren and Godfrey, 2017) that is associated with the

promotion of 'democratic localism' (Hodgson and Spours, 2012). Such moves are positioned as an alternative to market governance and competition-based approaches to service improvement in the public sector. The fullest expression of these ideas entails a move from 'national professionalism' (Whitty, 2014) or 'prescribed professionalism' (Evans 2008) – controlled by government - towards a reinvigorated 'democratic' or 'collaborative professionalism' (Sachs, 2003; Whitty and Wisby, 2006; Whitty, 2012).

> *Attainment target setting, auditing for standards, competition between schools and close performance monitoring can only go so far in raising attainment and collaborative school-to-school networks represent the vehicle for the next phase of school improvement (Kubrak and Bertram, 2010, p.33)*

Inter-school collaboration has been pursued as a reform strategy in a diverse range of geo-political contexts. In Europe, collaboration between schools has been promoted in Belgium (Feys and Deos, 2014), the Netherlands (Pijl & Vann De Bos, 2010; Hofman & Dijkstra, 2010), Spain (Diaz-Gibson et al., 2016; Azorín & Muijs, 2017) and Malta (Bezzina, 2006; Cutajar & Bezzina, 2013).

In England, school-to-school collaboration has been promoted over a twenty year period through a range of initiatives including Education Action Zones (1998), Excellence in Cities (1999), Beacon Schools (1998-2005), Specialist Schools (2001-2010), Creative Partnerships (2008-11), Networked Learning Communities (2000-2006), Leading Edge Partnerships (2003), the Federations programme (2003-07), and City Challenge (2008). More recently, inter-school collaboration has been advanced through the creation of Multi-Academy Trusts (MATs), Teaching School Alliances (2011-) and the Research Schools Network (2017-). In addition to government sponsored programmes a range of local grassroots networks have promoted professional enquiry, notably through school-university partnerships e.g. High Reliability Schools, Improving the Quality of Education for All (IQEA), and the School-University Partnership for Educational Research (SUPER) at the University of Cambridge Faculty of Education. A network approach to school improvement was pursued in Scotland through the Schools of Ambition programme and the School Improvement Partnership Programme (Menter et al., 2010; Chapman et al., 2015). In the USA, inter-school collaboration has a long history that embraces the progressive Coalition of Essential Schools (1984-2017) and the conservative reform of public schools in the charter school movement (1992-).

Figure 2. Global spread of school-to-school collaboration

Australia, Austria
Belgium, Bolivia, Burma
Cambodia, Canada, Colombia, Croatia, Cyprus
Ecuador, England, Estonia
Finland
Georgia, Guatemala, Greece
Honduras
Iceland, India, Indonesia, Ireland, Italy
Latvia
Malaysia, Maldives, Malta
Namibia, Netherlands, Norway
New Zealand, Nicaragua, Nigeria
Panama, Papua New Guinea, Peru, Philippines, Poland, Portugal
Scotland, Serbia, Singapore, Slovakia, Slovenia, South Africa, Spain, Sri Lanka, Sweden, Switzerland
Thailand
United States
Wales
Zimbabwe

(Bray 1987, Giordano 2008, European Commission 2017)

Figure 3. Guiding principles for policy development on the use of networks in school systems

GOAL-SETTING AND SHARED GOALS
- **A shared vision** is needed to inspire the cooperation of different actors, in the interest of school development. Clear shared goals should be defined in the **first stage** in network development, in order to engage the appropriate actors in an appropriate structure. Goals may be **redefined** as the network evolves.

AUTONOMY, ACCOUNTABILITY & FLEXIBILITY
- Attention should be paid to the **decision-making** capacity of different actors and their sense of agency and responsibility. **Flexibility** within policies may encourage increased activity. **Self-assessment** may help identify or **motivate** new network actors; help existing members identify their own needs; and contribute to network development with an increased sense of **ownership**.

MOTIVATION & BENEFITS
- **An open and supportive environment** supports inter-school and inter-professional **exchanges.** The interests of different actors should be balanced within and between different system levels, as friction and competition between schools or other actors can undermine the **cohesiveness** of networks. It is important to demonstrate that the inputs (in time or resources) are proportionate to the outputs.

ROLES
- Cooperation between teachers as key actors should be supported by: a) providing **time** for dedicated activities, b) assuring **recognition**; c) giving them a **voice**, and d) assuring a climate of **trust**. Actors should be aware of their role as networking activity may be **different to their daily professional tasks**. Effective **distribution of leadership** is particularly important.

CAPACITY BUILDING
- Teacher **collaborative competence** should be developed through ITE and CPD. There should be both **horizontal and vertical cooperation,** taking care not to **overload** particular actors. **Mediators** between network points may need specific support.

CROSS SECTORAL WORKING
- Action should identify **points of shared interest** and **align policy development cycles** of different areas. Evidence-based policymaking and practice requires **connections** with and between **teacher-led experimentation**, and **expert pedagogical research**.

NETWORK DEVELOPMENT
- Networks should be **flexible**. They may be **temporary** or **longer term,** and may exist as an **initial phase** in establishing and embedding a **culture** of collaboration. They may also make **lasting connections** of which project activity may be one part; **guided by the actors**. Managing or acting within networks can inform decisions about **distribution of resources**.

IMPACT, QUALITY ASSURANCE & EVIDENCE
- **Monitoring** and **evaluation** is central to understanding the effectiveness of networks and **self-reflection** is key to ongoing development. Network developers should consider how progress and outcomes will be **measured**, define key **indicators**, and to decide **how and by whom** they will be measured. **Appropriate data** generated by networks should be taken into account at local and national levels of decision-making.

(European Commission, 2017, p.6)

2.3 Knowledge base

While inter-school collaboration is widely supported, the evidence base on the outcomes of school networks operating in diverse contexts is mixed (Hadfield *et al.,* 2006; West, 2010; Lomos *et al*., 2011). Chapman (2008) argues **'**despite much optimism, confidence and commitment in the concept of networking and networks the evidence to support a move towards this way of working remains inconclusive' (p.405). Critics point to a lack of conceptual clarity in defining cluster goals and a policy orientation that is often normative rather than analytical. Lima (2010, p.3) suggests, 'the term "network'' is used normatively to advocate what organizations must become, rather than to describe what they are'.

> *Despite their growing prevalence, networks have become popular mainly because of faith and fads, rather than solid evidence on their benefits or rigorous analyses of their characteristics, substance and form … scholarly writing on educational networks has tended to focus almost exclusively on how good networks are and how much more we need to invest in them. However, there is nothing inherently positive or negative about a network: it can be flexible and organic, or rigid and bureaucratic; it can be liberating and empowering, or stifling and inhibiting; it can be democratic, but it may also be dominated by particular interests (Lima, 2010, p. 2).*

Within the school improvement and teacher development literatures, an uncritical approach towards collaboration is sometimes evident. Collaboration across organisational, sectoral and professional boundaries is often presented as unproblematic and sufficient. However, network creation in itself does not produce change in school culture and practices, or promote transformational professional learning (Wohlstetter et al. 2003; Bullock and Muschamp, 2004). Harris and Muijs (2005, p.2) caution policy actors not to assume that, 'teachers automatically possess the will, skill and ability to work in this way'. Collaborative competence is a professional attribute that can be learned.

> *Collaboration is unlikely to be a panacea for improvement, and conditions and strategies will need to be in place for it to be successful. (Muijs, 2016, p.565)*

> *Whilst collaboration has by tacit consensus come to be regarded as 'a good thing', professional knowledge around processes and theories of change agency in collaborative practice have often been peripheral concerns to those involved in the development of both school-to-school networks and inter-professional communities. (Trotman, 2009, p.342)*

Hargreaves (2010, p.15) identifies three key features of 'partnership competence' that are required of school leaders engaged in multi-school collaboratives:
- *Co-ordination*: building consensus on partnership goals, ways of working, roles and responsibilities;
- *Communication*: being open and honest, sharing information fully and with accuracy and in a timely way;
- *Bonding*: creating trust and ensuring that people get pleasure from working together.

There is a high degree of consensus within the literature on the importance of relationship building to establish shared goals, promote participation and sustain activity over time. The exercise of differential levels of power within networks is less well addressed (Moore and Kelly 2009; Katz and Earl, 2010). Failure to consider positionality, relational dynamics and the micro-politics of inter-school collaboration can inhibit progress. Trotman (2009, p.352) notes, 'network participants are

often unprepared for, and are then frustrated by, group tensions resulting from an inattention to group processes'.

A key area of omission within the literature is the paucity of empirical studies that assess the impact of inter-school collaboration on pupil outcomes. Systematic research to investigate collective efficacy has not progressed at the same pace as policy innovation. The absence of longitudinal designs means that much of the literature is confined to 'start up' stories and early stage process evaluations. While impact assessment is methodologically complex, the absence of robust data of effectiveness will concern policy actors concerned with public accountability.

> *Despite policies promoting partnership and networking and the theoretical support for engaging in school-to-school collaboration, the impact of these arrangements on student outcomes has not been subject to much rigorous study, and the overall evidence of the impact of networking and collaboration on pupil outcomes is limited … in many cases the lack of a firm link between studies of processes of collaboration and studies of outcomes of collaboration mean that these findings have to be seen as tentative. (Muijs 2015, p.565)*

In addition to the academic literature, the knowledge base on school-to-school collaboration is complemented by a range of evaluative studies on the numerous UK policy initiatives aimed at stimulating such collaboration within school systems. Government-funded evaluations provide additional insights into the realities and results of school-to-school collaboration initiatives. Commissioned evaluations have focused on collaboratives of varied size and purpose, and include collaborations among disadvantaged inner-city schools, among special schools, between independent and state schools, and between higher education institutions and schools.

Together, the reports indicate that common facilitators of cluster-based improvement include:

- A strongly shared sense of common purpose, including a collectively set vision and specific objectives (Rae et al., 2013; Hill et al., 2012)
- Alignment of organisational goals with a focus on improving pupil outcomes (Briggs et al., 2007)
- Mutual trust, collegiality, and openness among partners in the collaboration (Smith et al., 2012; Menter et al., 2010)
- Effective leadership, characterised by a strong sense of commitment to collegiality, schools' autonomy, and participatory/democratic facilitation (Dunford & Hill, 2011; Ofsted, 2011)
- Pooling of knowledge and a diversity of expertise (CUREE, 2006)
- Plans through which all partners benefit, or improve, though not necessarily in the same ways (Turner, 2004)
- Schools at similar stages of their improvement journey, although schools of very different nature may successfully collaborate (Turner, 2004)
- A history of collaboration among partners (Atkinson et al., 2007)
- Geographic proximity - partners located near each other had more opportunities for sharing and collaboration than those more remotely located from each other (House of Commons Education Committee, 2013)
- Mutual understanding of, and a familiarity with, partner organisations (Briggs et al., 2007; Estyn 2015)
- Adequate funding/resources (Menter et al., 2010)

2.4 Challenges of partnership development

The literature identifies a number of challenges to be negotiated by school leaders and external bodies brokering school-to-school collaboration.

- **Development of peer accountability for collective responsibility** (Ehren & Godfrey 2017; Smith et al., 2012; Keddie, 2015)

- **Development of network leadership capacity** to empower professional collaboration (Diaz-Gibson et al., 2017; Briggs et al. 2007; Jopling and Spender, 2005; Townsend, 2015)

- **Perceived power imbalances** between and among schools (Lindsay et al., 2007). Avoidance of a deficit model of partnership by overtly partnering 'weak' and 'high performing' schools (Allen, 2007).

- The possibility of **threats to school autonomy** resulting from collaborative work (Chapman et al., 2009) and difficulties in establishing shared objectives and common goals (Woods et al., 2010)

- **Climate of competition** and need to compete for students (Keddie, 2015; Townsend, 2013), although others argue that the conflict around collaboration and competition may be largely 'creative tensions' (House of Commons Committee on Education, 2013).

- **Awareness of diversity within clusters** and that different forms of support are effective in schools at different stages in their improvement journey (Hutchings et al., 2010)

- **Achieving coherence while responding to multiple and sometimes competing agenda** (Aiston et al., 2002; Evans & Stone-Johnson, 2010)

- **Generation of focused and measurable outcomes for specific target groups** (CUREE, 2005, Estyn 2015)

- **Prioritising relationship building**, especially at the early stage of partnership development (Hadfield, 2007; Diaz-Gibson et al., 2017; NfER, 2014); although one study (Lawrence, 2007) highlights evidence that the 'trust-building stage' is not always necessary due to the presence of a commonly shared professional ethos.

- **Protecting time** to build collaborative relationships and programmes of improvement (Menter et al., 2010; Katz and Earl, 2010; Hutchings et al, 2012).

- **Consideration of additional workload** associated with the collaborative activity (Aiston, 2002)

- **Building capacity for self-evaluation** of complex local initiatives (Chapman et al. 2015). There is a lack of widespread robust evaluation and an over-reliance on self-reported, perceptual data (Bourne, 2017; NfER, 2014; Hopkins, 2009)

- **Embedding evidence-based teacher enquiry and joint practice development** as part of school-to-school improvement (Gu et al., 2014; Hill et al, 2008; Menter et al., 2010)

- **Realistic timeframe for achieving outcomes**, particularly positive impact on student outcomes (Hutchings et al., 2010; Chapman et al., 2011; Greaves et al., 2014)

- The often **contingent nature of funding** for collaborative work and the issues when funding for the collaborative activity ceases (Woods et al., 2006)

3 Research methodology

This section of the report outlines the research design, sample selection, data sources and analysis strategy.

3.1 Sample selection of school clusters

At the start of the cluster initiative in 2017, there were 238 schools grouped in 34 school clusters across South East Wales. To select a sample representative of the diversity of schools' contexts and experiences, the research team selected a sample of three schools (one secondary and two primaries) from seven mainstream school clusters, or a total of 21 schools. The study sample also included three schools drawn from the newly-formed cluster of special schools and three organisations from the recently established cluster of Pupil Referral Units (PRUs). Special school and PRUs, which are located across the five Local Authorities (LAs), were included for consistency and brought the total number of school organisations included in the study to 27.[1] Leaders within these schools and PRUs were targeted for participation along with the EAS Challenge Advisers within each cluster, which totalled five due to some advisers being involved in more than one cluster.

The selection of schools was based on the following criteria:

- **Geographical spread** – Local Authority, urban/town, village/rural
- **Cluster Size** – number of schools in the cluster
- **School type & size** – primary, secondary, special, Pupil Referral Unit (PRU), Welsh medium
- **Pupil Demographics** – measured by percentage of pupils eligible for free schools meals, ethnic diversity (including additional language learners), and catchment area description
- **Change focus** – Priorities for development identified in Cluster Improvement and FADE plans
- **School engagement in Learning Networks or Pioneer Schools Programme**
- **School Performance** – measured by pupil outcomes and Estyn assessment.

Sample selection involved five stages. First, fifteen categories of school-level data on the region's 238 schools were collated from EAS school data, cluster FADE reports and Estyn reports. Second, data in each cluster was reviewed and synthesized to form a succinct 'snapshot' profile of each school cluster. Third, the number of clusters per local authority (LA) was determined based upon the proportion of schools in the LA and the time and resources allocated for the evaluation. Finally, from the snapshot profiles, nine clusters across the five LAs were selected for participation in the evaluation, including a cluster of special schools and PRUs, to ensure the diversity as well as representativeness of the sample.

3.1.1 Geography, cluster size and school characteristics

The school sample represents a wide geographical spread, from each local authority and in locations ranging from urban to smaller towns to rural areas. The schools represent both the primary and secondary phase, as well as mainstream and special schools, including 3 Welsh-medium language schools (see Table 1 and Table 2). Among the sample, cluster size ranged from relatively small (5

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[1] Originally, an additional cluster in Caerphilly – including 3 schools – was selected for inclusion. However, due to recent changes in leadership and structure within the cluster's secondary school, it was decided based on a recommendation from the EAS not to include the cluster in the evaluation.

schools) to relatively large (12 schools), with five clusters containing between 5-7 schools and three clusters containing 8 to 12 schools. The size of the secondary school in each cluster also shows a representative variation. Two secondary schools have a smaller pupil population of approximately 700 or fewer pupils, while the others range between approximately 1,000 to 1,500 pupils, with the exception of one that is rather large at over 2,000 pupils.

Table 1. Summary of school types selected for inclusion

Institutional type	No. selected for inclusion
Primary	14 (2 Welsh Medium)
Secondary	7 (1 Welsh Medium)
Special	3
PRU	3

Table 2. Summary of schools selected for inclusion by Local Authority

Local Authority (No. of clusters, schools)	Regional Percentage of schools (out of 238 in total)	No. of clusters selected for inclusion	No. of schools selected for inclusion
Blaenau Gwent (4, 27)	11.3%	1	3
Caerphilly (10, 86)	36.1%	2[2]	6
Monmouthshire (4, 33)	13.9%	1	3
Newport (9, 56)	23.5%	2	6
Torfaen (6, 31)	13%	1	3
Special Schools (1, 5)	2.1%	1	3
PRUs	NA	1	3
Total No.:	-	**9**	**27**

3.1.2 Student demographics

Among the secondary schools of each cluster, the percentage of pupils eligible for free school meals ranged from a low of 5.2% to 27.3%, with the average across the special schools being 36%. The Welsh national average of pupils on free school meals in secondary schools was 17.4% in 2017, and across the clusters selected, three fall below that average and five exceed that average. In terms of ethnic diversity, a majority of the selected schools have pupil populations that are predominantly white British, reflecting the overall low percentage of black, ethnic, or minority (BME) communities in Wales. However, across the three selected clusters containing a degree of diversity (meaning at

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[2] Given the relatively large percentage (36.1%) of the total schools located in Caerphilly, a third cluster from Caerphilly was originally selected to be included in the study. However, the additional cluster was subsequently removed from the study due to recent changes in leadership and structure within the cluster's secondary school.

least 10% of the student body is BME or has English as a second language) five schools were selected to be part of the sample.

3.1.3 School performance

The use of performance data in this evaluation should be approached with caution. It is important to note that the available performance data *pre-dated* the cluster model. The purpose of including performance measures was to ensure a mixture of schools were selected that represented the different circumstances across clusters. Figures 4 and 5 show the spread of pupil attainment patterns among sample and non-sample schools. Primary attainment refers to Key Stage Two results for 2016/17. Secondary attainment refers to Key Stage Four results, 2017. In addition, the latest Estyn reports for sample schools, their categories of support and FADE progress status were also reviewed to provide contextual information. Estyn reports vary in how far they pre-date the cluster initiative and reflect the current standing of each school.

A longer-term study would be beneficial in order to understand more fully the impact of the cluster interventions initiated in 2017. A longer evaluation would analyse pupil attainment and demographic trend data and compare this with trends prior to the intervention. A trend analysis (see Figure 4) would be underpinned with further qualitative interviews with a selection of schools across the clusters.

Figure 4. Longitudinal trend analysis

- Pupil outcomes datasets: access to a number of years of real time attainment data (at pupil- and school-level) to track progress post cluster implementation
- Interrogation of cluster aims (where these are in relation to specific types of attainment) in relation to attainment data for target groups – establishing connections between processes & outcomes
- Comparison of cluster performance judgement against attainment progress
- Comparison of comprehensive attainment data from the year(s) previous to cluster implementation with post-implementation data
- Review of pupil demography in relation to attainment and to cluster progress
- Review of school inspection outcomes in relation to attainment and to cluster progress

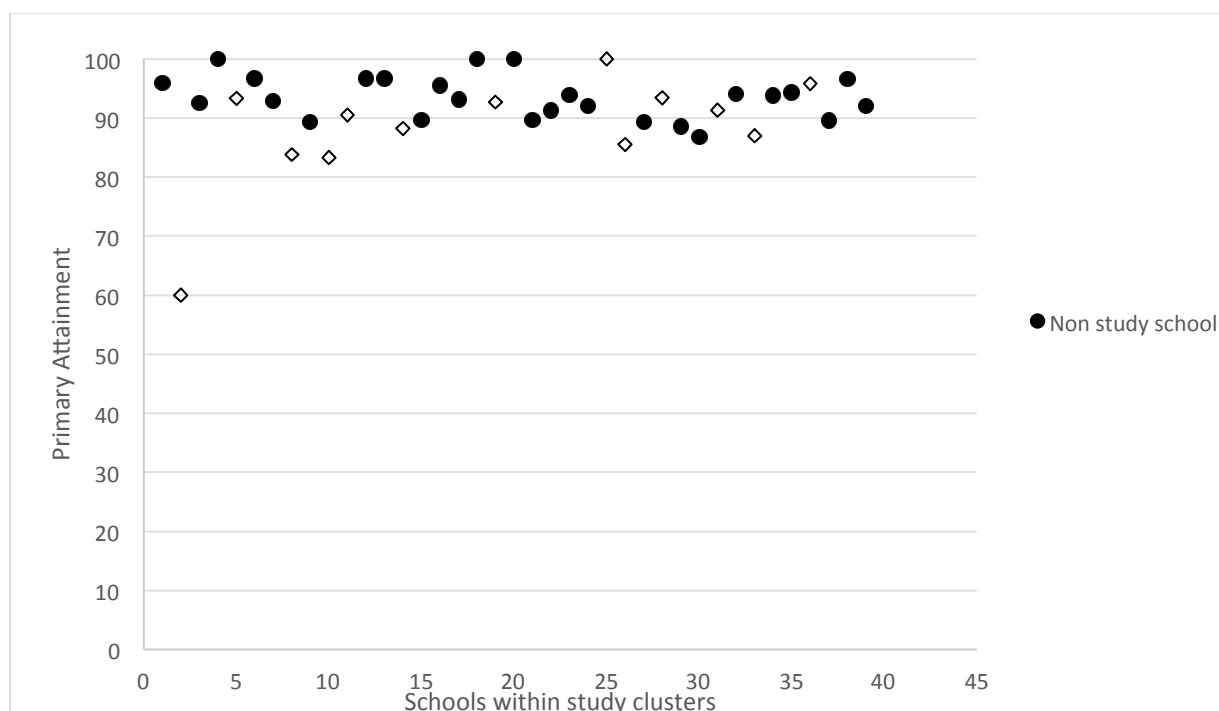*Figure 5. Primary attainment among selected clusters KS2 2016/17*

Figure 6. Secondary attainment among selected clusters, KS4 2017
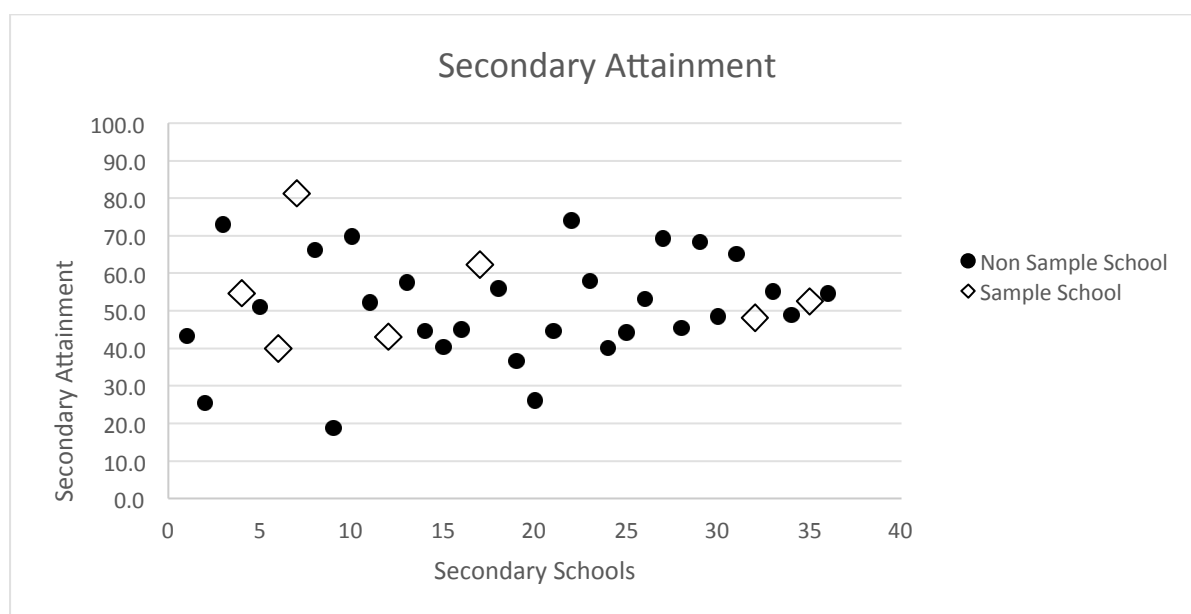
3.1.4 Cluster goals and other networked activities

The school sample is diverse in nature. The cluster plans represent a wide range of improvement goals and development plans (see Appendix 4). The goals among the clusters selected included, for example, the development of curriculum and teaching standards in literacy, the development of pupils' entrepreneurial thinking and skills, the cultivation of students' writing skills from Year 2 to Year 9 with particular focus on increasing boys' engagement, and the development a Maths Programme to raise pupil achievement in numeracy. The school clusters selected also show a range

of involvement in other networked initiatives with five selected schools across four clusters involved in the Pioneering Schools Network. In addition, nearly all clusters are involved in the Learning Network Schools (LNS) with six selected schools across five clusters designated as LNS.

3.2 Cluster lead interviews

Irrespective of cluster size, three schools (the cluster's secondary school and two primaries in mainstream clusters) within each cluster were selected to be approached for interviews along with the EAS Challenge Adviser (CA) within each cluster. The two primaries were selected based on their contrasting characteristics - in regard to FSM rates, performance rating, and/or size - in order to capture the views and experiences of different types of schools within the cluster itself.

3.2.1 Data collection

The research team initially contacted and requested an interview with 32 prospective participants (27 school leaders and 5 CA) via email on 26 March 2018. Prospective participants were those with direct experience of leading or supporting the development of cluster-based working from 2017 (i.e., school leaders and Challenge Advisers). A plain language Participant Information sheet describing the aims of the study, and what to expect, and a consent form were shared with all those invited to take part.

During the three-month data collection period (April-June 2018), the strategy employed by the research team to maximise interview responses was multi-stepped. The initial invitation was followed by a further email request and telephone contact. Additional support was provided by EAS personnel, who encouraged school leaders and CAs to participate.

A total of 23 school leaders and 5 Challenge Advisers across the selected school clusters participated in a semi-structured telephone interview of between 30 and 60 minutes duration by late June 2018. This represents a response rate of 87.5%, with 28 of 32 potential interviewees taking part in the study. Permission for audio recording was sought and obtained from all interviewees. The interviews were semi-structured (see Topic Guide, Appendix 3) and covered:

- The focus for improvement
- Collaboration – processes and activities
- Assessing and reporting progress
- Impact and sustainability
- Lessons learned

3.2.2 Data analysis

Transcription of digital audio files were completed using professional transcription services and analysed with NVivo software for qualitative data analysis. To preserve anonymity, findings are reported thematically. A code and sector descriptor are used to show the range speakers. Verbatim transcripts were checked for accuracy against audio files and imported into NVivo. Sets were created for school clusters and Challenge Advisers, and for school type. Nodes were generated using topic guide questions (see Appendix 3) informed by engagement with the research literature and guided by research questions 3 & 4 (p.4). The first stage of the analysis involved 'broad brush' coding (Bazeley, 2007:67) of interviewees' responses to the semi-structured interview questions.

Annotations and memos were used to facilitate deeper reflection on cases and emergent issues. The second stage of the analysis involved grouping nodes within node trees (developing a node hierarchy). This process enabled more finely grained coding of responses and clarified the relationship between nodes. Careful comparisons were conducted within each cluster, and then across school clusters, and by stage and sector. Text queries and node reports were used to test ideas, relationships and the density of response. Cross reference was made to the collated contextual data on each school (see 3.1 above). Two researchers were involved in transcript analysis. Team meetings were convened to discuss and agree the code frame, and to support inter-coder consistency.

4 Findings

This section of the report draws on transcript analysis to address the *facilitators* and *barriers* to cluster-based improvement in schools in the region, and the *benefits* that have been delivered by the move toward cluster-based approaches in the last year, 2017-18.

4.1 Facilitators

> **Key points summary**
>
> - *A shared interest and sustained commitment to cluster working:* the development of joint work relies on a strong sense of common interest.
> - *Previous history of collaboration*: Participating schools typically have a history of collaboration spanning, on average, between four and six years. The EAS resource enabled schools to consolidate and deepen collaborative activity with an explicit focus on pedagogy, curriculum and assessment.
> - *Recognition:* The cluster initiative provided support and recognition for education settings that fall outside mainstream education e.g. special schools and PRUs. Cluster activity provided a heightened sense of solidarity and mutual support not previously experienced.
> - *School-led decision-making*: Cluster collaboration is school-led and responsive to local priorities. Local discretion affords opportunities for creativity. External Advisers can deepen enquiries and prevent insular benchmarking.
> - *Shared governance*: Trust and mutual respect are key requirements for effective lateral governance.
> - *Equitable distribution of resources*: funding follows specific school-level responsibilities or pupil headcount.
> - *Sensitivity to inter-school diversity:* effective collaboration recognises the strengths of each collaborating institution and agrees the achievement of challenging cluster targets at different rates.

4.1.1 A shared interest and sustained commitment to cluster working

Many interviewees highlighted the need for a common purpose to cluster work that addressed at least some of the priorities and interests of all the schools in the cluster. Working with schools across different clusters, Challenge Advisers (CAs) offered their view as to the essential ingredient in effective cluster work.

> *I think the lesson is a clear focus within the cluster because each cluster is different whether it's in terms of social deprivation, or the ability of pupils. A clear agreed focus is the main driver, along with the level of engagement. It is all about the individual pupils – their skills development – and developing the teachers' skills, being able to deliver pace and challenge. (CA 700)*

> *I think it's got to be around a common interest. People buy in when they think there's going to be some kind of benefit. When they're really busy they switch off because there's not going to be a benefit and it slips down the priority list… so there's got be that belief that this is going to add genuine value. (CA 300)*

Similarly, a secondary head teacher emphasised the need for school leaders to commit to a long-term vision for the cluster. A longitudinal approach was seen as essential for meaningful cluster work.

> *One of the things that is really important within a cluster is that you are really clear on, 'this is just the starting point of something huge that will have an impact everywhere if we all work together and it's done well' – rather than something small on the periphery that might be a nice little project for the next year. It might have an impact on some pupils at this point, but a few years down the line, when you look back, it wasn't a long-term difference. (Secondary headteacher, 710)*

Others within the same cluster voiced the obvious but critically important idea that to maximize the impact of cluster work, school leaders must be committed to working 'collaboratively' as a team.

> *You have to have a willingness within the cluster to work together. It's not a case of them and us. We're all there for the same thing really, aren't we? So it's about having the willingness to collaborate and work together and to challenge each other. We're not 'yes' people. So it's about being critical in the right way and challenging, and seeing how we can support each other. (Primary headteacher, 722)*

> *The enthusiasm from individuals [is important for effective cluster work]. So the willingness of people to engage, and the willingness of people to get together and share things. Some are better than others at doing that. (Primary headteacher, 721)*

One Challenge Adviser highlighted a need for all schools to be invested in the cluster for meaningful collaboration to occur.

> *Cluster work doesn't work well when you've got five or six schools and only three are engaged. I think we still have clusters that just don't work. You know, for whatever reason, whether it's to do with personality, it's difficult to say. If the schools have got different profiles and they don't connect with each other, it's very hard. (CA, 300)*

4.1.2 Previous history of collaboration

The development of cluster working in 2017-18 was supported by previous experience of inter-school collaboration sustained over time. All seven clusters in the study sample, not including the newly formed clusters of special schools and PRUs, were established before the EAS initiative and have a history of between four and fifteen years of collaboration. Most of the EAS school clusters are loosely organised around networks of schools with existing transition connections. Typically, primary schools are grouped with the high school to which the highest number of pupils transfer at the end of Year 6. In many cases the local authority recognises the group of schools as an existing cluster. In addition, EAS school clusters are nested within the wider networks to which schools in the region belong. Three clusters within the sample benefit from one or more of their schools being a Curriculum Pioneer School.

During the first year of the cluster model, the clusters remained stable with some small changes e.g. one school came into the cluster as a result of shifting transition patterns in the locality, a newly created school joined another cluster. One of the clusters was established on a more secure footing in a formal alliance.

The distinctive nature of the EAS clusters is the explicit focus on issues of pedagogy, curriculum and assessment, and the development of joint work. Traditionally, the schools collaborated informally on pastoral matters and transition. In contrast, the EAS initiative supported the schools to work together on a more formal basis and to deepen the focus of their activities.

> *We have been involved in cluster work before, but not to the scale that we're working on now… We hadn't really built the solid relationships between the schools, and certainly no teaching and learning work [in prior cluster work]. It was a lot more about the actual transition of pupils from one school to the other rather than actually building on pedagogy and some of the things we've been working on this year. So, I would say [our past cluster work] was very underdeveloped. (Secondary leader, 510)*

The availability of cluster funding gave participant schools an opportunity to consolidate and extend shared projects in areas of mutual concern.

- One cluster had initiated a project focused on More Able and Talented students (MATs) in advance of EAS cluster funding. This project was in its second year: year one supported Year 6 pupils attending the high school, and year two supported a high school teacher to attend Year 2 classes at a linked primary.
- School leaders in another cluster reported that schools had been working on the Rights Respecting Schools agenda for seven years and took the cluster initiative as an opportunity for all the schools to work towards a Rights Respecting School Award.
- Another cluster was using cluster funds to support the continued development of plans for cross-phase work in science. The EAS funding enabled sustained collaboration (planning and assessment activities) between Year 6 teachers and the Key Stage 3 coordinator.
- One cluster had developed an initiative to develop Year 6 pupils' entrepreneurial skills in which students develop a product, marketing strategy, and advertising campaign. Products are then sold at a sale held within children's individual primary schools as well as at a joint-sale held at the secondary school. The initiative, which continued to feature in their cluster plan, has been running annually for the past four years and involves business and the wider community in sharing their expertise with students as well as their active involvement in the sale that showcases students' work.

Due to a history of ongoing collaboration, one cluster had a 'general' cluster plan that was broader than the one specifically developed for the EAS initiative. The 'general' cluster plan was described as 'the one we do every year regardless of the funding' and complemented the EAS plan which included 'others things that we do that are specific to our strategic plans' (Primary headteacher, 721).

In contrast, the absence of a shared history and experience of cluster collaboration was an issue raised in the PRU cluster interviews. As a new cluster, leaders of the PRU cluster reflected that they found their expectations and plans for their cluster somewhat unrealistic.

> *It would have helped, maybe, to have a little bit more advice on how to plan as a cluster. I think we were a little bit naive initially and I think going forward, this next year we would have learnt some lessons from last year about being a little more realistic. So possibly a bit more on how you do plan as a cluster having never done it before with a sizeable pot of money. (PRU leader, 901)*

4.1.3 Recognition of status: special schools & pupil referral units

The special schools (one in each of the five local authorities within the EAS region) were proactive, self-formed into a cluster, and then sought EAS recognition and support. In advance of the cluster initiative, the schools collaborated through a special schools forum. The special school cluster is not geographic or aligned with historic patterns of transition, but represents the particular interests of the sector. The schools are not in competition with one another and the cluster connects with special schools in other regional consortia in Wales. This cluster works across professional boundaries, linking with a range of services e.g. nursing, occupational health, speech therapy. Some pupils have life limiting conditions. Cluster formation supports strategic partnership work between schools and with Additional Learning Needs (ALN) and health managers.

> *The dynamics of the schools mean that we don't have similar backgrounds or issues. Our relationship with each other is based on practice around how to achieve the best outcomes of pupils in special schools. There's no competition between any of the schools. (Special school, 802*)

Cluster concerns include budgetary issues (numbers, trends, opportunities and threats), professional development and moderation of standards across the sector.

> *We looked at how we could compare pupil progress and attainment. Standards in a special school are more difficult because there's not necessarily national attainment data. We don't get family schools data. So we looked together at our assessment processes: how could we share our recording data and the comparisons we could use across our setting? (Special school, 810)*

A cluster moderation group was established to better meet the particular needs of the sector, to which a Challenge Adviser was invited. Children attending special schools do not necessarily fit the age-related model of linear progress that underpins mainstream cluster moderation. Value added measures were oriented to the particular needs of the sector.

> *The amount of comparative attainment and achievement data generated for mainstream pupils is significant whereas the comparative data for special schools is less robust and less significant. Data takes less of a front seat in terms of determining the direction of travel. You don't tend to use comparative data as a starting point because your populations maybe be markedly different. (Special school, 802)*

> *Our value added is going to be more limited in terms of pupil attainment. We look at things that are more qualitative. How many pupils on the Thrive approach have improved in terms of their behaviour plans? Are there fewer or shorter incidents? Instead of throwing furniture, they are now stomping their feet. We've got to look at the level of emotional outbursts, or the frequency or duration of them. What impact has the intervention had on teachers' confidence and capacity to support pupils with challenging behaviour? (Special school, 801)*

Like the Special Schools, Pupil Referral Units (PRUs) came together to create their own cluster. PRUs were not included in the formation of school clusters in years prior. Consequently, PRUs advocated for their involvement and were subsequently added to school clusters in their locality 'a few years ago', according to an interviewee. However, PRUs were not quite full members within their

affiliated school cluster as PRUs were not allocated funding or given a particular role in cluster plans. This changed in 2017 when the EAS formally recognised PRUs as a designated cluster, a development that was well-received among PRU leaders.

> *It was quite a breakthrough actually when the clusters were formed… It's good really because we are now being recognised as a cluster, and we are funded as such. It's taken a long time to get to that point so when you talk about collaborative working, we are really in very early days. (PRU leader, 901)*

Once formed, the PRU cluster developed their cluster plan through discussion and sharing of individual priorities. They came to agreement on improving their provision and pupil outcomes, with particular attention to attendance tracking and Year 11 outcomes. The collaborative cluster work provided PRUs with a sense of solidarity and mutual support they had not previously experienced.

> *The collaboration, the working together, and the problem solving as a team… It's really nice to feel part of a team. PRUs can be [left] on our own and a bit of a Cinderella service, you know. It's nice to feel part of a group, part of a team. (PRU leader, 901)*

Still, due to the small size of PRUs and their dispersal over a large geographic area, finding the time and the staff capacity to support each other was a particular challenge. Local mainstream school clusters continued to offer important network opportunities.

> *I also sit with my own cluster in [the local authority]. I think that's really important. I value that and I would be very sad to not be part of that cluster [even] though I don't get any funding from that cluster. But I get to be involved and up-to-speed with everything that they're doing. I just piggyback basically because there's a lot of really good stuff going on. (PRU leader, 901)*

4.1.4 School-led decision making

One primary headteacher interpreted the cluster scheme as a way of maintaining a degree of autonomy from external intervention in the context of strong central concern with school policy. Schools leaders felt able to exercise a degree of local control over the details of the improvement focus and cluster operation. For headteachers, exercising local determination of priorities was of strategic importance. Selecting areas of focus involved local deliberation e.g. agreeing a working definition of More Able and Talented (MAT) and critical scrutiny of data to establish baseline positions and progress (e.g. an audit of MAT interventions using the NACE framework). While working within clear national and regional policy frameworks, participating schools experienced collaboration as creative rather than prescriptive. This sense of ownership was regarded as a facilitator.

> *If it's done by an outside party or it's done because there is an identified priority at another level, be it regional or national, which is just given to schools to write – 'This is what it is, you've got to work on'- that's not likely to be successful at all. There's always going to be a tension there. (Primary headteacher, 121)*

Another headteacher echoed this sentiment and expressed appreciation for the degree of local discretion afforded in the cluster model.

> *I think it's helpful if an organisation - whether it's initially come from the EAS or the local authority or whoever – lets the cluster come up and agree and decide their own*

priorities. I think it's important that the cluster did that for themselves and not somebody above saying, 'you must do this,' or 'you must do that.' It just makes everybody a little bit more involved. (Secondary school leader, 710)

At the same time, in a cluster that worked through their different needs to find common ground, the encouragement from external body was helpful in spurring on collaboration in a particular direction.

In the past schools have been so fixed on their own outcomes and their own role in it [that] it needed someone to step in and broker that first step into cluster working [and] actually being more around leadership and management of teaching and learning skills. So, I think being almost forced down that route, for want of a better description, initially by the region, was the first step into a brave new world but of course [schools] very, very quickly realised the massive benefits in doing that. (Challenge Adviser, 700)

Similarly, a secondary school leader in the cluster felt the involvement of an external adviser supported the pace and sustainability of cluster working.

In some ways, I like the fact that there's an overarching body that [is] helping push or develop it [cluster work]… I'm not 100 percent certain at this point that it would be completely self-sustaining or run completely independent. I would worry that the pace would slow and possibly one or two factions may become more disengaged. So, I think it helps having somebody slightly above [the cluster] say, 'ok, where are you with that?' I think, actually, that's helpful even though you shouldn't have to. (Secondary school leader, 710)

Local leaders negotiated the change focus and emphasised the importance of context when interpreting performance data. School performance data over three years is colour coded red, amber or green to indicate the level of support needed (reflecting the national school categorisation system). School clusters were encouraged to use this data as a starting point for deliberation on the focus for priority change projects. In formulating cluster plans school leaders used a range of sources (quantitative and qualitative) to identify shared priorities and to establish indicators of progress e.g. Cognitive Abilities Test (CAT) data, teacher assessments. This was subject to discussion and a degree of re-orientation. Leaders were able to align with external agendas and also identify local priorities (and bespoke interventions) that were not visible in performance data but were valued, particularly in Welsh medium schools.

We basically sit around the table and look at the priorities for the forthcoming year, the needs of our schools, and we battle it around the table. The priorities, we then put into our plan. Obviously, the EAS priorities roll down into this as well and they guide us. So we look at the priorities of the school, the priorities that are hitting us in the area, the needs for individuals and that's all set into our plan. We look at it carefully to see who's able to support who and we work on school-to-school support with the EAS. That has had a massive impact on teaching and learning as a whole. (Head of Welsh-medium primary school, 321)

As a result, goal setting felt like a 'local decision'. Several leaders acknowledged the limitations of raw data and the importance of context.

Raw data doesn't actually give you a good picture of what's going on inside the school. It just gives you lots of questions and direction. Two of our schools host a

> *Special Needs Resource Base. We needed to go and pick a little bit more into the*
> *data and then we made our decisions from there. (Primary headteacher, 122)*

Collaboration was not contained within clusters. External support was sought in areas where additional expertise was needed. For example, one primary headteacher reflected on the use of an external training consultancy (Impact Wales) as bringing in a new perspective and preventing group think or insular benchmarking.

> *If you don't have the expertise about the subject at the start and you don't go*
> *outside, you're just moving the same sort of adequate practice throughout the*
> *cluster. I think it's good to go outside, if nothing else to do an audit of what you*
> *think is excellent against what other people think is excellent. (Primary*
> *headteacher, 422)*

4.1.5 Shared governance

Most school leaders described the clusters in terms of lateral rather than hierarchal governance. Cluster leads include experienced, acting and recently appointed headteachers. The espousal of shared leadership was associated with high levels of trust and mutual respect, and was more common among schools with the same support rating. Some leaders described the clusters as operating on a hub and spoke model, with the secondary schools occupying a key connecting role, not least because of their role in coordinating transition activities.

> *You need a really strong transitional lead from the secondary because they have the*
> *responsibility to pull all the primaries together. Everyone is very busy and they have*
> *their own agendas, so it's the responsibility of the secondary to pull the group together*
> *and drive the issues that are going to affect the whole cluster. (Secondary school*
> *leader, 610)*

> *In fairness, the main lead has been taken by the secondary school, by the assistant*
> *head there. S/he's been responsible for writing and organising transition events and*
> *things like that. So I would have to say s/he's the main leader in the general cluster*
> *plan, but the other [parts of the] cluster plan, we take it in turns. (Primary headteacher,*
> *721)*

In these cases, the leadership of the secondary was seen as practical and not necessarily antithetical to shared governance.

> *It was decided quite early on that I was going to manage the plan in my role as*
> *assistant head in the comprehensive school, mainly because the plan involved a*
> *number of different departments in my school. So, a number of different staff from my*
> *school would be managing it, [and] from the primary schools it would often be the*
> *same member of staff... So, in order to coordinate that internally here, I needed to take*
> *a lead role. It made sense to put it as a standing agenda item on the headship meeting,*
> *which I attend. And then it was agreed that the head in [a particular] primary would*
> *feed in anything to the cluster plan that was regarding transition. (Secondary school*
> *leader, 510)*

Where changes in leadership had occurred, the role of the secondary headteacher in leading change with the same degree of commitment as primary colleagues was regarded as important. The cluster

plan was useful in ensuring consistency of focus across changes in leadership. Cluster leadership was stable in most clusters, supported also by a history of previous school-to-school collaboration.

> *The success or failure of cross-phase work is very much dependent on the desire of the secondary headteacher to really get it going. The primaries have always worked closely but this is about the cluster. Some have been a bit passive. The head's not engaged and they send reps who don't have the power to make decisions. (Primary headteacher, 422)*

A few primary heads gave some indication of secondary school headteachers taking a lead in some areas of the governance of the cluster, but this was interpreted in different ways depending on the cluster. In one cluster, the leading role taken up by the secondary was not experienced as 'strong arm' tactics (121). Decision making was described as 'consensual' and based on a model of 'shared governance' (121, 122).

In another cluster, the dominant role assumed by the secondary was less consensual and more self-appointed.

> *The secondary school is the key driver in the way that cluster works [and] probably set the big agenda. That's just the impression I get from talking to their head. They are quite proactive, [and] I think they see it as, in a way, very much to their own advantage because… it makes sense for the children to be more familiar with their secondary school, understand systems, feel a part of it before they arrive. So there is a conscious effort by the school [and] I would say they see themselves as the leads in the cluster. (Challenge Adviser, 300)*

Confirming the CA's observation, the strong role of the secondary was not always welcomed among the primaries.

> *The headteacher of the secondary school is very, very strong [and] knows where [s/he] wants to take things. So, when [the head] does meetings, there's a very strong influence and, even though we are able to put our point across, I think decisions are sometimes made before we actually sit around the table… The only thing I'd like to change within the cluster is perhaps [have] the secondary school come to the meetings with an open mind and that they haven't already made their decisions before sitting around the table. I think that's quite an important thing because, as primary schools, we make decisions together [whereas] the secondary school makes decisions over the primary schools quite often. (Primary headteacher, 321)*

In other clusters, the issue of potential power imbalances was addressed directly. Secondary headteachers are not necessarily the Chair of the cluster committees, and this was regarded as important by one secondary and one primary headteacher in different clusters. In such clusters, it was agreed to rotate the chair position year-on-year.

> *In terms of how the cluster is managed and organised, every meeting is led by a different head. There's six of us, we have six meetings across the year, and we share it because we feel that's much fairer. We don't have one cluster lead. We have distributed ownership of our cluster meetings, so when it's our meetings we host. We do all the paperwork, we do all the prep. work, we do all the follow-up work. But we're all only hosting once a year. (Primary headteacher, 521)*

We take it in turns to chair and minute it [the cluster]. We do a year each – we pass it around and that person will be responsible for chairing the meetings, minuting, disseminating the paperwork and taking the lead on any bids for grants. (Primary headteacher, 721)

Shared governance is not unproblematic in contexts of high accountability. Several interviewees drew attention to the micro-politics of leading cluster activity.

They tend to name the cluster after the secondary school. No, we're the cluster for the community. I've made a point not to chair this group. It's not a power thing with the secondary school having the power. It's a shared power base. I think that's very important. (Secondary school leader, 410)

There may be a head teacher or school that will lead a certain element or will say, 'yes okay. We have more skill in this area in our school, so we'll support with that'. But it's always a joint discussion. So there isn't hierarchy where someone, one school is taking control of things. No, not at all. I think it's very shared and decided well between each other. (Primary headteacher, 221)

4.1.6 Equitable distribution of resources

Cluster plans specified lead personnel to take responsibility for specific aspects of the plan. Roles and responsibilities were agreed at cluster meetings. In general, it was reported that funding was allocated on an equitable basis within clusters. However, there were two distinct interpretations as to what equitable allocation of resources looked like. For some clusters, funding was distributed either according to school-level responsibilities or pupil headcount. In this approach, cluster heads felt that allocation of funding in relation to the size of schools and the number of schools in a cluster was more equitable than equal allocations across clusters, as had initially been the case.

However, the alternative approach to equitable resource allocation was based upon schools' staff release needs, which was seen as essentially the same across the cluster. Thus, these clusters divided funds equally between schools irrespective of differences in size and context.

We decided that most of the work was the same regardless of the size of the school. It was about releasing the staff. So actually, it didn't matter if you had a school of 200 or 300 children or 500 children. If you were going to have to release your Year 6 teacher, for example, to write some materials, the cost was the same to every school. So, because of the nature of the plan this year, that's why we decided to apportion the money equally. (Primary headteacher, 521)

For the first plan, it was just agreed that we would split everything equally between the schools because, although we're a bigger school, we are still only releasing one member of staff for a particular piece of work. So, it was just agreed that we would split everything equally between the schools. (Secondary leader, 510)

We just split it evenly. Sometimes, we would split it according to the size of the school but with this particular bit of money, everybody needed the training so it was split evenly. (Primary headteacher, 721)

Still, within most clusters, schools leading particular activities received funds earmarked to support the activities they were leading. This was open to amendment if plans changed or evolved, as illustrated below.

> *Actually, what's happened over the year is quite a natural divide between the cluster plan and transition, which wasn't there before. Whereas any of the four cluster workings was [originally] wrapped up in transition, actually the two things are quite separate and they are now separate in our processes and systems and [at] the primary school as well. So that's happened naturally as the plans developed. (Secondary headteacher, 510)*

In one cluster, some tension was noted by a secondary headteacher who felt the funding scheme may be skewed towards the larger number of partner primary schools. In the same cluster, a primary school headteacher highlighted tension in deliberation on equitable funding across schools of different size.

> *It can feel that, if you are not careful, more money goes to the primary schools as opposed to the secondary schools. So, you do need to make sure the funding mechanisms don't advantage or disadvantage any phase within education. (Secondary headteacher, 410)*

> *We're all different schools of different sizes so there can be a feeling of inequality. We've got a village school in our cluster and some very large schools. It's trying to give equity in terms of access to the funding and how it impacts across the schools. That can sometimes be a challenge. (Primary headteacher, 421)*

4.1.7 Sensitivity to inter-school diversity and context

Commitment to cluster activity was strengthened where each school saw mutual benefit in working together and executing the cluster plan. Cluster leads identified where individual schools possessed strengths and how diversity in the cluster could support the progression of key areas among all schools at different rates. Interviewees reported awareness of the need to accommodate a different pace of change in different settings. Effective collaboration involved allowing partners time to progress at an appropriate pace while monitoring progress and maintaining challenge.

> *When you're trying to get cluster schools working together there will be different aspects that we'll want to work on at different points in time. We're not all at the same place. One school may have majored a little bit more on one strand. It may have been a stronger aspect in their improvement this year. When we come back from these meetings, we reflect on where we are in terms of what everybody else is doing. This school is slightly further down the road with that, a couple of schools are playing catch up. I'm not being judgemental but it will vary from strand to strand. We know we're not all advancing together in unison. There's always a little surge in one area and another may be pulling back a little bit for different reasons. It's not completely smooth. If progress is going to happen then, at the outset, the identification of areas to improve has to be based on genuine need. (Primary headteacher, 121)*

Most clusters took time to establish shared priorities and acknowledged different starting points towards the achievement of common goals. This was evident when interviewees articulated a range of targets that accommodated different rates of progress.

We're working on the Rights Respecting Schools agenda. One school's already at Level 2 standard, which is Gold standard re-accreditation. Other schools have met the recognition of commitment, which is Bronze award, and other schools are working toward the level one awards. We're all on the same path towards the same goal, but at our own pace because the priorities of the individual schools are slightly different. (Primary headteacher, 122)

Financial incentives were critical in securing high levels of engagement. Attention was often given to the budgetary contexts in which certain schools within clusters were operating. School leaders often acknowledged the additional ease or pressure on particular schools in terms of school budgets, which were often reflective of the level of affluence or deprivation among the pupil population.

The big issue for [the secondary in the cluster] is money. They are in a huge deficit and my understanding from the head is that the local authority is sympathetic, but the school has an enormous deficit. So, the temptation for the headteacher in that context is to take any additional money and just prop up the budget, but that hasn't happened. The school has gone through phase after phase of restructuring, redundancies, voluntary redundancy, and it's just going through another one now. So, it's difficult. That's partly what I mean by capacity… The impact of the budget is going to be on time and capacity to work and hire effectively. (Challenge Adviser, 500)

Some schools do struggle with release time or resourcing or buying training because their school budget is very, very tight… I wouldn't say this applies necessarily for my school because we have high free school meal percentage of pupils and we have a significant amount of funding put into the school. But I know that for some of my cluster colleagues – where their budget is very tight – it can be difficult to do additional work. Budget restraints in some schools makes work difficult for people. (Primary headteacher, 221)

The secondary school is in a slightly better position in terms of financing because obviously, we've got a bigger budget to work with in the first place. That was just discussed and agreed, I think quite amicably, among all the heads of the senior team of all the schools [in regard to the allocation of resources for cluster activities]. (Secondary leader, 710)

While pursuing projects at different pace among diverse settings, the national policy context was providing a common rationale and focus.

At the beginning, it seemed very daunting to develop a cluster plan that everybody could work towards. We were all at different points in our development. But we're at a point now where the new curriculum for Wales, the changes in education to support the transition to key stage 3 and 4, has really focused us. (Primary headteacher, 122)

4.2 Challenges

Key points summary

- *Uneven partnership development:* collaborative leadership capacity is important in supporting multi-school collaboration across settings with diverse needs.
- *Diversity within the cluster:* heterogeneous clusters need to invest time in identifying and articulating common interests and priorities, and how to pursue those in a way that would be mutually beneficial to all partners given current reform pressures.
- *Accessing resources:* managing school budgets and forward planning is problematic when bidding for multiple grants and drawing down funds retrospectively; access to high quality replacement teaching is an additional challenge in some contexts.
- *Demands of accountability:* reporting tools are largely regarded as serving short-term evaluative goals rather than developmental purposes. There is a need to develop greater capacity for robust evaluation, in terms of planning and developing appropriate tools and measures, among school leaders and the teacher workforce.

4.2.1 Uneven partnership development: decision making inequity

Devolving decision making to a local level does not, in itself, ensure that decision-making is more participatory. Collaborative leadership capacity cannot be assumed. One primary headteacher suggested that the planning process was not as inclusive as might have been the case. The qualities of strong leadership at individual school level require development for multiple school collaboration.

> *A couple of people got together, wrote the plan and then implemented it. That's where some parts fell down. Relationship building is key, ensuring you've all got that shared vision. I'm glad that everybody's meeting tomorrow to talk about the cluster plan and that we're all together feeding into that rather than somebody saying, 'oh, a couple of us will get together and write it' because that feels like you are just trying to complete a task, rather than think strategically. Sometimes you have to invest the time in order to get the best value. (Primary headteacher, 421)*

In contrast, other clusters described a participatory approach that was highly valued. In this case, collaborative leadership was evident through equal engagement and transparent decision-making.

> *We actually started at ground zero if you like. We took evidence from each of our settings. The development of our cluster priorities came from the bottom up rather than the top down and it seemed very organic. It evolved naturally. It just seemed a natural process. (Special School, 803)*

4.2.2 Diversity within the cluster

Diversity within the cluster was raised as an issue in setting improvement targets. Schools within clusters were at different stages in their improvement journey, and secondary schools are grouped with a number of primary schools. Aligning the work of the two phases of education was noted by one interviewee as a key challenge within cluster work.

There's still a lot of work to be done, but it's about shared pedagogy, shared values, shared understanding. I think that's a lot easier for the primaries because we have that shared understanding, shared values, shared approach. The secondary school have a different agenda in terms of how they teach and, for example, the fact that children are in subject [classes] from year 7… They have 25 lessons a week, 50 lessons a fortnight, a very timetabled approach. It's quite a different model, so that's the challenge. They are two different beasts, primary and secondary education. So, I think the more work we do and the more we understand about each other, the better it is for the children. (Primary headteacher, 521)

Deliberation on baseline indicators involves comparison. Primary schools with higher support needs were sensitive to expectations of comparable progress within delineated periods. In these circumstances, alignment of goals raised issues of organisational comparability, local autonomy, and control.

It's sometimes difficult for me to find schools to work with that have a similar context to my own. Other schools have very small free school meals percentage and very high outcomes. I do feel our school stands alone compared to other schools in the local authority and definitely within the cluster. I have to help people understand that I have different challenges when creating a cluster plan. I need to be able to make sure changes have a good impact on what's happening in my school, too. Sometimes I have to fight to get that idea across. (Primary headteacher, 421)

The school had been a red category, the highest level of possible support with unfortunate Estyn outcomes and Estyn follow up. So, this school perhaps didn't have a lot to bring to the table. There were tensions around everyone else being in a good place and this school not being in a great place. From a power position, the cluster was relatively unbalanced. That could have been difficult. It was a situation where they were helping, rather than a collaboration of mutual benefit. (Special School, 802)

Mismatched priorities can be a source of tension. For example, one secondary school had a focus on literacy skills that did not necessarily align with the priorities of the cluster primaries.

It's always difficult because we've got five main cluster primaries feeding into the secondary school. Some of them are very similar, some of them are quite different. They are all at different places in terms of their own journey to becoming successful schools. They've all got their own priorities and specific things to work to under the Estyn framework. For example, the secondary schools are very much driven to focus on outcomes at the end of the GCSEs. The biggest blocker in my secondary school is pupils' literacy skills. We could do something substantial with that, we would be performing so much better. It's probably the number one agenda for me. But I would imagine if you're a headteacher in primary, and as far as you're concerned everything is coming along nicely, it might not be at the forefront of your agenda. That's where it's difficult, where it can get a bit tricky. (Secondary headteacher, 710)

In such cases, headteachers reported making compromises and being flexible to address common areas of concern within the cluster.

We discussed how to use the equity grant this year. We discussed the needs in our schools and explored a few possibilities around the table. I wanted to do one aspect,

somebody wanted to do something different. But we all agreed that we wanted to follow the Thrive programme and have one person from each school trained on that. It is quite difficult for all of us to agree that we have similar interests sometimes. We managed to do writing one year and then this year we've decided to do Thrive, but then we're all going to do our own thing with emotional literacy as well. (Primary headteacher, 721)

Mutual understanding of different settings supported progress. For example, a headteacher of a secondary school with 'a truly comprehensive intake' was sensitive to context by offering a higher level of outreach and support work to primary schools in the locality with a less advantaged pupil population. In this way, cluster working appears to have deepened understanding of inter-school needs.

4.2.3 Resource constraints

School leaders valued the provision of additional resource to support cluster activity. Difficulties were expressed about the funding mechanism, juggling multiple income streams, the impact of this on longer-term planning, and, in a minority of cases, the management of funds between partner schools. Schools used their core budget to advance cluster work and then claimed funds from the EAS. The retrospective claiming of funds was deemed problematic in times of budget constraint. Planning was a challenge given the expanding range of income streams that headteachers needed to navigate. School leaders reported bidding for multiple grants and difficulties in forward planning and budgeting when managing income from diverse sources.

The funding is a nightmare. It's really difficult to track down how it comes in and where it goes. It's not clear. We spend most of our time trying to work out where the pot of money has gone and how to collect it. So we've done the activity but then we're playing catch up. Schools waste time searching for who's holding on to what particular pot of money. (Special School, 802)

A similar situation occurred in the PRU cluster. In this case, it was decided to route the funding to a particular PRU which was the only PRU that was also a registered school and thus could carry over funding from one period to the next – something typical PRUs could not do. However, that decision proved problematic as funds were not easily distributed to cluster members in a timely manner.

We decided that one institution would be allocated all the cluster funding money and then depending on which aspect of the plan we were each undertaking, we would draw down that money from the one central pot. It's not worked particularly well to be perfectly honest. I think we'll probably change that in the next cluster plan. (PRU leader, 901)

Funding for cluster priorities came from a variety of sources that supplemented core EAS cluster funds. One cluster reported securing additional funds for wellbeing and using Looked After Children (LAC) funds to develop the cluster approach to emotional literacy.

We're looking for grants here, there and everywhere to be able to put in place the cluster work that we'd like. We've been lucky over these last few rounds. We're hoping that we can bag some more grants for wellbeing, LAC and PDG work. (Primary headteacher, 622)

Applying for supplemental funds was regarded as challenging, especially for smaller settings outside mainstream schooling.

It was a year and a half ago, or two years ago, when EAS first changed how the money would go out to schools and it would go to clusters and it's about bids. When you have to put bids in, there is a capacity issue when you're a small school with a very big internal agenda. If you haven't got someone or time to do bids there is a risk that you'll lose out… Unlike big secondary schools where they might have business managers, a large senior team, special schools and most definitely PRUs don't have that capacity. (PRU, 902)

The costs of release time for teachers to collaborate was identified as a significant expenditure, and possible barrier, to inter-school collaboration. Cluster curriculum work was often completed after school in twilight meetings to ameliorate this problem. In addition, the opportunity costs of releasing teachers from classes was a concern, particularly in the context of the availability of high-quality supply staff. This was reported as particularly acute in the secondary and Welsh medium sectors.

I think general funding is potentially holding back development. Releasing staff is incredibly important because there is no such thing as a decent supply teacher anymore, you know? There are just not enough teachers at the moment. It's a real concern. (Secondary headteacher, 410)

The secondary has some really good teachers but their supply pool is poor. They don't want to see a dip while those teachers are out. That's quite a general problem in secondaries across many authorities. (Primary headteacher, 422)

Our grant funding is getting cut, and cut, and cut. There's never enough money to do everything. (Primary headteacher, 421)

Many schools are always saying they don't have enough money, not enough people to release, not enough time to release people and money helps with that because it buys a bit of time. (Challenge Adviser, 300)

We're all in a situation where cuts in funding, whether grant funding or delegated budgets, make it more difficult to release staff. You want to release the better staff because they are going to be your key drivers in [cluster work] and they are going to become your role models for the rest of your staff in each school. The concern always is that if they are not in front of the GCSE class, or the Year 6 class, then the quality of the teaching and therefore the progress can be hindered. (Challenge Adviser, 700)

The challenge of finding suitable supply teachers to enable the release of staff for cluster work was perhaps most acute in the context of the Welsh-medium cluster, where the pool of qualified, Welsh-speaking supply teachers is limited and demand for school-to-school support is high.

As heads, we're expected to put applications in for projects and to release staff to go out and support other schools. We do find that difficult because we need to find cover and there is a massive shortfall with regards to Welsh medium teachers… A lot of heads are having difficulty finding quality teachers to put in place of experienced teachers and obviously, we want the best for the children, and we've got to hit targets with the EAS. It's a challenge because we don't have the Welsh resources. It's not just our county, it's across the country. (Headteacher in a Welsh-medium primary school, 321)

The only challenges really would be releasing teachers because we've built up this good relationship, every school is very welcoming. When I went last year to a primary school, I had a fantastic experience observing lessons. That kind of thing is really important for us

and especially with our vision for [the cluster]. Progression from primary to secondary is really key to our success. So, we collaborate and work together as much as we can. (Headteacher in Welsh-medium secondary school, 310)

Across the sample of schools, it was agreed that effective cluster working would be difficult to sustain as an approach in principle if the dedicated funding ended. Most respondents suggested that the extent of collaboration would be severely curtailed in the absence of resources for staff release.

The funding has been the key driver… I'm going to be really, really frank – Without money, it's not going to work because schools are so poor in [this local authority] at the moment in terms of how they're funded, that we can only do these things if they're funded. So that's what the cluster plan has done, it's brought funding, which has been absolute paramount. (Primary headteacher, 521)

Despite these challenges, many schools were looking to the future and considering how to embed and develop existing partnership work and generate new areas of activity. Many school leaders indicated that they were committed and keen to continue their inter-school collaborations. Not all forms of collaborative activity are resource intensive.

Obviously, any funding makes working with other schools easier with regards to covering, training, etc. But, actually, lots of levels of cluster work involve no funding. For example, if it's a twilight session where staff work together after school – there's no cost implications to that. Me attending meetings with the cluster heads, no cost implications to that for me. If heads have teaching commitments, then maybe. But generally, I would say there aren't cost implications for a big part of cluster work. It's when you're covering teachers and training teachers that there are funding issues. (Primary headteacher, 221)

4.2.4 Demands of accountability: reflections on FADE

A range of opinions were expressed about the FADE reporting process (Focus, Analysis, Development and Evaluation). Four school leaders expressed concern about the frequency and volume of reporting in different formats. The cluster FADE process among these leaders was deemed 'extra paperwork' (610, 310), a 'paper exercise' (902), 'not a good use of leaders' time' (801), or simply unnecessary.

It hasn't added to anything we're doing because we've got that regular spot where we discuss it every half term. We're already reporting back every half term. (Secondary headteacher, 510)

It was suggested that in the case of small grants the costs of convening meetings with school leaders to work on reporting exceeded the size of the grant income (801). There was consensus that the FADE tool was largely used for evaluative rather than developmental purposes: 'they are an informative tool for the EAS and a self-evaluation tool for the schools' (621). The purpose was regarded as 'verification' for the EAS (801, 803). Heads were aware of the paradox of using the tool for ex post facto accountability purposes: 'it becomes a thing you do after the learning, rather than as part of it' (802).

One headteacher felt the reporting process was burdensome in addition to the many other evaluation activities demanded of schools that are increasingly dependent on grant income through multiple funding streams e.g. education improvement grant, pupil development grant (410).

How many masters do I have? I have the regional consortium. I have the local authority. I have Estyn. I have my governing body. I can't do without my non-core income. If I tell you now my non-core income for last year was £320 thousand. Over £300 thousand I receive in grants of some kind, all of which I have to evaluate and fill in forms for. It's not easy to plan financially (Secondary headteacher, 410)

A number of headteachers were decidedly neutral on the FADE process, seeing it at times as extra work but to some extent useful.

The FADE is okay. It's one method. I know the EAS are very keen on this stage of documentation. So, I think it's fine. I think it's just a way of evaluating good progress so it's appropriate. (Secondary headteacher, 710)

I never want to fill in paperwork particularly, but it's fairly simple to fill in so, yes, it's okay. (Primary headteacher, 721)

You know, it's a record of what we've done. It shows that we're addressing all the needs and the targets that have been set. It puts us in good stead because we know where we need to go next with our plan. Although we might moan about it, following a discussion with the other heads all the information is there and typed up and shared when we get back to school on email. (Primary headteacher, 321)

Two primary headteachers raised the issue of over reporting (422, 622) and called for a streamlined approach to planning. Impact assessment was described as 'rigorous' to the point of being unsustainable (622).

We've reduced how we moderate learners' work regarding our cluster sub-plan directives several times throughout the year and we're reducing that because that is hard to sustain. (Primary headteacher, 622)

We seem to have plans for plans for plans. Our cluster plan feeds into our school's development plan and if you are a school that's graded as red or amber, you'll have a support plan as well, which is written by your EAS Challenge Adviser. I would like a more streamlined approach to planning. You're just working on too many plans and won't get anywhere. If clusters worked together closely to think about all our development needs and common goals, then the cluster plan should naturally feed into your school development plan and not feel something separate from it. (Primary headteacher, 421)

Schools in Wales are pursuing multiple policy initiatives concurrently: Successful Futures, Curriculum for Wales, schools as learning organisations, new Professional Standards for teachers. One primary headteacher noted, 'things are changing at more rapid a pace and we're not necessarily keeping up' (421). Two other interviewees echoed this sentiment, with one secondary school leader pointing out, 'In education, there's lots of people, lots of drums all demanding things all the time' (710). Another primary headteacher highlighted the difficulty of coping with all the demands made of schools:

When it comes to the EAS, because so many additional projects are pushed in our direction, that's where we feel the pressure and you know, perhaps we should preface that and say, 'Sorry, we're not able to do whatever it is because – not that we're unable to do it, but it's stretching our resources too far'. So yes, on occasion, we do feel that the

> *decision isn't ours, and we have to run with a lot of things that come down from the EAS. (Primary headteacher, 321)*

All five of the EAS Challenge Advisers (CAs) who participated in interviews reported that that were not directly involved in schools' cluster work, including the FADE. Most of the CAs had not attended a cluster meeting, and while the majority were aware of the secondary schools' goals in relation to the cluster, they were not very familiar with the wider cluster plan. CA's knowledge of the cluster work was most often gained through discussions with the secondary school leaders regarding the school improvement plan, ongoing activities and progress. While CAs encouraged cluster work, most saw their role as supportive but peripheral:

> *I would say that we don't identify the work of a Challenge Adviser closely enough around monitoring the impact of cluster work yet… It's more if it fits in with the piece of work we're doing with the school at the time. I think it would be a relatively easy win for us to be more systematic in the involvement of a Challenge Adviser with cluster plan monitoring. You know, [asking questions like], 'How is it going? What worked well? What would make it better?' And all those really obvious questions. (300)*

> *They [CAs] have always been encouraging schools to share best practice and school-to-school support. So, it is making sure that it is signposted where appropriate and getting the schools then and supporting them to visit. (700)*

> *I would say that I haven't had a proactive role in the cluster arrangement… I haven't had a direct role in terms of holding to account the cluster, the delivering of the cluster plan. I have sat in on sessions where the cluster has come together… I may have had an input or two but really not significantly so. I've had conversations ongoing with the headteachers about the cluster. (500)*

> *The way in which we support the cluster is by supporting the headteacher and ensuring that any work that's been done linked to the cluster, that is being developed by EAS, any best practice that's been identified by EAS - we make sure that the headteachers we're working with are fully aware of what's happening. (200)*

While appreciating the need for public accountability, for one primary headteacher constant scrutiny by an external body was inconsistent with the ethos of lateral collaboration.

> *I don't see the impact of a Challenge Adviser continually monitoring what I'm doing or the EAS or local authority. It's power you can see through that. (Primary school leader, 622)*

The many demands on school leaders' time may constrain their capacity to adopt best practice. One headteacher noted that school leaders may not be responsive to a feedback cycle, and prefer summative reporting in managing their workload.

> *It's a learning process and it's helpful to get feedback and outside ideas. Headteachers might feel that they want to get something right the first time out and feel a little bit exposed when somebody comes back to them with additional feedback on something they didn't want to do in the first place and worked hard to do. (Special School, 802)*

Despite some differences about modes of reporting, interim and final evaluations of progress show a high level of agreement between school cluster and EAS judgements. The majority of clusters were

judged to have made good progress in achieving their stated aims in the first year of the cluster model.

Table 3. Evaluation of progress against cluster plans 2017/18, FADE 2

Overall Judgement	School Cluster	EAS
Limited	1	1
Satisfactory	3	5
Strong	25	26
Very Good	4	0

4.2.5 Premature evaluation: timescales and measurements

A number of school leaders and Challenge Advisers voiced concern that an evaluation one year into the cluster initiative was 'too soon' to adequately assess its outcomes. A primary leader commented that impact measurement was often made prematurely in educational programmes. Initiatives in complex social settings at an early stage of development need time to 'bed in' before an evaluative judgement can be made. Cluster priorities often highlight longer-term objectives. The timeframe for delivery of objectives needs to reflect diversity and context in the development process and establish realistic short-term, medium-term and longer-term targets. Given the social settings in which the schools operate, it was important to allow sufficient time for collaborations to build and develop.

> *Most of these plans need longer than the plan really allows, don't they? It takes time to set up a working relationship between heads and schools. We need a chance to get the momentum of the cluster working, to stay stable. Give us a chance to do something. In education too often we want to take an action and find an impact almost immediately, and that's just not going to happen. If you keep changing direction, then you will never sustain improvement. You have to go with it for a while. (Primary headteacher, 122)*

One secondary headteacher highlighted that evidence on the impact of transition work was not yet available and would require careful monitoring over a generous time period as pupils continue in their education. Early indications of relationship building among professionals were positive, but determining impact on pupil outcomes was a different challenge.

> *We're still at a point of bringing together the data to actually measure all this. Because those kids aren't in year 7 yet, we can't actually measure the impact of that. But the working relationships that have been built up between teams of staff in itself has been fantastic. (Secondary headteacher, 510)*

The same secondary school leader added that their cluster work was an effort to affect lasting change in thinking and pedagogy, an endeavour that was not quickly achieved or easily measured. In addition to pupil attainment data, this cluster was considering extending the range of sources used to assess the progress and impact of cluster work to include qualitative measures and teacher feedback.

It's not about moving the kids from year 6 to year 7. It's about understanding each other's teaching, learning, how the kids learn, what they're used to doing, what they've done before they get to us. A big part of the conversation on the literacy plan was about what children have to do in Year 11 for the GCSE English exams now. So what skills do they need to develop in Year 9, Year 8, Year 6, Year 5, in order to be ready for that qualification, which has changed considerably over the last three years. So, it's developing that understanding between us as to what we're aiming for. (Secondary headteacher, 510)

A primary headteacher also noted that additional time was needed to collect more robust evidence of the impact of collaboration.

I think there's a bit of work to do on the follow-up to see whether it [cluster work] has made a difference or not. They can fill in an evaluation form saying, 'everything is wonderful,' but has it made a difference when they go back to their own school? So, I think there's a bit of work to be done there. (Primary headteacher, 722)

In addition to needing more time for process and outcomes evaluation, others highlighted the difficulty of measuring outcomes and establishing causal chains. While FADE reports were typically based upon student work, anecdotal evidence, and headteacher summaries of progress, some school leaders felt current methods of measuring progress were insufficiently developed.

[Measurement of impact] can be difficult because if you're doing something like entrepreneurial initiative – how do you measure that? How do you measure when the children are more settled when they go to [the] high [school] than they would have been if they didn't do the entrepreneurial activities? How do you measure if pupils' writing improved, for example? We can see in the summer results whether that has an impact... We did do an attendance project and that's quite easy to see… but where there isn't [such data], we must rely on more anecdotal evidence and that can be difficult to measure. (Primary headteacher, 721)

4.3 Benefits

Key points summary

- *Development of common approaches:* Some cluster schools are developing common school policies to support transition, monitor pupil progress and better integrate 3-16 provision.
- *Evidence of improved practice and pupil outcomes:* While at an early stage in development, some school leaders suggest that cluster work is producing discernible positive outcomes among both school staff members and pupils.
- *Joint practice development:* Professional collaboration is supporting targeted innovation in pedagogy and curriculum.
- *Collaborative culture:* Through data sharing and focused collaboration schools are deepening their understanding of other contexts and approaches to improving schools.
- *Collective responsibility for outcomes:* Cross-phase cluster working is helping to erode fragmentation in education by focusing on learning progression across contexts, stages, and phases.
- *Improved networking and support among headteachers:* Close cluster working provides opportunities for peer support and reciprocal learning among senior colleagues at different stages of headship.
- *Professional learning:* Cluster activity can provide rich professional development opportunities that support professional renewal and the development of adaptive expertise.

4.3.1 Development of common approaches

School leaders in two clusters reported the development of common approaches across schools in the cluster. This included the development of a common home school agreement and attendance policies, as well as enhanced understanding of different pedagogical approaches between stages. Developing a common language to support discussion of teaching and learning was a valued outcome.

> *We're trying to get a common language with the secondary school. What does resilience look like as a 5-year-old? What does resilience look like as a 16-year-old? Secondary schools come down to the primary schools and teach, but it doesn't often happen the other way round. A lot of the rhetoric says primary practices are great. Well okay, if it's good then let's give primary teachers an opportunity to teach in secondary schools. Key stage 2 and key stage 3 go together pedagogically. Joint planning, joint teaching, much more aligned coverage of topics and approaches to teaching topics will benefit all within the cluster. (Primary headteacher, 422)*

A Challenge Adviser highlighted how cluster work was helping to break down longstanding silos and supporting common approaches focused explicitly on progression of learning.

> *It's opened up all schools to that three to sixteen approach, even if a school has ten primary feeders and they are sitting with 10 separate heads. We are getting that common approach now, so there is commonality in terms of pedagogy and skills progression from key stage 2 to key stage 3. More importantly, secondary schools continue to build through years 7, 8 and 9.*

The PRU cluster decided to adopt and implement a common approach to monitoring harder-to-measure aspects of pupil progress.

> *One of the challenges for all schools is to measure those softer targets, softer outcomes. A commercial package called Thrive allows you to assess a young person when they are referred, put in interventions, and then reassess in order to see whether there has been any progress. Six of our organisations already have things in place, but this will give us some consistency across the consortium. It's very expensive, so we took the decision to use some of the [cluster] money in order to train at least one member of staff [in each PRU]. (PRU leader, 902)*

4.3.2 Evidence of improved practice and pupil outcomes

Although evaluation of the impact of cluster work is still in its early stages, school leaders made tentative claims that cluster work was leading to discernible positive outcomes. At this stage, reports were largely based on reflection rather than the outcomes of systematic evaluation. Leaders within one cluster spoke of improvements in the quality of teaching and attainment among primary pupils following collaborative work through which a secondary teacher of Welsh worked with primary schools to review and improve the teaching of Welsh at the primary level.

> *If you talk to primary schools, they would say the work we've done on the development of the Welsh language provision has had a significant impact on their levels in Welsh and the teachers' confidence in delivering that. (Secondary headteacher, 510)*

Some initiatives had been subject to formal scrutiny. An external evaluation of a literacy intervention in one cluster recorded the following impact.

> *There was a marked improvement over the course of the project where more than 50 per cent of pupils showed improvement in WG1 Sentence Structure and WG3 Punctuation in just one term. More important, however, there was a dramatic impact on teachers' professional development. All staff involved agreed that the structured approach to teaching, planning, observing and reflecting based on lesson study had a significant, positive effect on their confidence to teach and progress skills associated with high quality written communication. (Reported by Primary headteacher, 422)*

Professional learning exchanges between the primaries and secondary in another cluster led the secondary school to reflect and adapt their approach to working with pupils on transition.

> *As secondary teachers, when we came together last year after doing the observations in primary – having the learning walks and so on, our impression was that the primary pupils were a lot more independent and took a lot more responsibility for their work. Our perspective on pupils is that they come to us and we want them to behave in a particular way and we have particular standards, which sometimes means that those children aren't as independent, or as creative as they can be. So we've changed our methodology around providing those experiences, [making them more] similar to the primary where those independent skills, those wider skills are developed more. (Secondary headteacher, 310)*

4.3.3 Joint practice development

In some contexts, sustained cluster work has shifted modes of collaboration from formal and rhetorical to activity-based. There is some evidence of inter-school innovation through professional collaboration. Some clusters reported moving from an initial espoused commitment to collaboration in principle to joint practice development. These clusters were moving from seeking support and sharing practice to generating new practices. Examples included projects that developed pedagogy across a group of schools. Effective collaboration was sustained by shared commitment and energy, and regular face-to-face communication. Cluster leads described a range of practices that developed as a result of cluster working.

> *In the teaching of numeracy, we've learnt about group work and teaching mixed ability groups. It's a two-way process. We are now developing a cluster level understanding of high-quality numeracy pedagogy. (Secondary headteacher, 410)*

> *As a result of the project on independent learners, for example, we have taken the primary school concept of the resource table and the help desk. We now have that in every classroom because we felt pupils would be frustrated if we did not allow them to get out of their seats as they do in the primaries. That one minor change seems to be making a significant difference. (Secondary leader, 610)*

Focused collaboration afforded rich opportunities for professional learning across boundaries. One primary interviewee reported a deeper understanding of transition that starts from Year 4.

> *We have worked as a cluster historically, but the benefits have improved significantly over the last couple of years. Historically, it was sometimes just an opportunity to talk about transition arrangements. It's changed the focal point for us. We now plan, work and learn together. (Primary headteacher, 621)*

4.3.4 Collaborative culture

Interviewee responses indicate that the development of a culture of genuine collaboration across schools is a significant positive outcome associated with cluster working.

> *Schools are starting to stop working in isolation. It's about best practice for the learners rather than for the institution. We've been on a long journey together. We've developed an honesty and openness with each other. We visit each other's schools. We've shared lesson observations. It is a secure environment where we can voice our opinions, which are not always agreed but that's professional dialogue. (Primary headteacher, 621)*

> *One of the major things is the school-to-school support. We've got our expertise across the cluster. We're able to send staff out to observe lessons and schools come out to us to look at how we are working and our environment. (Primary headteacher, 321)*

A key benefit was a better understanding of how change proceeds in different settings and the implications of this for joint work.

> *It's very eye-opening. You have a better understanding of each other's circumstances and how to improve support. There are lots of resources and examples at primary level. You can do things very quickly whereas secondary schools are bigger organisations with*

different pressures and resources are limited. It's a challenge to suspend the curriculum and put something different in place. Perhaps only one teacher would be trialling it and then spreading it to other areas in the department. Things move a bit more slowly and there seems less support for it to happen. (Primary headteacher, 122)

Certainly for me, I've now got a far better understanding of how primary schools work. I've been a primary governor for ten years but that's a slightly different role. This has given me far more insight into what they actually do and why they do it than ten years as a primary school governor. (Secondary leader, 510)

One cluster noted the value of sharing curriculum development responsibilities at cluster level. There is a collaborative dividend in cluster working. School-to-school collaboration supports the pooling of knowledge and expertise, and the sharing of tasks across a wider resource base. In this respect, clusters were becoming a resource to respond to change.

Every school across Wales is re-doing policies in line with Successful Futures. We're starting to share the workload: 'You take the lead and share them with us. We'll take …'. We can change or amend them in relation to our own individual school, rather than starting from scratch every time. (Special school leader, 803)

While all interviewees said cluster work added to – not reduced – their workload, many agreed such collaboration was worthwhile and helped support them with the heavy workloads and constant change schools face.

It's brilliant, just knowing that we're all in the same boat. We all face the same challenges and by sharing and working together we're reducing some of the pressures put on headteachers. Following a recent EAS meeting we sat as a cluster and came up with a plan and the way forward for our development plan. We're going to work as a cluster on that as well. So many initiatives have been passed down to us and instead of writing 12 plans, we're going to get together and work in groups to come up with one plan, which we can then tweak to suit our schools. (Primary headteacher, 321)

4.3.5 Collective responsibility for outcomes

Cross-phase cluster working erodes fragmentation in education and promotes collective responsibility for progress throughout a young person's educational experience. Interviewees reported that cluster working focused on learning progression was not regarded as a threat to school autonomy. In one cluster, there was discussion of a possible all-through (3-19) school; the experience of cluster working was regarded as supportive of this.

It's forced people to really look at the bigger picture and stopped people looking at end of key stage and thinking, 'Right, that's it. It's over to you'. We all have our part to play from the nursery setting all the way up to key stage 4 results. Once we've taken that on board and really grappled with it we'll have a learning organisation. (Primary headteacher, 122)

They [primary school leads] totally understand they are partly responsible and contribute to my outcomes at the end of key stage 4. They have the children for seven years before they get to me, from foundation phase through to year 6. (Secondary headteacher, 410)

It's shared responsibility. It's making sure that everybody's fully aware of our commitment together, working together as a cluster. And that we're supporting each other with it. The headteachers meet regularly. We have set cluster meetings but also, when we attend the regional headteacher meetings we all try to go there as a cluster. So we're regularly discussing work as a cluster and our progress, our school needs. There are lots of meetings and discussions to make sure that we're there to support each other. (Primary headteacher, 221)

The development of collective responsibility and mutual respect was mentioned as a particular achievement within one cluster interviewed. In heterogeneous clusters, data sharing can sometimes evoke uncomfortable collaboration.

Initially, there was a little bit of resistance and saying, 'Well, everything is okay with us. We aren't quite sure what's happened there' [when looking at] pupil data of the breakdown of levels. The best example is – some of the test data we had didn't reflect particularly well on the pupils at the beginning of the Year 7. It was an important point that we couldn't just brush under the carpet or say, 'Well, we won't share that'. Some [schools] were fine, some of the schools went, 'Oh God, that's quite worrying, let's have a look'. Some schools [were much more sensitive], and I can understand that. So that was probably the biggest difficulty we've had in terms of making sure no one's pointing fingers… We try to say all along, 'All we need to do is all of us work together to try to improve the situation'. That's all we're trying to do. So, there's been some tricky conversations. Not just within the cluster leadership – heads, or assistant heads or senior teams – but some of the governing bodies also discussing this information and sharing it. I think the vast majority of people are now on board and things are starting to proceed. (Secondary headteacher, 710)

Secondary leaders also recognised the value of cross-phase working and the reciprocal gains that might be made.

To work on school improvement with our primaries is to work on our own school improvement. If we can support them in improving their schools and the outcomes of their pupils, then essentially that's going to benefit us in the long run. (Secondary leader, 610)

4.3.6 Improved networking and support among headteachers

A number of interviewees highlighted that headteachers within the cluster shared a sense of camaraderie and support. Cluster activity provided additional resources for networked professional learning among senior colleagues.

Through the cluster, I've have colleagues that can support me and I can ask for advice and vice versa. There's one school in the cluster that we're very similar to in terms of the level of free school meals, and we often discuss how we support our children and how they've worked to involve parents. I'm looking to see their good practice. So, it's just having an open, professional relationship where you can discuss any concerns you have

and how schools have approached that. Within the cluster, there's a strong support network without a doubt. (Primary headteacher, 221)

Within one cluster, there was also a sense that, through cluster work, long-serving headteachers could mentor new and less experienced heads; a relationship that could produce reciprocal learning.

Cluster working has been really helpful for young heads who are new to the role because it's quite overpowering, isn't it? The expectation of headship. In close cluster working we've had a few experienced heads working alongside three new to post and acting heads. It's been really good for them and us because we learn from them in the same way they learn from us. It's certainly brought unity and strength and confidence. (Primary headteacher, 521)

4.3.7 Professional learning among and across schools' staff

Interviewees reported that cluster work provided professional development opportunities and professional renewal for experienced colleagues, especially in smaller schools with little staff turnover. Cluster activity is a form of interruption to refresh and renew focus, and support professional growth. In primary schools collaboration helped to reduce a sense of professional isolation. Shared planning helped to build confidence and capability in challenging areas of the curriculum.

There's been good collaboration between pairs of schools, triads of schools, the whole cluster: looking at each other's practice, visiting each other's schools, having discussions with partner leads in every school, seeing the assessments of other schools. It's been very useful for individual staff to see how other schools work and to learn from colleagues. It's been really successful. (Primary headteacher, 122)

It's the strength of the relationships for staff across the cluster; having a support network, sharing good practice. Cluster twilight sessions, cluster inset days are really beneficial, really useful. When colleagues from other schools work together for a day or after school for a few hours, they get a chance to shape practice and share ideas. (Primary headteacher, 221)

The fostering of peer professional networks also revealed some differences in the depth in which some cluster work penetrated into schools. While cluster work always involved senior school leaders as well as Year 6 teachers involved in transition, a number of clusters made a point to involve other staff in inter-school collaborations. Some schools used cluster work as an opportunity to develop further the leadership capacity within their staff.

One of the real positives has been the development of members of the senior leadership team, TLR holders, middle leaders. They've had an additional level of responsibility beyond running an improvement program in just one school. It's given them an opportunity to network to see how things work in other schools. A lot of staff aren't as mobile as some people might think. Staff may be in a school for a long period of time and not really interface with what happens in other schools, even locally. Our staff have developed a lot of skills around action planning, reviewing, monitoring and liaising with others. Certainly one member of staff has really grown professionally this year. (Primary headteacher, 121)

The collective plans and shared governance within clusters has allowed for staff of different schools to lead professional learning on various aspects of the plan.

One cluster used some of the funding to support teachers develop research literacy by undertaking action research in an area of identified importance. Senior school staff contributed to the development of a bespoke leadership training programme for cluster staff that was accredited by a local university. Staff completing high quality professional enquiries could be awarded a postgraduate certificate. There are economies of scale in purchasing development opportunities at cluster level.

> *Shared training is better value for money than going alone.* (Primary headteacher, 621)

> *In addition to sharing good ideas, mutual support, and building professional links so that the staff can benefit as well, sometimes you can get better deals if you get group training. You can broker a deal if more of you go into something together. (Primary headteacher, 721)*

Overall, there was consensus among the interviewees that collaborative work brought new energy into school, new ideas to teachers' practice, and made support more accessible than before.

> *We now know where to turn and who to turn to. A few years back we might not have had that school-to-school support and we would have had to wait for training that perhaps would only run once a term or once a year. That support is constantly there now. For example, if I needed to send one of my new staff for additional training in maths, I could just pick up the phone and say, 'Is it possible for me to send so and so over to have a look next week?' and it would be 'Yes, no worries'. It's that quick. We don't have to wait and book ourselves onto courses. Because we've got that support in place, it makes everything a lot quicker for us to access. (Primary headteacher, 321)*

> *When it works well it is absolutely brilliant for sharing what's best and giving teachers and heads an opportunity for professional dialogue - to think about whether what works well somewhere else can be translated or not into your own school. The benefits are obvious - the excitement and freshness that it brings to people when they're tired and have been teaching a while. When clusters work closely together nobody can deny that it breathes new life into it. (Challenge Adviser, 300)*

5 Recommendations

Recommendations for schools

15. Reflect on the extent of shared governance within clusters and at governor level, and consider what additional measures (or structures) of support may help promote and/or sustain such collaboration.
16. Extend participation opportunities for leadership of learning across the wider school community and use cluster activity to build teacher leadership capacity, including skills of systematic evaluation.
17. Ensure that cluster activity enables joint practice development i.e. collaboration that supports co-construction between schools of better professional practice.
18. Where appropriate, consider the formal involvement of young people as leaders, co-enquirers and consultees, and the value of investigating pupil experience of transition within cluster self-evaluation plans.

Recommendations for the middle tier - regional consortium and local authorities

19. Sustain and extend funding to allow school clusters to mature and plan more effectively.
20. Continue to support the development of collaborative leadership capacity through the provision of rich professional learning opportunities and coordinated cross-network activity.
21. Extend collaboration to include work on the collaborative development of accountability processes premised on principles of co-production and professional accountability.
22. Review strategies to build evaluation capacity among the wider school workforce and consider a theory of change approach to connect processes of change with outcomes.
23. Agree a realistic timeframe for assessments of short, medium and longer-term impact, which are subject to regular review and adjustment as necessary. Continue to promote the use of a range of measures of valued activity, and support schools in articulating what matters most.
24. Enhance the visibility of cluster working and promote inter-cluster dialogue. Review strategies for communication and knowledge sharing. Assess and potentially scale-up promising approaches by including attention to transferability.
25. Engage in robust longitudinal evaluation of the processes, impact and sustainability of cluster working across the EAS region.

Recommendations for the Welsh Government

26. Harness the potential of collaborative working to support engagement with the new school curriculum and professional learning framework. The cluster model has the potential to build collective capacity for reform at a time of significant educational change.
27. Strengthen the capacity of regional consortia to broker school-to-school collaboration.
28. Make optimal use of external expertise in supporting school-led improvement activity to ensure that informed local experimentation builds cumulative capacity.

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Appendix 1: EAS clusters

There were 35 EAS clusters across the five local authorities of South East Wales, 2017-18.

Blaenau Gwent
Abertillery Learning Community
Brynmawr Foundation
Ebbw Fawr Learning Community
Tredegar

Caerphilly
Bedwas
Blackwood
Cwmcarn / Newbridge / Risca
Heolddu
Islwyn
Lewis Cluster
Rhymney
St Cenydd
St Martin's
Ysgol Gyfun Cwm Rhymni

Monmouthshire
Caldicot
Chepstow
King Henry VIII
Monmouth

Newport
Bassaleg School
Caerleon
Gwent Is Coed
Llanwern
Lliswerry
Newport High
St Joseph's RC
St Julian's
The John Frost

Torfaen
Abersychan
Croesyceiliog
Cwmbran
St Alban's RC
West Monmouth
Ysgol Gyfun Gwynllyw

Special School cluster

Pupil Referral Unit cluster

Appendix 2: Literature search strategy

A search for high quality research-based articles was conducted using Elsevier's Scopus bibliographic database. Scopus coverage includes 5000 publishers, 22,800+ serial titles and 70 million items from 1970. The search terms and all records of sources retrieved for screening were saved. Boolean searching was used to focus the search and narrow the field. Hand searches of key sources and reference checking of retrieved items was used to optimise inclusion of relevant sources. In addition, a number of educational databases and policy sources were searched to locate relevant previously commissioned research reports in the public domain e.g. the NfER, Department for Education, NCSL, Education Scotland, school inspectorates.

Scopus search:
Subject area: social sciences
Document type: articles
Date range: 2000+

Key terms:
School w/15 network AND improvement
"school cluster" AND "school improvement" (Scopus 27 records retrieved, retained 4)
"school network" AND "school improvement" (Scopus 153 records retrieved & screened, retained 35)

Exclusion criteria:
- Not related to cluster-based improvement
- Not research-based (empirical research)
- Outside date range (unless very significant)
- Narrow curriculum focus e.g. laptops for teachers, specific pedagogy - lesson study or cooperative learning.
- Limited to a single school cluster, not regional or national
- Not a comparable jurisdiction e.g. non-OECD context
- Not 'highest performing' system (for RQ2 only)
- Not English language publication
- Book chapters
- Conference proceedings

Warrant: The review used the following criteria to assess the evidential warrant of retrieved research studies

Descriptions of quality ratings
High: large-scale quantitative study; or in-depth case studies that cover a range of institutions and a wide range of stakeholders, where views are triangulated; or a meta-analysis or systematic review. Includes matched pairs/ comparison.

Medium: quantitative or qualitative studies with smaller sample sizes, or covering only a small number of institutions. Qualitative studies that do not cover a full range of stakeholders. Non-systematic reviews. No comparison schools.

Low: based on observation or opinion, or on one school case study, or the views of one person, for example. Warrant weak. Poor linkage between claims and evidence. Descriptive.

Descriptions of relevance ratings
High: very relevant to all or most questions.
Medium: at least moderately relevant to most questions.
Low: at least slightly relevant to some questions (Source: Smith et al. 2012, p.23)

Included studies
In April 2018, the search strategy had identified **43 peer-reviewed research articles** and **49 commissioned research reports.** Each retrieved source was reviewed using a summary template with the following headings:
- Objectives
- Research questions
- Study sample
- Duration
- Study design
- Key findings
- Quality
- Relevance

In total, retrieved items reported research undertaken in over twenty different national contexts.

Starting out - the focus for improvement

How did your school come to be involved in the cluster initiative?

-   Choice over which schools to cluster with?

Or What is your role in the cluster initiative? (to challenge Advisers)

What is the vision for the cluster? How was this vision created?

The Cluster Improvement plan submitted in Aril 2017 sets out priorities for improvement. How were these priorities decided?

At cluster level?

For each school in the cluster?

What contextual history shaped the cluster plans and relationships?

How was data used to support decision-making? (focus for improvement)

How were decisions made about the allocation of resources to particular schools?

Did you revise your original Improvement Plan following the review in May 2017?

If so, in what ways?

Or How did you support the revision of Improvement Plans? (challenge Advisers)

Taking action – processes and activities

How has partnership work developed over the past year? How has the cluster evolved?

How were roles and responsibilities decided and resourced?

-   Formal or informal protocols
-   Consensus-based?

How is the cluster managed and kept organized?

How would you describe the relationship between the various partners?

-   Schools and EAS
-   Schools and LA
-   Between schools in the cluster? (hierarchical or bi-directional? Lead organisation or shared governance?)

How are decisions reached within the cluster?

-   Can you give me an example of joint decision making?

What factors supported the development of cluster working?

- key drivers/enablers

- support mechanisms (for those new to cluster working)

In your opinion, what is the added value of cluster working? (i.e. of bringing partners together)

What factors inhibited the development of cluster working?

- Sticking points, obstacles or tensions? How were these managed? How were any differences of opinion mediated?
- Has the funding been adequate given the cluster plans?
- Has there been any feelings of threat to schools' autonomy?
- Was it difficult to set a shared vision and goals?

Assessing and reporting progress

How were judgements around progress met? (measurable indicators)

For overall progress?

For individual high level priority areas?

Short-term and longer-term objectives?

How was progress monitored throughout the year? (evaluation strategy/ theory of change?)

Deployment of staff and resources to evaluation activity?

How useful have you found the FADE reporting process for monitoring and evaluating progress?

In the first round submitted in December 2017

In preparing the final report submitted in spring 2018

How useful was the bespoke feedback from EAS to the cluster?

Through the FADE process

From Cluster Challenge Advisers

Impact & sustainability

What have been the *Direct Outcomes* of the cluster collaboration so far?

Have there been any additional *Indirect Outcomes* on:

- staff professional development and
- staff career opportunities,
- sharing of good practice and innovation,
- reduction and realignment in headteacher workload, and
- organizational or financial efficiency

Has cluster working led to changes in thoughts and practices?

To what extent is there *internal* networking as well as networking with other schools?

- i.e. *within* school collaboration arising from the project

How far are teachers and the wider school community aware of, and engaged with, the cluster working?

To what extent has collaboration through school clusters become self-sustaining?

How sustainable in the *long-term* do you think collaboration through schools clusters is?

How do you see maintaining the relationships the schools have established in the future?

Lessons learned

What has been the key learning for:

- You as an education professional?
- Your school?
- Your cluster?
- EAS?

How has new learning influenced practice?

In what ways will these lessons or your past experience inform future plans?

- What if anything, will you know do differently?

What, if anything, would you change?

Is there anything further that you would like to add that you feel is important that you have not had the opportunity to raise today?

Appendix 4: Cluster Plans and Impact

Cluster	Cluster Focus	Short Summary of Cluster Aims (from FADE reports)	Examples of Impact (from the cluster reports & interviews)
Brynmawr Foundation (BG)	Maths Programme and Development of Common Approaches Increase pupils' maths attainment & develop common approaches across the cluster, particularly for MAT pupils	1. Continuing to develop and implement 'Successful Maths' (Tapas Maths, Successful futures & Singapore Maths) within the schools by developing common understandings, teaching resources, and strategies for implementation. 2. Continuing to develop and implement a common strategies and processes for the 'Rights Respecting School' (RRS) across all schools by sharing good practice, building a common understanding and rollout strategy, and monitoring implementation. 3. Developing an effective and consistent approach to More Able & Talented (MAT) pupils across the Alliance by sharing good practice among schools (particularly MAT leads) and developing action plans to meet the 8 elements of the NACE Challenge Award	Schools are piloting the principles of Successful maths in different age classes across the schools – action research & ongoing with half termly monitoring of what works and what doesn't work All schools are implementing their RRS action plans and working towards Level 1 accreditation (if not already achieved) Headteachers have worked with the EAS to develop a cluster analysis tool to measure the effectiveness of Cluster working within a school and across the cluster All schools have become NACE members
Bedwas (C)	Improve leadership, capacity, shared accountability, and pupils' achievement with assistance of 'Successful Futures' programme	1. To improve leadership with specific reference to 'Successful Futures' & our capacity to implement change. 2. Develop a commitment to Community, to common methods, foci and language of Teaching & learning, and a shared accountability 3. To improve teaching and learning to secure sustained improvement in outcomes for learners in Literacy and Numeracy using 'Successful Futures' pedagogy. 4. To increase the pace of improvement for groups of learners using existing good practice shared between cluster schools &	This project has enabled schools to develop and improve the leadership capacity of middle leaders. Working as a cluster allowed staff to share ideas and new approaches and engage in professional dialogue. All Staff (teachers and support staff) in each department have worked far more closely as a team to develop a range of activities. The 'Four Principles' whole school display, with

		by embracing the 'Successful Futures' ethos.	the involvement of all pupils and all schools, has embedded the pedagogy of 'Successful Futures' across the cluster – a step forward as in some cases, particularly in Key Stage 2, teaching was often formal (didactic / instructional) in its approach to certain subjects.
			Schools' ethos has moved to "child centred learning"
Ysgol Cwm Rhymni (YGCR) (C)	Improve moderation, transition, attendance, and better support MAT and ALN pupils.	1. Moderation from Nursery to Year 6. 2. Transition arrangements between KS2 and KS3 – Transition Teachers. Closing the Gap, MAT. 3. Arrangements for Additional Learning Needs/ Behaviour 4. Language Charter 5. Lessons Observation Yr 6 and Yr 7. 6. LAC Project. 7. Pioneer Schools. 8. Governors. 9. Enterprise Troopers. 10. Pupil Attendance/Expelling pupils	Quality of moderation meetings raised from Nursery to KS3. Transition Teachers visited primary schools every three weeks to get to know Year 6 pupils well, subsequently ensuring that almost every pupil has a successful transition to secondary schools. Co-ordinators are beginning to develop effective partnerships (including support from the secondary school to the primaries) that will share good practice in many different areas for pupils with Additional Learning Needs/Behaviour Arrangements Pioneer schools are providing feedback during cluster meetings. Numeracy Pioneer Schools have strongly recommended that activities – such as Enterprise Troopers – are important in order to give real context to the pupils. Therefore, each school will register an application in the new year.

			All schools have adapted their schemes in order to reduce teachers' workload. The data on expelling pupils amongst primary schools has been very scarce, so every school has implemented Callio. This has a positive effect on each school's attendance data. All Governing Bodies are kept informed of the Cluster Scheme and are receiving regular feedback form Heads about progress against set targets.
Abergavenny (M)	Evaluate of the impact of the Literacy Project and Maths Project on pupil standards and enhance literacy and numeracy provision across the cluster	**Literacy Project Aims:** To strengthen school to school working establishing a Functional Literacy continuum that sets a clear and collective vision of high standards and expectations; and to develop through collaborative practices, the high-quality professional skills needed to teach the literacy curriculum. To develop through collaborative approaches the English and literacy pedagogy required by all teachers ensuring a sound understanding of the "why" and "how" of teaching as well as the "what" leading to the development of higher order English and literacy skills for all pupils. **Numeracy Project Aims**: 1. To strengthen school to school working establishing a mathematics and numeracy curriculum that sets a clear and collective vision of high standards and expectations; 2. To develop through collaborative approaches the mathematical and numeracy pedagogy required by all teachers ensuring a sound understanding of the 'why' and 'how' of teaching as well as the 'what' leading to the development of higher order mathematical and numerical skills for all pupils.	**Literacy Project Impacts:** Initial planning and training undertaken by all involved developed knowledge of Grammar skills. Collaborative work between the cluster schools and the trainers improved significantly as the project progressed and staff were able to share activities and experiences cross phase. All Year 4 teachers and secondary staff planned a series of lessons to be taught to Year 4 in the spring term and Year 11, with Google Drive successfully used to share access to all documents. Primary schools identified the benefits of independent grammar lessons with consolidation through a literacy genre. **Numeracy Project Impacts:** Over the year, teachers have reported that

| | | | pupils are more secure in their understanding of basic numeracy and have become more confident, with particular benefits for those that have previously had weaker basic skills.

A shared understanding of pedagogy for numeracy has been developed among schools in the cluster. Through regular meetings, shared professional learning, informal discussions and team teaching this has been achieved. In addition, through the sharing of best practice and dialogue the bar has been raised in terms of expectations of pupil outcomes.

There has been an increase in across-phase planning and team teaching leading to enhanced pupil outcomes including excellent transfer from year 6 into year 7.

The cluster was successful in its application to participate in a British Council Professional Learning Community visit to Chongqing, China to study primary maths teaching methodology. |
|---|---|---|---|
| **Caerleon (N)** | Develop common approaches to the new curriculum and further support pupils in their writing, maths, and Welsh language skills | 1. To develop a cluster approach to the new curriculum and to implementation of the Digital Competence Framework (DCF).

2. To further develop writing skills in Years 2 to 9 with a focus on maintaining engagement of boys. | Senior leaders underwent training, sharing resources and progress in terms of adopting the new curriculum.

A completely new transition project has been completed, along with agreed shared pedagogy and strategies. The project is ready for implementation during the summer term in |

		3. To develop a cluster approach to developing MAT pupils in mathematics. 4. To develop expertise in 2nd language Welsh across the cluster.	the primary schools. All schools have refined the direction they are taking with the Lego WeDo kits, and each of the cluster schools are working to develop the programming skills of their Digital Leaders in their respective Code Clubs. Common understandings of pedagogy and strategies has developed to embed DCF across the cluster through the creation of a DCF transition project to be used by teachers at the end of KS2 across the cluster and in Year 7. This works alongside the literacy transition project. Five Welsh lessons have been taught by secondary Welsh transition teacher and observed by KS2 teachers in each primary cluster to increase oral fluency and expression as well as reading comprehension.
John Frost (N)	Increase pupils outcomes in Science and foster greater leadership within the cluster	1. **Raising Pupil Outcomes in Science** by improving planning, provision and outcomes for pupils in Y6, sharing effective teaching across the Cluster, and reflecting the current emphasis on developing increased pupil interest in Science and Technology outlined in 'Successful Futures' 2. **Developing Leaders Within the Cluster** by developing sustainable middle leadership and by covering (during cluster INSET) aspects of improving teaching & learning and ensuring robust monitoring & evaluation of SDPs	The science working group met and planned high quality cross phase science experiences, with valuable input from Cardiff Metropolitan University Assessment for Learning has been integrated effectively into the planning. Science learning moderated in the January 2018 cluster moderation meetings demonstrated raised standards, with targets' indicating that all schools are on track to achieve challenging targets in science.

			Middle leaders have collaborated effectively and learned about the principles of strong and effective leadership from headteacher workshops. Middle Leaders have been able to effectively apply this learning and these principles within their own settings through robust action research projects.
Cwmbran (T)	Improve Teacher Assessments, support curriculum development, & develop common approaches to increasing attendance, mindfulness and writing skills	1. Accuracy of Teacher Assessments across the cluster and a reduction of the gap between National Test Scores and Teacher Assessments. 2. Curriculum Development (New Futures) 3. Attendance Strategies 4. Mindfulness 5. Common Approach to the Development of Writing Accuracy	Professional and challenging dialogues have occurred and a robust common assessment system put place for cluster, ensuring teacher assessment is accurate and up-to-date and current. The approach has received positive feedback from Year 6 teachers and high school staff. Cluster primaries are now working toward accessing and preparing to potentially implement the Accelerated Reading Programme. Effective and innovative practice has been shared, particularly with input provided by pioneer schools in the cluster (wellbeing and professional development). Attendance data has been shared, a common definition of exception circumstances discussed, and all data monitored across the cluster. All schools within the cluster have adopted the Torfaen 'Strive for 95' initiative. Two of the five cluster primaries have taken

			part in the Children and Young People's Mental Health **(CAMHS) Strategy** on wellbeing and will be involved in that to research best models for catering for wellbeing across the schools. Adjustments have been made to the provision for writing accuracy. The writing journey planning now includes a dedicated spelling and grammar response section, to be pre-planned before the writing journey and targets key aspects that will improve pupils accuracy in writing.
Special Schools	Developing the Special Schools as a cluster, building capacity within the cluster, and sharing effective processes, knowledge, and practice	1. Developing the above 5 special schools as a recognised EAS cluster. 2. Building capacity within and across the EAS special schools. 3. Sharing effective practice. 4. Developing strategies to address "Successful Futures" and the ALN and Education Tribunal (Wales) Act. 5. Embedding standardisation and moderation arrangements across the special schools sector, at local and national level . 6. Embedding Thrive across all of the special schools in the cluster.	There are now suitable terms of reference and agreed protocols in place for this newly recognised cluster; these have been discussed and agreed by all 5 headteachers. Biannual meetings with LA strategic leads have ensured that all of the heads have a sound awareness of ALN developments in each of the 5 local authorities. These highly effective information sharing events ensure transparency and equity to some degree across the region. The special schools now have a useful termly update from our Pioneer School in terms of the most recent developments on the journey towards "Successful Futures". There is now greater communication and more sharing of effective practice shared with colleagues.

			Some inconsistencies across the 5 special schools were identified through an audit and, through work with AB Health Board, headteachers have been able to discuss consistency in terms of therapy and nursing provision across the 5 cluster special schools and revised policies and protocols are being drafted by health staff.
PRUs	Improve support for learning and wellbeing among vulnerable learners and build capacity for self-improvement	1. Increase the pace of improvement for groups of vulnerable learners (particularly FSM, LAC) 2. Improve regional capacity to implement a self-improving system. 3. Develop a regional approach for assessing Wellbeing and appropriate interventions thereafter.	Common measures and coding of pupil attendance and academic outcomes for vulnerable groups is now being consistently collected and irregularities in practices identified and addressed. Centres compared their curricular offers and shared good practice and improve offering in each centre. Designated staff undertook the THRIVE approach practitioners course to be able to improve identification/analysis of need and deliver more targeted and appropriate personalised interventions for pupils.

Appendix 5: Reflection prompts for educators engaged in cluster work

Collaborative leadership & governance

- ➢ How does cluster leadership (multiple schools) differ from (individual) school leadership?
- ➢ What are the challenges of inter-school governance? How engaged are governing bodies with inter-school collaboration?
- ➢ What are the challenges of leadership sharing in the early stages of cluster development?
- ➢ How has the cluster programme generated formal and informal opportunities for teacher leadership?
- ➢ What new roles and structures has the collaboration produced?
- ➢ In what ways is collective responsibility promoted? How is accountability shared within the cluster? How has collaboration built evaluation capacity?
- ➢ To what extent is collaboration mutually beneficial? Are partners equally engaged?
- ➢ How is cluster purpose negotiated? How is data used to inform cluster priorities?
- ➢ How formative is self-evaluation? What opportunities are there to re-focus cluster efforts?

Teacher development & professional growth

- ➢ How deep is collaboration with cluster schools? How inclusive is the cluster structure? How engaged is the wider school community in cluster activity?
- ➢ How does cluster activity support teacher development? How are opportunities for participation shared? What structured opportunities are there for teachers to work together? How does the cluster build capacity for teacher learning?
- ➢ To what extent does cluster activity promote professional enquiry? What opportunities are there to advance collaborative enquiry (across schools, between professionals, and with learners, parents/care givers and community partners)?
- ➢ How has cluster activity built the capacity of schools to respond more effectively to learner diversity?
- ➢ How has cluster activity enhanced transition between education stages?
- ➢ To what extent is collaboration research-engaged? Is a culture of enquiry emerging, establishing, established or embedded?

Key learning & sustainability

- ➢ To what extent have ideas and practices changed as a result of cluster working?
- ➢ How is cluster performance assessed? How valid is impact assessment? How does self-evaluation of cluster activity address the influence of (contextual) school factors and cluster initiated interventions?
- ➢ What is the role of external facilitators in cluster activity? Is the collaboration outward looking? How does the cluster avoid groupthink? How far is external support responsive to local needs?
- ➢ Which features of cluster activity are most and least sustainable? How important are financial incentives in maintaining collaboration?
- ➢ How transferable is key learning to other contexts? How is promising practice shared and evaluated in new contexts? How do cluster outcomes feed back into other parts of the education system, and support decision making and development at other levels?