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Underachievement

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This research paper provides an overview of the levels of underachievement in Northern Ireland, considers factors that contribute to underachievement and discusses approaches to addressing it.

Key Points

- Northern Ireland has a 'long tail' of underachievement, for example, only 32% of pupils with Free School Meal Entitlement (FSME) achieved five GCSEs at grades A*-C including English and maths;

- Socio-economic background is a key predictor of academic performance;

- A range of other factors contribute to underachievement, including parental qualifications and the home learning environment;

- The evidence suggests that a multi-faceted approach is required to address underachievement, however some factors have greater impact than others;

- Classroom teaching has the greatest impact on student outcomes, however the Chief Inspector's Report found that in half of primary lessons and 60% of post-primary lessons the quality of teaching was not 'very good' or better;

- Effective school leadership is known to be second only to teaching in terms of influence on student outcomes, however leadership in all sectors here requires improvement, and there are challenges around the supply of appropriately skilled candidates for leadership roles;

- There is clear evidence that access to high quality early years education and care has significant and lasting benefits for children, however the Chief Inspector has highlighted a number of areas for improvement here;

- Research into the "Pupil Premium" in England recommended that government should consider mechanisms to ensure that additional funding for disadvantaged pupils is targeted at interventions that work;

- Areas for consideration could include:

  - How the Department plans to achieve the PfG target of 49% of disadvantaged pupils achieving five GCSEs A*-C by 2014/15;

  - The progress of the PfG target to develop proposals on improving literacy and numeracy levels in 2012/13 and the content of these proposals;

  - How the Department plans to address the findings in the Chief Inspector's Report on pre-school provision and the progress of the PfG commitment to provide one year's pre-school provision to every family that wants it;

  - The proposed strategy on the professional development of teachers and plans to revise leadership development programmes for school leaders;

  - The review of the Common Funding Formula in terms of how funding will be targeted to disadvantaged pupils.

Executive Summary

Introduction

Northern Ireland has a 'long tail' of underachievement with many pupils, particularly those from disadvantaged backgrounds, failing to achieve the benchmark of five GCSEs at grades A*-C including English and maths.

The *Programme for Government 2011-15* (PfG) sets out commitments aiming to address underachievement, including increasing the number of disadvantaged pupils achieving five GCSEs at A*-C (including English and maths) to 49% by 2014/15.

This paper provides an overview of the levels of underachievement here; considers factors that contribute to underachievement and approaches to addressing it.

Underachievement in Northern Ireland

Northern Ireland's performance in the international PISA assessment programme is not significantly different to the Organisation for Economic Cooperation and Development (OECD) average. The 2009 study also found that the link between achievement and socio-economic background is stronger here than in most OECD countries.

The recently published *Chief Inspector's Report 2010-12* highlighted a number of findings in relation to underachievement here, including:

- Almost one child in five leaves primary school not having achieved the expected level in English and maths;

- Only 32% of school leavers with Free School Meal Entitlement (FSME) achieved five GCSEs at grades A*-C including English and maths;

- In non-selective schools 22% of school leavers with FSME achieved this benchmark, compared to 87% in selective schools.

Factors contributing to underachievement

Socio-economic background is one of the strongest predictors of academic performance. Nonetheless, the evidence indicates that school success is possible for students from less well-off backgrounds.

A range of other factors may contribute to underachievement. These include parental qualifications; the home learning environment; high levels of absenteeism from school; and issues around male literacy.

Addressing underachievement

The evidence suggests that a range of approaches are required to address underachievement. However, it is important to note that classroom teaching is known to have the greatest impact on student outcomes.

Classroom teaching

In the world's top-performing education systems the quality of teachers is the key factor driving variations in student outcomes. Such systems ensure that the right people become teachers; they develop these people effectively; and they put in place systems to ensure that every child benefits from excellent instruction.

The Chief Inspector's Report has highlighted issues around the quality of teaching here, with half of primary school lessons and 60% of post-primary lessons not consistently rated 'very good' or better.

School leadership

Effective school leadership has been found to be second only to classroom teaching in terms of impact on student outcomes, with the greatest influence found in schools where pupils' learning needs are most acute.

The Chief Inspector has found that school leadership in all sectors requires improvement, and was rated inadequate in 22% of primary schools and 39% of post-primary schools. Other research has identified challenges around the supply of appropriately skilled school leaders here, particularly for small schools, Irish-medium schools and schools in deprived areas.

The Education and Training Inspectorate report has also criticised the approach in place for leadership development here, describing it as 'fragmented' and stating that it is not responding effectively enough to the needs of the education system. Indeed, other research here has found that 48% of principals responding to a survey had not received formal leadership training prior to their appointment.

Early years education and care

The international evidence shows that access to high quality early years education and care has significant and lasting benefits for children, particularly for those from disadvantaged backgrounds. The economic return from investment in this stage of education is thought to be higher than the rate of return in the later years.

Quality of provision is known to be critical in securing positive outcomes, and relates to areas such as staff qualifications and professional development. However, the Chief Inspector has highlighted a range of areas for improvement here, including:

- The leadership of some pre-school settings;

- The varied quality of support from an early years specialist in voluntary and private sector settings;

- The quality of planning to meet children's varied needs; and

- The sharing of information on children's progress and achievement between pre-school settings and primary schools.

Other approaches

A range of other approaches can help to address underachievement. These include involving parents in their children's education; a school ethos that fosters high expectations; and the effective use of data.

As well as strategies aiming to promote school improvement generally, more targeted and tailored interventions may also be used to address underachievement among particular pupils. Such interventions may include offering tuition, extracurricular programmes and providing effective feedback.

Class size and the "Pupil Premium"

Reducing class size has been used elsewhere in an effort to address underachievement. However the evidence suggests that this only has a small positive effect during the *early years* of schooling, and that this effect diminishes after a few years. High performing countries internationally tend to prioritise investment in teachers over smaller class sizes.

The experience of the "Pupil Premium" in England provides a useful insight into the targeting of additional resources to disadvantaged pupils. The Premium involves additional funds being provided for pupils with FSME and looked-after children.

A study has found that schools did not tend to disaggregate the Premium from their budget, and most commonly spent the additional funding on teaching assistants (an approach known to have very low or no impact on standards). The study recommended that if schools do not target additional funding effectively, government should consider mechanisms to improve its use, such as ring-fencing or payment linked to outcomes.

Conclusion

This paper has highlighted a number of areas that could be given further consideration, including:

- How the Department plans to achieve the PfG target of 49% of disadvantaged pupils achieving five GCSEs A*-C by 2014/15 (currently 32%);

- The progress of the PfG target to develop proposals on improving literacy and numeracy levels in 2012/13 and the content of these proposals;

- How the Department plans to address the findings in the Chief Inspector's Report on pre-school provision and the progress of the PfG commitment to provide one year's pre-school provision to every family that wants it;

- The proposed strategy on the professional development of teachers and plans to revise leadership development programmes for school leaders;

- The review of the Common Funding Formula in terms of how funding will be targeted to disadvantaged pupils.

Contents

1   Introduction

While many pupils here perform well at school, there is a long tail of underachievement with many failing to achieve even five GCSE qualifications. This research paper sets out the policy context and the levels of underachievement here. It also considers the factors that contribute to underachievement, and approaches to addressing it.

2   Policy context

The Department of Education (the Department) has a range of policies that aim to raise standards and improve outcomes in schools. *Every School a Good School: A Policy for School Improvement* is the Department's central policy, and is based on a number of principles, such as high quality teaching and learning and recognition that every school is capable of improvement.[1]

Count, Read: Succeed aims to support teachers and leaders to raise overall levels of attainment in literacy and numeracy among young people; and to narrow gaps in educational outcomes. It sets out a range of actions to achieve these aims, including recognising the central role of teachers in pupil attainment; ensuring early intervention; and linking with parents, families and communities.

A number of other policies aim to contribute to addressing underachievement, including Extended Schools. The *Programme for Government 2011-15* includes two commitments that specifically aim to address underachievement.

Commitment	Milestones: 2012/13	2013/14	2014/15
Increase the proportion of young people from disadvantaged backgrounds who achieve at least five GCSEs at A*-C or equivalent including English and mathematics	42%	45%	49%
Improve literacy and numeracy levels among all school leavers, with additional resources targeted at areas of educational underachievement	Develop proposals to significantly improve literacy levels and address disadvantage	Implement and monitor programme	Implement and monitor programme

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[1] Department of Education (2009) *Every School a Good School: A Policy for School Improvement.* Bangor: Department of Education

3   Underachievement in Northern Ireland

While GCSE and A Level results here tend to be above the UK average,[2] there is a long tail of underachievement with many pupils failing to achieve to their potential. Many of these pupils are from disadvantaged backgrounds, and have Free School Meal Entitlement (FSME). The recently published *Chief Inspector's Report 2010-12* highlighted a number of findings relating to underachievement, including:[3]

- Almost one child in five leaves primary school not having achieved the expected level in English and maths;

- Only 32% of school leavers with FSME achieved five GCSEs at grades A*-C including English and maths;

- In the non-selective sector the gap in GCSE outcomes (in terms of pupils achieving the five GCSE benchmark) between schools with lower levels of FSME and those where 50% of pupils or more are eligible is 24.7%;

- Just over a fifth (22%) of school leavers with FSME in non-selective schools achieved at least five GCSEs A*-C including English and maths, compared to 87% in selective schools.

International comparison

Findings from the PISA 2009 survey show that Northern Ireland's performance in reading and mathematics is not significantly different from the Organisation of Economic Cooperation and Development (OECD) average. The spread of attainment in reading was slighter wider than the OECD average, but slightly narrower for maths.[4]

In addition, the study found that the link between achievement and socio-economic background is stronger here than in most other OECD countries (with the exception of New Zealand and France). Nonetheless, the report noted that pupils here are able to overcome the disadvantages of their background better than in some other countries.[5]

4   Factors contributing to underachievement

Socio-economic background

There is a well-established link between disadvantage and poorer educational outcomes. Indeed, socio-economic background is one of the strongest predictors of academic performance.[6]

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[2] BBC news (2012) *NI bucks the national trend in GCSE exam results* [online] Available at: http://www.bbc.co.uk/news/uk-northern-ireland-19348742

[3] Education and Training Inspectorate (2012) *Chief Inspector's Report 2010-12* Bangor: Department of Education

[4] Bradshaw, J. et al. (2010) *PISA 2009: Achievement of 15-Year-Olds in Northern Ireland* Slough: NFER

[5] As above

[6] OECD (2011) *Against the Odds: Disadvantaged Students Who Succeed in Schools* OECD Publishing

However, as noted previously, the evidence suggests that school success is possible for students from less well-off backgrounds.[7] In Northern Ireland it is known that some schools in deprived areas perform well, while some in more advantaged areas perform less well.[8]

In 2010-12, 84% of schools with less than 29.99% of pupils with FSME had achievements and standards evaluated as good or better, while the figure for schools with higher levels of FSME was 61%. This gives a gap of 23 percentage points, a lower gap than that reported in the 2008-2010 period (54 percentage points).[9]

Parental factors

Linked to socio-economic factors, the circumstances and background of parents play an important role in the performance of children at school. A study in Northern Ireland has highlighted the key background variables relating to parents that contribute to children's development, including:[10]

- **Qualifications of the mother** (higher mother's qualifications were associated with higher cognitive scores);

- **Home learning environment** (one of the variables with the strongest effects on cognitive development);

- **Parental socio-economic status**; and

- **Father's qualifications:** (lower qualifications are associated with lower attainment, however effects are less significant than those of the mother).

Male underachievement in literacy

The evidence indicates that there is no single explanation for the generally lower levels of attainment in literacy among male students. A range of factors are thought to contribute, including the following:[11]

- Perceptions of literacy activities as 'female';

- Gender stereotyping on the part of teachers;

- Greater vulnerability of boys to poor teaching;

- Peer group cultures;

- Greater incidence of behavioural problems amongst boys; and

- A lack of male role models including fathers and male teachers.

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[7] OECD (2011) *Against the Odds: Disadvantaged Students Who Succeed in Schools* OECD Publishing

[8] Education and Training Inspectorate (2012) *Chief Inspector's Report 2010-12* Bangor: Department of Education

[9] As above

[10] Melhuish, E. et al. (2010) *Effective Pre-school Provision Northern Ireland (EPPNI). Pre-school experience and Key Stage 2 Performance in English and Mathematics* Bangor: Department of Education

[11] PricewaterhouseCoopers (2008) *Literacy and Numeracy of Pupils in Northern Ireland* Bangor: Department of Education

A recent study by the National Literacy Trust suggested that there is no single solution to underachievement by boys in literacy, and that instead a sustained approach is required. Its recommendations include schools promoting reading for enjoyment and the involvement of male role models in reading.[12]

Attendance

Among the many factors that may contribute to underachievement is absenteeism. Pupils with higher levels of absence are associated with lower levels of achievement. This has been linked to breaking the continuity of learning and to missing important aspects of a tightly structured curriculum.[13]

Recent research here has found that as the level of FSME in a school increases, absence levels also generally increase. However, there were wide variations in the attendance rates of schools with comparable levels of deprivation. The report highlights a range of approaches to improving attendance internationally:[14]

- A whole school approach;

- School ethos and culture that supports good attendance;

- Strategic leadership for attendance in school;

- Awareness and involvement of Board of Governors regarding attendance issue including endorsement of attendance policies;

- Attendance policies which are regularly reviewed and modified; and

- Setting targets for attendance.

5   Addressing underachievement

The evidence suggests that a multi-faceted approach is required to addressing underachievement. There is broad agreement in the literature that key factors relating to outcomes include early intervention, classroom teaching and school leadership.

Pre-school education

There is clear international evidence that access to high quality pre-school education has significant and lasting benefits for children (the effects can be evident throughout primary school). Pre-school education has been found to be particularly beneficial for children from disadvantaged backgrounds, and can:[15]

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[12] All-Party Parliamentary Literacy Group Commission (2012) *Boys' Reading Commission* London: National Literacy Trust
[13] Wilson, V. et al. (2008) "'Bunking off': the impact of truancy on pupils and teachers" in *British Educational Research Journal* Vol. 34, No1, February 2008, pp. 1-17
[14] RSM McClure Watters (2012) *Research into Improving Attendance in Schools Serving Deprived Areas* Bangor: DE
[15] Sammons, P. (2010) "Does pre-school make a difference?" In *Early Childhood Matters – Evidence from the Effective Pre-school and Primary Education Project* Routledge: New York

- Be an effective intervention for the reduction of special educational needs, especially for the most disadvantaged children;

- Play a role in narrowing the achievement gap; and

- May help combat social exclusion (strongly linked to educational outcomes).

Research has also found that the economic return to investment in the early years is higher than the rate of return in the later years of childhood. This is thought to be due to the fact that a child's brain develops most rapidly in its earliest years, and that during this time essential skills such as self-control and determination are developed – skills that play a key role in later education.[16]

Quality in early years settings

There is general agreement that the quality of pre-school education is fundamental to securing positive outcomes for children. Indeed, studies have found that if quality is low, it can instead have long-term detrimental effects on development. Quality relates to a range of areas including raising staff qualifications, providing effective professional development and recruiting and retaining a qualified workforce. [17]

With regard to the effectiveness of pre-school settings here, in the period 2010-12 over three-quarters (76%) of settings were found to have good or better provision. The report identified particular issues, including those outlined in the following table.[18]

Table 1: Issues around pre-school provision identified by the Chief Inspector

Area	Details
The quality of planning to meet children's needs	• Along with assessment of children's progress, this remains the most frequently identified area for improvement across all sectors
Assessment of children's progress	• In over 33% of settings staff do not make full use of their observations to plan appropriate learning experiences
The leadership of some pre-school settings	• Leadership was good or better in 86% of statutory nursery schools, 74% of nursery units and 66% of voluntary and private sector settings • Issues identified in voluntary and private sector settings include the employment of staff in leadership roles inexperienced in how young children learn and more frequent turnover of staff

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[16] Start Strong (2011) *The Economics of Children's Early Years* Dublin: Start Strong
[17] As above
[18] Education and Training Inspectorate (2012) *Chief Inspector's Report 2010-12* Bangor: Department of Education

Area	Details
The varied quality of external support	• The quality of external support provided by early years specialists to voluntary and private sector settings varied
The sharing of information on children's progress	• There is variation in the extent to which information is shared between pre-school settings and primary schools; • This is important for ensuring continuity and progression
Variation in the effectiveness of Irish-medium settings	• Issues include the low level of Irish language proficiency among some staff members and the insufficient awareness of some leaders about how to deliver a quality pre-school curriculum

Other issues around early years provision

A recent report from the Department stated that the majority of individual statutory settings are over-subscribed. The report notes that where children fail to obtain a place in a preferred setting, there is a risk that parent will be unable or unwilling to place their child with an alternative provider.[19]

There are also challenges in matching supply with demand in pre-school provision here due to the non-compulsory nature of pre-school education and the constantly changing demography.[20]

Quality of teaching

There is robust international evidence that classroom teaching has the greatest impact on student outcomes. Indeed, a review of the world's top performing education systems found that the main driver of the variation in student outcomes is the quality of teachers.[21]

The recent *Chief Inspector's Report* stated that half of lessons in primary schools and 60% of lessons observed in post-primary schools here were not consistently 'very good' or better. Teaching was found to have 'significant shortcomings' and to require improvement in a minority of cases.[22]

McKinsey&Company found that high performing school systems, despite contextual differences, all maintained a strong focus on improving instruction for pupils. The study reports that these school systems consistently achieve the following:

• They get the **right people** to become teachers;

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[19] Department of Education (2012) *Review of the Pre-School Admissions Arrangements* Bangor: DE

[20] Comptroller and Auditor General (2009) *The Pre-School Education Expansion Programme* Belfast: The Stationery Office

[21] McKinsey&Company (2007) *How the world's best-performing school systems come out on top* McKinsey

[22] Education and Training Inspectorate (2012) *Chief Inspector's Report 2010-12* Bangor: Department of Education

- They **develop these people** into effective instructors; and

- They **put in place systems and targeted support** to ensure that every child is able to benefit from excellent instruction.

In order to achieve these three factors, the report notes that school systems must ensure that appropriate conditions are in place, including rigorous standards and assessments, clear expectations, differentiated support for teachers and students; and sufficient resources.[23]

Investing in teaching

The Programme for International Student Assessment (PISA) has found that the strongest performing countries tend to invest more in teachers, with systems that invest in higher salaries for teachers showing higher than average student performance.[24] Other means of attracting high calibre candidates include raising the status of teaching; offering real career prospects and giving teachers responsibility as leaders of reform.[25]

Other important factors in supporting a high quality teaching profession include the provision of effective professional development, the use of appraisal and feedback to promote self-improvement and engaging teachers in wider educational reform.[26]

The Chief Inspector's Report found that while there were some weaknesses in the literacy and numeracy of a minority of student teachers, initial teacher education (ITE) providers prepared teachers well for the demands of the curriculum. However, areas for improvement included:[27]

- Underdeveloped evaluation among teachers of the effects of their teaching (on taking learning forward) among teachers in ITE;

- Variation between ITE providers on teaching aspects of numeracy at post-primary; and

- A need to improve continuity in professional learning for teachers throughout their career.

In a statement to the Assembly on 6th November, the Minister for Education set out plans to bring forward a new strategy for teacher education that would focus on attracting the right people to teaching and on developing them.[28]

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[23] McKinsey&Company (2007) *How the world's best-performing school systems come out on top* McKinsey

[24] OECD (2010) *PISA 2009 Results: what makes a school successful? Resources, Policies and Practices (Volume IV)* OECD Publishing

[25] Schleicher. A. (2011) *Building a High-Quality Teaching Profession: Lessons from around the World* OECD Publishing

[26] As above

[27] Education and Training Inspectorate (2012) *Chief Inspector's Report 2010-12* Bangor: Department of Education

[28] NI Assembly (2012) *The Official Report Tuesday 6th November 2012* [online] Available at: http://www.niassembly.gov.uk/Assembly-Business/Official-Report/Reports-12-13/06-November-2012/

School leadership

School leadership is acknowledged as being second only to classroom teaching in terms of its influence on student learning, with the greatest impact found in schools where pupils' learning needs are the most acute.[29]

However, the *Chief Inspector's Report* found that the quality of leadership and management across all sectors required improvement. In the primary sector, the quality was found to be inadequate in 30% of pre-school settings, 22% of primary schools and 39% of post-primary schools inspected.[30]

In addition, research has identified a general challenge in the supply of school leaders, particularly for small schools, Irish-medium schools and schools in deprived areas. It has also highlighted concerns around attracting candidates of an appropriate calibre given the more limited pool of candidates.[31]

Leadership development

The Regional Training Unit develops policies and programmes to support the development of school leaders. A key programme is the Professional Qualification for Headship (PQH), which aims to help teachers prepare for leadership roles. Other opportunities include programmes for emerging leaders, induction training for new principals and programmes for experienced leaders.[32]

In terms of leadership development, the Chief Inspector's Report found that the approach in place is 'fragmented', and not responding sufficiently quickly or effectively to the changing needs of the education system.[33]

Indeed, research here has found that 48% of principals responding to a survey received no formal leadership training prior to their appointment. Of these principals, around a third stated that they did not have time to undertake training, 24% were not aware of what was available and a further quarter stated that no training was available to them.[34]

In addition, many newly appointed principals here did not feel well-prepared to effectively carry out the role, with only 6% stating that they felt 'very prepared' to fulfil the roles and responsibilities, and 49% stating that they felt 'quite prepared'.[35]

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[29] Leithwood et al. (2004) *How leadership influences student learning* New York: The Wallace Foundation

[30] Education and Training Inspectorate (2012) *Chief Inspector's Report 2010-12* Bangor: Department of Education

[31] PricewaterhouseCoopers LLP (2009) *School Leadership Matters: An empirical assessment of the attractiveness of principalship in Northern Ireland and Ireland* Regional Training Unit

[32] Regional Training Unit: *Leadership College Prospectus* [online] Available at: http://www.rtuni.org/prospectus/

[33] Education and Training Inspectorate (2012) *Chief Inspector's Report 2010-12* Bangor: Department of Education

[34] PricewaterhouseCoopers LLP (2009) *School Leadership Matters: An empirical assessment of the attractiveness of principalship in Northern Ireland and Ireland* Regional Training Unit

[35] As above

The Minister for Education has announced that he will ensure that leadership programmes are modern and fit-for purpose, supporting leaders to lead within and beyond school and to work in alliance with their peers.[36]

Parental involvement

Research in Northern Ireland has found that schools serving disadvantaged communities and performing better than might be expected recognise that encouraging parental involvement is a key factor in raising attainment. Involving parents in the school was thought to be particularly important where parents had negative experiences of schooling.[37]

An example of approaches to parental involvement in other jurisdictions include the legal recognition of parents as partners in education under the Irish Education Act 1998. This legislation gives parents the right to be consulted and informed on all aspects of their child's education and requires schools to involve parents in planning.[38]

Another approach is the Harlem Children Zone in the US, which offers a range of schooling, after-school programmes, health and social services and community-building programmes. Programmes include training for parents. It has been replicated in 20 US cities.[39]

School ethos and culture

Research indicates that aspirations, attitudes and behaviour are an important aspect of why children from families with lower incomes tend to perform less well at school.[40] As such, it is important that schools foster a culture of high expectations. International research suggests that schools can foster 'resilience' by developing activities and practices that support disadvantaged students' motivation and confidence in their ability.[41]

Effective use of data

There is evidence that where data on pupil and school performance is used effectively, it can play an important role in promoting better teaching and learning. In particular, it can identify achievements, facilitate the monitoring of initiatives and strategies and allow for more effective allocation of staff and resources.[42]

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[36] NI Assembly (2012) *The Official Report Tuesday 6th November 2012* [online] Available at: http://www.niassembly.gov.uk/Assembly-Business/Official-Report/Reports-12-13/06-November-2012/

[37] PricewaterhouseCoopers (2008) *Literacy and Numeracy of Pupils in Northern Ireland* Bangor: Department of Education

[38] OECD *Parental involvement programmes: Ireland - Legal recognition of parent as partners* [online] Available at: http://www.oecd.org/pisa/pisaproducts/pisa2009/parentalinvolvementprogrammesireland-legalrecognitionofparentaspartners.htm

[39] OECD *Parental involvement programmes: United States: Harlem Children Zone* [online] Available at: http://www.oecd.org/pisa/pisaproducts/pisa2009/parentalinvolvementprogrammesunitedstates-harlemchildrenzone.htm

[40] Goodman, A., Gregg, P. (2010) *The importance of attitudes and behaviour for poorer children's educational attainment* York: Joseph Rowntree Foundation

[41] OECD (2011) *Against the Odds: Disadvantaged Students Who Succeed in Schools* OECD Publishing

[42] Kirkup, C. et al. (2005) *Schools' use of data in teaching and learning* DfES

However, a 2008 report found that there are 'extensive' training requirements at all levels in education here, and particularly within schools, in terms of enabling individuals to make the best use of the available data to improve standards.[43]

Targeted interventions

As well as efforts to raise standards and improve schools generally, addressing underachievement effectively will also involve targeting interventions at particular pupils. Examples of interventions include:

- **Offering tuition** by qualified teachers;

- **Peer tutoring** (whereby learners teach each other in pairs to complement teaching. Known to improve the learning and self-esteem of the tutor and tutee; requires pupils to be trained in tutoring);

- **Extracurricular programmes** (to allow pupils whose home environments are not conducive to learning to study outside school hours).[44]

Finland has adopted an approach whereby systematic attention is given to children who are identified as having 'learning needs'. Pupils are provided with small group tuition with a highly trained teacher, and each pupil is given an individual learning plan. At least one third of pupils are enrolled in these classes at any time, thereby reducing any associated stigma.[45]

Other factors

The literature highlights a number of policies that have been used for the purposes of school improvement, with differing degrees of success. The Sutton Trust has produced an overview of strategies and assessed their effectiveness; examples are included in the table overleaf.

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[43] PricewaterhouseCoopers (2008) *School and pupil performance data* Bangor: DE
[44] Clifton, J. and Cooke, W. (2012) *A long division* London: Institute for Public Policy Research
[45] Sahlberg, P. (2011) *Finnish Lessons* New York: Teachers College Press

Table 2: Approaches to improving learning: costs and effectiveness

Approach	Overview	Overall cost benefit
Effective feedback	• Feedback is used to refocus teachers or learners on achieving learning goals	Very high impact for low cost
Peer tutoring	• Learners work in pairs or in small groups to provide each other with teaching support • Benefits are apparent for both tutor and tutee	High impact for low cost
Early intervention	• Ensuring young children receive pre-school experience	High impact for very high cost
Tuition	• Student is given remedial tuition individually or in groups • Strong evidence on the benefits although costs are high	Moderate impact for very high cost
Parental involvement	• Actively involving parents in their children's education • Costs can vary widely depending on approach (e.g. workshops or intensive family support programmes)	Moderate impact for moderate costs
Reducing class sizes	• The costs associated with reducing class sizes to a level where there is significant benefit are very high	Low impact for very high cost
Teaching assistants	• Duties differ dramatically, including working with small groups of children and helping with administrative tasks; • Studies have found very small or no attainment effects	Very low/ no impact for high cost
Ability grouping	• Pupils with similar attainment levels are grouped together as a class or for specific subjects • While there may be benefits for higher attaining pupils, these are outweighed by the negative effects on attitude for lower performing learners	Very low or negative impact for very low or no cost

Source: Adapted from Higgins, S. et al. (2011) *Toolkit of Strategies to Improve Learning- Summary for Schools spending the Pupil Premium* Durham University: The Sutton Trust

Class size

On the whole, the evidence base indicates class size has a positive effect on attainment during the early years of school, but that this effect is small and diminishes after a few years. [46]

There is no clear relationship between average primary or post-primary school class size and educational attainment amongst OECD countries. Indeed, the evidence suggests that high-performing countries tend to prioritise investment in teachers over smaller classes.[47]

"Pupil Premium"

The Pupil Premium was introduced in England 2011 and involves providing additional funding to schools for pupils with Free School Meal Entitlement (FSME) and looked after children (around £600 per pupil). In 2012–13 the premium was extended to include pupils who had had FSME within the past six years. Schools in England were allocated a total of £1.25bn additional funding.[48]

Studies have indicated that the way in which resources are targeted is crucial, and that there is a risk that schools spend the funding on areas that have limited impact on underachievement. For example, a survey by the Sutton Trust found that many schools would spend the additional money on teaching assistants (very low/ no impact for high cost) and on reducing class size (low impact for very high cost).[49]

A study by Ofsted has found that the most common way for the premium to be spent by schools was indeed on teaching assistants. In addition, the pupil premium changed the way pupils from disadvantaged backgrounds were supported by only one in ten school leaders, and schools were not found to routinely disaggregate the premium from their school budget. The report made a series of recommendations, including:[50]

- School leaders should ensure that Pupil Premium funding is **not simply absorbed into mainstream budgets**, but carefully targeted at the designated children;

- School leaders should evaluate their Pupil Premium spending, avoid spending it on activities that have little impact on achievement for their disadvantaged pupils and **spend it in ways known to be most effective**;

- If schools do not target Pupil Premium money effectively, government should **consider ring fencing, payment linked to outcomes, or other mechanisms** to improve its use.

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[46] Department for Education (2011) *Class Size and Education in England Evidence Report*

[47] OECD (2010) *PISA 2009 Results: what makes a school successful? Resources, Policies and Practices (Volume IV)* OECD Publishing

[48] Ofsted (2012) *The Pupil Premium* Manchester: Ofsted

[49] Higgins, S. et al. (2011) *Toolkit of Strategies to Improve Learning- Summary for Schools spending the Pupil Premium* Durham University: The Sutton Trust

[50] Ofsted (2012) *The Pupil Premium* Manchester: Ofsted

One study suggests that additional funding for disadvantaged pupils must be accompanied by information on which incentives are most effective, as well as incentives for schools to put the money to the most appropriate use.[51]

6   Conclusion

This paper shows that Northern Ireland has relatively high levels of underachievement among disadvantaged pupils, and a stronger link between socio-economic background and achievement than in most other GCSE countries. It has also highlighted issues around the quality of teaching and leadership in many schools here. In light of these findings, a number of areas could be given further consideration including:

- How the Department plans to achieve the Programme for Government (PfG) target of 49% of disadvantaged pupils achieving five GCSEs at grades A*-C by 2014/15 (the current figure is 32%);

- The progress of the PfG target to develop proposals on improving literacy and numeracy levels in 2012/13 and the content of these proposals;

- How the Department plans to address the findings in the Chief Inspector's Report on pre-school provision and the progress of the PfG commitment to provide one year's pre-school provision to every family that wants it;

- The proposed strategy on the professional development of teachers and plans to revise leadership development programmes for school leaders;

- The review of the Common Funding Formula and how funding will be targeted to disadvantaged pupils.

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[51] Clifton, J. and Cooke, W. (2012) *A long division* London: Institute for Public Policy Research