

LITERACY AND NUMERACY EDUCATION IN THE CURRICULUM

Purpose

1. This paper provides:
 - a summary of the Scottish Government's **aims and ambitions** for the teaching and learning of literacy and numeracy;
 - detail on recent **performance data** on literacy and numeracy;
 - an outline of **activity and interventions** already being taken to drive improvements; and
 - **potential 'next steps'** for improving literacy and numeracy for the Board to consider.

Background

2. Literacy and numeracy are core to all aspects of learning, teaching and skills development. The Scottish Government's Education Governance: Next Steps document, published in 2017, restated its commitment to creating an education system which ensures that every child achieves the highest standards in literacy and numeracy. They are two of the three 'responsibilities for all', alongside health and wellbeing, and there is an explicit focus on them within the Scottish Attainment Challenge, the 2018 National Improvement Framework and the related Improvement Plan, including stretch aims to decrease the combined P1, P4 and P7 attainment gap in literacy and numeracy to 5 percentage points by 2024/25 while simultaneously raising the performance of the least deprived children and young people.

3. Data gathered on literacy and numeracy performance over recent years points to generally steady or declining levels of attainment and a persistent gap between the least and most disadvantaged children in the BGE. However, there are some documented improvements by the senior phase for literacy and numeracy at CfE levels 5 and 6. Further statistical evidence is provided at Annex A.

4. The data highlights particular challenges in literacy with attainment in writing and in numeracy with the application of numeracy skills¹. The transitions between primary and secondary school, and from Broad General Education to Senior Phase are areas of concern, as highlighted in SQA's fieldwork, Education Scotland's Quality Improvement in Scottish Education and through, engagement on the Learner Journey Review. This is underlined by the teacher experiences findings of SSLN which shows that, while the majority of primary teachers are fairly or very confident in delivering the CfE literacy and numeracy experiences and outcomes across the curriculum, non-English and non-Mathematics secondary teachers reported much lower levels of confidence. There are distinct challenges around learning and teaching of literacy and numeracy in Gaelic medium education.

Measures to drive improvement

¹ This is highlighted in SQA's course reports for Maths and Application of Mathematics. Specific areas which are flagged to the profession as needing attention are around basic algebraic skills, application of numeracy skills, and problem solving.

5. Many of the measures taken to date to deliver improvements in literacy and numeracy learning and teaching have taken account of expert advice. This has included implementing the recommendations of the Standing Literacy Commission, working with partners to address the recommendations contained in the Making Maths Count report and work that is now underway to deliver the STEM Training and Education Strategy.

6. Measures taken include developments in relation to assessment and improving learners' progress, actions to develop and improve practitioner capacity and capability, efforts made to bring about cultural and attitudinal changes, and a range of other steps taken to deliver improvements in the system.

- Assessing and improving learners' progress

7. The 2017 key messages from HM Chief Inspector of Education (August 2017) highlighted the need to simplify approaches to assessment and the importance of clarity on the assessment model at school level. This includes the need to plan assessment as part of learning and teaching rather than as a 'bolt on'. Teachers' professional judgement of learner progress and the achievement of curriculum levels in literacy and numeracy should be based on a range of assessment evidence and moderated with colleagues. Benchmarks have provided clarity on the national standards that learners need to demonstrate in order to achieve a CfE level, supported by a range of evidence including the Scottish National Standardised Assessments (SNSAs). The benchmarks, combined with the experiences and outcomes, enable teachers to plan for progression within and across CfE levels.

8. There is now a greater range of data and evidence on learners' progress in the BGE than ever before. It is essential that this data becomes part of the approach to tracking learners progress over time to ensure that it has maximum impact on raising attainment and closing the poverty-related attainment gap. Dialogue around the data, followed by effective, targeted interventions to help more children to reach national standards represents the most effective practice at present. In some schools, the data is just seen as a 'point in time' collection exercise rather than an integral part of tracking and improving learner 'progress over time'.

- Developing Capacity and Capability

9. Initial teacher education, on-going career long professional learning (CLPL) and the sharing of good practice among practitioners all play an important part in ensuring and maintaining the best possible progress in literacy and numeracy.

10. Some stakeholders have voiced concerns about a lack of practitioner confidence/ capability in a number of areas, including:

- primary teachers not being equipped to teach numeracy to the required level;
- teachers at secondary school level being less confident about, or more resistant to, the concept of teaching literacy and numeracy across the BGE (although the SSLN 2016 teacher survey suggests that levels of confidence have increased);

- secondary teachers being less prepared to teach literacy and numeracy at early and first CfE Level, which might be required by some students;
- challenges with multi-level teaching in the senior phase in classes where course content can differ for different presentation levels and students have a range of abilities and needs.

11. Measures already taken to address these concerns include:

- The provision of support for teachers on assessment and moderation provided by Education Scotland with the aim of ensuring consistency in professional judgements on learners' achievement of CfE levels. In 2016, around 300 Quality Assurance and Moderation Support Officers (QAMSOs) were nominated and since then have been taking part in an on-going programme of national support events, focusing on reading, writing and numeracy.
- The sharing of good practice through the National Numeracy and Mathematics Hub (with its associated network of Hub Champions), the Mathematics Principal Teacher Forum and the National Literacy Network, all of which are established and managed by Education Scotland. However, it is clear that these forums are not reaching all teachers and many teachers appear to be unaware of where to look for support in identifying which interventions are the most appropriate/valuable. The Making Maths Count report recommends that Education Scotland undertake a country-wide, comprehensive assessment of what works well, using attainment figures and inspection reports to share examples of what works well. This recommendation has not yet been taken forward.
- The production of Education Scotland's Literacy across Learning resource which provides practical material to support schools to plan literacy learning across all subject areas to ensure that young people in secondary schools receive regular opportunities to extend and apply literacy skills across all subjects and regular and effective feedback on their literacy skills from all teachers to ensure continuous improvement. The resource suggests reflective activities to promote staff understanding of how literacy skills help to deepen learning within subject areas and allow staff to make links between literacy activities and high quality learning and teaching, such as independent research and enquiry; discussion and debate; spoken presentation and extended writing. Education Scotland also provides professional learning resources for literacy which support teachers to develop their understanding of how to develop learners' skills in reading comprehension, group discussion and writing.

12. The content of Initial Teacher Education (ITE) courses vary considerably between providers. The ITE Content Analysis report,² published in 2017 shows that there are differences both within programmes and across programmes when comparing dedicated number of hours to key areas, including literacy and numeracy.

² Initial Teacher Education – Content Analysis, 25 May 2017
<http://www.gov.scot/Publications/2017/05/9187>

13. Education Scotland is working with colleagues to develop a new self-evaluation framework to support the universities which provide ITE to evaluate their work. It will be designed to support teacher education universities to identify what is working well, including highlighting features of their own highly effective practice. It will also help stakeholders to recognise and develop a shared understanding of what needs to be done collectively to secure improvements. It will focus on the quality of learning and teaching within ITE and key priorities including literacy, numeracy and health and wellbeing as well as additional support needs. The framework is being delivered in partnership with teacher education universities and the General Teaching Council for Scotland (GTCS) given their responsibility for course accreditation. It will build on and complement the existing quality assurance processes currently in place. It will be available this academic year.

14. Questions have also been raised regarding entry requirements to ITE programmes which require National Qualification award in English at SCQF Level 6 and in Mathematics at SCQF Level 5. These requirements are currently under review by GTCS.

- *Other steps to deliver improvement in literacy and numeracy*

15. Other measures taken to drive improvements include:

- The 2016 publication of the HM Chief Inspector of Education's Statement for Practitioners on Curriculum for Excellence which made clear that teachers should prioritise literacy and numeracy, along with health and wellbeing, across the curriculum to ensure that all learners make the best possible progress.
- SQA's National Qualifications being designed in response to the curriculum to enable learners to develop literacy and numeracy skills across all subjects, and there are also discrete national units available in literacy and numeracy.
- Recognition in the Youth Employment Strategy *Developing the Young Workforce* of the importance of literacy as an employability skill and its recommendation that STEM, including mathematics, is at the heart of efforts to tackle youth unemployment. A key aim of the programme is encouraging employers to work with schools and colleges to plan and deliver an enriched curriculum offer and to increase the range of skills pathways available to young people.
- Publication of a STEM Education and Training Strategy which seeks to ensure that everyone in Scotland is encouraged and supported to develop STEM skills throughout their lives, to grow STEM literacy in Scotland and drive inclusive economic growth. The strategy commits to providing further support to schools to help them raise attainment and close equity gaps in STEM learning, including in mathematics, and to develop the capacity of practitioners to deliver inspiring and relevant learning. Recognising the fundamental importance of numeracy and mathematics for accessing other areas of learning and as a key skill for life and work, one of the key performance indicators for the strategy is to increase the number of passes at SCQF level 5 in Mathematics subjects by 10% by 2022.

- Work to strengthen school libraries, through the publication of 'How good is our school library?', the development of a national strategy for school libraries and investment in a School Libraries Improvement Fund is underway and should support the teaching of literacy and numeracy across the curriculum in secondary schools.

- Promoting Cultural and Attitudinal Change

16. The Scottish Government and Education Scotland are working with partners to improve attitudes to literacy and numeracy (which each have different challenges e.g. maths anxiety is specific to mathematics and related subjects) through:

- staging an annual Maths Week Scotland and associated Holiday Maths Challenges which have been established to raise awareness and enjoyment of mathematics across all sectors of society. Early anecdotal evidence suggests this is having a positive impact with high levels of engagement from schools across Scotland.
- The First Minister's Reading Challenge, an initiative which is encouraging reading for pleasure among children and young people.
- Activity and initiatives (including Gaelic specific measures) to encourage parents to engage in their children's literacy and numeracy learning, such as the Bookbug programme, PlayTalkRead, Read, Write, Count and various activity supported with Pupil Equity Funding which reaches 95% of all schools.

17. Within schools, inspectors are seeing examples of good practice in supporting learning at home but with room for further improvement. The National Parent Forum Scotland's review of parental involvement and engagement³ reported that parents wanted more information on their child's learning and often have limited knowledge of what learning at home means in its broadest sense.

Proposals for further action

18. In considering what more could be done to drive improvements in relation to the teaching and learning of literacy and numeracy, the Board's views are sought on the following possible actions:

- In relation to assessing and improving learners' progress:

19. To ensure that the full range **data and evidence on learners' progress** in the BGE is used to best effect, and recognising that in some schools the data is just seen as a 'point in time' collection exercise, more could be done to support schools in ensuring that they promote substantive dialogue around the data in order to then pursue effective, targeted interventions. The new BGE benchmarking tool is designed to support this.

- in relation to developing Capacity and Capability

³ NPFS Review of the Impact of the 2006 Parental involvement Act, May 2017
<https://www.npfs.org.uk/2017/05/review-of-the-impact-of-the-2006-parental-involvement-act>

20. With regard to **support for probationer teachers**, the Probationer Confidence Report,⁴ published in 2017, showed that probationer teachers lacked confidence in their abilities to deliver the whole range of learning experiences to meet the needs of all pupils, including in respect of literacy and numeracy. The report showed that probationer managers and supports shared this view and suggested that partnership working between local authorities and ITE providers could be improved, which would help probationer managers to support professional learning.

21. **Career-long Professional Learning** in numeracy and literacy learning and exposure to developments in pedagogy could be made available as a key component of Professional Learning. Teachers could be supported to prioritise this and Education Scotland could provide support and guidance on appropriate material and guidance while also supporting collaboration. Strong leadership in schools is essential in ensuring that teachers feel supported to make time for professional learning. Feedback from teachers suggest that this is often lacking and so the Scottish Government and Education Scotland could consider further action to foster this leadership.

22. More could be done to help ensure that the **networks existing at local and national level for professional collaboration** reach all teachers. As they develop, the new Regional Improvement Collaboratives (RICs) should strengthen collaborative working networks at local and regional levels in line with their regional priorities and emerging work programme, and Education Scotland should facilitate national collaboration.

- in relation to further additional steps that could be taken to improve literacy and numeracy

23. The new **Regional Improvement Collaboratives** could be staffed with dedicated literacy and numeracy attainment advisers that could provide hands on, highly credible support in each region and support increased peer-to-peer and school-to-school support focussed on the core business of improving teaching and learning.

24. Informed by successful activity supported by Pupil Equity Funding, the Scottish Attainment Challenge, and the Education Endowment Foundation, Education Scotland could **promote the most effective interventions** that have been shown to have worked on the national improvement hub and/or through other means, ensuring integration across policy areas. Attainment Advisors could then disseminate this.

25. Education Scotland could develop a programme of work to **raise awareness and increase the impact of Education Scotland support for literacy and numeracy** across the curriculum, including more direct engagement with teachers using the support materials.

⁴ Gathering views on probationer teachers' readiness to teach – November 2017
<http://www.gov.scot/Publications/2017/12/2065/downloads#res529291>

26. More could be done to promote the best use of **benchmarks** for literacy and numeracy to ensure their positive impact is maximised and ensure that teachers (particularly in the BGE) are clear about standards, expectations and progression routes. This could include consideration of the resource needs of the QAMSO programme, and ensuring a clear connection with the outcomes sought from CfE through the NIF as well as ensuring a strong focus on supporting improvement research informed pedagogy.

27. The Scottish Government and Education Scotland could run a **series of Headteacher and practitioner events** focused on literacy and numeracy to encourage sharing of information and good practice building on the existing Pupil Equity Funding events.

28. Following the reporting of the Standing Literacy Commission in 2015, there has been no **expert group on literacy** operating in Scotland. The Scottish Government could convene a similar group to the National Profile Raising Group for Mathematics and provide secretariat support.

29. Further consideration could be given to **early years and DYW links**. Education Scotland's Quality and Improvement 2012-16 report states that there is more to be done to ensure staff develop children's skills and confidence in all areas of numeracy and mathematics during early years education. The final report of the Making Maths Count Group recommends that an action plan be established to promote maths as an essential skill for employment.

30. There are suggestions that interventions on both literacy and numeracy in **Ireland** (in a similar context to Scotland) are yielding positive results and it is possible that we would benefit from Scottish Government and Education Scotland undertaking a more systematic evaluation of what has been done there to inform future thinking.

- In relation to promoting Cultural and Attitudinal Change:

31. On **parental engagement**, there is scope to do more to improve the quality of the connection between home and school, and the extent to which schools, national agencies and local authorities can further support parents. Schools may be able to make further inroads in relation to parents' awareness of what they can do at home to support children's literacy and numeracy skills, and helping parents to appreciate the impact of these interactions. Education Scotland could support this by implementing a coherent communications plan, identifying appropriate channels to ensure parents are aware of available resources, building on successful experience of PEF (and other) interventions. This could include consideration of whether Parentzone content should be integrated into Scottish Government's move toward a single communications channel to parents (Parent Club) and a related action in the five year Parental Engagement Action Plan.

Conclusion:

32. Board members are asked consider the actions being taken currently and the possible actions that could be taken in addition to these.

- Which areas would the Board wish to see prioritised in moving forward?
- Which of the potential next steps would the Board wish to see pursued (or not)?
- Are there additional actions/interventions which should be considered.

ANNEX A

Curriculum and Assessment Board – Literacy and Numeracy data

Introduction

This paper sets out the key evidence on literacy and numeracy performance in Broad General Education phase, along with PISA performance data of pupils towards the start of the senior phase.

Literacy and numeracy performance data was gathered via the Scottish Survey of Literacy and Numeracy (SSLN) between 2011 and 2016. The survey assessed pupils attainment in literacy and numeracy in alternate years (odd years – numeracy, even years – literacy) through a mixture of paper and online based booklets and interactive assessments. The Achievement of CfE Levels data collection replaced the SSLN in 2016 and these data are based on class teachers' judgements of pupil attainment.

The Programme for International Student Assessment (PISA) is an OECD survey of 15 year old students' abilities in the domains of Mathematics, Reading and Science. This paper looks at Mathematics and Reading performance specifically.

SSLN – Literacy performance

Chart 1: Proportion of pupils performing well or very well in reading in 2012, 2014 and 2016, by stage

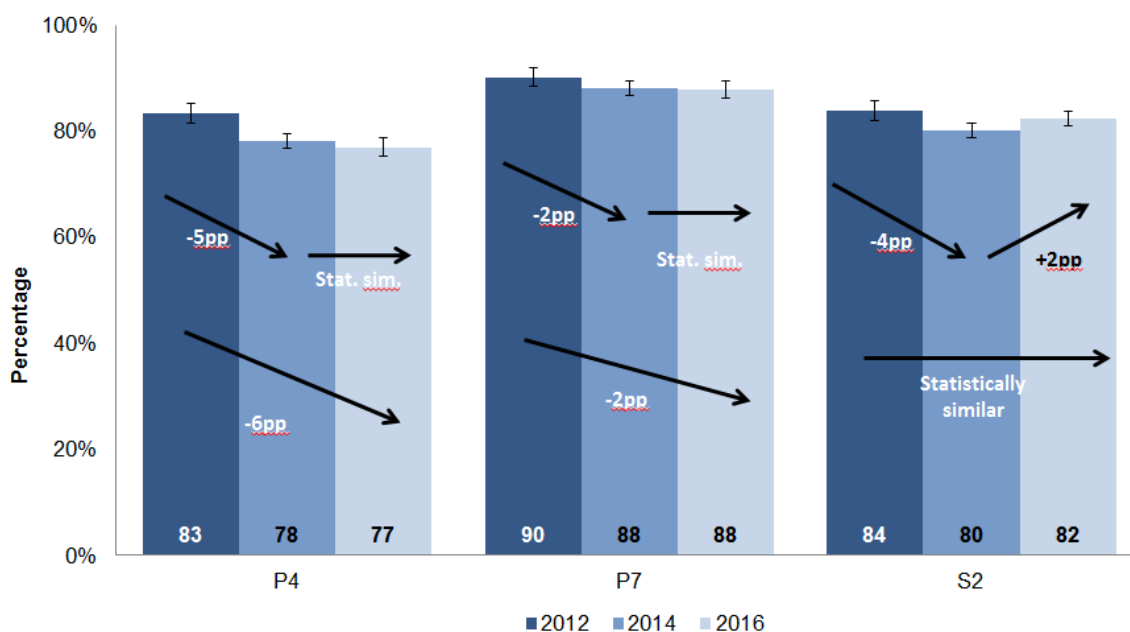
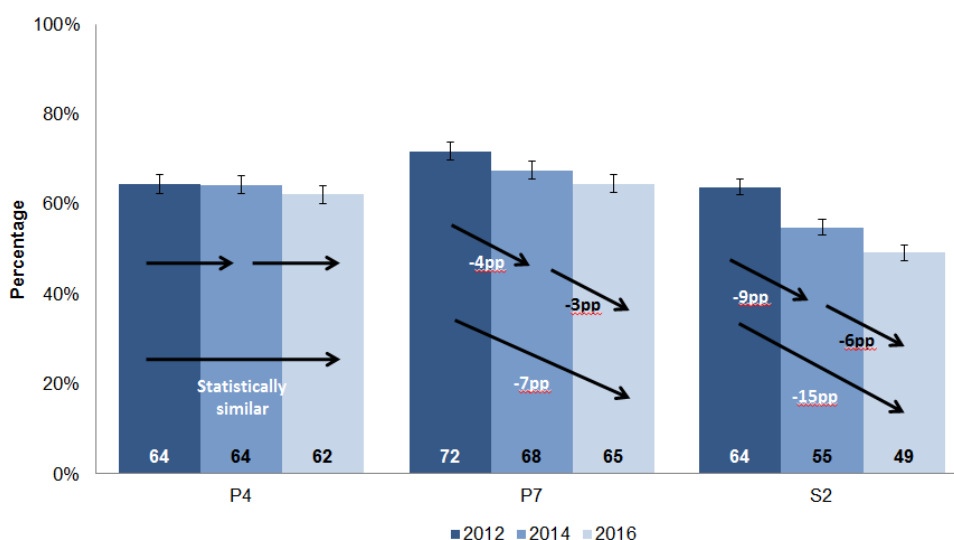


Chart 1 shows reading performance of P4, P7 and S2 pupils in 2012, 2014 and 2016 as the proportion of pupils performing well or very well i.e. achieving 60% or more in the reading assessment. The data show that, between 2012 and 2016, P4 and P7 reading performance decreased slightly (6 and 2 percentage points respectively) and S2 reading performance in 2016 was (statistically) similar to 2012.

Girls outperformed boys in reading at P7 and S2 - the extent to which girls outperformed boys has not changed since 2012 – but there was no difference in performance by gender at P4 in 2016.

Pupils from the least deprived areas outperformed pupils from the most deprived areas at all stages. The size of the gap in 2016 (13-18 percentage points) was similar to 2012.

Chart 2: Proportion of scripts demonstrating pupils performing well, very well or beyond the level in writing in 2012, 2014 and 2016, by stage



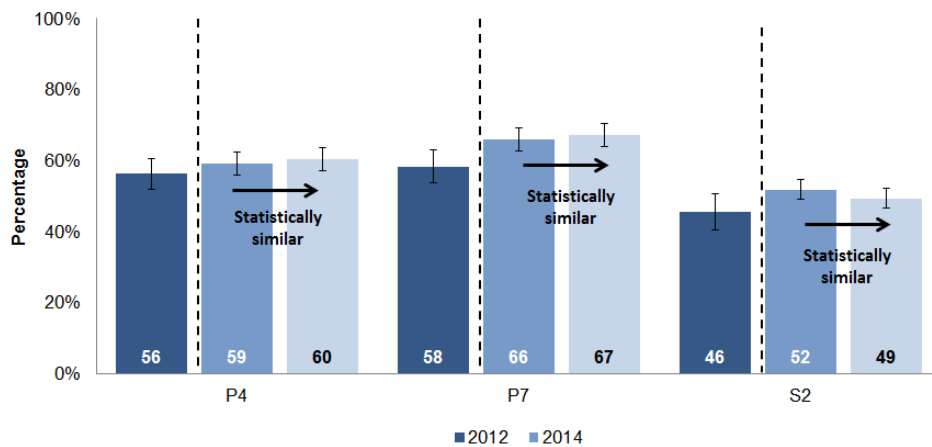
Writing performance was stable for P4 pupils between 2012 and 2016, whereas there were decreases in performance for both P7 (-7 p.p.) and S2 (-15 p.p.) due to cumulative decreases between 2012 and 2014 and 2014 and 2016 (Chart 2).

The proportions of pupils not yet at the expected level in writing increased between 2012 and 2016 at P7 (3% to 6%) and S2 (7% to 16%).

Girls outperformed boys in writing at all stages (by 13 to 18 percentage points) in 2016.

Pupils from the least deprived areas outperformed pupils from the most deprived areas at all stages. The size of the gap in 2016 (15-20 percentage points) was similar to 2012.

Chart 3: Proportion of pupils performing well, very well or beyond the level in listening and talking in 2012, 2014 and 2016, by stage



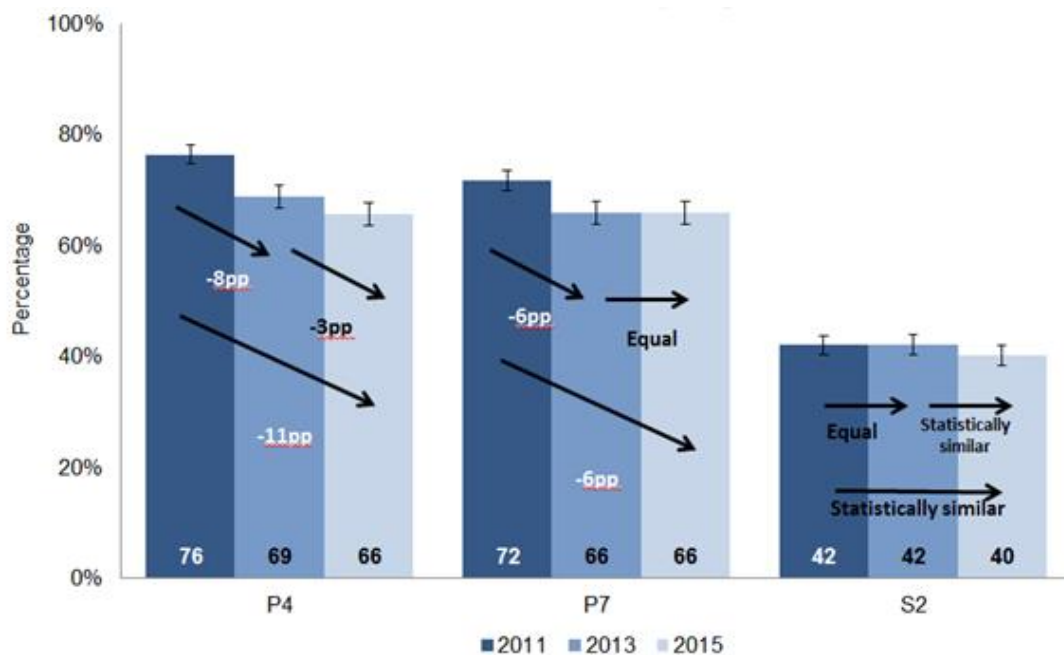
2012 results not directly comparable to 2014 and 2016 due to a change in methodology

Chart 3 shows that listening and talking performance was similar between 2014 and 2016 at all stages. Girls outperformed boys at P7 only - there was no difference at P4 or S2.

Pupils from the least deprived areas outperformed pupils from the most deprived areas at all stages. The size of the gap in 2016 (9-14 percentage points) is similar to 2014.

SSLN – Numeracy performance

Chart 4: Proportion of pupils performing well or very well in numeracy in 2011, 2013 and 2015, by stage



P4 numeracy performance decreased between 2011 and 2013, and again, slightly, between 2013 and 2015 (Chart 4). P7 performance decreased between 2011 and 2013, then stabilised between 2013 and 2015. S2 performance remained the same across all three survey years (it is consistently lower than P4 and P7 performance).

At P4 the attainment gap increased between 2011 and 2015, whilst at P7 and S2 it remained the same (statistically similar). Between 2013 and 2015 the gap remained the same for all stages.

Boys outperformed girls in numeracy at S2, whereas there was no gender difference at either P4 or P7.

Table 1 below shows that the lowest P4 and P7 performance was in questions on Fractions, decimal fractions and percentages, performance was also low for P7 pupils on measurement questions and for P4 pupils in estimation and rounding questions.

Performance across all question types declined since 2011; the largest decrease in performance since 2011 was for P4 pupils on Estimation and rounding questions (-9 percentage points).

Table 1: SSLN 2015 – Numeracy - Proportion of questions answered correctly, by stage and organiser

	P4	P7	S2
	Percentage	Percentage	Percentage
Estimation and rounding	49	59	40
Number and number processes	55	57	48
Fractions, decimal fractions and percentages	45	49	42
Money	62	59	47
Time	57	60	41
Measurement	55	49	35
Data and analysis	69	70	48
Chance and uncertainty	60	69	41

Table 2 shows performance in mental arithmetic questions was lowest for division across all stages, and also low for subtraction and multiplication at S2.

Table 2: SSLN 2015 – Numeracy - Proportion of mental maths questions answered correctly, by stage and numeracy operator

	P4	P7	S2
	Percentage	Percentage	Percentage
Addition	68	70	61
Subtraction	52	62	39
Multiplication	57	69	39
Division	44	49	40

Achievement of CfE Levels (ACEL)

Achievement of CfE Level data is available for 2015/16 and 2016/17 school years, however, due to ongoing improvements in the underlying data quality, the results are not directly comparable.

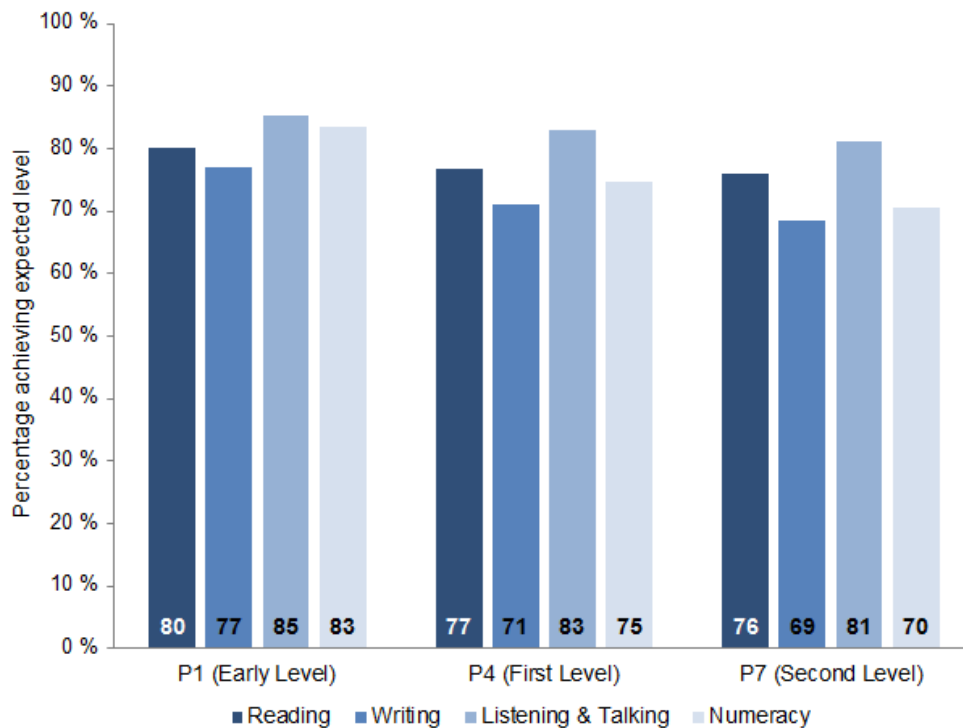
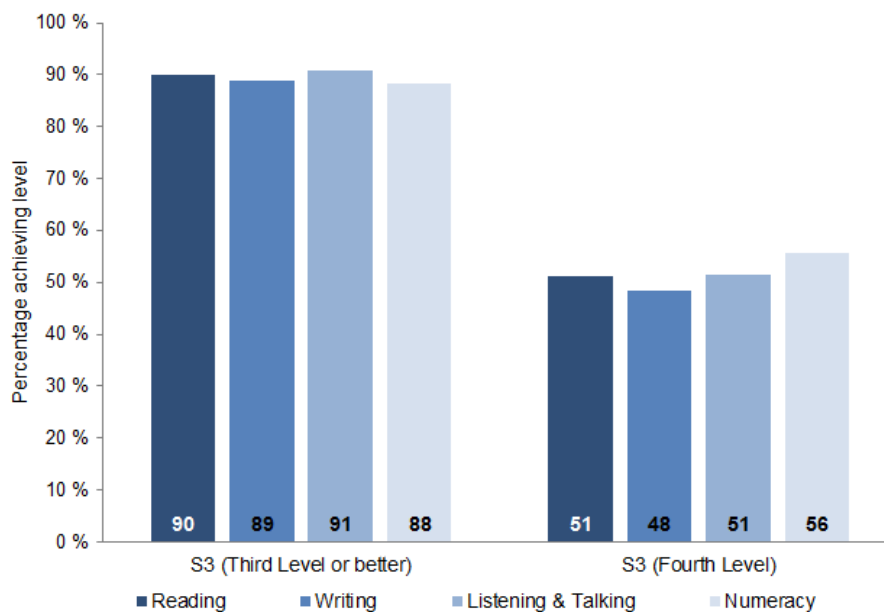
Chart 5: Percentage of primary pupils achieving expected CfE levels, 2016/17**Chart 6: Percentage of S3 pupils achieving CfE levels 2016/17**

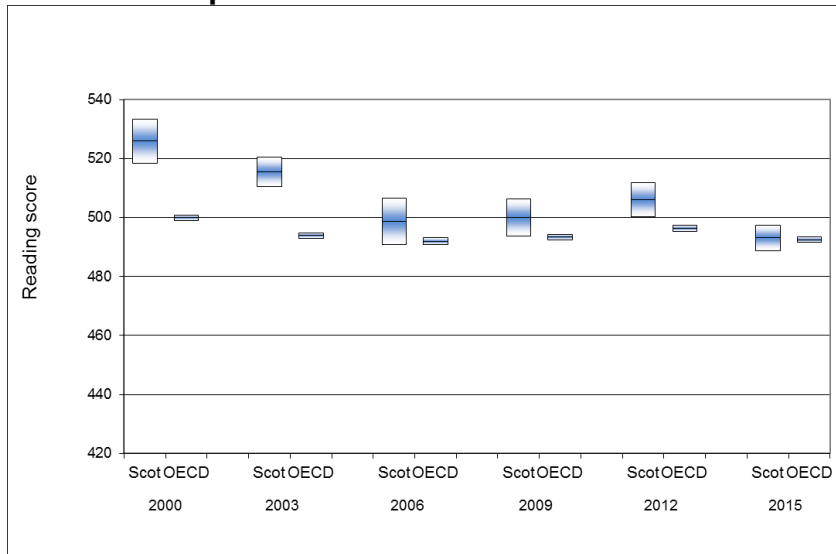
Chart 5 shows that, at primary, the percentage of pupils achieving the expected CfE level is highest in P1 and slightly decreases throughout the stages. At S3, the percentage of pupils achieving Third Level or better is high across all organisers and around half of S3 pupils have achieved Fourth Level in each organiser (Chart 6).

Girls performed better than boys at all stages, in all four organisers.

Pupils from the least deprived areas performed better than pupils from the most deprived areas at all stages, in all four organisers.

Programme for International Student Assessment (PISA)

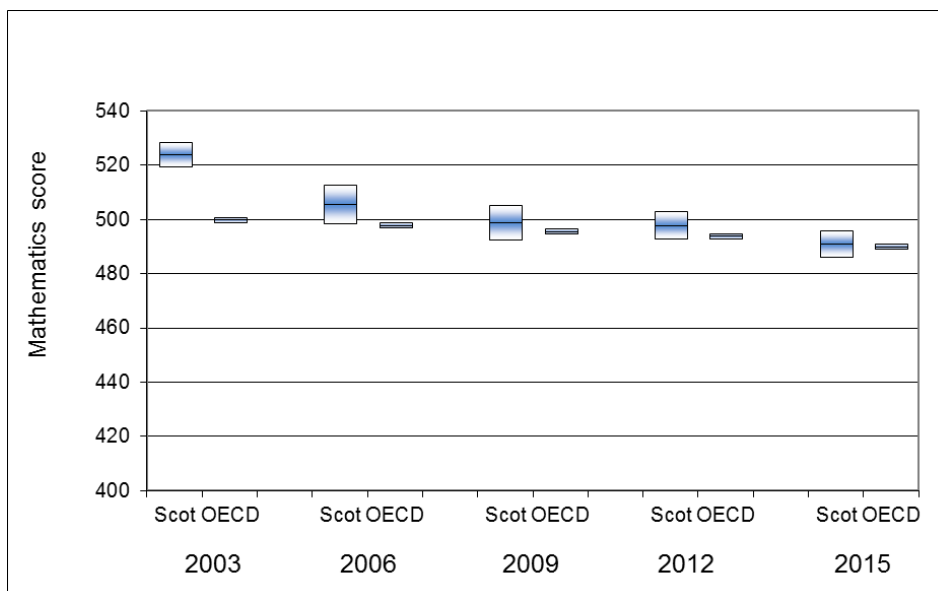
Chart 7: Comparison of Scotland and OECD PISA reading scores, 2000-2015



Scotland’s reading performance fell between 2000 and 2006, was stable until 2012, before falling again in 2015. This drop in score also meant that Scotland was then “similar” to the OECD average, whereas previously it had been above the OECD average score (in 2009 and 2012).

OECD’s benchmark for functional reading literacy is called Level 2. 17.9% of Scotland’s 15 year olds scored below Level 2 in reading in 2015, significantly higher than 2012 but lower than the OECD average (20%).

Chart 8: Comparison of Scotland and OECD PISA maths scores, 2003-2015



Scotland’s 2015 maths PISA score was statistically significantly lower than in 2003 and 2006. It has since been decreasing slightly since 2009, but not to a large enough extent for them to have changed statistically significantly or for Scotland’s relative

position to the OECD to have changed (NB the OECD average has been edging down slightly over this period too).

20.5% of Scotland's 15 year olds scored below Level 2 in maths in 2015, statistically smaller than the OECD average of 23.4%.

National Qualifications in English and Maths

Table 3 sets out attainment qualifications in English since 2007. Passes in English at SCQF Level 4 have decreased since the introduction of National 4s. The trend at SCQF is mixed with a peak in 2012, followed by decreases until 2016 and an increase of over 500 passes between 2016 and 2017. The number of Higher English passes has been increasing steadily since 2007, with a notable increase of 17% between 2014 and 2015.

Table 3: Number of passes in English, by qualification and SCQF level, 2007-2017

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Intermediate 1	4,463	4,360	4,946	5,053	6,179	6,292	5,830	4,137	272		
National 4								19,026	19,925	17,758	15,872
Standard Grade (Grade 3 or 4)	32,342	30,545	27,589	27,480	26,087	25,468	23,137				
Level 4 Total	36,805	34,905	32,535	32,533	32,266	31,760	28,967	23,163	20,197	17,758	15,872
Intermediate 2	14,292	15,026	16,033	16,212	19,087	20,007	19,877	15,868	1,378		
Standard Grade (Grade 1 or 2)	24,260	24,444	23,806	22,142	21,986	22,031	21,214				
National 5 (Grade A-C)								25,148	39,038	39,891	40,422
Level 5 Total	38,552	39,470	39,839	38,354	41,073	42,038	41,091	41,016	40,416	39,891	40,422
Higher (Grade A-C)	18,455	18,939	20,061	20,555	21,967	22,236	23,078	23,972	28,094	28,768	27,678

Table 4 shows the same data for Mathematics and Lifeskills Mathematics qualifications. Passes at SCQF Level 4 in Mathematics have averaged 26,000 per year since 2007, peaking at around 29,000 in 2008, with lows of around 24,000 in 2013 and 2014. Passes at SCQF Level 5 in Maths averaged around 29,000 between 2007 and 2017, passes decreased from around 28,000 in 2014 to around 24,000 in 2015 (a drop of 17%), when Intermediate 2ss were fully replaced with National 5s. The number of Higher Maths passes largely increased steadily until 2014 (15,779), with decreases between 2014 and 2015 and 2015 and 2016. Pupil roll for senior phase pupils has been decreasing over recent years, although this decrease has not appeared to have had an impact on Higher English passes.

Table 4: Number of passes in Mathematics, by qualification and SCQF level, 2007-2017

	2,007	2,008	2,009	2,010	2,011	2,012	2,013	2,014	2,015	2,016	2,017
Intermediate 1	6,935	7,612	7,260	7,166	8,361	8,190	7,295	3,091	217		
National 4								20,945	26,151	26,595	26,546
Standard Grade (Grade 3 or 4)	20,401	21,537	19,960	17,844	17,958	17,450	16,618				
Level 4 Total	27,336	29,149	27,220	25,010	26,319	25,640	23,913	24,036	26,368	26,595	26,546
Intermediate 2	13,185	14,191	15,477	15,513	16,331	16,143	17,263	12,801	1,249		
Standard Grade (Grade 1 or 2)	16,151	15,952	15,340	13,977	14,099	13,852	14,157				
National 5 (Grade A-C)								15,928	22,571	26,497	26,953
Level 5 Total	29,336	30,143	30,817	29,490	30,430	29,995	31,420	28,729	23,820	26,497	26,953
Higher (Grade A-C)	13,263	14,176	13,806	14,955	14,890	15,140	15,058	15,779	15,200	13,906	13,978
Lifeskills Mathematics											
National 4								1,479	3,656	3,567	2,945
National 5								120	856	1,018	1,213

Pupil and teacher experiences of literacy and numeracy

The SSLN also included a pupil questionnaire and teacher questionnaire designed to gather information on experiences of learning and teaching in literacy/numeracy.

Primary and secondary English teachers were confident in delivering the CfE literacy experiences and outcomes (94% very or fairly confident); Secondary non-English less so with around two-thirds reporting they were fairly or very confident delivering “tools for reading”, “creating (writing) texts” and “tools for writing”

The vast majority of primary teachers and secondary Mathematics teachers are confident in delivering the numeracy Experiences and Outcomes. Secondary non-Mathematics teachers reported lower levels of confidence, the lowest rate being 64% of teacher reporting they felt fairly or very confident teaching 'chance and uncertainty'.

In terms of pupils' experiences of learning , In 2016, pupils at all stages agreed most positively to the statement ‘I enjoy reading’. P4 was highest with 89 per cent, followed by P7 at 78 per cent and 61 per cent for S2. This was consistent over all three surveys, with only a small change in proportion from the 2016 figures (less than three percentage points).

In 2015, enjoyment of numeracy was high in primary but lower at S2: in P4, nine out of ten pupils agreed they enjoyed working with numbers. In P7, this was over three quarters of all pupils and, at S2, two thirds.

Conclusion

SSLN data showed that pupil performance in literacy and numeracy between 2011 and 2016 remained the same for 6 of the 12 key measures and decreased for the remaining 6. The drops in performance ranged from a very small drop (2 percentage points – but still statistically significant), to a drop of 15pp in writing performance at S2. The size of the attainment gap was the same by the end of the survey as the first year for 10 of the 12 key measures, and on the other two (P7 writing, P4 numeracy) the attainment gap had increased.

ACEL data shows us that around 8 out of 10 (assessed) Primary pupils are achieving expected levels with the exceptions of P4 writing, P7 writing and P7 numeracy, where around 7 out of 10 pupils are achieving expected levels. Achievement of Third Level or better at S3 is high, noting that Third Level is the minimum expected level of pupils under CfE. Around half of S3 pupils have been reported as achieving Fourth Level, although feedback from data providers indicate this is likely to be under-reporting due to the differing assessment practices at secondary.

The PISA approach of testing pupils' abilities in applying knowledge and skills in three domains highlighted recent drops in Scotland's performance in reading, relative to the previous cycle and relative to the OECD average. Scotland's maths score is lower than in early cycles (2003 and 2006), but recent small (statistically not significant) decreases have mirrored small decreases in the OECD average in the same timeframe.