A National Statistics Publication for Scotland
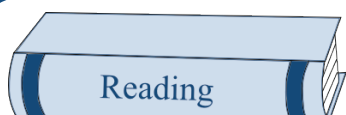
Scottish Survey of Literacy and Numeracy (SSLN) 2014 (Literacy)
### 29th April 2015

The SSLN monitors national performance in literacy and numeracy in alternate years. The survey assesses pupils at Primary 4 (age 8-9), Primary 7 (age 11-12) and Secondary 2 (age 13-14). Full results are available from www.gov.scot/ssln.

Reading

Pupils performing well or very well in 2014:

- 78 per cent in P4
- 88 per cent in P7
- 80 per cent in S2

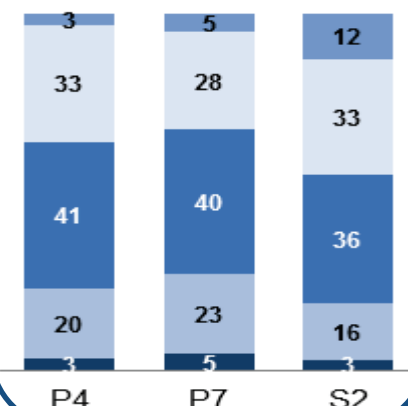**Summary of 2014 reading performance (per cent)**
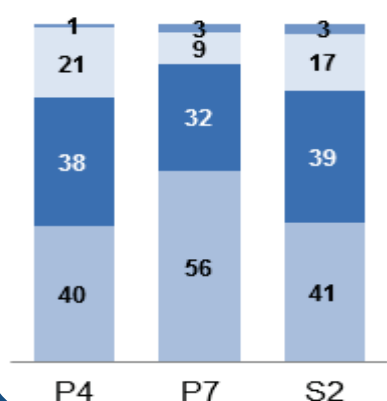
Writing

Pupils performing well, very well or beyond the level in 2014:

- 64 per cent in P4
- 68 per cent in P7
- 55 per cent in S2

Summary of 2014 writing performance (per cent)

Listening and Talking

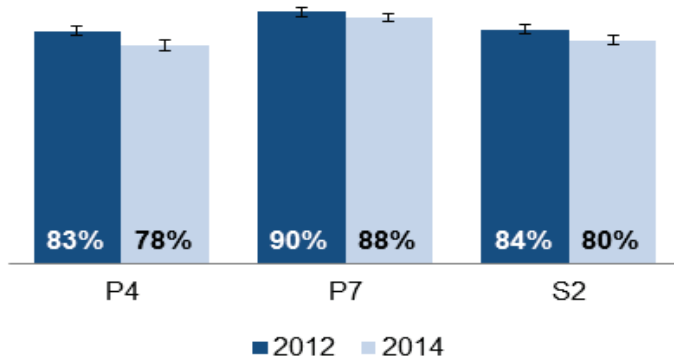Pupils performing well, very well or beyond the level in 2014:

- 59 per cent in P4
- 66 per cent in P7
- 52 per cent in S2

**Summary of 2014 listening and talking performance (per cent)**

Legend:
- Performing beyond the level
- Performing very well at the level
- Performing well at the level
- Working within the level
- Not yet working within the level

Proportion of pupils performing well or very well in reading in 2012 and 2014, by stage

Reading

| P4	P7	S2
83% 78%	90% 88%	84% 80%

■2012 ■2014

- The proportion of pupils performing well or very well was slightly lower in 2014 than 2012 at all stages.

- Girls performed better than boys in P4 and S2 but there was no gender difference in P7.

- Pupils in the least deprived category had higher performance than pupils in the middle and most deprived categories at all stages, particularly at S2.

- Over 70 per cent of pupils at all stages thought they were very good or good at reading in 2014.

- Almost all primary teachers and secondary English teachers reported confidence in delivering the curriculum experiences and outcomes for reading.
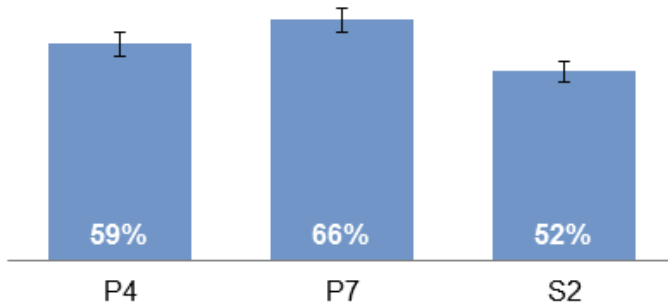
Writing
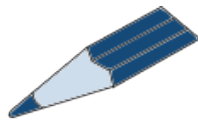
Proportion of scripts demonstrating pupils performing well, very well or beyond the level in writing in 2012 and 2014, by stage
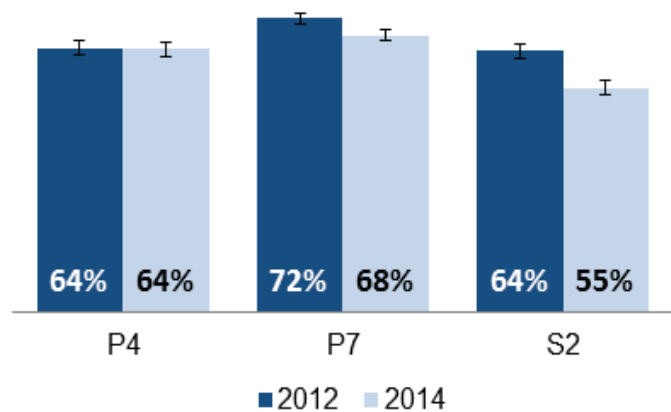
- The proportion of scripts performing well, very well or beyond the level was lower in 2014 than in 2012 for P7 and S2. There was no difference at P4.

- In P4, the gap between least deprived and most deprived reduced between 2012 and 2014 due to an increase in performance by those in the most deprived category and a decrease by those in the least deprived category.

P4	P7	S2
64% 64%	72% 68%	64% 55%

■2012 ■2014

- At all stages, girls outperformed boys and least deprived pupils outperformed most deprived pupils.

- Over two-thirds of pupils at all stages thought they were very good or good at writing in 2014.

Proportion of pupils performing well, very well or beyond the level in listening and talking, by stage

59%	66%	52%
P4	P7	S2

- There was no statistically significant difference between genders at all stages in 2014.

- The proportion of pupils performing well, very well or beyond the level in the least deprived category was higher at all stages compared to pupils in the most deprived category.

- More than 70 per cent of pupils thought they were very good or good at listening and talking in 2014.

- Comparisons between 2012 and 2014 listening and talking results cannot be made due to the change in assessment model.

Pupil Questionnaire

- The vast majority of pupils were engaged in their learning and had a positive perception of the usefulness and relevance of what they learn. Pupils also reported high levels of enjoyment and confidence that they usually do well in their learning.

- In class, pupils reported that they actively participate in their learning through discussion and using problem solving techniques. Pupils also reported that they were given opportunities to discuss with their teacher how they could do better.

- Pupils regularly work on their own or are taught with the class as a whole; teachers also reported that pupils often work in groups and discuss what they are learning.

- Teachers report that pupils are regularly asked about their views on their literacy skills and that this, and other evidence, is used to shape their learning going forward.

Teacher Questionnaire

- There is generally high confidence across all teachers around understanding key aspects of CfE and using them to improve learning.

Contents

Chapter 1: Introduction

1.1 What is the SSLN?

The Scottish Survey of Literacy and Numeracy (SSLN) is an annual sample survey which monitors national performance of school children at P4, P7 and S2 in literacy and numeracy in alternate years. The 2014 survey focused on literacy. All mainstream publicly funded and independent schools are invited to participate in the SSLN. For more information on the survey design see Chapter 9: Background notes.

The SSLN also provides information which informs improvements in learning, teaching and assessment at classroom level through the development of Professional Learning Resources (PLRs) by Education Scotland. All PLRs are available on the Education Scotland website.

The SSLN replaced the Scottish Survey of Achievement (SSA) which ran from 2004 to 2009. The SSLN was developed in 2009 to support assessment approaches for Curriculum for Excellence (CfE), and so results are not comparable with the SSA. The guidance for assessment for CfE is set out in Assessment for Curriculum for Excellence: Strategic vision and key principles, published in September 2009, and in Building the Curriculum 5: A Framework for Assessment and its supporting suite of publications, first published in January 2010.

The SSLN is undertaken in partnership between the Scottish Government, Education Scotland, the Scottish Qualifications Authority (SQA), the Association of Directors of Education in Scotland (ADES) and local authorities.

We would like to thank the 10,000 pupils and 3,800 teachers in the 2,250 schools who participated in SSLN 2014.

1.2 Survey components

The 2014 literacy survey assessed all three literacy organisers (reading, writing and listening and talking). The survey consisted of written and practical assessments and pupil and teacher questionnaires. All participating pupils took part in a reading assessment and pupil questionnaire; pupils at half of participating schools were assessed in writing; and pupils at 40 per cent of schools took part in a listening and talking assessment. More detail on the assessments is provided in the relevant chapters.

The assessments used in the survey were designed to assess the wide range of knowledge, skills, capabilities and attitudes across learning identified in the literacy Experiences and Outcomes. They were designed to reflect the requirements that pupils have achieved breadth, challenge and application of learning. The pupil questionnaire collected information on factors that are likely to affect learning, such as pupil attitudes and experience in class. The teacher questionnaire collected information on teachers' experiences of delivering literacy across the curriculum.

Assessment tasks were either specifically developed for the SSLN by practising teachers and assessment experts, or, where previous SSA tasks were used or revised, these were reworked and aligned to CfE Levels and experiences and outcomes. The assessments were constructed to include tasks with different degrees of challenge across the range of literacy experiences and outcomes set out by the curriculum at each level.

Pupils were assessed at the following curriculum levels[1]:

P4: First Level
P7: Second Level
S2: Third Level

1.3 Reporting SSLN results

SSLN results are presented by categories for ease of reporting. A summary of the categories used is given in Table 1.2. They refer to performance in the survey and are not meant to be used for general classroom reporting of performance.

Headline reading results are based on pupils performing well or very well at the level. Headline writing and listening and talking results are based on pupils performing well, very well or beyond the level.

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[1] For definitions of the curriculum levels, please see the Education Scotland website.

Table 1.2: Summary of SSLN reporting categories

Reporting Category	Pupils are:
Performing beyond the level[2]	demonstrating skills at the next level
Performing very well at the level	meeting almost all the outcomes at that level
Performing well at the level	meeting most of the outcomes at that level
Working within the level	meeting some of the expected outcomes for their level, but they are not yet meeting the others
Not yet working within the level	not yet meeting any of the CfE outcomes of the level assessed

In contrast to the SSA, the SSLN does not assess pupils against other levels. For example, although pupils in P4 may be reported as 'performing very well at First Level', it is possible that some may be achieving many of the Second Level outcomes as well; however, the SSLN does not capture this information. The principles of CfE are clear, however, that the curriculum levels are not a barrier to pupils' progression in learning. In progressing through a level pupils must demonstrate breadth and depth of learning and be able to apply their learning in different and unfamiliar contexts.

There are three deprivation categories reported in the SSLN: the least deprived 30 per cent of datazones, the middle 40 per cent and the most deprived 30 per cent. These are based on the Scottish Index of Multiple Deprivation (SIMD) 2012 and pupils are assigned to a category according to their home postcode.

The SSLN samples a proportion of pupils rather than the whole population, therefore the SSLN results are presented as estimates. There is an element of uncertainty around the estimates and these are denoted by confidence intervals. Where appropriate, confidence intervals are represented on charts by error bars to help demonstrate this level of uncertainty. For more information on calculation and interpretation of confidence intervals please see Chapter 9: Background notes.

Statistical tests were used to test for statistically significant differences between results. All references to differences in this report are statistically significant differences.

1.4 SSLN Revisions

This report includes references to SSLN 2012 data which were revised in April 2015. More information can be found in Chapter 9: Background notes, note 9.4.

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[2] This category is an additional category used in writing and listening and talking only to reflect the nature of these assessments and marking procedures.

Chapter 2: Reading

- **Reading performance was highest at the P7 stage with 88 per cent of pupils performing well or very well.**

- **Seventy-eight and 80 per cent of P4 and S2 pupils performed well or very well, respectively.**

- **Girls outperformed boys at the P4 and S2 stages.**

- **Pupils from the least deprived areas had higher performance than other pupils, particularly at S2.**

2.1 Assessing reading skills

All participating pupils took part in a reading assessment. This consisted of two components: a pencil and paper booklet consisting of four tasks, each incorporating a source reading passage and a set of questions; and an online assessment containing four tasks: two based on webpage texts and two based on moving image texts (for example a BBC Newsround clip or a television advertisement for a children's museum).

Figure 1 provides an illustration of a pencil and paper reading task developed for the SSLN. This text is an extract from the short story 'The Present' by Melissa Wareham and tells the story of a young boy who desperately wants a pet dog.

Figure 1: Illustration of a First Level (P4) Pencil and Paper Reading Task 'The Present'
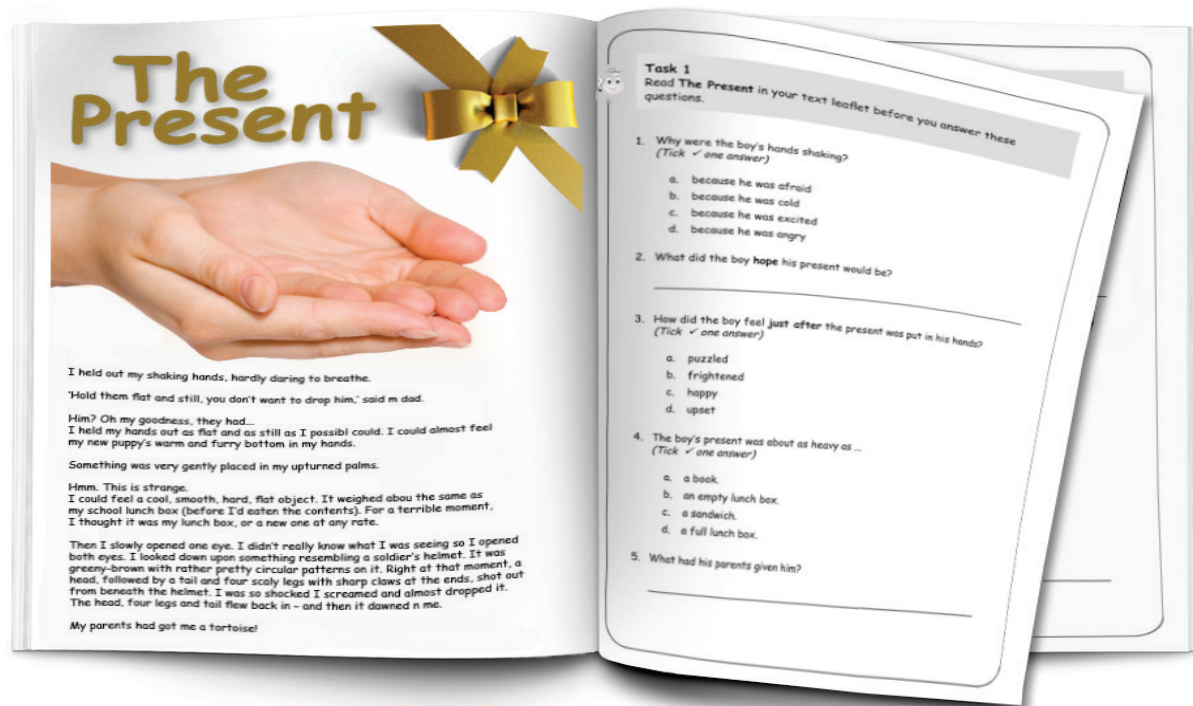
Reading results are based on pupils who completed both components of the reading assessment (written booklet and online assessment). In 2014, this gave a sample size of 3,155 pupils in P4, 3,223 in P7 and 3,542 in S2.

Pupils are assigned to one of four reporting categories based on the percentage of questions they answer correctly. Table 2.1 describes the categories used for each performance level in the reading assessment. These cut-off scores were set in consultation with Education Scotland, SQA and teachers, based on professional judgement and an analysis of the tasks involved in the assessment.

Table 2.1 Cut-off scores for SSLN reading reporting categories

SSLN reading reporting category	Percentage of items successfully completed in the SSLN
Performing very well at the level	80 per cent or more
Performing well at the level	60 per cent or more, but less than 80 per cent
Working within the level	P4: more than 25 per cent, but less than 60 per cent P7: more than 39 per cent, but less than 60 per cent S2: more than 34 per cent, but less than 60 per cent
Not yet working within the level	P4: 25 per cent or less P7: 39 per cent or less S2: 34 per cent or less

For example, pupils correctly answering 80 per cent or more of the reading questions across all tasks are described as 'performing very well at the level'. As the assessments are designed to cover the full range of outcomes within the curriculum at a given level, such a pupil might be expected, in general, to achieve at least 80 per cent across all tasks at their level. Pupils described as 'working within' a level can achieve some of the outcomes expected for their stage, but are still working on achieving the others.

For each stage, the differing cut-off scores between 'working within the level' and 'not yet working within the level' were determined by assessing the number of marks that could potentially be obtained in the assessment using only skills acquired at the previous level or, in the case of multiple choice items, by chance.

2.2 Reading attainment

Chart 2.1 shows the distribution of reading scores for each of the three stages assessed. Whilst P4 and S2 had a similar pattern of distribution, performance was higher in P7. This was most evident at the higher levels of performance as 26 per cent of P7 pupils scored over 90 per cent in the assessment. In comparison, 14 per cent of P4 pupils and 13 per cent of S2 pupils achieved this score.

Chart 2.1: Distribution of reading scores by stage
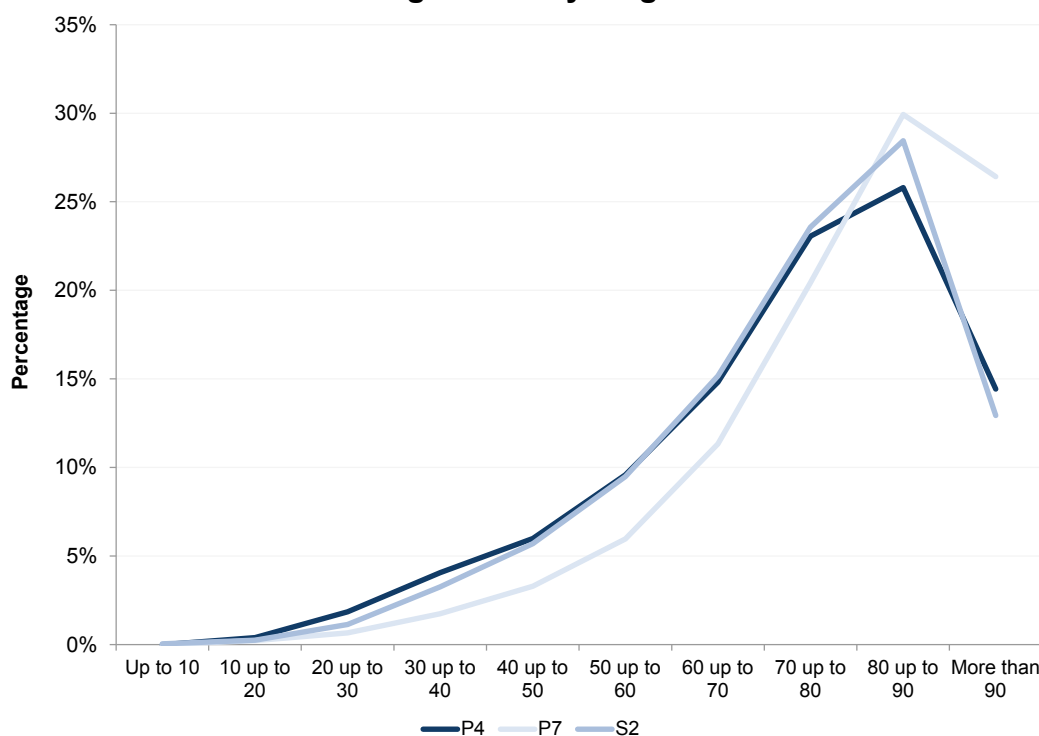
'Up to 10' includes 0 and all values up to but not including 10, etc.

The performance of P4, P7 and S2 pupils is presented by the four reading reporting categories in Chart 2.2. These categories are defined in Section 2.1.

Reading performance was highest in P7 where 88 per cent of pupils performed well or very well when assessed against the relevant curriculum level for their stage. Performances in P4 and S2 were similar, where the proportions of pupils performing well or very well at the relevant curriculum level were 78 and 80 per cent respectively.

The higher performance in P7 was underpinned by a greater proportion of pupils performing very well (i.e. they achieved a score of at least 80 per cent) as 56 per cent of P7 pupils performed very well, compared to 40 per cent in P4 and 41 per cent in S2.

There was a small proportion of pupils at all stages who were not yet working within the relevant level for their stage, with one per cent of P4 pupils and three per cent of P7 and S2 pupils in this category.

Chart 2.2: Performance in reading, by stage and reporting category
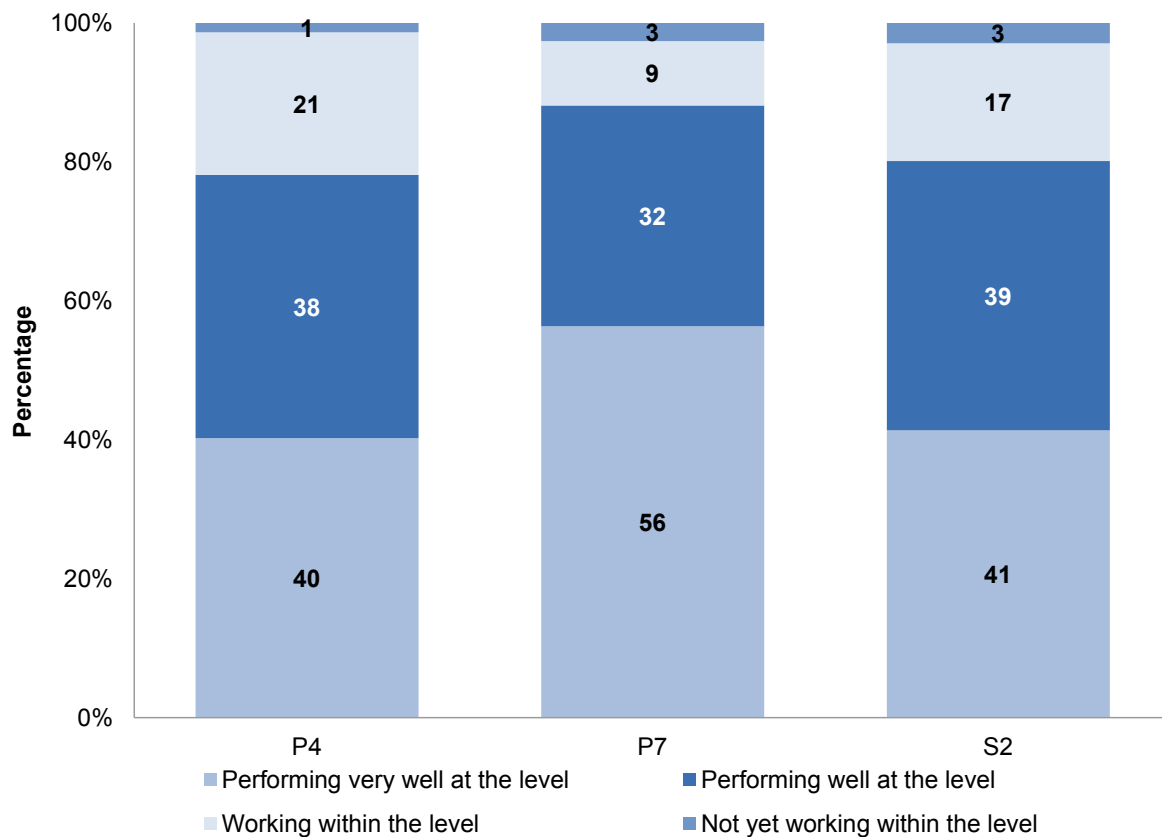
Whilst the attainment results showed that reading performance was highest in P7, the pupil questionnaire found pupils' perception of their reading ability was highest in P4 and declined with stage. Overall, 87 per cent of P4 pupils thought they were good or very good at reading, compared to 77 per cent in P7 and 70 per cent in S2.

As part of the survey teachers were also asked how confident they were delivering the literacy experiences and outcomes for reading, with over 95 per cent of primary teachers and secondary English teachers reporting they were fairly confident or very confident delivering these.

2.3 Attainment by gender

The proportion of girls who performed well or very well was higher than boys in P4 and S2, by six and eight percentage points respectively. There was no significant difference in performance between girls and boys at the P7 stage.

In both P4 and S2 stages, a higher proportion of girls performed very well which resulted in this gender difference in attainment. In P4, 43 per cent of girls performed very well compared to 37 per cent of boys, whilst the proportions performing well were the same at 38 per cent for both boys and girls. This pattern was replicated in S2 where the proportions of girls and boys performing very well were 45 and 38 per cent respectively.

Reading attainment for both girls and boys is highest in P7 but lower in P4 and S2 (Chart 2.3). This pattern is the same as the overall results.

Chart 2.3: Proportion of pupils performing well or very well in reading, by stage and gender
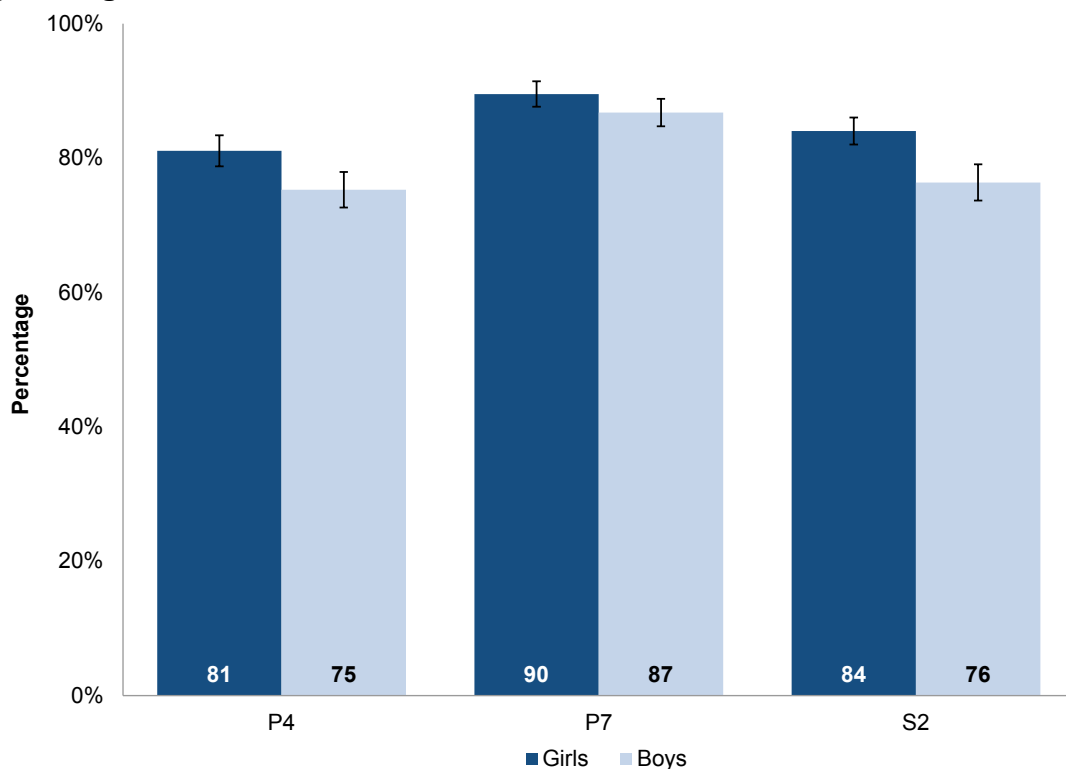
A gender difference in reading attainment was also present in Scotland's latest Programme for International Student Assessment (PISA) 2012 results. Pupils participating in PISA 2012 were 15 years old and at a different stage of their education than those assessed in the current SSLN. These results found that girls significantly outperformed boys, which was consistent with the findings of previous PISA studies.

2.4 Attainment by deprivation

The proportion of pupils who performed well or very well was significantly higher for pupils in the least deprived category than in the most deprived category, across all stages.

The impact of deprivation appears to have an increased effect in S2 with the gap between the least and most deprived categories being largest at this stage, where there was a 22 percentage point difference. The difference was smaller in the primary stages, with a 13 percentage point difference in P4 and 12 percentage point difference at P7.

For all stages, the differences in performance between the least and most deprived categories were due to significantly higher proportions of pupils in the least deprived category performing very well.

Although the performance of the middle deprivation category was lower than the least deprived category, it was higher than the most deprived category across all stages. This resulted in a stepped pattern where attainment increased as deprivation decreased (Chart 2.4).

Chart 2.4: Proportion of pupils performing well or very well in reading, by stage and deprivation category

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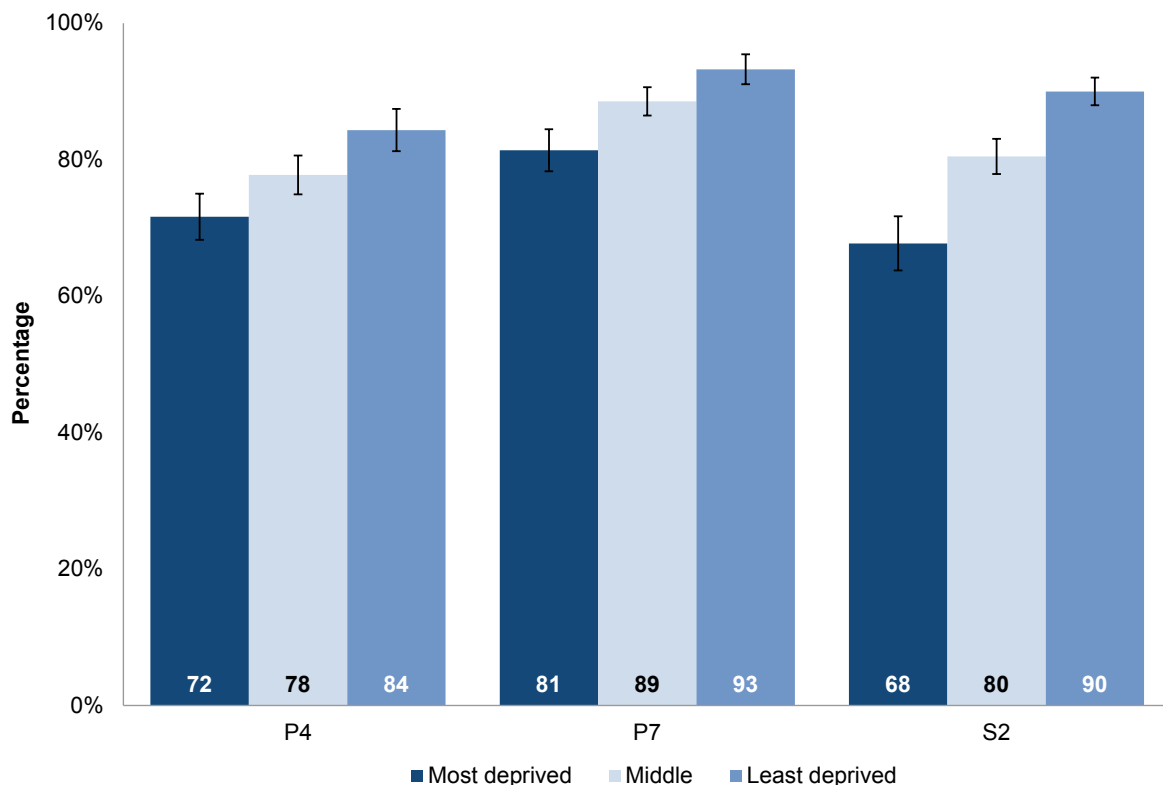
Chapter 3: Reading attainment over time

> - **The proportion of pupils performing well or very well was slightly lower in all stages in 2014 compared to 2012.**
>
> - **There were small decreases in the performance of P4 girls and boys, P7 girls and S2 boys between 2012 and 2014.**

A key objective of the SSLN is to monitor national performance over time, in all aspects of literacy, in P4, P7 and S2. The SSLN assesses numeracy and literacy in alternate years, with the first literacy survey taking place in 2012. It is therefore possible to compare performance between the 2012 and 2014 reading assessments. This chapter details the methodology used to assess reading attainment over time and provides the trends for key measures from the survey.

3.1 Methodology

Table 3.1 provides the number of pupils participating per stage who completed both a written booklet and an online assessment in each survey year. Overall, there was a sample size of 8,450 pupils for the 2012 survey and 9,920 for the 2014 survey.

Table 3.1: Number of pupils participating in reading in 2012 and 2014

Stage	2012	2014
P4	2,613	3,155
P7	2,667	3,223
S2	3,170	3,542

The SSLN survey design includes a provision for item release and replacement in order to provide examples of the tasks pupils are asked to undertake. They are included, for example, in Education Scotland's PLRs. New items can also be added to refresh the survey design; therefore there were a proportion of assessment booklets that were new in 2014.

Exploratory analysis on the 2012 and 2014 data was undertaken which confirmed that the survey designs, and therefore results, are comparable. Reading attainment results were produced on two bases; firstly on all assessment booklets and secondly by separating booklets refreshed between cycles from booklets consistent between 2012 and 2014. A series of in-year and between year comparisons showed that including new booklets and tasks did not affect the overall picture of pupil performance. Therefore it was concluded that the item release and replacement policy had produced comparable survey designs as planned.

As a result, the trend data in this report and the supplementary tables are based on an analysis of all booklets in 2012 and all booklets in 2014. Statistical significance tests were used to test for significant differences between 2012 and 2014 results.

3.2 Overall distribution

Chart 3.1 shows the proportion of pupils who performed well or very well at the relevant level in 2012 and 2014.

Across all stages assessed, the proportion of pupils who performed well or very well at the relevant curriculum level was slightly lower in 2014 than 2012. In P4, there was a five percentage point difference between the two surveys, as the proportion of pupils performing well or very well at the First Level decreased from 83 per cent in 2012 to 78 per cent in 2014.

The smallest change was in P7, where the proportion of pupils performing well or very well at Second Level decreased from 90 per cent in 2012 to 88 per cent in 2014. As with the other stages, this change was statistically significant. There was a four percentage point change in S2 performance, down from 84 per cent in 2012 to 80 per cent in 2014.

For all stages, the lower performance in 2014 was attributable to a decrease in pupils performing very well at their relevant curriculum level in 2014 compared to 2012. This pattern of performance decreasing as a result of changes in the performing very well category was also evident in the gender and deprivation breakdowns (see Sections 3.3 and 3.4).

At all stages, there were no differences in the proportions of pupils not yet working within the level between 2012 and 2014.

Chart 3.1: Proportion of pupils performing well or very well in reading in 2012 and 2014, by stage
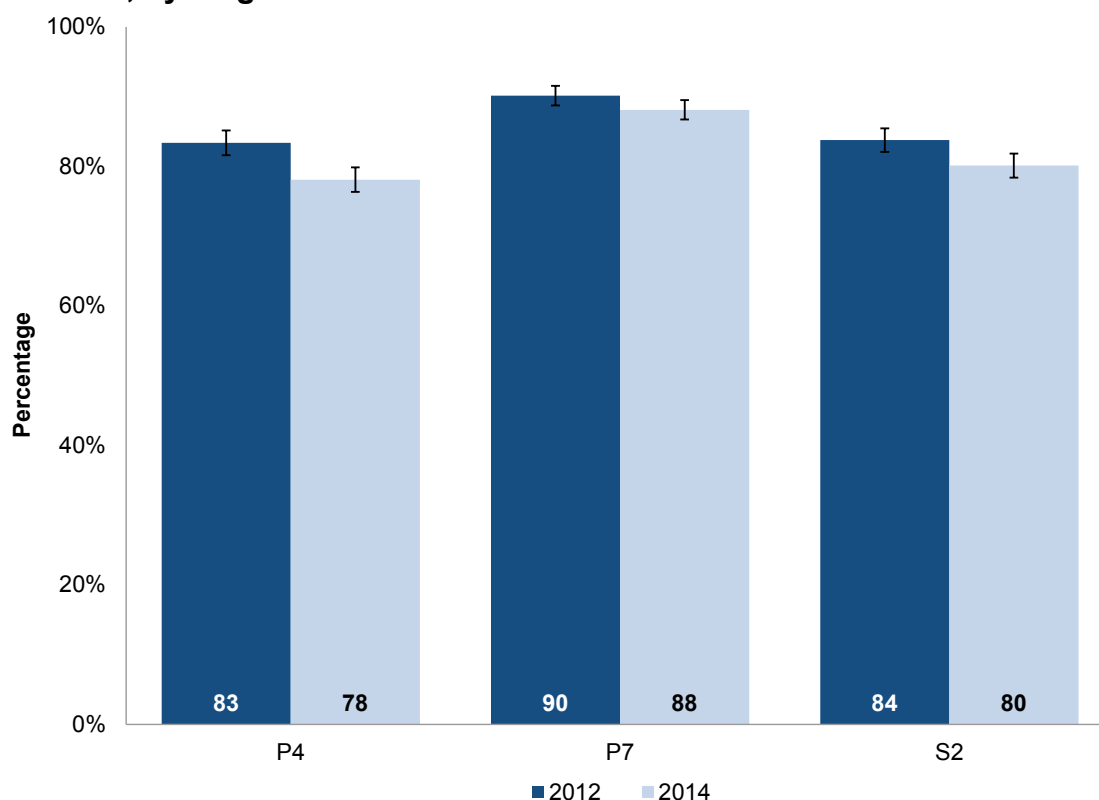
3.3 Attainment by gender

Chart 3.2 shows the proportion of girls and boys who performed well or very well in both years. There were decreases in performance for both genders in P4, with girls showing a four percentage point decrease between 2012 and 2014, whilst this difference was seven percentage points for boys. In both instances, this was the result of a significantly lower proportion of pupils performing very well.

The differences in P7 performance between 2012 and 2014 were smaller, though the change in P7 girls' performance from 92 per cent to 90 per cent was found to be statistically significant. Similar to P4, this change was driven by a decrease in the proportion of girls working very well at the level, down from 64 per cent in 2012 to 59 per cent in 2014. The difference in performance of P7 boys was negligible.

The proportion of S2 boys who performed well or very well at Third Level reduced from 82 per cent in 2012 to 76 per cent in 2014. This was driven by small decreases in the proportions of both working well and very well categories that, when aggregated, proved statistically significant. The difference in performance of S2 girls was negligible.

Chart 3.2: Proportion of pupils performing well or very well in reading in 2012 and 2014, by stage and gender
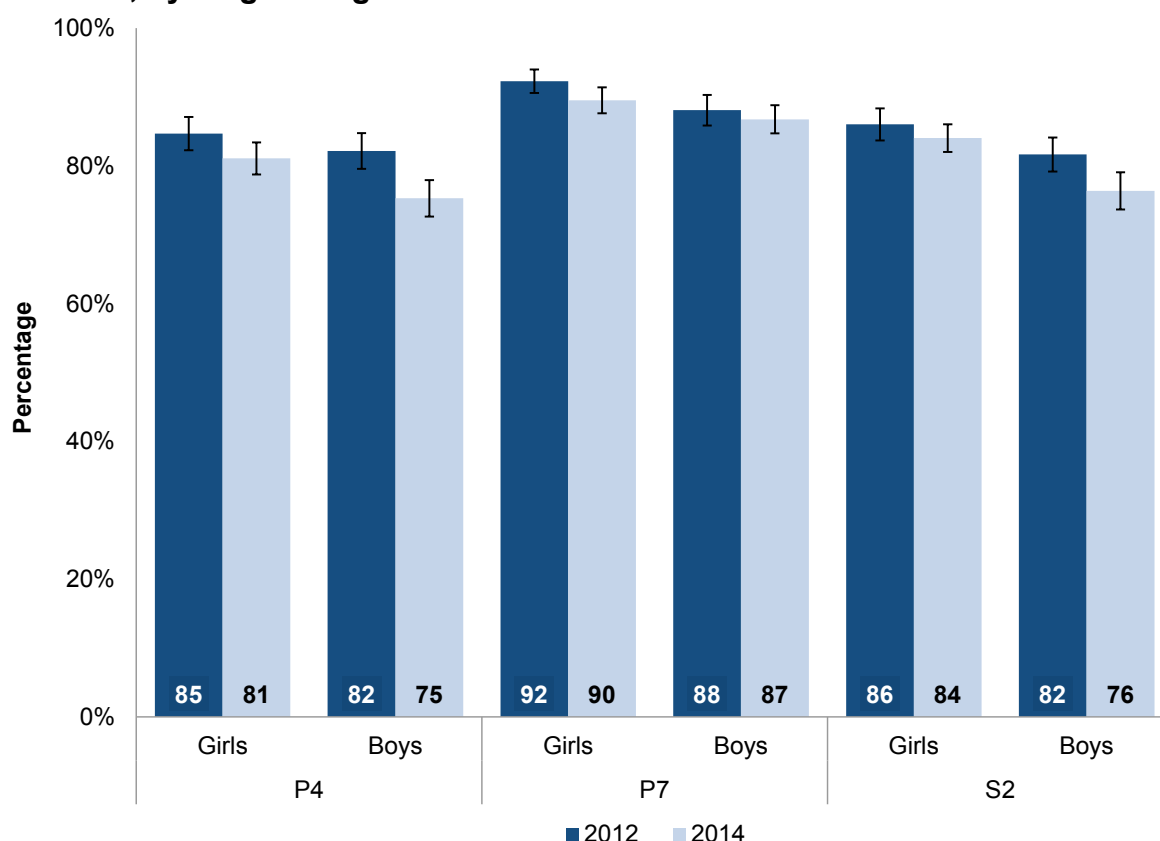
3.4 Attainment by deprivation

The pattern of performance by deprivation categories over time was different in each stage, with only some deprivation categories showing statistically significant changes between the two surveys. These changes are displayed in Table 3.2.

Table 3.2: Difference in proportion of pupils performing well or very well in 2012 and 2014, by stage and deprivation category

Stage	Least Deprived	Middle	Most Deprived
P4	Lower in 2014	Lower in 2014	No difference
P7	No difference	Lower in 2014	No difference
S2	No difference	No difference	Lower in 2014

In P4, there were significant decreases in both the least and middle deprivation categories between 2012 and 2014. The proportion of pupils performing well or very well in the least deprived category decreased by six percentage points, from 90 per cent in 2012 to 84 per cent in 2014. The middle deprivation category also showed a seven percentage point change, from 85 per cent to 78 per cent. Similar to the pattern seen in the overall results and gender breakdowns, these results were driven by reductions in pupils who performed very well.

The small change in the performance of pupils in the most deprived category was not statistically significant, suggesting it was mainly the changes in the least and middle deprivation categories that resulted in the decrease in the overall 2014 P4 results. Chart 3.3 shows the P4 results by deprivation category.

Chart 3.3: Proportion of P4 pupils performing well or very well in reading in 2012 and 2014, by deprivation category
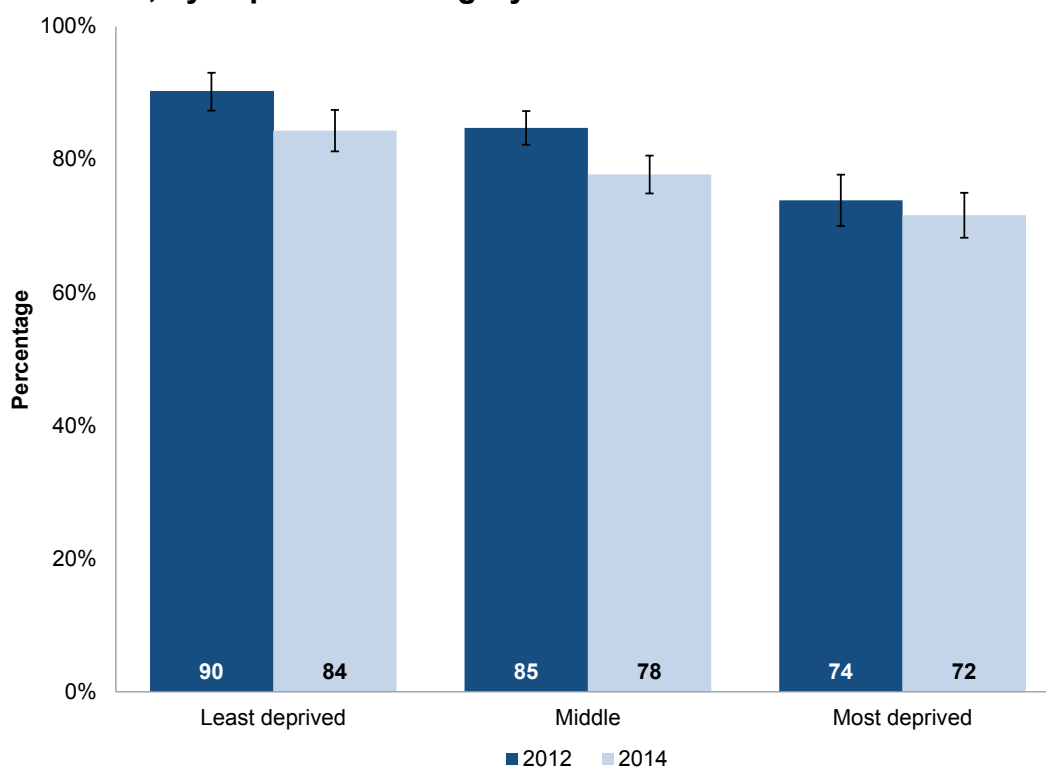
At the P7 stage, there was a statistically significant change in the proportion of pupils performing well or very well only in the middle deprivation category, where performance was 92 per cent in 2012 but 89 per cent in 2014. The small changes in the least and most deprived categories were not statistically significant.

The performance in the S2 most deprived category was lower in 2014 than in 2012, with performance decreasing from 75 per cent to 68 per cent. In this instance the change was the result of a six percentage point reduction in pupils working well at the level, with an equivalent increase seen in those working within the level.

The performance gap between least and most deprived pupils remained stable between 2012 and 2014, for P4 and P7 pupils. The gap at S2 increased due to a decrease in the percentage of most deprived pupils performing well or very well.

Chapter 4: Writing

- **Writing performance was highest in P7, with 68 per cent of scripts demonstrating pupils were performing well, very well or beyond the level, compared to 64 and 55 per cent for P4 and S2 respectively.**

- **Girls outperformed boys at all stages.**

- **In all stages, a higher proportion of scripts from the least deprived category performed well, very well or beyond the level than from the most deprived category.**

- **Over two thirds of pupils thought they were good or very good at writing.**

4.1 Assessing writing skills

Half of participating schools were selected to take part in a writing assessment and were asked to submit two pieces of class-based writing for each sampled pupil. The two writing scripts for each pupil were from two different curriculum areas (e.g. social subjects, science); written for two different purposes (e.g. to describe an event or express an opinion); and were selected by teachers to reflect the level at which the pupil was currently working. Guidance on the selection of suitable writing pieces was provided to schools.

Each writing script was assessed by trained, independent assessors and marked according to the five reporting categories described in Table 1.2 (see Section 1.3). As a pupil submits two scripts and these are assessed independently, it is possible for each script to be assigned to two different reporting categories in writing (for example, one script is assessed as performing well at the level and the other is assessed as performing beyond the level). As a result, the national performance is calculated at script level for writing (i.e. the proportion of scripts within each of the five reporting categories). This differs from the national performance of reading and listening and talking, which are both calculated at pupil level.

4.2 Writing attainment

Writing performance in 2014 was highest in P7, where 68 per cent of scripts demonstrated that pupils were performing well, very well or beyond the level. This was 64 per cent for P4 and 55 per cent for S2.

The percentage of scripts demonstrating that pupils were not yet working within the level was highest in S2 at 12 per cent. In P4 and P7 this was lower at three and five per cent respectively (Chart 4.1).

Chart 4.1: Performance in writing, by stage and reporting category

Legend:
- Performing beyond the level
- Performing very well at the level
- Performing well at the level
- Working within the level
- Not yet working within the level
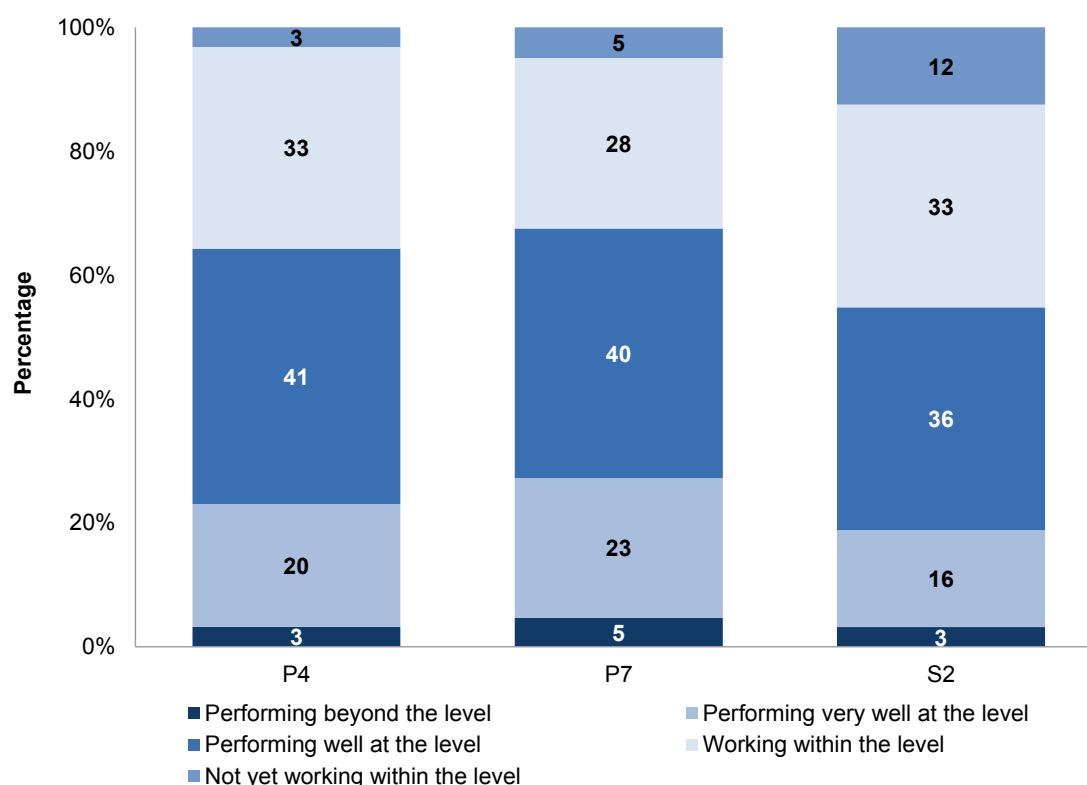
The pupil questionnaire provides insights on pupils' views on their writing skills. When pupils were asked how good they thought they were at writing, 80 per cent of P4 pupils thought they were good or very good compared with 71 per cent in P7 and 67 per cent in S2. In all stages under ten per cent of pupils felt they were not so good at writing.

Primary teachers and secondary English teachers reported high levels of confidence in delivering the experiences and outcomes for writing: over 95 per cent reported they were very or fairly confident. The picture was different for secondary non-English teachers, where between 65 and 70 per cent of teachers reported they were very or fairly confident in delivering all aspects of the writing experiences and outcomes, apart from 'organising and using information' which was 90 per cent, as shown in Table 4.1.

Table 4.1: Implementation of CfE by teacher type
'How confident are you that you understand the following aspects of CfE?' (proportion responding very or fairly confident)

| Writing experience and outcome	Primary (%)	Secondary English (%)	Secondary non-English (%)
Enjoyment and Choice	98	96	67
Tools for writing	98	98	65
Organising and using information	99	99	90
Creating texts	100	99	70

4.3 Attainment by gender

At all stages, the proportions of girls' scripts that demonstrated pupils were performing well, very well or beyond the level were higher than for boys' in 2014. The biggest gap was at S2, where the difference between the proportions of scripts assessed as performing well, very well or beyond the level was 16 percentage points. The smallest difference was at P7 (11 percentage points), as shown in Chart 4.3. This differs from reading attainment, where girls showed higher attainment in P4 and S2 but there was no gender difference in P7.

The pattern of writing attainment for both boys and girls was similar to that for overall scripts at all stages i.e. attainment for both genders was highest in P7 and lower in P4 and S2.

Chart 4.3: Proportion of scripts demonstrating pupils performing well, very well or beyond the level in writing, by stage and gender
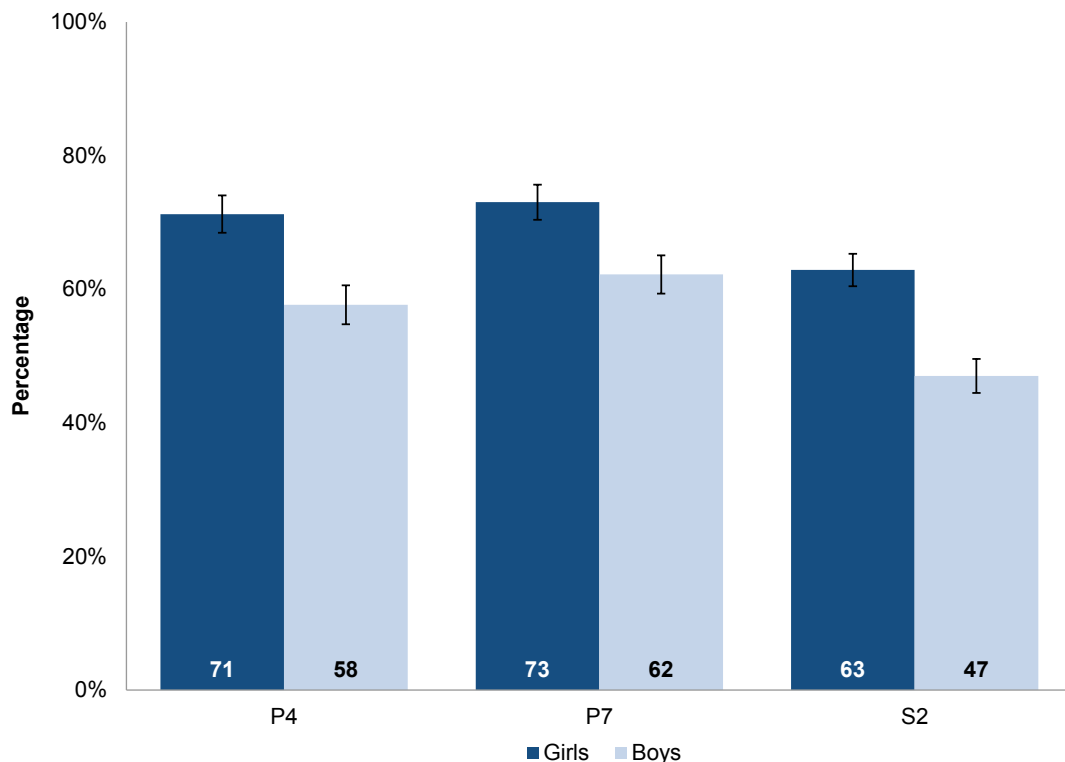
At all stages, there were about twice as many girls' scripts assessed as beyond the level compared to boys. The highest percentage was in P7 with six per cent of girls' scripts performing beyond the level compared to three per cent of boys' scripts.

Similarly, more than twice as many scripts from boys were assessed as being not yet within the level, compared to scripts submitted by girls, at all stages. At S2, the percentage of scripts from boys demonstrating that pupils were not yet working within the level was 17 per cent compared to eight per cent for girls.

4.4 Attainment by deprivation

Writing scripts from pupils living in areas of least deprivation demonstrated evidence of higher attainment than those from pupils living in the most deprived areas, at all stages in 2014. This was the same for writing in 2012.

For the middle deprivation category, the proportion of scripts demonstrating pupils performing well, very well or beyond the level is the same as the overall results (section 4.2) for all stages, at 64, 68 and 55 per cent in P4, P7 and S2 respectively.

Chart 4.4 shows that there was a clear link between performance and deprivation in P7 and S2. This was not the case in P4 as there was no difference between the least and middle deprivation categories or the middle and most deprived categories. The only statistically significant difference in P4 was between the least and most deprived categories, which was six percentage points.

Chart 4.4: Proportion of scripts demonstrating pupils performing well, very well or beyond the level in writing, by stage and deprivation category
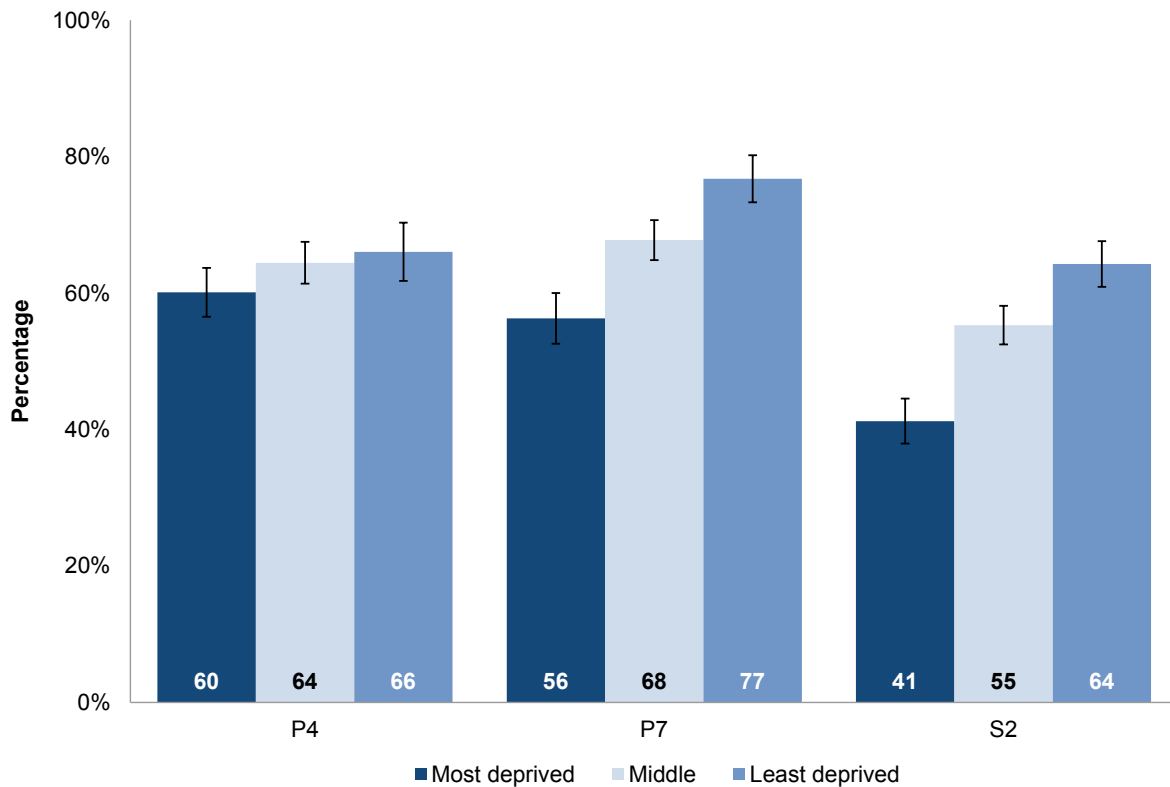
Chapter 5: Writing attainment over time

- **There was no difference in P4 performance between 2012 and 2014, whereas P7 and S2 performed lower in 2014.**

- **At P4, the gap between least deprived and most deprived reduced between 2012 and 2014 due to an increase in performance by those in the most deprived category (six percentage points) and a decrease by those in the least deprived category (seven percentage points).**

- **Across all deprivation categories in S2, there was a decrease in the proportion of pupils' scripts assessed as performing well, very well or beyond the level between 2012 and 2014.**

A key objective of the SSLN is to monitor national performance over time in all aspects of literacy, at P4, P7 and S2. The SSLN assesses numeracy and literacy in alternate years, with the first literacy survey taking place in 2012. It is therefore possible to compare performance between 2012 and 2014 writing. This chapter details methodology used to assess writing attainment over time and provides the trends for key measures from the survey.

5.1 Methodology

The number of scripts submitted in 2012 and 2014 were similar for each stage, as shown in Table 5.1:

Table 5.1: Number of writing scripts submitted in 2012 and 2014

Stage	2012	2014
P4	3,159	3,345
P7	3,307	3,425
S2	3,584	3,725

As the writing assessment model was the same in 2012 and 2014, the results can be directly compared.

5.2 Overall distribution

Comparing the proportion of scripts demonstrating pupils who were performing well, very well or beyond the level between 2012 and 2014 shows that there was no difference at P4, however P7 and S2 results were lower in 2014. Chart 5.1 shows that the largest drop occurred in S2, with a difference of nine percentage points. The decrease in S2 was driven by a decrease in scripts assessed as performing well at the level and an increase in scripts assessed as working within or not yet working within the level in 2014 compared to 2012.

Chart 5.1: Performance in writing in 2012 and 2014, by stage and reporting category
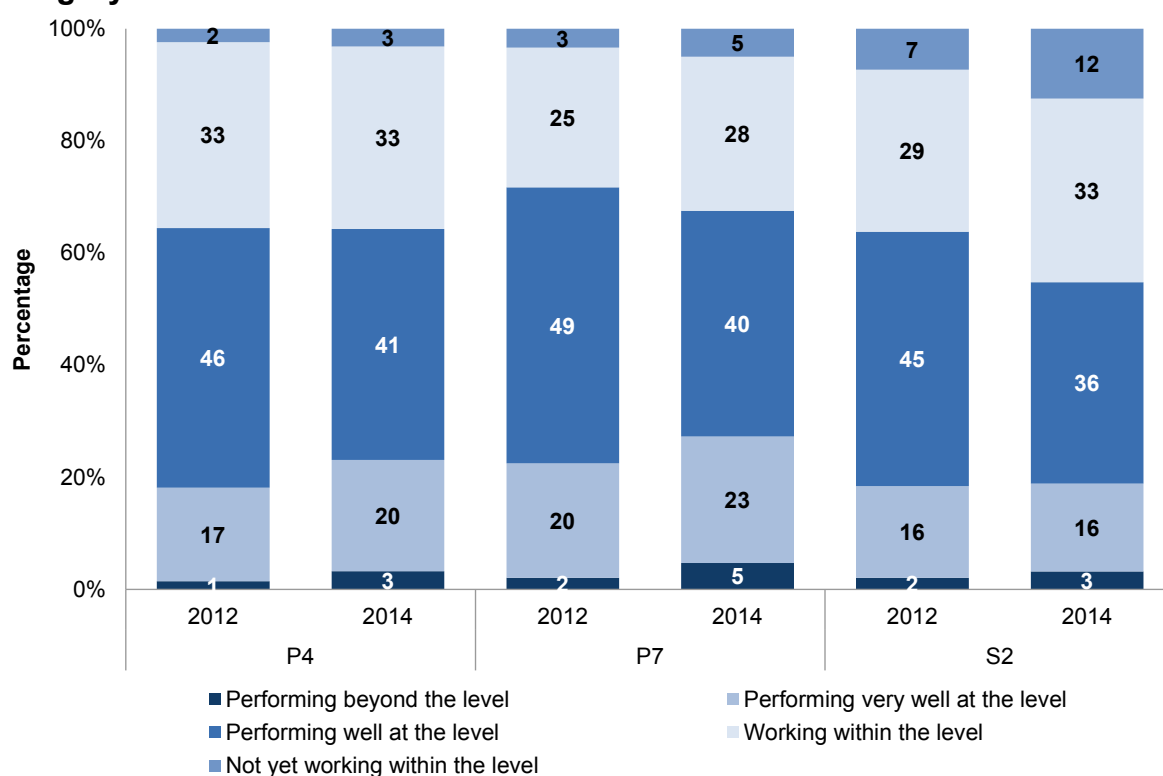

At P4, there were increases in the proportion of pupils performing very well and beyond the level, but a decrease in performing well at the level. This meant that there was no difference for the overall measure of pupils performing well, very well or beyond the level between 2012 and 2014 (64 per cent for both years). At P4, there was no difference in the proportion of scripts demonstrating pupils not yet working within the level between 2012 and 2014 (Chart 5.1).

Comparing 2012 and 2014 for P7, there was no statistical difference between the proportions of pupils performing very well at the level. A decrease of nine percentage points in pupils performing well at the level in 2014 contributed to the overall decrease of four percentage points with respect to the headline measure of pupils performing well, very well or beyond the level, between 2012 and 2014. At P7, there was an increase in the proportion of scripts demonstrating pupils not yet working within the level from three per cent in 2012 to five per cent in 2014 (Chart 5.1).

5.3 Attainment by gender

Comparing 2012 and 2014 results by gender, the same pattern as the overall results applies. There was no difference in P4 girls' or boys' results between the two years for the proportion of scripts assessed as performing well, very well or beyond the level. In P7 and S2, both girls and boys had a lower percentage of scripts assessed as performing well, very well or beyond the level in 2014 than 2012. The same overall pattern by gender can be seen in both years, in that girls outperformed boys at all stages (Chart 5.2).

Chart 5.2: Proportion of scripts demonstrating pupils performing well, very well or beyond the level in writing in 2012 and 2014, by stage and gender
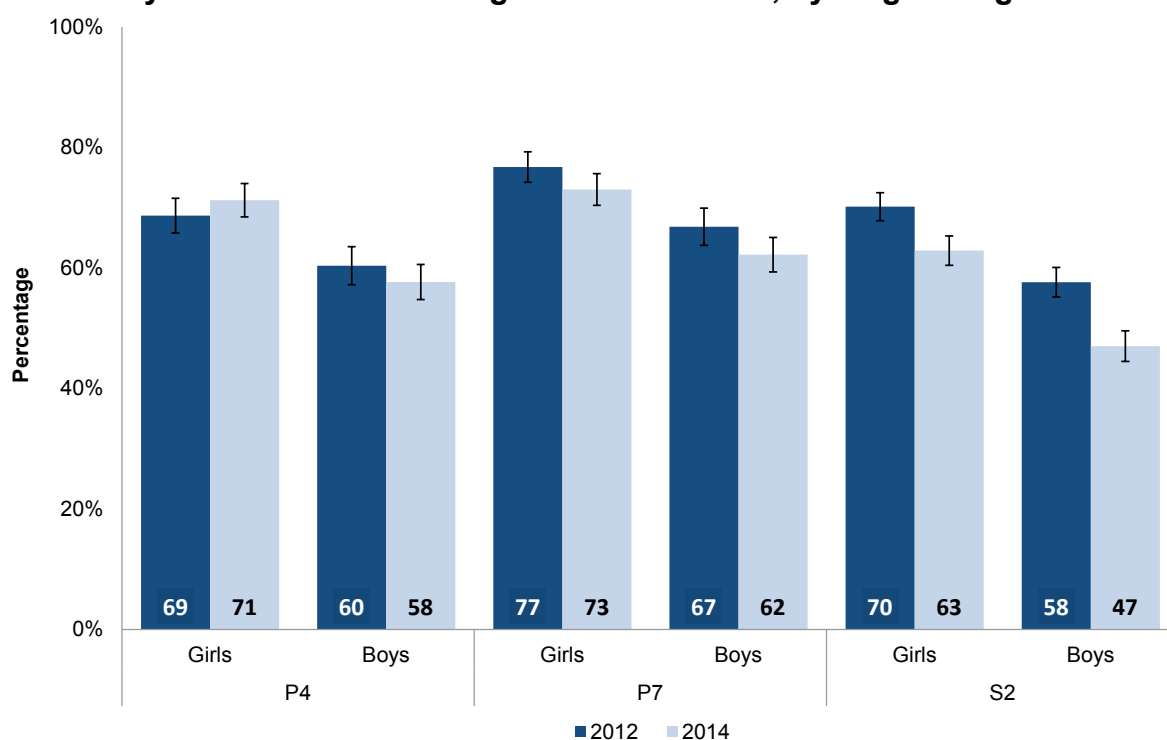
In P7, the difference between 2012 and 2014 for both genders was driven by a decrease in the proportion of scripts assessed as performing well at the level. For girls this decrease was from 49 per cent to 41 per cent, and for boys from 49 per cent to 39 per cent. For both genders there was an increase in scripts performing beyond the level, as girls' performance increased by three percentage points and boys by two percentage points.

With respect to S2, girls saw a decrease of seven percentage points whereas this was 11 percentage points for boys. Again the overall decrease was mainly due to the decrease in the proportion of scripts demonstrating pupils performing well at the level and the increase in the proportion of scripts demonstrating pupils working within or not yet working within the level.

5.4 Attainment by deprivation

At each of the stages a very different pattern for deprivation appeared for pupils between 2012 and 2014 at performing well, very well or beyond the level.

Table 5.2: Difference in proportion of scripts performing well, very well or beyond the level in 2012 and 2014, by stage and deprivation category

Stage	Least Deprived	Middle	Most Deprived
P4	Lower in 2014	No difference	Higher in 2014
P7	No difference	No difference	No difference
S2	Lower in 2014	Lower in 2014	Lower in 2014

At P4, there was an increase in the proportion of most deprived pupils' scripts assessed as performing well, very well or beyond the level (six percentage points), and a decrease for that of least deprived pupils (seven percentage points). These changes offset each other which resulted in P4 performance remaining stable overall (Table 5.2).

In P7, there were small, but not statistically significant, differences between 2012 and 2014 results for performing well, very well or beyond the level for each of the deprivation categories, however the combination of these small differences meant that the overall attainment results in 2014 were slightly lower than 2012 (Table 5.2).

The overall results for S2 showed a decrease between 2012 and 2014. This change was reflected throughout all the deprivation categories as the least deprived, middle and most deprived categories decreased by nine, five and thirteen percentage points respectively (Chart 5.3). While middle and most deprived pupils had a slight increase at performing beyond the level, all deprivation categories had a decrease in performing well at level which is the same pattern as the overall figures for 2012 and 2014 writing.

Chart 5.3: Proportion of S2 scripts demonstrating pupils performing well, very well or beyond the level in 2012 and 2014, by deprivation category
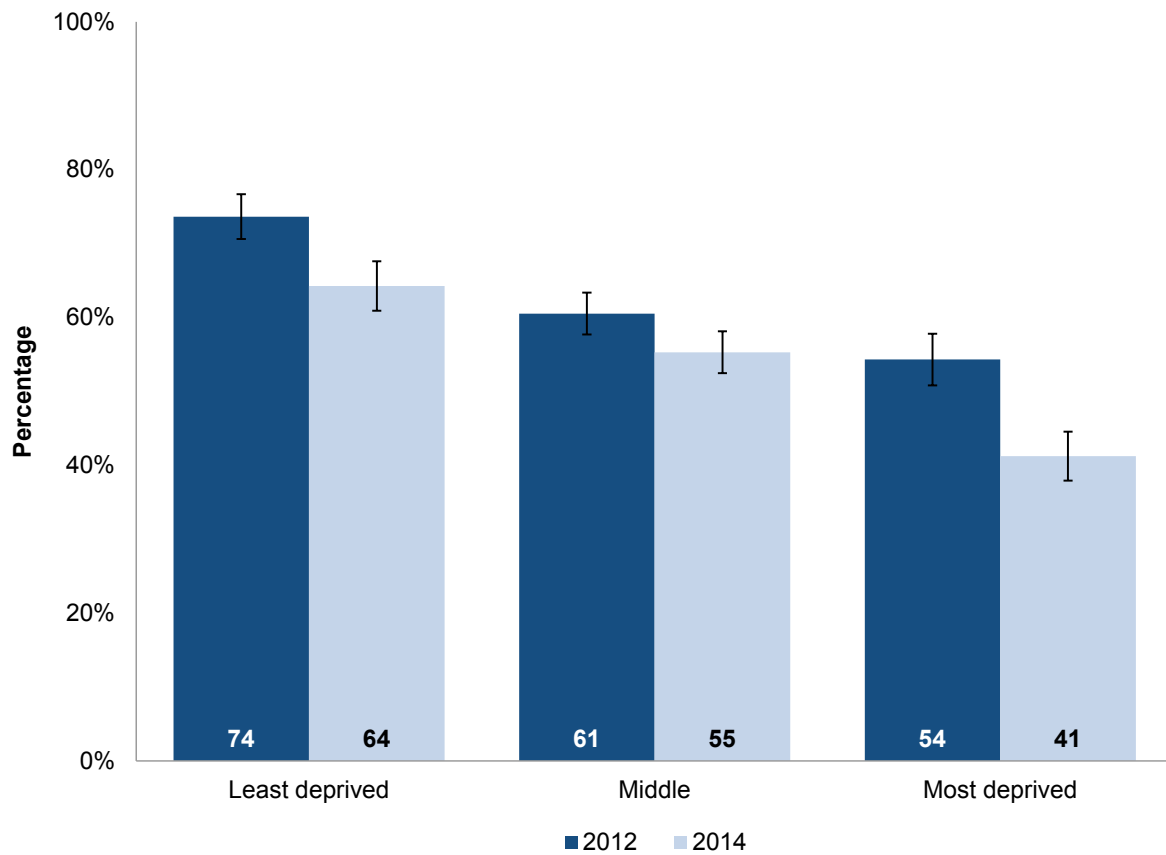
The performance gap between least and most deprived pupils remained stable between 2012 and 2014, for P7 and S2 pupils. The gap at P4 reduced due to an increase in the performance of most deprived pupils and a decrease in the performance of least deprived pupils.

Chapter 6: Listening and talking

- **P7 pupils in 2014 achieved the highest percentage of pupils performing well, very well or beyond the level at 66 per cent. Fifty-nine and 52 per cent of P4 and S2 pupils performed well, very well or beyond the level, respectively.**

- **There was no difference between genders for each of the stages for pupils performing well, very well or beyond the level.**

- **In all stages pupils from the least deprived category did better than pupils from the most deprived category for performing well, very well or beyond the level.**

- **More than 70 per cent of all pupils thought they were very good or good at listening and talking in 2014.**

6.1 Assessing listening and talking skills

Listening and talking skills are explicitly encompassed within the CfE definition of literacy as important uses of language skills in everyday life. The SSLN is the first large scale national assessment of these skills in Scotland.

Of the schools participating in the 2014 SSLN, 40 per cent were selected to participate in listening and talking assessments, which took the form of an assessed group discussion. Each group was provided with a task designed to generate discussion that would last around 10 to 15 minutes. The tasks were developed specifically for the SSLN, and each discussion involved three participants[3]. Figure 2 is an example of a group discussion task for use at both P7 and S2 stages.

Each group discussion was assessed, in real time in schools, by a trained, independent Support Assessor who assigned each sampled pupil to one of the five performance categories described in Table 1.2, using guidance developed by SQA, Education Scotland and teaching professionals. Around 120 Support Assessors completed the 'SSLN Support Assessor Programme (Group Discussion)' which was developed by SQA and was accredited with General Teaching Council for Scotland (GTCS) Professional Recognition.

In 2012, there were difficulties in administering group discussion assessments; these were mainly due to a number of technical and practical issues. The difficulties in collecting this information in 2012 were reviewed and a new approach was implemented for the 2014 survey. In 2012, the effective pupil response rate was 38 per cent, whereas in 2014 it was 82 per cent. The improved participation rate means that analysis by gender and deprivation can be produced for the 2014 data.

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[3] In some cases, pupils not being assessed as part of the SSLN took part in the group discussion to ensure a large enough group could be formed.

Given different assessment approaches were adopted in each year, no comparisons are made between 2012 and 2014 listening and talking results. For further details on the changes in listening and talking assessment, see Chapter 9: Background notes, note 9.7.

Figure 2: Example of Group Discussion Task 'Survival'

6.2 Listening and talking attainment

The highest proportion of pupils performing well, very well or beyond the level in listening and talking was in P7 at 66 per cent, followed by P4 at 59 per cent and S2 at 52 per cent.

There were twice as many P7 pupils performing beyond the level, at eight per cent, compared to P4 and S2. Chart 6.1 shows that were twice as many pupils in S2 (18 per cent) who were not yet working within their relevant level compared to P4 and P7 (nine per cent and eight per cent respectively) (Chart 6.1).

Chart 6.1: Performance in listening and talking, by stage and reporting category
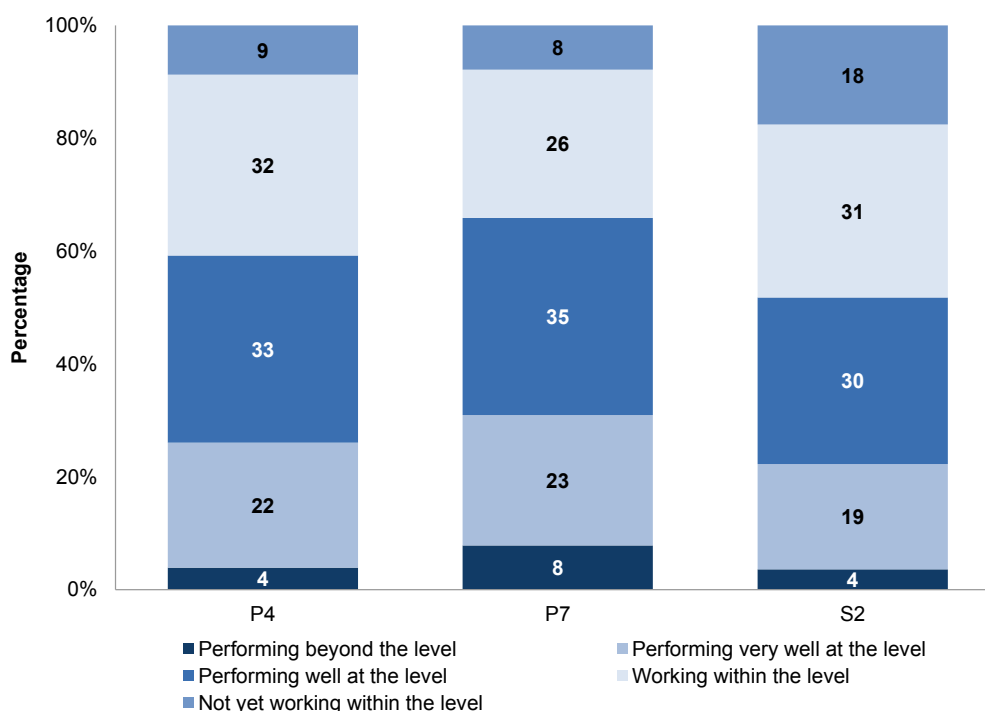
Similar to the other literacy organisers, the majority of pupils felt their listening and talking skills were good or very good. Table 6.1 shows the results were very similar for listening and talking at each stage. P4 pupils had the highest level of confidence in their abilities at about 83 per cent, whereas S2 had lower confidence at 71 per cent. This is similar to the trends seen when pupils were asked about reading and writing.

Table 6.1: Proportion of pupils responded very good or good when asked how good they think they are at listening and talking

Stage	Listening (%)	Talking (%)
P4	83	82
S7	77	79
S2	71	71

As part of the teacher questionnaire, teachers were asked how confident they were in delivering the listening and talking experiences and outcomes. Over 94 per cent of primary teachers and secondary English teachers reported they were very confident or fairly confident in delivering all aspects. This was different for secondary non-English teachers, where the proportions ranged from 68 per cent ('creating texts') to 97 per cent ('finding and using information').

Over 75 per cent of secondary non-English teachers reported that the experiences and outcomes in listening and talking already fitted well or could be easily fitted in to their curriculum area, apart from 'creating texts' where the proportion was 54 per cent. Sixteen per cent of secondary non-English teachers felt that 'creating texts', in the context of listening and talking, was difficult to fit in as it was not relevant to their curriculum area.

6.3 Attainment by gender

Chart 6.3 shows the proportion of pupils that performed well, very well or beyond the level by stage and gender. Whilst there appears to be differences in performance by gender, there are no statistically significant differences between boys and girls at each stage. This is different from writing, where girls outperformed boys across all stages, and reading, where girls outperformed boys at P4 and S2.

Chart 6.3: Proportion of pupils performing well, very well or beyond the level in listening and talking, by stage and gender
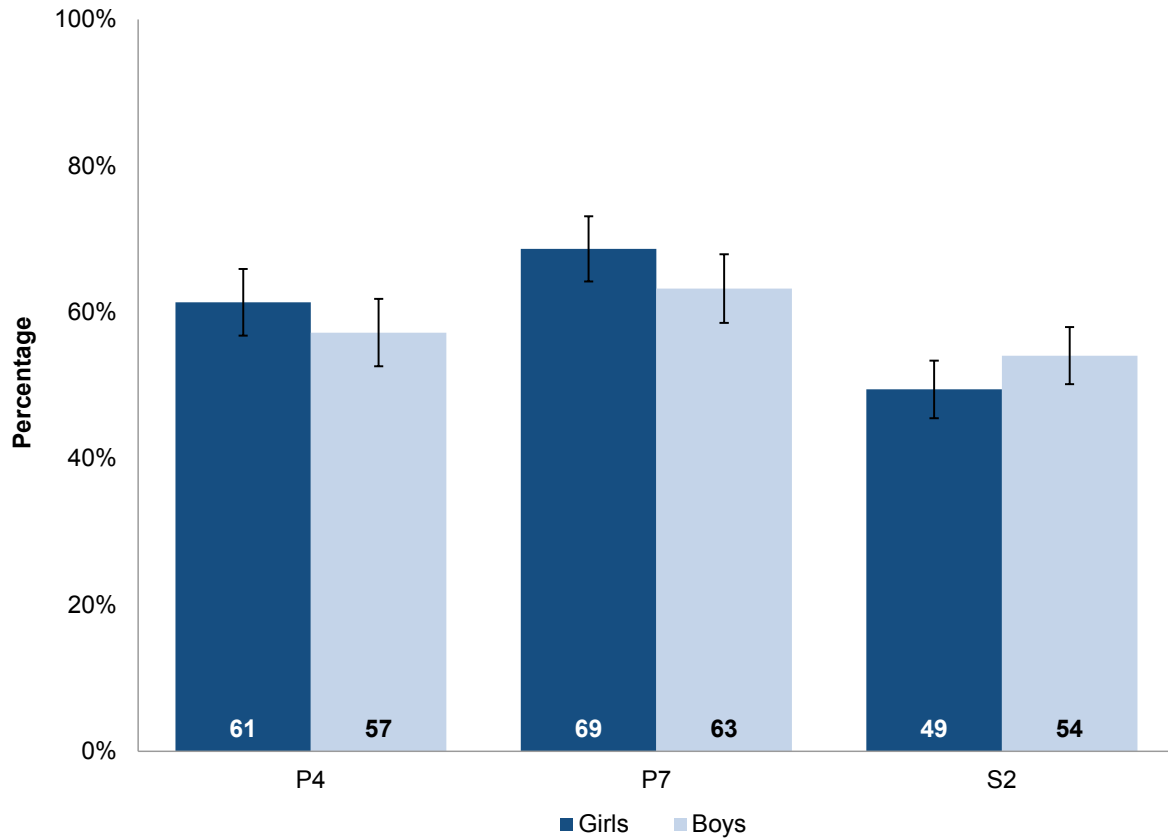
6.4 Attainment by deprivation

In all stages for listening and talking, a higher proportion of pupils from least deprived areas performed well, very well or beyond the level compared to pupils from the most deprived areas (Chart 6.4). This was similar to the deprivation results for reading and writing. S2 had the smallest gap of nine percentage points and P4 had the biggest difference with 14 percentage points.

Chart 6.4 shows that there appears to be a smaller proportion of S2 pupils' scripts from the middle deprivation category assessed as performing well, very well or beyond the level, than from the most deprived category, however, this difference is not statistically significant. Similarly, there was no difference between P4 and P7 middle and most deprived categories for pupils performing well, very well or beyond the level.

Chart 6.4: Proportion of pupils performing well, very well or beyond the level in listening and talking, by stage and deprivation category

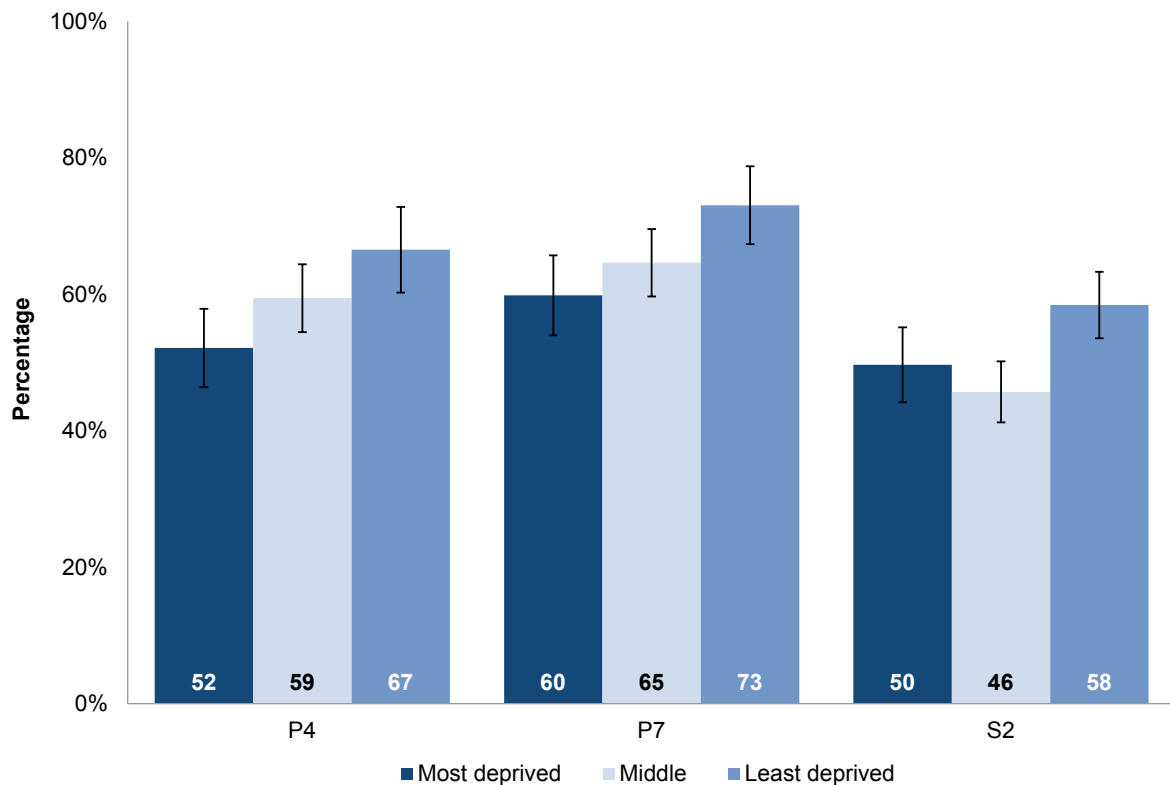## Chapter 7: Pupil questionnaire

- **The vast majority of pupils were engaged in their learning and had a positive perception of the usefulness and relevance of what they learn. Pupils also reported high levels of enjoyment and confidence that they usually do well in their learning.**

- **In class, pupils reported that they actively participate in their learning through discussion and using problem solving techniques. Pupils also reported that they were given opportunities to discuss with their teacher how they could do better.**

All pupils participating in the SSLN were asked to complete an online questionnaire. The questionnaire focused on factors that are likely to affect learning, such as pupil attitudes and experiences in class. It should be noted that: 'don't know' responses were removed prior to analysis unless otherwise stated; and where 'agreed' is used this refers to pupils who responded either 'agree a lot' or 'agree a little'.

7.1 Attitudes to learning

Pupils were asked how much they agreed with a number of statements about their learning. Generally, pupils were positive about learning with over 90 per cent of pupils at all stages agreeing with the statements 'I am interested in learning different things', 'I want to do well in my learning' and 'I try to find out answers on my own'. However, the proportion of pupils agreeing with the statement 'Learning is boring' increased with stage, from 18 per cent in P4, to 23 per cent in P7 and 39 per cent in S2. A higher proportion of P4 pupils in 2014 agreed with 'Learning is boring' than in 2012, but the responses in P7 and S2 were consistent with previous results.

Chart 7.1: Pupils' enjoyment of learning, by stage
**'How much do you agree with the following?'**
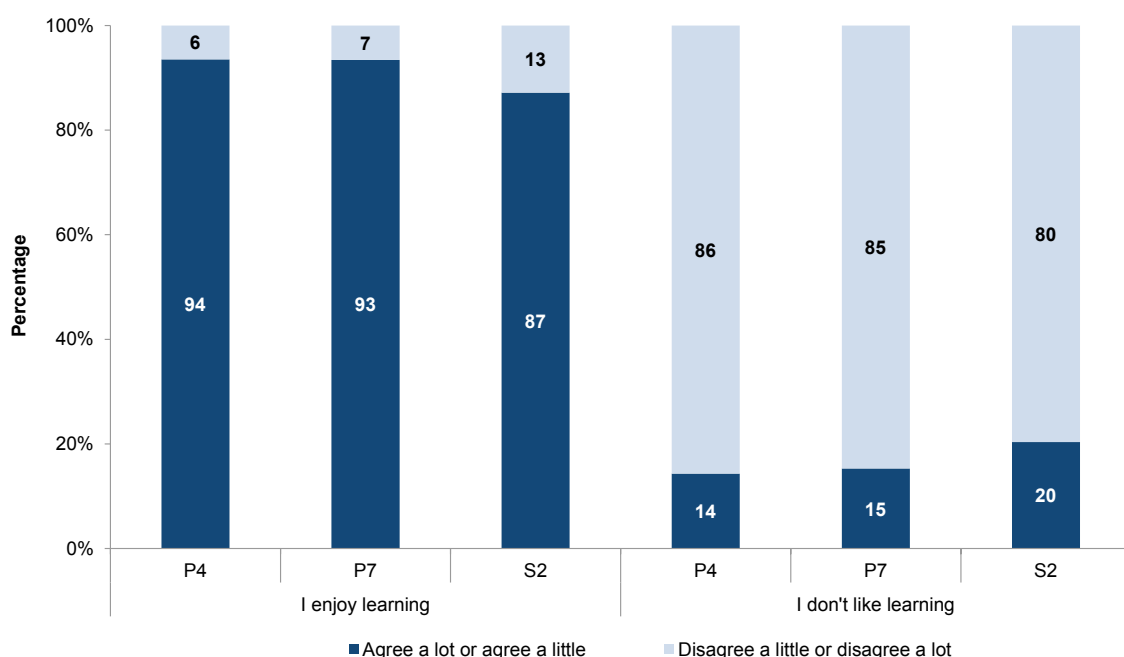
The pattern in the responses at each stage to 'I enjoy learning' (94, 93 and 87 per cent in P4, P7 and S2 respectively) was consistent with those for 'I don't like learning' (14, 15 and 20 per cent in P4, P7 and S2 respectively) (Chart 7.1).

Over 95 per cent of pupils in each stage agreed with positive statements about how their learning would affect their future. The only exception was in S2, where a slightly lower proportion of pupils (84 per cent) agreed with the statement 'What I am learning in school is useful to me outside of school'.

When given statements around confidence in learning, the vast majority of pupils in all stages agreed with the statement 'I usually do well in my learning'. Approximately four-fifths of pupils agreed with the statement 'I learn things quickly'. These responses were reflected in the proportion of pupils that agreed with the statement 'I am just not good at learning' (18, 15 and 22 per cent in P4, P7 and S2 respectively) as seen in Chart 7.2. The proportion of pupils that agreed with the statement 'Learning is harder for me than for others in my class' decreased from 50 per cent in P4, to 39 per cent in P7 and 41 per cent in S2.

Chart 7.2: Pupils' views of learning, by stage
'How much do you agree with the following?'
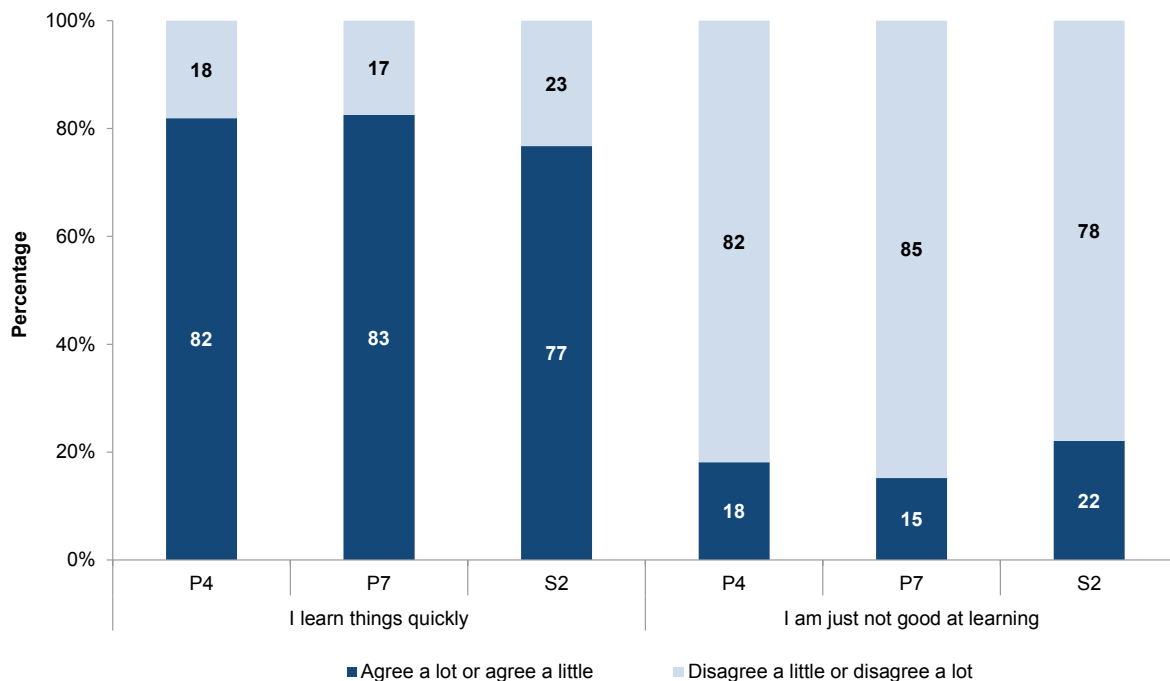
7.2 Pupil engagement with teachers and parents/carers

Pupils were asked questions around their dialogue with their teachers. Primary pupils reported that someone in school talked with them about how they were doing overall and what they needed to do to improve their learning more often than those in S2, as shown in Chart 7.3.

Chart 7.3: Pupil and teacher dialogue on learning, by stage
'How often does someone in school talk with you about…'
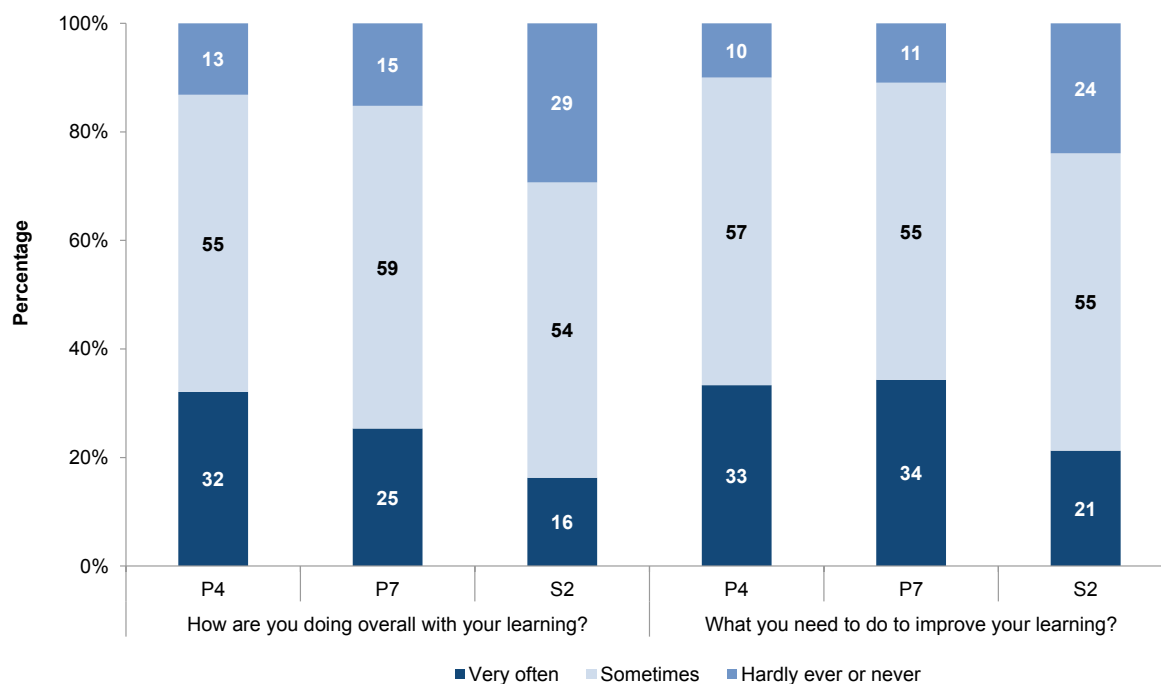
When asked about class teachers, P7 pupils generally gave the most positive responses, with over four-fifths responding that their teachers told them what they were going to learn before they started and their teachers encouraged them to work hard. Similar response patterns to these questions can be seen in the 2012 data, however the P4 figures had decreased between 2012 and 2014. The pace of learning appeared to suit the majority of pupils with less than 15 per cent of pupils in each stage reporting that their teacher often went through work too fast or too slowly.

Pupils were also asked questions around the engagement of someone at home. Older pupils were slightly more likely to be told that working hard at school is important by someone at home (67, 73 and 76 per cent in P4, P7 and S2 respectively). The proportion of pupils that responded very often was lowest for someone at home helping them with their homework at all stages.

7.3 Activities in and out of school

Pupils were asked how often they completed various activities within their classes, Chart 7.4 shows the responses for some of the activities asked about. The activity that pupils reported they did the most was listening to the teacher talk to the class about a topic, with over three-fifths of pupils in each stage responding they did this very often. Other activities that over two-fifths of pupils in each stage responded very often to were: work through a book/worksheet on your own; work on your own and discuss what you are learning. Over two-fifths of P4 and P7 pupils also responded very often to thinking things through and solving problems. These results are consistent with the responses to a similar question in the teacher questionnaire.

Pupils at all stages were least likely to work outside the classroom during classes, for example in the playground, with the proportion responding hardly ever or never increasing from 41 and 47 per cent, in P4 and P7 respectively, to 82 per cent in S2. This is a similar trend to that seen in 2012. Using computers is the only activity which is used less frequently in 2014 than it was in 2012 by all stages, with the proportion of P4 and P7 pupils responding very often falling from around a third in 2012 to a quarter in 2014. This could be linked to an increased use in other types of technology within schools over the past few years, for example tablets.

Chart 7.4: Pupil activities in class, by stage
'In your classes, how often do you…'
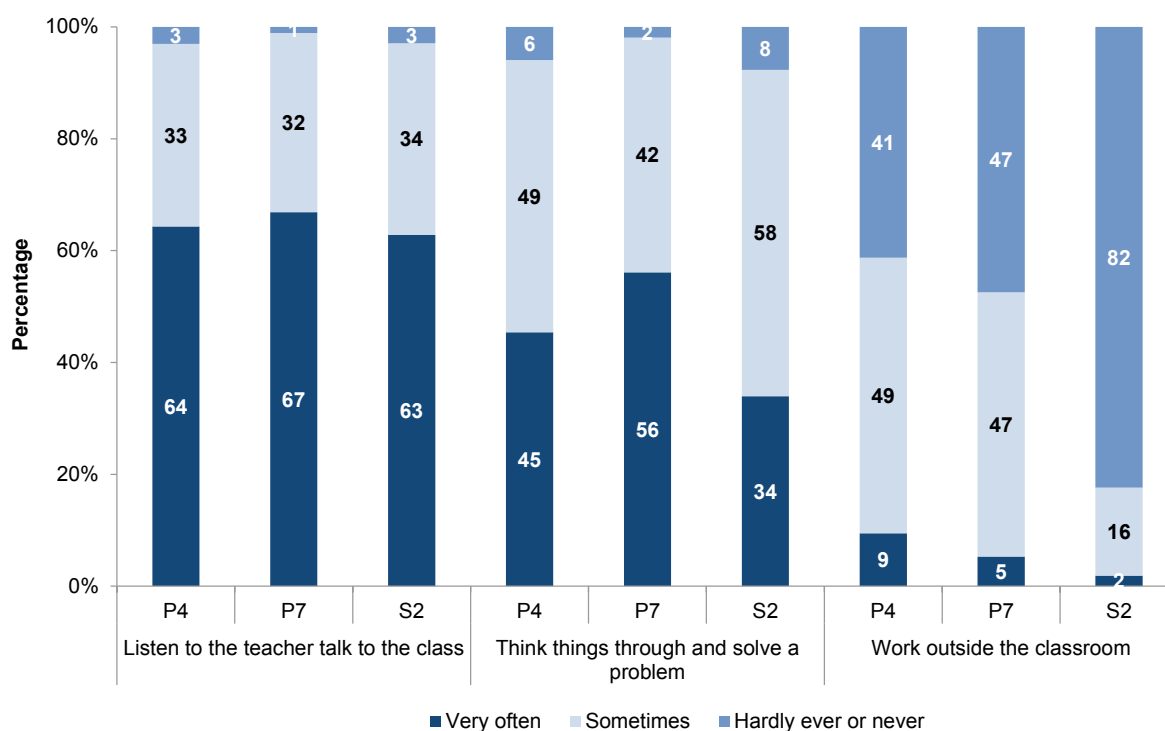
Pupils were also asked how often they did a range of activities outside of school. Pupils at all stages were most likely to respond very often to playing or talking with friends (72, 77 and 75 per cent in P4, P7 and S2 respectively) or playing sports (65, 62 and 53 per cent in P4, P7 and S2 respectively). However, the proportion of pupils reporting that they play sports very often decreased between primary and secondary stages.

Chapter 8: Teacher questionnaire

- **Pupils regularly work on their own or are taught with the class as a whole; but teachers also reported that pupils often work in groups and discuss what they are learning.**

- **Teachers' responses suggest that pupils are regularly given opportunities to feedback about their learning and this, and other evidence, is used to shape their learning going forward.**

- **There is generally high confidence across all teachers around understanding key aspects of CfE and using them to improve learning.**

The teacher questionnaire was distributed to all P4 class teachers in half of participating primary schools and all P7 teachers in the remaining half of primary schools. In secondary schools, questionnaires were given to ten teachers in each school: two S2 English teachers and two S2 teachers from each of four broad curriculum groupings:
- Mathematics, Science and Technology
- Social Studies, Religious and Moral Education (RME) and Health & Wellbeing
- Expressive Arts and Languages
- Support for Learning (SfL).

Primary and secondary non-English questionnaires focused on one of reading, writing or listening and talking, whereas secondary English questionnaires included all three literacy organisers.

8.1 Classroom activities and resources

All teachers who completed a questionnaire were asked how often their pupils completed various activities during lessons. Around 80 per cent of responding primary teachers reported that pupils in their classes spend time talking about what they are learning in pairs or groups and being taught with the whole class together most days. The activities that fewest primary teachers reported their pupils did most days were watching or talking about videos/DVDs, working outside the classroom and giving a talk to the class or a small group.

Over 95 per cent of secondary English teachers reported that pupils in their S2 classes spent time being taught with the whole class together, working quietly on their own and working with a partner or group on a shared task most days or most weeks. Ninety-eight per cent of secondary non-English teachers also reported that pupils in their S2 classes spent time being taught with the whole class together. The activity that S2 pupils spent least time in lessons on was working outside the classroom, for example working in the playground, with only three per cent of secondary English teachers and ten per cent of secondary non-English teachers responding that they taught S2 pupils outside of the classroom most days or most weeks. This is similar to the results from 2012.

Primary teachers and secondary English teachers were asked how often they made use of various types of resources when focusing on literacy. Primary teachers reported using a wider range of resources regularly when compared to secondary English teachers. However, the two most commonly used resources were the same for both teacher types. These were using materials they had developed themselves (98 per cent of both teacher types responded every day, most days or most weeks) and using the CfE experiences and outcomes (98 and 91 per cent of primary teachers and secondary English teachers respectively). Primary teachers also reported regularly using interactive whiteboards (96 per cent) and commercially produced materials (88 per cent).

8.2 Assessing and reinforcing literacy

When primary teachers and secondary English teachers were asked how often they included various types of work as evidence of pupils' literacy achievements, the responses were broadly similar between teacher types. Written and practical class work and homework were reportedly used most often, followed by what pupils say in response to questions or in discussions. Teachers reported they did not regularly use results of commercially published standardised tests or school based literacy assessments.

Primary teachers and secondary English teachers were also asked about evaluating and recording the evidence of pupils' achievements in literacy. Teachers' responses suggest that pupils are regularly given opportunities to feedback on their learning and that this evidence is used going forward to shape the pupils' learning (Chart 8.1).

Chart 8.1: Evaluating pupil performance, by teacher type
'In the evaluating and recording of evidence of pupils' achievements in literacy, how often do you…' (proportion responding most lessons or weeks)
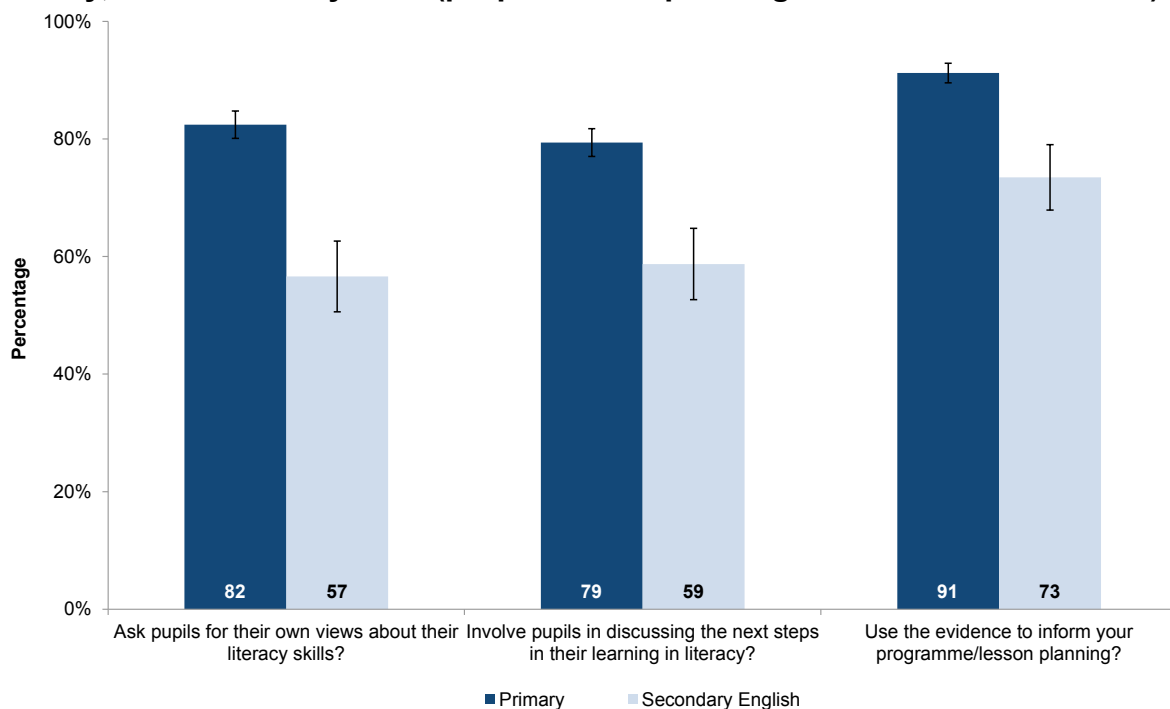
Secondary non-English teachers were asked how often they contributed to gathering evidence of pupils' achievements in literacy. Overall, 24 per cent reported that they contributed most lessons or most weeks. SfL teachers reported contributing noticeably more often than any other curriculum area, with 61 per cent responding most lessons or most weeks, this is not unexpected given the nature of their role.

However, secondary non-English teachers from all curriculum groupings reported that they regularly found opportunities to reinforce pupils' literacy skills. Over three-quarters of teachers in each curriculum area reported that they did this most lessons or most weeks. Again the highest response came from SfL teachers, with 97 per cent responding most lessons or most weeks, compared to the response for all secondary non-English teachers which was 81 per cent. These responses give a similar picture to those from 2012.

8.3 Aspects of CfE

All teachers were asked how confident they were that they understood the following five key aspects of CfE (Chart 8.2):
- the CfE experiences and outcomes for their curriculum area
- the concepts of breadth, challenge and application
- the teaching of literacy across learning
- the teaching of numeracy across learning
- the teaching of health and wellbeing across learning.

The proportion of teachers responding very or fairly confident to all five aspects was either higher or the same as those from the 2012 survey for all teacher types.

Chart 8.2: Implementation of CfE, by teacher type
'How confident are you that you understand the following aspects of CfE?'
(proportion responding very or fairly confident)
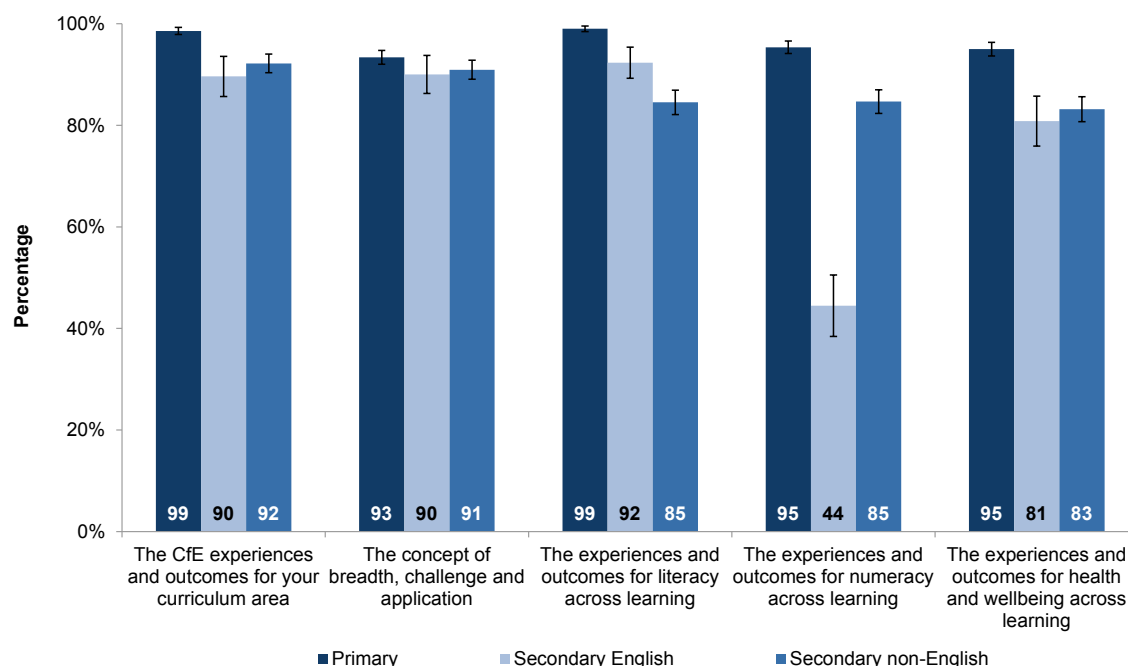
Primary teachers were confident across the board with over 90 per cent responding very or fairly confident to all five aspects. Secondary English teachers were confident in the experiences and outcomes for their area, the concept of breadth, challenge and application and the experiences and outcomes for literacy across learning. There was a noticeable drop in confidence when asked about the experiences and outcomes for numeracy across learning with only 44 per cent of secondary English teachers responding very or fairly confident.

Secondary non-English teachers were generally confident about the various aspects of CfE with over four-fifths responding very or fairly confident to each aspect. This confidence was consistent across all curriculum areas. The curriculum area where fewest teachers reported that they were very or fairly confident that they understood the experiences and outcomes for numeracy across learning was Arts and Languages, however the proportion was still high at 72 per cent. Science and Technology teachers were confident that they understood the numeracy across learning experiences and outcomes (93 per cent) but were less confident that they understood the experiences and outcomes for both literacy and health and wellbeing across learning (both 74 per cent).

Teachers were then asked how confident they were that they could improve learning using the same five key aspects of CfE. The overall picture was similar to that of teachers' confidence in their understanding:

- primary teachers were the most confident with over 90 per cent responding very or fairly confident to all five aspects;
- over 70 per cent of secondary English teachers were very or fairly confident in using four of the five aspects. Confidence was lower for the experiences and outcomes of numeracy across learning (36 per cent);
- over three-quarters of secondary non-English teachers were confident that they could use each aspect to improve learning.

8.4 Career Long Professional Learning (CLPL)

All teachers were asked about what CLPL they had participated in in the last twelve months. Over 85 per cent of primary teachers and secondary English teachers reported that they had taken part in sharing standards and moderation; reading and discussing the CfE literacy experiences and outcomes with colleagues; and professional enquiry through reading/personal study. These were also some of the most frequently completed activities by secondary non-English teachers, however the proportion taking part was lower at around 60-70 per cent. Teachers of all types were least likely to attend a local or national conference or visit another school to observe good practice.

Teachers were also asked to rate the impact of CLPL activities they had taken part in. Over half of primary teachers reported either a very high or high level of impact for all CLPL activities they had participated in, except attending local or national conferences (40 per cent). Secondary English teachers reported that sharing standards and moderation had the biggest impact on their teaching of literacy with 73 per cent reporting it had a very high or high impact. Secondary non-English teachers reported similar levels of impact for all of the CLPL activities, with the proportion of those who had taken part responding very high or high falling in a range of 33 to 52 per cent for all activities.

Chapter 9: Background notes

9.1 Sampling frame

The sampling frame for the pupil sample is all P4, P7 and S2 pupils attending all mainstream schools in Scotland that have registered to participate in the SSLN. The SSLN includes Gaelic medium and independent schools but excludes special schools. Pupils with Additional Support Needs attending mainstream schools are included in the sample and should be given the same level of support they would normally have for assessments in class. The P7 pupil cohort in the 2012 survey is the same as the S2 cohort in 2014. The pupils sampled to participate in the survey will not necessarily have been the same in each year.

The sampling frame for the teacher questionnaire is all Primary 4, Primary 7 and secondary teachers in participating schools.

9.2 Sample design

The pupil sample design is a two stage stratified random sample, i.e. pupils are selected at random within schools and by gender. The sample consists of two P4 and two P7 pupils from every participating primary school and up to twelve S2 pupils from every participating secondary school. This produces a target sample size of around 4,000 pupils per stage. An additional pupil at P4 and P7 and two pupils at S2 were sampled to pre-test numeracy materials. Pupil results are weighted to account for different school sizes, the small number of non-participating schools, and gender and deprivation differences between the sample and the population.

The teacher questionnaire is allocated to all P4 teachers at half of the participating primary schools and all P7 teachers at the remaining half of primary schools. Within secondary schools, the teacher questionnaire is allocated to ten teachers covering an equal distribution of four broad curriculum areas and English. This produces a total target sample size of around 5,500 teachers. Teacher results are weighted to account for non-response and differences in school size.

9.3 Response rate

The response rate at school level was 97 per cent in publicly funded schools and 45 per cent of schools in the independent sector.

9.4 Revisions

SSLN 2012 reading results were revised to include Gaelic data (13 P4 pupils and nine P7 pupils) and to reclassify independent school pupil results from 'least deprivation' category to 'unknown deprivation' category (17 P4, 16 P7 and 96 S2 pupils). There were no Gaelic reading assessments completed by pupils in S2.

Writing results by deprivation category were revised to reclassify independent school pupil results from 'least deprivation' category to 'unknown deprivation' category (27 P4, 22 P7 and 122 S2 pupils). These changes have had no effect on the main messages of the literacy performance statistics.

Pupil and teacher questionnaire results have also been revised to reflect corrections in underlying weights.

Revised figures can be found in the SSLN 2012 supplementary tables at www.gov.scot/ssln. Time series comparisons with 2012 data in this report are based on the revised data.

9.5 Interpretation of SSLN results

As in all sample surveys, the SSLN is based on a sample of pupils rather than on the whole population and so the results shown are estimates. Therefore there is an element of uncertainty within the results because the pupils sampled may not reflect the population exactly.

Uncertainty around the results is estimated using standard errors. Standard errors are a measure of the variation in the data i.e. how each observation differs from the mean. As the SSLN sample design is not a simple random sample - in the SSLN pupils at small schools have a higher probability of being selected than pupils at large schools - standard formulae used to calculate the standard error from a simple random sample would not be appropriate. Standard errors are therefore calculated empirically using the jackknife procedure.

Standard errors are in turn used to produce confidence intervals around the estimates. Confidence intervals show the range of values within which one can be reasonably confident that the actual value would lie if all pupils were assessed.

Ninety-five per cent confidence intervals for the main national estimates were calculated and were around ± two percentage points. This means that the true value of each estimate is likely to lie within two percentage points either side of the given estimate.

Where appropriate, confidence intervals are represented on charts by error bars to help demonstrate this level of uncertainty. Where the estimates are different but the error bars overlap we cannot be sure that the true values of each estimate are statistically significantly different from each other. Significance tests (t-tests) are used to assess the statistical significance of comparisons made. All references to differences between mean estimates are statistically significant differences.

The standard errors and confidence intervals are provided in the 2014 supplementary tables available at www.gov.scot/ssln.

9.6 Sources

Attainment data are derived from the results of assessments completed by participating pupils. For reading, the assessment consists of a paper reading booklet and an online reading assessment. The writing component consists of an assessment of two writing scripts per participating pupil. The listening and talking assessment consists of a group discussion between participating pupils based on a task designed to generate discussion.

All participating pupils complete an online questionnaire on factors that are likely to affect learning and attainment, such as pupil attitudes and experiences in class.

Sampled teachers are asked to complete an online questionnaire on their experiences and views on teaching literacy.

All SSLN data was collected during the fieldwork period of 6th May – 20th June 2014.

9.7 Changes to Listening and Talking Assessment

In 2012, listening and talking was assessed by means of a filmed group discussion, lasting about 10 to 15 minutes, between participating pupils at each stage. The group discussions were recorded and saved for assessment by independent assessors. Pupil performance was then assessed by three independent assessors (education professionals and practioners trained by the SQA). These three marks were analysed to produce an overall score for each pupil.

The achieved response rate for the listening and talking assessments was lower than intended. Feedback from some schools during and after the survey indicated that there had been difficulties in administering the group discussion, for example due to hardware, software or other technical or practical issues. The low response rate meant that breakdowns by gender and deprivation were not possible for 2012 data. The SSLN Project Management Board reviewed the assessment approach to improve the response rate for 2014.

For SSLN 2014, the filming element of group discussions was removed and a Support Assessor assessed the group discussion in real time in school. This greatly improved the participation rate allowing for more analysis in 2014. SQA training of assessors through the 'SSLN Support Assessor Programme (Group Discussion)' was accredited with GTCS Professional Recognition.

Due to fundamental changes in the assessment of group discussion between 2012 and 2014 the results are not directly comparable and comparisons should not be made between years.

9.8 Use made of SSLN data

The results of the 2014 SSLN will be used in line with the survey's three main objectives:
- to monitor and report nationally on achievement in literacy at the P4, P7 and S2 stages in 2014 and over time
- to identify areas of literacy strengths and weaknesses among pupils in Scotland to help inform policy and learning and teaching practices
- to gather information and report nationally on pupils' and teachers' experience of learning and teaching literacy, along with their views about this experience.

In line with the aim to improve learning and teaching practice, Education Scotland has developed PLRs based on an in-depth analysis of the SSLN data. These resources are used by teachers, schools and authorities to support and inform learning and teaching practice in the classroom. These resources are available on the Education Scotland website.

The ways in which these materials can be used are set out below.

In the classroom, as a practitioner:
- as a resource for Career Long Professional Learning (CLPL) through use of the reflective questions provided for self-evaluation
- to focus lesson planning linking to known areas for improvement
- as a resource with links to further reading to help develop thinking around the learning and teaching of literacy skills
- to enhance children and young people's literacy skills, through reflective discussion of exemplar materials
- to share views on literacy across learning through use of the activities for teachers to stimulate dialogue and debate on teaching practice
- to support children and young people's literacy learning across the curriculum.

In school, as a leader or manager:
- "to inform development plans to improve standards in literacy" as per the CfE Implementation Plan
- to inform school improvement plans - the resource includes high level findings with reflective questions for whole school self-evaluation to focus discussions around school improvement planning in relation to literacy
- to lead CLPL sessions – the resources include a range of materials which can be used to lead specific sessions focussing on particular areas of literacy to provide a focus for classroom observation – learning communities in schools can use the resources to identify areas for improvement in their own context.

At local authority level, as a development officer or Quality Improvement Officer:
- to provide a focus when supporting individual schools or clusters, to identify clear targets for improvement
- to inform and expand the range of professional development opportunities available for teachers
- to clarify the aspirations contained in the literacy experiences and outcomes
- to identify clear targets for improvement
- to inform transition projects by promoting collegiality with staff from primary and secondary schools.

9.9 Supplementary tables

The survey collects a vast amount of data which cannot be summarised in this publication. This report seeks to highlight the key messages and give a flavour of the range of analysis possible. Detailed tables of the performance data and pupil and teacher questionnaire results are published as supporting tables alongside this publication, and provide a fuller picture of the findings.

The following list of tables will be available at www.gov.scot/ssln:

1. Reading
1.1 Distribution of scores by stage
1.2 Summary of performance by stage
1.3 Summary of performance by stage and gender
1.4 Summary of performance by stage and deprivation category

2. Reading attainment over time
2.1 Summary of performance by stage in 2012 and 2014
2.2 Summary of performance by stage and gender in 2012 and 2014
2.3 Summary of performance by stage and deprivation category in 2012 and 2014

3. Writing
3.1 Summary of performance by stage
3.2 Summary of performance by stage and gender
3.3 Summary of performance by stage and deprivation category

4. Writing attainment over time
4.1 Summary of performance by stage in 2012 and 2014
4.2 Summary of performance by stage and gender in 2012 and 2014
4.3 Summary of performance by stage and deprivation category in 2012 and 2014

5. Listening and Talking
5.1 Summary of performance by stage
5.2 Summary of performance by stage and gender
5.3 Summary of performance by stage and deprivation category

6. Pupil Questionnaire
6.1 Pupils' learning in school – Class activities
6.2 Pupils' learning in school – Class teacher engagement
6.3 Pupils' learning in school – School engagement
6.4 What pupils think about their learning – Engagement
6.5 What pupils think about their learning – Usefulness
6.6 Pupils' confidence in learning
6.7 What pupils think about literacy – General
6.8 What pupils think about literacy – Organisers
6.9 School and home
6.10 Pupils' activities outside of school

7. Teacher Questionnaire
7.1 Pupils' classroom activities in literacy
7.2 Teacher's resources in literacy
7.3 Reinforcing pupils' literacy skills
7.4 Integrating literacy skills into teaching various curriculum areas – Primary
7.5 Integrating literacy skills into teaching various curriculum areas – Secondary non-English
7.6 Confidence in delivering the literacy experiences and outcomes
7.7 Confidence in understanding key aspects of CfE
7.8 Confidence in understanding key aspects of CfE – Secondary non-English breakdown
7.9 Confidence in improving learning using key aspects of CfE
7.10 Confidence in improving learning using key aspects of CfE – Secondary non-English breakdown
7.11 Gathering evidence of pupils' achievements in literacy
7.12 Evaluating and recording the evidence of pupils' achievements in literacy
7.13 Career Long Professional Learning (CLPL) in literacy
7.14 Career Long Professional Learning (CLPL) in literacy - impact

8. Survey Data
8.1 Participation figures

9. Standard Errors
9.1 Assessment data
9.2 Pupil questionnaire data
9.3 Teacher questionnaire data

9.10 Cost of compliance

One of the recommendations resulting from the UKSA assessment of the SSLN was to publish an estimate of the cost to data suppliers for participation. The Government Statistical Service has devised a method for estimating the cost that avoids imposing an extra burden on data providers. The method for calculating cost to organisations, including schools, is:

Cost = (number of responses x median time taken to respond in hours x hourly rate of typical respondent) + any additional costs experienced by data providers.

This methodology has been applied to the SSLN administration model and the estimated cost of compliance for the SSLN 2014 (literacy) survey was £398,000.

9.11 Further information

Further information on the SSLN, including the supplementary tables and Survey Design Document, is available from www.gov.scot/ssln.

There is a range of other reliable information on the performance of Scotland's school pupils.

Scotland participates in the OECD's triennial Programme for International Student Assessment (PISA) survey. This assessment is carried out by 15 year-olds in over sixty countries, including all OECD countries, and as such is a key international benchmark of performance. The results of previous PISA surveys are available at www.gov.scot/pisa

The Scottish Government also publishes analysis of SQA exam results and leaver destinations. The latest post-appeal data are available at http://www.gov.scot/Publications/2013/06/7503/0

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How to access background or source data

The data collected for this statistical bulletin:
☐ are available at: www.gov.scot/ssln

☐ may be made available on request, subject to consideration of legal and ethical factors. Please contact ssln@scotland.gsi.gov.uk for further information.

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ISSN 1479-7569 ISBN 978-1-78544-312-1 (web only)