

National Assembly for Wales
Research paper

Literacy and Numeracy in Wales

June 2013

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Research paper

Literacy and Numeracy in Wales

June 2013

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This research paper sets out the context of the Welsh Government's policy interventions in respect of literacy and numeracy and seeks to explain the importance with which these are being undertaken.

The paper gives details of the new Literacy and Numeracy Framework, which becomes a statutory requirement from September 2013, and the introduction of national tests in reading and numeracy on an annual basis from May 2013. It also discusses some of the responses within the teaching sector to these policies and draws on other evidence to explore issues relating to children's literacy and numeracy in Wales.

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Summary

This research paper contextualises two of the Welsh Government's three priorities, as stated by its School Effectiveness Framework: **improving levels of both literacy and numeracy in Wales**. Two major factors have contributed to the policy interventions being brought forward. These are the lack of influence of the non-statutory Skills Framework and concern generated by the Welsh results under the Programme for International Student Assessment (PISA) 2009.

The Welsh Government published national programmes for both literacy and numeracy in 2012, setting out a course of action aimed at driving up standards. Key to the delivery of these programmes is a **National Literacy and Numeracy Framework**, which establishes national expectations for pupils' learning, and the **introduction of national tests** in reading and numeracy, which will be taken by pupils annually.

The Literacy and Numeracy Framework becomes a statutory requirement from September 2013, with formal assessment against it commencing in September 2014, whilst the first cohort of pupils sat the annual tests in May 2013. The Literacy and Numeracy Framework replaces elements of the Skills Framework and will be a curriculum planning tool from Reception to Year 9 (ages attained 5-14). The expectations laid out in the framework 'raise the bar' in terms of pupils' outcomes and the annual tests from Year 2 to Year 9 are intended to provide a more coherent national picture of literacy and numeracy abilities in Wales.

The paper also summarises some of the teaching trade unions' **responses to the policies** and the arrangements and support that the Welsh Government has put in place for implementation. These policy interventions are taking place within a climate of **considerable change within the education sector** in Wales and the significance of this is explored.

Finally, the paper discusses both **GCSE results and the findings of the Millennium Cohort Study**, which tracks the progress of similarly aged and matched children in Wales and England, including what these tell us about respective levels of literacy and numeracy within the two nations.

The next PISA results (for 2012) will be published in December 2013 and the Welsh Government has said that the more realistic ambition is to look for significant improvement in PISA 2015. Between now and then, it is clear that literacy and numeracy will be seen as two important foundations of what the education system in Wales is expected to deliver. The implementation of the national programmes for literacy and numeracy will therefore be crucial in how that system is viewed and judged.

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Literacy and Numeracy

1. Introduction

Attempts to improve standards of literacy and numeracy in Wales have received greater focus in the last two to three years and risen considerably up the Welsh political and policy agenda. Literacy and numeracy are two of the Welsh Government's stated education priorities, along with reducing the impact of poverty on educational attainment.

These three inter-related priorities were identified in June 2010 by Leighton Andrews AM, Minister for Children, Education and Lifelong Learning¹ (hereafter 'the Minister'), as the focus of the School Effectiveness Framework² and they have been consistently cited as such by the Welsh Government. The literacy and numeracy priorities contribute to the 'Improving school standards and attainment' key action in the [Programme for Government](#).

The importance of having highly literate and numerate school leavers is not a new area of discussion, as Estyn Chief Inspectors have set out in several of their annual reports in the past decade³, but the main reasons for the current urgency are arguably primarily two-fold.

Firstly, the non-statutory Skills Framework, introduced in 2008, was criticised by Estyn as not being used effectively to embed such skills within teaching across the curriculum and therefore as not being influential enough.⁴

Secondly, the PISA 2009 results (published in December 2010), showed a deterioration in Wales' performance relative to other countries in the three areas of reading, mathematics and science.

Part of the Welsh Government's wider response to the latter has been to put in place literacy and numeracy programmes setting out action over a five year period. Its specific response to the former is a new national Literacy and Numeracy Framework (LNF) to replace the elements of the Skills Framework that covered literacy and numeracy. Unlike its predecessor, this will be a statutory curriculum requirement from September this year and the LNF is a key element of delivering the literacy and numeracy programmes.

¹ This was Leighton Andrews' title at the time; it later changed to Minister for Education and Skills in May 2011.

² Welsh Government, Leighton Andrews (Minister for Children, Education and Lifelong Learning), [School Effectiveness Framework](#), Cabinet Oral Statement, 29 June 2010 [accessed 13 May 2013]

³ The need to improve literacy and numeracy levels in Wales was highlighted in Estyn, [The Annual Report of Her Majesty's Chief Inspector of Education and Training in Wales 2009-10](#), Foreword, p2-5. In [Estyn, The Annual Report of Her Majesty's Chief Inspector of Education and Training 2004-05](#), Foreword, p viii, it was highlighted that basic skills initiatives did not yet involve enough people to tackle the skills gap fully or to make significant numbers of people more employable than in the past, in jobs that demand higher standards of skills, especially literacy and numeracy. [accessed 13 May 2013]

⁴ Estyn, [The Skills Framework at Key Stage 2](#), July 2011 [accessed 25 March 2013]; Estyn, [An evaluation of the impact of the non-statutory Skills framework for 3 to 19-year-olds in Wales at key stage 3](#), May 2012 [accessed 13 May 2013]

In addition to expected outcomes for pupils set out in the LNF and statutory requirements for these to be formally assessed annually, there will also be annual national reading and numeracy tests for pupils in Years 2-9. The first of these took place from 8-22 May 2013.

Pupils' levels of literacy (formally 'reading') and numeracy in Wales were shown in the last set of PISA results in 2009 to be lower than their UK counterparts. Other evidence considered in this research paper from the Millennium Cohort Study gives similar indications for literacy at age seven with lower levels in Wales than in England. Welsh pupils' GCSE performance in English Language and Mathematics is also lower than England, leading to possible conclusions about their relative literacy and numeracy abilities, despite the accepted shortcomings in those qualifications as a means of assessing literacy and numeracy.

This research paper sets out in greater detail the policy context behind the prioritisation of literacy and numeracy as, after the bulk of the strategic and development work, the focus shifts to the implementation stage.

2. Background to the policy and the influence of PISA

The rationale for prioritising raising standards of literacy and numeracy can arguably be placed within the context of two emerging factors; the perceived failure of the previous Skills Framework to adequately embed literacy and numeracy skills across the curriculum and the PISA 2009 results which were widely seen as disappointing across the education sector in Wales.

2.1. Replacement of the non-statutory Skills Framework

The Skills Framework was introduced in 2008 by the Welsh Government as a means of underpinning schools' and local authorities' planning for the Foundation Phase, all National Curriculum Subject Orders (which were also revised in 2008) as well as other areas such as personal and social education. It was not intended to be a programme of study and, since it was not statutory, was not binding on schools.

The Skills Framework was largely a response to perceptions among employers that prospective employees and young recruits did not have the necessary transferable skills. The [*Future Skills Wales 2003 Generic Skills Survey*](#) highlighted information and communication technology as the biggest skills deficit in addition to communication and problem solving abilities. Whilst literacy and numeracy did not top the list, they were regarded as important by a majority of employers and few of those surveyed said they did not require literacy and numeracy skills from their workforce.⁵

Subsequently, a revised National Curriculum and number of new non-statutory frameworks, including the Skills Framework, were introduced in 2008 following a review of the curriculum and assessment arrangements by the Qualifications, Curriculum and Assessment Authority for Wales (ACCAC) in 2004. This advised that the curriculum be substantially revised to place more emphasis on learners acquiring transferable skills.

The Skills Framework identified four main areas for skill development including:

- Communication, including reading, writing speaking and listening;
- Number;
- Thinking; and
- Information and communication technology.

⁵ Future Skills Wales, [*Future Skills Wales 2003 Generic Skills Survey*](#), 2003, p5,10 [accessed 13 May 2013]

Estyn carried out an evaluation of the non-statutory skills framework at Key Stage 2, reporting on its findings in July 2011. Estyn found that:

the Skills framework is not used well for planning progression in pupils' skills. (...) Few schools are planning a 'skills-based' curriculum consisting of progressively more complex activities designed to develop pupils' thinking, communication, ICT and number skills.⁶

The fact that the framework was not statutory and its implementation left to the discretion of schools and local authorities was also highlighted as significant.

In general, schools do not see skills as the starting point for designing the curriculum, but rather as a bolt-on to existing schemes of work. (...) Schools use the National Curriculum Subject Orders to plan schemes of work first and then identify opportunities for developing pupils' skills afterwards.⁷

This view was supported the following year when Estyn looked at the position at Key Stage 3, concluding that:

Most schools do not use the Skills framework when planning the development of skills because they place a higher priority on making sure that schemes of work match National Curriculum Orders (...) [and] using the framework is not a statutory requirement.⁸

On the role of local authorities, Estyn found that:

most do not prioritise the use of the Skills framework because it is non-statutory.⁹

The efforts of schools and local authorities were not necessarily being called into question and it was highlighted that they were prioritising other, usually statutory, directions and guidance. However, the reports from Estyn highlighted the importance of statutory backing for Welsh Government policies and in May 2012, the Minister was quoted by Wales Online as 'conceding that failure to roll it out on a statutory basis had been "a mistake"'.¹⁰ This also helps to contextualise the Welsh Government's decision to make the Literacy and Numeracy Framework a **statutory** part of the curriculum from September 2013.

The importance of literacy and numeracy continues to be identified as fundamental to the requirements of the employment market. The National Strategic Skills Audit for Wales 2012 identified literacy and numeracy as key components in one of the three cross-cutting areas of skills, 'Employability and basic skills'.¹¹

⁶ Estyn, *The Skills Framework at key stage 2: an evaluation of the non-statutory Skills framework for 3 to 19 year olds at key stage 2 - July 2011*, July 2011, p1 [accessed 13 May 2013]

⁷ *Ibid.* p2

⁸ Estyn, *The Skills Framework at key stage 3*, May 2012, p3 [accessed 13 May 2013]

⁹ *Ibid.* p4

¹⁰ Wales Online, <http://www.walesonline.co.uk/news/wales-news/new-plan-launched-revolutionise-teaching-2030932> 17 May 2012 [accessed 13 May 2013]

¹¹ Institute for Employment Studies and Institute for Employment Research, Welsh Government Social Research, *National Strategic Skills Audit for Wales 2012*, February 2013 [accessed 13 May 2013]

2.2. PISA 2009

The Programme for International Student Assessment (PISA) is a survey of the educational achievements of 15 year olds in countries around the world. The programme, launched by the Organisation for Economic Co-operation and Development (OECD) in 1997, undertook the first survey in 2000. It takes place every three years, and Wales participated for the first time in 2006. The PISA report gives results for the UK as a whole with the four parts of the UK contributing in proportion to their populations.

PISA tests 15 year old pupils, as they near the end of their compulsory schooling, on their ability to apply their knowledge and skills to address real life challenges as set out in the tests. This differentiates PISA from other pupil assessments, such as GCSEs, which measure their mastery of the school curriculum.¹²

2.2.1. Sampling and testing arrangements

The most recent set of PISA tests were taken by 3,270 pupils from 132 schools in Wales in November 2009, who were mainly in Year 11. This represented 88 per cent of pupils and 87 per cent of schools.¹³ There was a requirement that in any of the schools taking part, a minimum of 50 per cent of pupils were sampled. In total, 470,000 15 year olds from 65 nations around the world (33 of which are in the OECD) took the PISA tests, which cover the three domains of reading, mathematics and science. For each PISA cycle, there is a particular focus on one of these three domains; in 2006 it was science, in 2009 it was reading, in 2012 this was mathematics and in 2015 it will again be science.

The tests are administered in England, Wales and Northern Ireland by the National Foundation of Educational Research (NFER). The design of the tests, their implementation and the subsequent data analysis is delegated by the OECD to an international consortium which is led by the Australian Council for Educational Research. Due to the number and range of countries taking part, and by using standardised tests and procedures, the programme provides a comparison of countries' education systems and the level of achievement of their pupils.

The relationship between PISA results, including the importance attached to them, and more traditional forms of pupils assessment such as GCSE has been a matter of debate. The Chief Executive of Wales' largest examination board WJEC, Gareth Pierce, has offered one possible distinction which is that PISA is primarily for states to evaluate and compare how effective their education systems are, whilst

¹² Bradshaw, J., Ager, R., Burge, B. and Wheeler, R. (2010). *PISA 2009: Achievement of 15 year olds in Wales*. Slough: NFER. p1 [accessed 13 May 2013]

¹³ *Ibid* p vii

GCSEs enable students to demonstrate their suitability for further and higher education as well for the employment market.¹⁴

2.2.2. PISA 2009 results and impact on policy

The PISA 2009 results were published on 7 December 2010 and are available on the [OECD website](#). All results are broken down by country and public attention tends to focus on one outcome in each domain in particular – the mean value of each country’s pupils’ achievements and the ranking of these. The official OECD report lists the UK as a whole although analysis of the results specifically in Wales was produced by NFER, [‘PISA 2009: Achievements of 15 year olds in Wales’](#).

Wales’ performance gave rise to considerable concern both relative to the previous cycle in 2006 and in terms of comparisons with other parts of the UK and the OECD as a whole. Table 1 shows the difference in results between the 2006 and 2009 cycles whilst Tables 2 and 3 compare Wales’ results with other countries.

Table 1: Wales' mean scores in the 2006 and 2009 PISA cycles

Domain	Wales' mean score	
	2006	2009
Reading	481	476
Mathematics	484	472
Science	505	496

Source: Welsh Government, Minister for Children, Education and Lifelong Learning (Leighton Andrews), [Statement on the Programme for International Student Assessment \(PISA\)](#), Cabinet Written Statement, 7 December 2010 [accessed 13 May 2013]

Notes:

- a) It can be seen that Wales' mean scores decreased in each of the three domains between the 2006 and 2009 cycle. In publishing the data, the Welsh Government noted that it is not statistically valid to make such comparisons although brought attention to the change, saying it was reflective of overall performance and would be highlighted by many readers of the results.
- b) Only approximately 70 per cent of pupils sampled in Wales took the mathematics and science tests in 2009 as, unlike reading, they were minor domains in the 2009 cycle. Their results were used by PISA as an estimate of the full sample for mathematics and science.

¹⁴ Gareth Pierce, “PISA versus GCSE: where does attainment most matter?” , Presentation to the [Institute of Welsh Affairs conference “The second wave in Welsh school improvement”](#) , 8 March 2013 [accessed 13 May 2013]

Comparisons with other UK nations

Wales had lower mean scores in each of the three domains than all of its UK counterparts. When making comparisons of mean scores between countries, PISA uses a test of statistical significance based on whether differences are beyond explanation by merely sampling or measuring error alone. The differences between Wales' scores and those of the other UK nations were significantly different in each of reading, mathematics and science. However, there were no statistically significant differences between the scores in any of the three domains for England, Scotland and Northern Ireland.

Table 2: PISA 2009 mean scores for different parts of the UK

	<i>mean score</i>		
	Reading	Mathematics	Science
UK	494	492	514
England	495	492	515
Scotland	500	499	514
Northern Ireland	499	493	511
Wales	476	472	496

Source: Extracted from Table 8.1, p46; Table 8.11, p51; Table 8.15, p53; Table A1, p59; Table B1, p74; Table C1, p79, Bradshaw, J., Ager, R., Burge, B. and Wheater, R. (2010). [*PISA 2009: Achievement of 15 year olds in Wales*](#). Slough: NFER [accessed 13 May 2013]

International Comparisons

Wales' results were lower than the OECD average in each of the three domains of reading, mathematics and science, although for science the difference was not statistically significantly different. However, for reading and mathematics, Wales' mean scores were statistically significantly lower than the OECD average.

- In reading, Wales' mean score was 476 whilst the OECD average was 493. 29 countries had scores at a statistically significantly higher level than Wales, with 10 countries' scores having no significant difference, and 25 countries significantly lower.
- Wales' mean score in mathematics was 472, compared to the OECD average of 496. There were 35 countries that had significantly higher scores, three with no significant difference and 26 countries that were significantly lower.
- In science, Wales' mean score of 496 was significantly lower than 20 countries. However, there was no statistical difference to the OECD average of 501 and fifteen other countries, and 29 countries had significantly lower scores.

Tables A1, B1 and C1 in the Appendices to [*'PISA 2009: Achievement of 15 year olds in Wales'*](#) provide this information in full, listing other countries' scores and their statistically significant differences, if any, to Wales.

The Welsh Government's policy response

In response to the publication of the PISA 2009 results, Leighton Andrews said that:

the 2009 figures paint an even more disappointing picture of our performance and progress [than 2006].¹⁵

In a high profile speech on 2 February 2011, Wales' PISA 2009 results were described as a 'wake up call to a complacent system' by the Minister.¹⁶ Two months earlier, in a Cabinet statement issued the same day as the publication of the PISA results, he had said:

PISA is a highly respected and robust measure of the relative performance of educational systems. These results cannot be argued away or excused. We need to face up to the harsh truth: schools in Wales are not delivering the outcomes that our young people need and deserve.

The Minister also asserted that the results could not be accounted for by Wales' demographics and socio-economic profile:

These results cannot be excused on the basis of low socio-economic status or the bilingual nature of our nation and education system. They cannot be excused by relative funding levels – Finland has similar per capita spend to Wales on education and yet performs consistently very highly in PISA assessments; Luxembourg spends far more than Wales but their PISA scores are no better than ours in reading and lower in science; New Zealand spends less per capita than we do but significantly outperforms us.¹⁷

The evidence from PISA on Wales' international standing in respect of reading and mathematics gave a clear impression to many that Wales has a lot of catching up to do in terms of literacy and numeracy, or at least how PISA measures them.

The Minister's ambition is that Wales will be in the top 20 of PISA 2015, which he himself has recognised will be a considerable challenge. This would require a rise of up to twenty places and a 30-40 PISA point increase in mathematics, an achievement which Professor David Reynolds highlighted only Chile has made, taking ten years rather than six.¹⁸

¹⁵ Welsh Government, Minister for Children, Education and Lifelong Learning (Leighton Andrews), [*Statement on the Programme for International Student Assessment \(PISA\)*](#), Cabinet Written Statement, 7 December 2010 [accessed 13 May 2013]

¹⁶ Leighton Andrews, '[*Teaching makes a difference*](#)'. Speech given at the National Museum of Wales, Cardiff, 2 February 2011 [accessed 13 May 2013]

¹⁷ Welsh Government, Minister for Children, Education and Lifelong Learning (Leighton Andrews), [*Statement on the Programme for International Student Assessment \(PISA\)*](#) Cabinet Written Statement, 7 December 2010 [accessed 13 May 2013]

¹⁸ David Reynolds, 'How can Wales perform better in PISA 2015/16?' presentation to the [*Institute of Welsh Affairs conference "The second wave in Welsh school improvement"*](#) 8 March 2013 [accessed 13 May 2013]

Due to the emphasis the PISA domains of reading and mathematics place on literacy and numeracy, these formed a significant part of the '20 point action plan' outlined by the Minister on 2 February 2011¹⁹ and expanded upon on 7 February 2012.²⁰ This contained measures such as: up-skilling the teaching profession through a new Masters in Education Practice and revised Continuous Professional Development arrangements; greater accountability through a new School Standards Unit and school banding; and strengthened legislative provisions to tackle school underperformance.

However, national programmes for both literacy and numeracy, and a national framework to deliver these within the curriculum are at the very forefront of educational policy in Wales.

¹⁹ Welsh Government, Minister for Children, Education and Lifelong Learning (Leighton Andrews), *Performance and Standards*, Cabinet Written Statement, 2 February 2011 [accessed 13 May 2013]

²⁰ Welsh Government, Minister for Education and Skills (Leighton Andrews), *School Performance*, Cabinet Written Statement, 7 February 2012 [accessed 13 May 2013]

3. National Programmes for Literacy and Numeracy

Action in respect of literacy and numeracy is a common theme across the Minister's 20 point action plan, although points 7 and 8 refer to specific plans and programmes.

3.1. *The National Literacy Programme*

The Welsh Government published its [National Literacy Programme](#) in May 2012, describing it as 'a national programme to drive up literacy standards in our schools' and setting out 'actions the Welsh Government and its partners need to take to achieve a step change in literacy standards over the next 5 years'.²¹ The Minister, in his statement, said that it would require 'every school in Wales to focus on the development of literacy skills'.²²

The National Literacy Programme is focused on four key themes, with several associated actions for the Welsh Government and its partners listed under each of these in the document's annex. These are summarised below.

National expectations and standards

This theme includes developing a statutory Literacy and Numeracy Framework and creating a professional development programme to support its implementation. Also listed under this theme is strengthening the approach to assessing literacy so that learners' progress can be tracked through the introduction of national reading tests for all learners from Years 2 to 9.

Support and development

The Welsh Government has said it will support professional development in literacy through the Professional Learning Communities (PLCs) network and by identifying outstanding teachers of literacy so others can learn from best practice.

There will be greater training in literacy for qualifying teachers through initial teaching, including a new Masters in Educational Practice, and through continuing professional development.

²¹ Welsh Government, News release, [Programme of actions to raise literacy standards launched by Minister](#), 17 May 2012 [accessed 13 May 2013]

²² Welsh Government, Minister for Education and Skills (Leighton Andrews), [National Literacy Programme](#), Cabinet Written Statement, 16 May 2012 [accessed 13 May 2013]

Targeted interventions

The banding system will be used to help identify those schools that would benefit from targeted support and challenge and teachers with low skills in teaching literacy will be encouraged to engage with PLCs. This theme also includes action to implement proven intervention programmes for learners at risk of falling behind or not achieving their full potential.

Accountability and challenge

All local authorities, working within consortia, will be expected to set clear actions for raising standards in literacy. The Welsh Government will also undertake regular 'stocktakes' to monitor progress and hold consortia to account. A greater emphasis will be placed on performance in literacy by ensuring all headteachers have an objective to improve literacy standards where required.

3.2. The National Numeracy Programme

Following the publication of its literacy programme, the Welsh Government also published a [National Numeracy Programme](#) in September 2012. In doing so, it underlined the importance of numeracy in everyday situations, emphasising that numeracy skills should be taught right across the curriculum, beginning in the Foundation Phase.²³

In order to distinguish numeracy from mathematics, the Welsh Government defined numeracy within the programme as:

Identifying and applying numerical reasoning skills in order to solve a problem, and carrying out the numerical procedures which enable people to work out and show their solutions.²⁴

As with literacy, the Welsh Government has structured its National Numeracy Programme around four themes and lists in the document's annex a number of associated actions under each of these. A summary of these is provided below.

Enhancing the numeracy curriculum

The LNF for all learners aged 5 to 14 is listed under this theme as are the national numeracy tests for Years 2 to 9. The Welsh Government also says it will ensure that numeracy skills are taught and assessed on both reasoning and procedural skills.

²³ Welsh Government, News release, [New national programme to drive up numeracy standards in our schools](#), 26 September 2012 [accessed 13 May 2013]

²⁴ Welsh Government, [National Numeracy Programme](#), September 2012, p2 [accessed 13 May 2013]

Advancing teaching practice in numeracy

As with the literacy programme, there will be changes to initial teacher training courses to ensure that all new teachers have competent standards of numeracy.

The new Masters in Educational Practice will include a focus on numeracy and PLCs will be promoted as a vehicle to develop professional skills in numeracy.

Regional consortia will be funded to identify and deploy outstanding teachers of numeracy to build the skills, knowledge and capacity of their peers by sharing effective practice.

Both primary and secondary school teachers will be supported in updating their skills to teach financial capability, which is identified as a specific and important application of numeracy.

The Welsh Government's School Standards Unit has published a [review of Key Stage 4 mathematics](#) which focuses on secondary schools that buck the trend of underperformance in GCSE mathematics and achieve results as good as or higher than English / Welsh first language.

Supporting learners quickly and successfully

Schools will be provided with guidance on interventions for learners who are falling behind their peers so that all teachers are able to identify those in need of support. A programme will be developed to encourage employers to work with schools specifically to support teachers in the teaching of numeracy.

Communicating the power of numeracy

The Welsh Government will continue to reinforce the importance of numeracy and will look to what the Wales Omnibus Survey shows about whether attitudes to numeracy are improving over the lifetime of the programme. Additional resources will be provided for children entering the Foundation Phase.

3.3. Delivering the programmes

It is clear from the actions outlined in both programmes that the **National Literacy and Numeracy Framework (LNF) will be an absolutely key part of delivering the Welsh Government's national programmes for literacy and numeracy**. This can be seen by the fact that it will be part of the statutory curriculum from September 2013 and will establish annually expected outcomes for learners aged 5-14, from Reception to Year 9. **Whilst separate to the LNF, annual reading and numeracy tests** will enable a national picture of attainment and standards between Years 2 (attaining age 7) to 9 (attaining age 14) to emerge and be used to inform teachers, parents and carers.

Professional support for the teaching profession in implementing the programmes and delivering the desired improvements in literacy and numeracy levels also has an important role to play as does a combination of support and challenge to schools and regional consortia.

The Welsh Government has set out its timeframe for delivering the programmes, which can be viewed in the [National Literacy Programme Timeline](#) and the [National Numeracy Programme Timeline](#) on the Welsh Government's website. Each timeline lists the measures that the literacy and numeracy programmes respectively are based on and sets out milestones in their implementation up until 2014. The LNF and the annual tests in reading and numeracy are among the most significant of these.

4. The National Literacy and Numeracy Framework

The Welsh Government published its National Literacy and Numeracy Framework (LNF) on 28 January 2013. In his statement making the announcement, the Minister said that **the LNF would become a statutory curriculum requirement from September 2013, with formal assessment against the LNF becoming a requirement from September 2014.**²⁵ This followed a period of consultation between 11 June and 12 October 2012 in which 160 written responses were submitted.²⁶ The Minister made a [statement](#) regarding the response to the consultation on 5 December 2012. Responses to the LNF and the national tests are considered in more detail in section 6 of this paper.

The LNF replaces the communication and number elements of the non-statutory Skills Framework, which was referred to earlier in the paper as having been judged by Estyn as not being influential enough. The LNF is a curriculum planning tool from Reception to Year 9 (ages attained 5-14) and aims to integrate literacy and numeracy across all subjects, setting out annual national expectations for each year group and requiring pupils to be formally assessed each year. However, the results of these assessments, which will be statutory from September 2014, will not be collated nationally and should be distinguished from the national reading and mathematics tests introduced in May 2013 (see section 5).

4.1. 'Raising the bar'

The expected outcomes stipulated in the LNF are designed to stretch pupils and 'raise the bar' in this sense. Pupils in Wales are currently assessed by teachers at the end of three main stages of the national curriculum: Foundation Phase, Key Stage 2 and Key Stage 3. Under these current Statutory Teacher Assessments, learners are expected to reach at least level 4 of the national curriculum at the end of Key Stage 2 (age attained 11), and expected to reach at least level 5 at the end of Key Stage 3 (age attained 14). However, the LNF expectations will be closer to level 5 at the end of Key Stage 2 and closer to level 6 at the end of Key Stage 3.²⁷ Further information on existing national curriculum levels and their descriptions can be accessed for all subjects on the [National Curriculum section](#) of the Welsh Government website.

²⁵ Welsh Government, Minister for Education and Skills (Leighton Andrews), [National Literacy and Numeracy Framework \(LNF\)](#), Cabinet Written Statement, 28 January 2013 [accessed 13 May 2013]

²⁶ Welsh Government, [Consultation - Summary of Responses; National Literacy and Numeracy Framework and Tests](#), January 2013 [accessed 13 May 2013]

²⁷ Welsh Government, [National Literacy and Numeracy Framework](#), January 2013, p7 [accessed 13 May 2013]

The LNF expectations have been specifically developed for this purpose and caution should therefore be exercised in extrapolating the results of teachers' assessments against the current National Curriculum levels to project what pupils' performance might be against the LNF. However, in light of this 'raising of the bar', if the existing curriculum expectations are used as proxies, the English, Welsh and Mathematics teacher assessment results for 2012 appear to show significant improvements will be needed for the LNF expectations to be met by a majority of pupils.

Table 3 shows the current levels of attainment in both the current expected level and the one which would correspond to the LNF expectations, for both Key Stages 2 and 3.

Table 3: Teacher Assessment levels for all pupils, 2012

	<i>percentage of pupils achieving</i>			
	Key Stage 2		Key Stage 3	
	Level 4 or above	Level 5 or above	Level 5 or above	Level 6 or above
English	85	33	79	38
Welsh	84	27	84	41
Mathematics	87	33	81	50

Source: Statistics for Wales, Extracted from Table 4: Key Stage 2 teacher assessments for all pupils, by levels, 2012; Table 7: Key Stage 3 teacher assessments for all pupils, by levels, 2012, [*End of Foundation Phase Outcomes and National Curriculum Teacher Assessment of Core Subjects at Key stages 2 and 3*](#), August 2012 [accessed 13 May 2013]

Note:

- a) The general current expectation is that the majority of pupils will achieve level 4 and level 5 at the end of Key Stage 2 and Key Stage 3 respectively.
- b) The LNF expectations will be more akin to level 5 at the end of Key Stage 2 and to level 6 at the end of Key Stage 3.

4.2. Structure of the National Literacy and Numeracy Framework

Table 4 below shows how the LNF is structured and subdivided into components, strands, and elements within both literacy and numeracy. For literacy, the elements are further subdivided into 'aspects'.

Against each of the elements for numeracy and aspects for literacy are listed a **number of skills learners are expected to have at each year within the framework**, spanning the Foundation Phase, Key Stage 1 and Key Stage 2.

There is also an 'extension' category of skills beyond those expected of the highest year group, Year 9, for more able and talented pupils.

In addition to Table 4, full details of the LNF including the expected outcomes and skills for each part of the framework at each age are available on the [National](#)

[and Literacy Numeracy Framework](#) section of the Welsh Government's Learning Wales website under 'Literacy Components' and 'Numeracy Components'.

4.3. Delivering the Framework

The delivery of the LNF will amount to substantial changes to the way the curriculum is taught, or as Estyn has described it, a 'recalibration of the curriculum'. This has been identified by teaching unions as potentially adding considerably to teachers' workloads (see section 6).

On 28 January 2013, the Welsh Government confirmed that it would be making over £7 million available under a new National Support Programme (NSP) to help schools and teachers implement the LNF and administer the national tests, along with guidance and training materials. It held four regional events across Wales in March 2013 to launch the NSP and provide information to teaching professionals.²⁸

The [Literacy and Numeracy Timeline 2013-14](#), which shows key dates for implementation of the LNF, is available on the Welsh Government's Learning Wales website.

²⁸ Welsh Government, Minister for Education and Skills (Leighton Andrews), [National Literacy and Numeracy Framework \(LNF\)](#), Cabinet Written Statement, 28 January 2013 [accessed 13 May 2013]

Table 4: Structure of the National Literacy and Numeracy Framework²⁹

Component	Strand	Element	Aspect
Literacy	Oracy across the curriculum	Developing and presenting information and ideas	Speaking
			Listening
			Collaboration and discussion
	Reading across the curriculum	Locating, selecting and using information	Reading strategies
			Responding to what has been read
		Writing across the curriculum	Organising ideas and information
	Response and analysis		
	Writing across the curriculum	Writing accurately	Meaning, purpose, readers
			Structure and organisation
Handwriting, grammar, punctuation, spelling		Language	
	Handwriting, grammar, punctuation, spelling		
Numeracy	Developing numerical reasoning	Identify processes and corrections	
		Represent and communicate	
		Review	
	Using number skills	Use number facts and relationships	
		Fractions, decimals, percentages and ratios	
		Calculate using mental and written methods	
		Estimate and check	
		Manage money	
		Using measuring skills	
	Using measuring skills	Length, weight/mass, capacity	
		Time	
		Temperature	
		Area and volume. Angle and position	
	Using data skills	Collect and record data	
		Present and analyse data	
		Interpret results	

²⁹ Learning Wales (Welsh Government), Extracted from 'Literacy components' and 'Numeracy components', [National Literacy and Numeracy Framework](#) [accessed 13 May 2013]

5. National Reading and Numeracy Tests

The Welsh Government first announced that there would be a national reading test and that similar plans would be developed for numeracy in its 20 point action plan set out by the Minister on 2 February 2011. An update was given in the Minister's follow up statement a year later on 7 February 2012 and the introduction of **annual tests in reading and numeracy for pupils from Year 2 to Year 9** was subsequently a fundamental part of the National Literacy and Numeracy Programmes, published in May and September 2012 respectively. Consultation on the introduction of the national tests was undertaken as part of the same [exercise](#) regarding the Literacy and Numeracy Framework.

The first annual cohort of pupils took these tests during the period **8-22 May 2013**.

5.1. Providing a national picture of pupils' abilities

In her annual report for 2011/12, Her Majesty's Chief Inspector of Education and Training in Wales (hereafter 'the Chief Inspector'), Ann Keane, highlighted the importance of having a more coherent set of data for schools to use to compare their pupils' reading and numeracy levels with those from other schools. The Chief Inspector stated that the results from this year's numeracy tests will provide the first national picture of pupils' numeracy abilities and the impression also given in respect of reading is that the test results will give a much improved picture of the national position.³⁰ Currently, local authorities use **different reading tests at different stages** meaning that whilst Estyn collects these results separately from local authorities **this data is not comparable**. The Chief Inspector essentially says that the only overall conclusion that can be drawn is that it would have been useful if they had been able to use the same tests.³¹ It is intended that the new national reading and numeracy tests will change this.

³⁰ Estyn, [The Annual Report of Her Majesty's Chief Inspector of Education and Training in Wales 2011-2012](#), Foreword, p6 [accessed 13 May 2013]

³¹ [Ibid](#), Section 1: Priorities and Provision, p4

The Welsh Government has stressed the different role that the tests will have to the Literacy and Numeracy Framework (LNF) and explained the reasons why they are being introduced in May 2013 before the LNF becomes a statutory curriculum requirement in September 2013:

We need to ensure that our policies to raise literacy and numeracy skills are working. The data from the tests this year will provide a baseline from which schools, LAs and the Welsh Government will be able to measure progress and will provide teachers with the information they need to make decisions about interventions.

It is important to stress that the tests, whilst developed with careful reference to the expectations of the Literacy and Numeracy Framework, are tests of the National Curriculum and assess skills which learners should already be acquiring as part of that Curriculum. **As such they are independent of, although complimentary to, the LNF.** [my emphasis]³²

5.2. *Testing arrangements*

The national reading and numeracy tests are bespoke tests, which have been **developed specifically for Wales by the National Foundation for Educational Research (NFER) and Acumina.** NFER is an independent provider of research, assessment and information services for education, training and children's services, whilst Acumina is a provider of educational materials.

The Welsh Government intends that the national tests will replace rather than supplement the various forms of annual summative tests which the majority of schools in Wales administer to their pupils.

- There is a **single English reading test** and a **single Welsh reading test**, each of which pupils have up to 60 minutes to complete.
- Year 2 pupils in Welsh-medium schools will sit the Welsh reading test only, whilst Year 3 pupils will undertake the Welsh reading test on a statutory basis with the additional option of sitting the English test on a voluntary basis.
- All other year groups are required to sit both the Welsh and English reading tests. Pupils in English-medium schools will sit the tests in English only. For numeracy, there is initially one procedural test (testing knowledge of mathematical and numerical processes) lasting up to 30 minutes.
- **From 2014, this will be accompanied by a second numeracy test which will focus on reasoning** (testing the ability to understand what skills are needed to solve a problem and how to apply them) which pupils will also have up to 30 minutes to complete.

³² Learning Wales (Welsh Government), *National Support Programme Events, Your Questions Answered: National Reading and Numeracy Tests*, p6 [accessed 13 May 2013]

- These test durations are in addition to time assigned for administrative purposes such as issuing instructions and working through practice questions.

The [Test Administration Handbook](#) issued by the Welsh Government states that schools may apply discretion in applying arrangements which make it easier for learners in Years 2 and 3 to perform to the best of their abilities. This includes allowing them to sit the test in smaller chunks – in three parts for the reading test and two parts for the numeracy test – provided that these all occur in a single day, the maximum time limit is not exceeded, and learners do not have the opportunity to revise answers given in previous chunks.

Whilst in numeracy, different tests will be taken by each year group between Years 2-9, the reading test will be taken in two-year groups. The reason given by the Welsh Government is that the rate of development of learners' reading skills varies more than in numeracy due to the influence of their uptake of independent reading. However, the Welsh Government has said a new reading test will be developed for 2014 and that no learner will sit the same test twice.³³

There are optional reading tests for Years 4-9 that schools may wish to use to further explore learners' reading skills. There are no data reporting requirements for these additional voluntary tests and schools may use them how they wish as long as the relevant national reading test has already been sat by the pupils.

As with the LNF, teaching unions have expressed concerns about the administrative burdens and additional workload of administering the tests.

On 30 January 2013, the Minister announced that **a one off grant would be available for the 2012/13 academic year to assist schools in implementing the tests this year.** A total of **£700,000** will be channelled through local authorities direct to schools, with the one-off funding ranging from £350 to £1,000 per school depending on the size of their Year 2-9 cohort.³⁴

It is essentially up to schools to consider whether it is appropriate for them to adopt any existing arrangements they already have in place for internal administering and marking of tests or whether to make changes to these for the national reading and numeracy tests. In doing so, they are advised to be mindful of the relevant provisions in respect of teachers' pay and conditions.³⁵ The Welsh Government has said that the tests have been designed so that a range of staff can mark them and that it is at schools' discretion who undertakes this role.

³³ *Ibid*, p4 [accessed 13 May 2013]

³⁴ Learning Wales (Welsh Government), *Additional school support for National Reading and Numeracy Tests*, 25 March 2013 [accessed 13 May 2013]

³⁵ Welsh Government Guidance 099/2013, *National Reading and Numeracy Tests – 2013 test administration handbook*, March 2013, p7-9 [accessed 13 May 2013]

It was reported in March 2013 that the Welsh Government had in fact agreed with trade unions that teachers would not be expected to mark the tests (see section 6.1.3).

In seeking to assure the integrity of the results, given that it will be schools and head teachers who will be marking tests on which they will be inevitably judged and compared, the Welsh Government has said:

Head teachers will be required to sign a declaration form confirming that the tests have been marked in accordance with the guidance in the *National Reading and Numeracy test administration handbook*. LAs will also perform a monitoring role, undertaking sampling of papers and visiting a sample of 10% or more of the schools in their area over the test administration period to observe activity. These arrangements will act as a disincentive to malpractice.³⁶

The timelines for both the National Literacy Programme and the National Numeracy Programme set out the following annual time period for the administering and collation of the results of the national tests:

- May: Statutory tests administered in schools
- June / July: Data collection and initial; feedback to schools
- July / end of summer term: Report provided to parents / carers
- September: National data validated³⁷

³⁶ Learning Wales (Welsh Government), *National Support Programme Events, Your Questions Answered: National Reading and Numeracy Tests*, p7 [accessed 13 May 2013]

³⁷ Extracted from Welsh Government, *National Literacy Programme Timeline; National Numeracy Programme Timeline*, [accessed 13 May 2013] ,

6. Reaction within the teaching sector: trade union responses

The Welsh Government consulted on both the National Literacy and Numeracy Framework (LNF) and the National Reading and Numeracy Tests as part of the same [exercise](#) between 11 June and 12 October 2012, publishing a [summary of the consultation responses](#) in January 2013.

160 written responses were received and over 300 delegates attended five consultation events across Wales. The Minister's statements and the consultation summary refer to concerns that were expressed over increasing workload and the fit with existing curriculum and assessment requirements. However, a list of respondents and their full responses have not been published by the Welsh Government.

6.1. Trade Union Responses

Responses to the consultation from most respondents, including teaching trade unions, unsurprisingly agreed that literacy and numeracy were important features of pupils' education, but some concerns were raised.

The most notable of these were from the National Association of Schoolmasters Union of Women Teachers (NASUWT) Cymru and the National Union of Teachers (NUT) Cymru, which both raised opposition to the LNF. Indeed, both of these trade unions have re-emphasised criticisms of the Welsh Government's approach in recent press statements, which are referred to below.

Other unions, such as the National Association of Head Teachers (NAHT) Cymru and the Association of School and College Leaders (ASCL), as well as the Association of Teachers and Lecturers (ATL) Cymru, have raised practical concerns such as workload whilst generally welcoming most aspects of the LNF. Undeb Cenedlaethol Athrawon Cymru (UCAC) have also expressed some practical concerns including specific issues for the Welsh-medium sector.

The following is a snapshot of some of the views that have been raised by teaching unions in Wales. This is not exhaustive and greater detail is available in the full consultation responses, referred to below.

6.1.1. National Association of Schoolmasters Union of Women Teachers (NASUWT) Cymru

In its [consultation response](#), the NASUWT challenged the policy rationale behind the LNF and the introduction of national tests, disputing the perception of Wales' education system being in a state of 'crisis' and arguing that too much weight is being placed on Programme for International Student Assessment (PISA) results:

The NASUWT is therefore concerned that the development of the LNF and national testing by the Welsh Government is taking place in a context within which Ministers continue to assert that the education system in Wales is inadequate and that the key driver of policy must be to correct profound deficiencies in the quality of provision. (...)

The NASUWT must continue to draw the attention of the Welsh Government to the fact that claims that Wales is confronted by a crisis of educational standards are without any credible foundation and cannot therefore form the basis for the development of effective national education policy.³⁸

The NASUWT went on to say:

Given that the proposals set out in the consultation document are justified on the basis that they seek to address levels of underperformance in the education system in Wales, for which there is no substantial or authoritative evidence, the NASUWT must reaffirm its view that the Welsh Government should set aside proposals for the introduction of the LNF and national testing established on this premise. Instead, the Welsh Government should look to explore more effectively the reality of the position with regard to the progress and achievement of pupils in Wales and establish proposals for curriculum reform, including supporting the development of pupils' literacy and numeracy skills, that are based on more rigorous evidence of the current performance of the education system and how teachers and school leaders can be most effectively supported to continue to raise standards in future.³⁹

NASUWT Cymru also questioned whether the non-statutory Skills Framework had in fact been unsuccessful, which was a key factor in the move towards a new statute backed LNF, adding that a lack of resources for the new requirements would worsen teachers' already burdensome workload:

Given that pressure on schools to evidence compliance with the statutory provisions of the LNF would be even more pronounced than those associated with the non-statutory Skills Framework, the failure of the Welsh Government to set out coherent and credible plans for the resourcing of support for LNF implementation⁴⁰ would risk exacerbation of the considerable negative workload implications for teachers and school leaders generated currently by the Skills Framework.⁴¹

³⁸ NASUWT Cymru, [NASUWT Response to Welsh Government Consultation Response for the Literacy and Numeracy Framework and Tests](#), 12 October 2012, p3 [accessed 13 May 2013]

³⁹ *Ibid*, p5 [accessed 13 May 2013]

⁴⁰ The Welsh Government subsequently announced a £7 million National Support Programme to assist schools in implementing the LNF

⁴¹ *Ibid*, p9 [accessed 13 May 2013]

More recently, the NASUWT passed a motion at its annual conference on 31 March 2013 calling for an increase in teachers' Planning, Preparation and Assessment (PPA) time for the LNF over concern teachers will be diverted from focusing on teaching and learning.⁴² This was despite the Welsh Government announcing the £7 million National Support Programme for implementing the LNF and one-off grants to schools to assist with the administering of the national reading and numeracy tests in May 2013.

6.1.2. National Union of Teachers (NUT) Cymru

In its consultation response, NUT Cymru argued strongly against the introduction of the national reading and numeracy tests.

We fundamentally oppose the model of testing that is being proposed. (...)

The introduction of these tests will do nothing to help develop and improve the ability of children and service only to reduce teaching time and undermine the professionalism of the sector. (...)

The NUT, as per its constitution, is opposed to SATs and views these tests as a return to that flawed and discredited approach.⁴³

The NUT's concerns appear to revolve primarily around the implications for teachers' workloads and the impact on the amount of time they spend teaching and interacting with learners.

There are serious concerns about the workload associated with this requirement. Asking teachers to undertake yet further assessment for every learner is going to be workload intensive and will lead to less actual teaching time.⁴⁴

In terms of a reduction of teaching time, this could very well echo the fears realised as part of the Child Development Assessment Profiles, where teachers were left unable to actually teach children because they were so preoccupied with assessing them. The NUT fears that these tests could end up ensuring that teachers are aware of the levels of literacy and numeracy of their pupils but unable to spend enough quality teaching time with them to advance that development.⁴⁵

There were also concerns raised about the LNF and its compatibility with the Foundation Phase due to differing approaches encompassed by each.

We also feel that the introduction of such a precise framework for 5 to 14 year olds, in conjunction with standardised testing, is totally contradictory to the methodology and ethos of the foundation phase. The values of this strategy are placed at risk by the formulaic approach the Welsh Government wishes to impose on schools through these tests. It risks the very nature of learning that children have become accustomed to through the foundation phase.⁴⁶

⁴² NASUWT, News release, [Welsh Government warned to honour its commitments to literacy and numeracy](#), 31 March 2013 [accessed 13 May 2013]

⁴³ NUT Cymru, *National Literacy and Numeracy Framework (LNF) and Tests*, 2012, p1 [obtained from NUT Cymru]

⁴⁴ *Ibid*, p2

⁴⁵ *Ibid*, p5

⁴⁶ *Ibid*, p5

As with the NASUWT, the NUT recently passed a motion at its annual conference calling for an immediate review of the LNF and seeking engagement with the Welsh Government so that concerns could be addressed. The NUT stressed that ‘no-one is more dedicated to supporting literacy and numeracy standards than teachers’ and that their issue was not the focus on increasing these. However, in a press release issued on 1 April 2013, it stated:

The Welsh Government’s Literacy and Numeracy Framework (LNF) threatens to increase workload, stress for pupils, will compound failure and will undermine the very professionalism underpinning the teaching sector.⁴⁷

6.1.3. NUT Cymru / NASUWT Cymru joint position and potential for industrial action

NUT Cymru and NASUWT Cymru issued a [joint press release](#) on 22 March 2013 saying that, following discussions with the Welsh Government, they were advising their members that should only administer the national reading and numeracy tests if they form part of a timetabled lesson and are undertaken in the teacher’s classroom. They have advised their members they are not to be expected to prepare their classrooms for the tests; not to mark the tests and not to input data from the tests.⁴⁸

It should be noted that both unions have been in wider disputes with the Welsh Government over workload conditions and each warned in their respective consultation responses in 2012 of the potential of the requirements of the LNF and the national tests to be an exacerbating factor.⁴⁹

6.1.4. National Association of Head Teachers (NAHT) Cymru, Association of School and College Leaders (ASCL) and Association of Teachers and Lecturers (ATL) Cymru

NAHT Cymru and the ASCL submitted a joint response to the consultation, which was generally supportive of the Welsh Government’s proposals, whilst identifying several areas of suggested improvement. The two unions said that the views of its school leader membership was that the LNF could represent ‘one of the most stellar developments in devolved education policy-making’ and was something that ‘must and should be done’. In its own [response](#), the ATL said that it endorsed many of the points made in the NAHT / ATL response, which included:

⁴⁷ NUT, News Release, [Literacy and Numeracy Framework in Wales](#), 1 April 2012 [accessed 13 May 2013]

⁴⁸ NUT Cymru and NAHT Cymru, News Release, [NASUWT/NUT joint guidance on literacy and numeracy tests](#), 22 March 2013 [13 May 2013]

⁴⁹ NUT Cymru, *National Literacy and Numeracy Framework (LNF) and Tests*, 2012, p4,6 [obtained from NUT Cymru]; NASUWT Cymru, [NASUWT Response to Welsh Government Consultation Response for the Literacy and Numeracy Framework and Tests](#), 12 October 2012, p9,10 [accessed 13 May 2013]

The Frameworks accord entirely with the professional view on how literacy and numeracy standards can be raised in Wales.

We believe equally strongly that this will not happen unless some of the existing pressures in the system are removed or softened.⁵⁰

The three unions highlighted the importance of properly embedding the LNF in schools and providing sufficient resources, particularly in respect of training, commenting that:

its integrity will be shattered and its effectiveness fatally undermined [if] it is not properly absorbed and understood across the profession.⁵¹

Among the measures the three unions suggest will enable the LNF to be properly implemented are designating the Foundation (non-core) subjects as non-statutory to prioritise literacy and numeracy, integrating other English/Welsh and Mathematics skills to encapsulate all essential skills, and defining expected progress by 'stages' rather than year groups.

In respect of the national reading and literacy tests, NAHT Cymru and ATL Cymru agree that they are necessary and that, given many schools already administer their own tests, a consistent national approach is sensible. However, they express the concern that schools will teach to the test to the detriment of a wider, more creative and broad curriculum.⁵²

In its own specific comments, ATL Cymru identified the following three areas of main concern among its members regarding the practical implications of administering and marking the national tests:

- a) "teaching to the test" would become the norm.
- b) The workload implications. As one commented: 'Teachers will either mark at home (work/life balance issues) or sit the class in front of videos while they mark in school time'.
- c) There will be a narrowing of the curriculum.⁵³

⁵⁰ NAHT Cymru [National Association of Headteachers] and ASCL Cymru [Association of School and College Leaders], *Joint response to the consultation on the National Literacy and Numeracy Frameworks and tests*, 2012 , p2 [obtained from NAHT Cymru]

⁵¹ *Ibid*, p6

⁵² *Ibid*, p7

⁵³ Association of Teachers and Lecturers (Cymru), [*National Literacy and Numeracy Framework \(LNF\) and Tests*](#), 2012, p3 [accessed 13 May 2013]

6.1.5. Undeb Cenedlaethol Athrawon Cymru (UCAC)

UCAC, whose members are predominantly drawn from the Welsh-medium sector, is generally supportive of the LNF, commenting on its value in setting out a clear role for teachers, parents and learners.

Credwn fod y pwyslais yn y FfLIRh ar gyflawniad cam-wrth-gam gyda dilyniant clir, a ffocws ar y nod cyflawniad nesaf yn un a all fod yn werthfawr tu hwnt, ar gyfer athrawon, dysgwyr a rhieni – gan roi rôl glir i bob un ohonynt yn y broses ddysgu.

We believe that the Literacy and Numeracy Framework's emphasis on step-by-step achievement and clear progression, and its focus on the next achievement aim is one that could be extremely valuable, for teachers, learners and parents - giving each of them a clear role in the learning process.⁵⁴

However, UCAC highlighted several practical points, including strongly emphasising that pupils should not be assessed against each bullet point of the LNF and that it should be used as a planning tool, otherwise the administrative burden would be unmanageable.

Sylwn fod nifer helaeth iawn o eitemau wedi'u rhestru ar gyfer pob blwyddyn ysgol, yn enwedig pan edrychir ar y cyfanswm ar draws yr holl linyddau. Rhaid inni bwysleisio yn y termau cryfaf posib, pwysigrwydd defnyddio'r rhain fel teclyn cynllunio'r addysgu yn benodol, ac na ddylid ceisio asesu pob disgybl yn erbyn pob pwynt bwled. Mae perygl gwirioneddol fan hyn o greu cyfundrefn drychinebus, tebyg iawn i'r Proffil Asesu Cyfnod Sylfaen, os yw ysgolion yn camddechongli natur yr asesiadau yn erbyn y Fframwaith. Wrth gyflwyno'r FfLIRh, rhaid i'r Llywodraeth ofalu ei bod yn gwbl glir, ac yn gwbl gyson ei neges, ynglŷn â fformat a manylder priodol yr asesiadau yn erbyn y Fframwaith. Fel arall, bydd y baich gweinyddol yn amhosib i'w reoli. Mae hwn yn faes amlwg ar gyfer arweiniad diamwys a hyfforddiant trylwyr i'r gweithlu cyfan.

We note that a large number of items are listed for each school year, especially when looking at the total across all strands. We must emphasise, in the strongest possible terms, the importance of using these as a tool specifically for planning the teaching, and that teachers should not try to assess each child against each bullet point. There is a real danger here of creating a disastrous system, very similar to the Foundation Phase Assessment Profiles, if schools misinterpret the nature of the assessments against the Framework. As it introduces the Literacy and Numeracy Framework, the Government must ensure that it is absolutely clear, and that its message is absolutely consistent, regarding the format and appropriate detail of the assessments against the Framework. Otherwise, the administrative burden will be impossible to manage. This is an obvious area for unambiguous guidance and thorough training for the entire workforce.⁵⁵

⁵⁴ Undeb Cenedlaethol Athrawon Cymru (UCAC), *Fframwaith Llythrennedd a Rhifedd (FfLIRh) a Phroffion Cenedlaethol / Literacy and Numeracy Framework and National Tests*, October 2012, p1 [accessed 13 May 2013. Translation provided by NAW Translation and Reporting Service]

⁵⁵ *Ibid*, p1,

UCAC argued that training is key to the success of the LNF and that, on the issue of workload, attention needed to be given to making sure that teachers were not overwhelmed with administrative responsibilities.

Rhaid i'r Llywodraeth sicrhau nad yw'r gyfundrefn newydd hon yn rhy weinyddol feichus – a hynny er mwyn llwyddiant y gyfundrefn ei hun, yn ogystal ag er mwyn peidio gorlwytho staff â lefel amhosib o waith a chyfrifoldebau.

The Government must ensure that this new regime is not too administratively burdensome – to ensure the success of the system itself, as well as to avoid overloading staff with an impossible level of work and responsibilities.⁵⁶

UCAC also argued that the LNF makes assumptions that children develop at the same rate year on year, which may not be the case. It suggests the LNF should be divided by progression rather than school year, resembling the point made by the NAHT, ATL, and ASCL about defining progress in stages rather than year groups.

Serch hynny, drwy drefnu'r Fframwaith yn y fath fodd, ar sail blynyddoedd ysgol penodol, mae'r Fframwaith yn rhoi'r argraff ei fod yn rhagdybio bod plant yn gwneud cynnydd cyfatebol o flwyddyn i flwyddyn. Ni fydd hyn o reidrwydd yn wir. (...) Byddai gosod y Fframwaith ar sail camau cynnydd o ryw fath yn gallu osgoi neu o leiaf lliniaru ar rai o'r problemau uchod.

However, by setting out the framework in such a way, on the basis of specific school years, the Framework appears to presume that children make corresponding progress from year to year. This will not necessarily be true. (...)

By structuring the Framework on the basis of stages of progression of some sort, some of the above problems could be avoided or at least mitigated.⁵⁷

6.1.6. The Welsh Government's response to the consultation

The Minister announced details of the Welsh Government's response to the consultation in two Cabinet Statements. On [5 December 2012](#), he responded in respect of the LNF and on [30 January 2013](#) regarding the national tests. Pages 13-15 of the [summary of consultation responses](#) also sets out the action the Welsh Government is taking following the views it had received.

Two of the most significant changes that the Welsh Government made to the LNF following the consultation exercise were to adopt a **phased approach to its implementation** and **strengthen the support** in place for schools to deliver it.

Whilst the LNF will still be a statutory curriculum requirement from September 2013, schools will not be required to undertake the formal annual assessments until the academic year beginning September 2014 to give them time to embed the LNF into their curriculum planning and their teaching and learning. It should

⁵⁶ *ibid*, p4,

⁵⁷ *ibid*, p1,2

be noted that this refers to the annual assessments under the LNF and that the Welsh Government confirmed the separate national reading and numeracy tests would be introduced from May 2013.

Secondly, whilst the initial consultation document referred to a comprehensive range of online guidance and training, the more substantial £7 million National Support Programme that was subsequently announced is arguably a reflection of the Welsh Government's response to the views expressed. Four regional events were held across Wales in March 2013 as part of the National Support Programme, which consisted of training and workshops.

The Welsh Government also made a number of revisions to the LNF itself, including changing the name of the reading strand from "reading for information" to "reading across the curriculum", removing the term "fahrenheit" which was felt to be outdated, and adding 'extension' columns to both the literacy and numeracy frameworks to stretch higher achievers.

7. Literacy and numeracy interventions in a wider context of change

The recalibration⁵⁸ of the curriculum brought about by the introduction of the LNF and national testing is taking place at a time of significant change in education in Wales. There is a wider context of change of which the interventions on literacy and numeracy are a key part.

7.1. Structural change

In 2011, a task and finish group chaired by Vivian Thomas undertook a [review](#) of the structure of education services in Wales. It made a number of recommendations, including the strengthening of regional consortia which would see local authorities collaborating on a regional basis on areas such as school improvement. The Welsh Government accepted this recommendation in the [Response to the recommendations by the Minister for Education and Skills](#).

A [review](#) of the readiness of the regional consortia as of November 2012 was published on 16 April 2013 and Minister made a [statement](#) on this subject on the same date.

Vivian Thomas' report also recommended a further in depth review of the delivery of education services in Wales, which the Minister announced he was bringing forward. In making the [statement](#), the Minister made it clear that he considered this more urgent due to a series of disappointing Estyn inspection outcomes for local authorities' education services.⁵⁹

The Minister later announced that the review would be undertaken by Robert Hill and that its focus would include:

consider(ation) whether local authorities should continue to exercise all of the education responsibilities which they currently hold.⁶⁰

Robert Hill's review was due to be reported to the Minister by the end of March 2013 who has said that he will make a statement before the summer recess on how the Welsh Government will be taking this work forward.⁶¹

⁵⁸ Ann Keane, HMCI of Education and Training in Wales (Estyn), has described the introduction of the literacy and numeracy framework in these terms.

⁵⁹ To date (May 2013), of the eighteen local authorities' education services for children and young people that have been inspected by Estyn under the current framework, five have been judged as 'good', six have been judged as 'adequate' and seven were found to be unsatisfactory and in a formal Estyn category. One of these seven is 'in need of significant improvement' and six have been placed under special measures.

⁶⁰ Welsh Government, Leighton Andrews (Minister for Education and Skills), [The Future Delivery of Education Services in Wales](#), Cabinet Oral Statement, 22 January 2013 [accessed 13 May 2013]

⁶¹ National Assembly for Wales, Plenary, [RoP\[16:20\]](#), 19 March 2013 [accessed 13 May 2013]

7.2. *'Improving Schools' implementation plan and the review of the assessment and curriculum*

In October 2012, the Welsh Government published a new national implementation plan entitled [Improving Schools](#). This set out the 'how and when' of implementing the various reforms that are in place, with the Welsh Government saying that setting this course until 2015 will give clarity, provide an overview of all the reforms and set clear expectations.⁶²

In light of the substantial changes that it is making in respect of literacy and numeracy the Welsh Government has also initiated a **review of assessment and the national curriculum in Wales**. Announcing the review, the Minister said that this would make recommendations on any changes needed to ensure that the LNF and tests form part of a coherent approach. The review will also look at whether the current National Curriculum Subject Orders are sufficiently demanding and in line with the enhanced expectations of the LNF.⁶³ The first phase of the review will be completed by September 2013 with the second phase due in September 2014, when the implementation of any changes will also take place.

7.3. *Review of 14-19 Qualifications and new GCSEs in English and Mathematics*

A review of qualifications in Wales at ages 14-19 was launched by the Deputy Minister for Skills, Jeff Cuthbert, in September 2011. This was chaired by Huw Evans OBE. The [Review of Qualifications for 14 to 19 year olds in Wales: Final report and recommendations](#) was published on 28 November 2012 and made 42 recommendations. It stated that:

The Review has concluded that the time has come to develop a high-quality, robust and distinctive national qualifications system for 14 to 19 year olds in Wales, and to support divergence between Wales and other parts of the UK where this is in the interests of learners in Wales.⁶⁴

In respect of literacy and numeracy, from its consultation and engagement with stakeholders, the Review found that:

the current GCSEs in English Language/Welsh First Language and Mathematics are widely expected to be, but are not, reliable indicators of appropriate levels of literacy and numeracy. Some employers and universities consider that grade C, or even above, does not guarantee sufficient literacy or numeracy.⁶⁵

⁶² Learning Wales (Welsh Government), [Improving Schools](#), October 2012, p2 [accessed 13 May 2013]

⁶³ Welsh Government, Minister for Education and Skills (Leighton Andrews), [Review of assessment and the National Curriculum in Wales](#), Cabinet Written Statement, 1 October 2012, [accessed 13 May 2013]

⁶⁴ [Review of Qualifications for 14 to 19 year olds in Wales: Final report and recommendations](#), November 2012, p4 [accessed 13 May 2013]

⁶⁵ *Ibid*, p40

The Review considered the impact that the LNF will have in its duration up until the end of Key Stage 3 (end of Year 9), and therefore what arrangements should follow in Key Stage 4. It decided that:

The specifications and level of demand for future GCSEs should ... reflect the progress that might reasonably be expected in Years 10 and 11, building on the expectations of the Literacy and Numeracy Framework.⁶⁶

Consequently, Huw Evans recommended that there should be revised GCSEs in English Language and Welsh First Language, which would provide greater assurance of literacy. This would be achieved by building explicitly on the expected levels of literacy at the end of Key Stage 3 under the LNF and, in English Language, by placing significantly more emphasis on the quality and accuracy of writing and on spelling, punctuation and grammar.

In Mathematics, the Review recommended a new GCSE in Numeracy alongside another covering mathematical techniques. The Numeracy GCSE would build explicitly on the levels of numeracy expected to be developed under the LNF.⁶⁷

In responding to the recommendations of the Review on 29 January 2013, the Deputy Minister for Skills said:

We will develop new GCSEs in English Language and Welsh First Language and two new maths GCSEs covering numeracy and mathematical techniques. These new GCSEs, for teaching from September 2015, will reflect and support the improvements expected from the Literacy and Numeracy Framework. People expect GCSEs to assess literacy and numeracy, and these new GCSEs will do so. Having two maths GCSEs will reflect the importance of the subject for progression and employment. We will expect most learners to take both maths GCSEs.⁶⁸

It is apparent, therefore that the policy interventions in respect of literacy and numeracy are closely inter-linked with several other substantial changes taking place within education policy in Wales. The significance of this and the role of strong and effective leadership in delivering this level of concurrent and cumulative change is discussed in the final section of this research paper.

⁶⁶ *Ibid*, p41

⁶⁷ *Ibid*, p10

⁶⁸ Welsh Government, Deputy Minister for Skills (Jeff Cuthbert), [*Welsh Government response to the Review of Qualifications for 14 to 19 year olds*](#), Cabinet Oral Statement, 29 January 2013 [accessed 13 May 2013]

8. Further comparisons with other UK nations

To reinforce points made earlier in this paper, the PISA 2009 results have been one of the main drivers for the Welsh Government's drive on performance and standards, of which the focus on literacy and numeracy is a key part.

Reading and mathematics levels were significantly lower than the OECD and UK averages and the lowest of all four education systems within the UK. Whilst the reading and mathematics scores for England, Scotland and Northern Ireland were all within the same statistically significant range, in Wales these were significantly lower. Furthermore, there had been a deterioration in Wales' scores for reading, mathematics (and science) since 2006.

8.1. Comparing GCSE results

Below, GCSE achievement rates in English Language and Mathematics in Wales and England are presented together to provide some insight into recent levels of performance in both nations.

Admittedly, these qualifications have been recognised as insufficiently encompassing what is expected of qualifications assessing literacy and numeracy⁶⁹ and this is why the Welsh Government will be introducing a revised English (as well as Welsh) Language GCSE and a second Mathematics GCSE dealing with numeracy. However, to some extent, they do reflect literacy and numeracy levels in Wales and England respectively and help to further explain the context for the perceived urgency of the dedicated policy interventions.

Indeed, Mathematics GCSE results were used as a 'proxy to give an indication of underlying numeracy standards'⁷⁰ in Wales by the Welsh Government itself in setting out the need for action in the National Numeracy Programme.

Table 5 below shows the proportions of pupils in Wales achieving A*-C grades in English Language and Mathematics GCSEs which, if these are used as albeit unsatisfactory indicators, would arguably support a conclusion that **levels of literacy and numeracy are lower in Wales than in England.**

Aside from the statistics in Table 5, it is, however, noteworthy that the proportion of pupils achieving grades A*-C in GCSE Welsh Language was in fact higher in each of these four years than for GCSE English Language in both Wales and England.

⁶⁹ [Review of Qualifications for 14 to 19 year olds in Wales: Final report and recommendations](#), November 2012, p40 [accessed 13 May 2013]

⁷⁰ Welsh Government, [National Numeracy Programme](#), September 2012, p4-5 [accessed 13 May 2013]

Table 5: GCSE results in England and Wales

	<i>percentage of entries</i>			
	English Language		Mathematics	
	A*-C	A*-G	A*-C	A*-G
2011/12				
Wales	62	99	57	97
England	69	99	71	98
2010/11				
Wales	63	99	60	97
England	72	99	67	98
2009/10				
Wales	63	99	59	97
England	70	99	65	98
2008/09				
Wales	62	99	57	96
England	66	99	61	98

Source: Extracted from Statistics for Wales, [SDR 212/2012: Examination Results, 2011/12](#), 6 December 2012; [SDR 221/2011: Examination Results in Wales, 2010/11](#), Table 5, 30 November 2011; SDR 84/2011: Schools in Wales: Examination Performance 2010, [Public Examinations: General Information](#), Table 2.5, 25 May 2011; SDR 76/2010 Schools in Wales: Examination Performance 2009, [Public Examinations: General Information](#), Table 2.5, 25 May 2010; and Department for Education (England), SFR/02/2013 Revised GCSE and equivalent results in England: academic year 2011 to 2012, [Additional Tables 1: SFR/02/2013](#), Table 8: 24 January 2013; SFR/02/2012 Revised GCSE and equivalent results in England: academic year 2010 to 2011, [Additional Tables 1: SFR/02/2012](#), Table 8, 12 July 2012; SFR/01/2011 GCSE and equivalent results: England - academic year 2009 to 2010 (revised), [Additional Tables 1: SFR/01/2011](#), Table 8, 12 January 2011; SFR/01/2010 DCSF: GCSE and Equivalent Results in England, 2008/09 (Revised), [Additional Tables 8 to 17](#), Table 9, 13 January 2010 [all accessed 22 April 2013]

Notes:

- The figures in England for English Language for 2011/12 are actually denoted as 'English' in the relevant statistical release. However, this relates to English Language as distinct from English literature.
- Following the issuing of exam results in August 2012, and a review of the results of the English Language GCSE in Wales the WJEC re-graded its English Language results for pupils in schools in Wales. These figures include the results of the re-grading of WJEC English language. 2,203 or 6.2% of pupils in Wales had their grades changed with 1,105 or 3.1% of pupils having their grade changed from a D to a C.

Further context is given by the number of pupils in Wales and England respectively who achieve the 'level 2 threshold inclusive' which refers to 5 GCSEs at grades A*-C including both English/ Welsh language and Mathematics. From Table 6, it can be seen that this measure of GCSE performance shows that pupils in Wales are not performing as well as their counterparts in England. The Welsh Government's ambition is that 65 per cent of pupils will achieve the level 2 inclusive by 2015⁷¹, requiring a significant rise from 51 per cent in 2011/12.

⁷¹ Learning Wales (Welsh Government), [Improving Schools](#), October 2012, p11 [accessed 13 May 2013]

Table 6: Percentage of pupils achieving Level 2 threshold inclusive of English/Welsh Language and Mathematics

	2011/12	2010/11	2009/10	2008/09	2007/08	<i>per cent</i> 2006/07
Wales	51.1	50.1	49.4	47.2	45.6	44.4
England	59.4	59.0	53.5	49.8	47.6	46.3

Source: Statistics for Wales, [SDR 212/2012: Examination Results, 2011/12](#), Table 1, 6 December 2012; Department for Education, SFR/02/2013: Revised GCSE and equivalent results in England: academic year 2011 to 2012, [Main Tables SFR/02/2013](#), Table 1a, 24 January 2013 [accessed 13 May 2013]

Notes:

- a) 'Level 2 inclusive' means 5 GCSEs at grades A*-C including English/ Welsh language and Mathematics. In Wales, the Level 2 inclusive measure takes into account the best grade obtained in English or Welsh first language for each pupil.
- b) These figures include the results of the re-grading of WJEC English language.

8.2. *The Millennium Cohort Study*

Comparisons between different education systems, and the respective validity of such comparisons, is the subject of a forthcoming article written by Chris Taylor, Gareth Rees, and Rhys Davies of the Wales Institute for Social & Economic Research, Data and Methods (WISERD), based at Cardiff University. This draws on the UK Millennium Cohort Study (MCS) being undertaken by the Centre for Longitudinal Studies at the Institute of Education, University of London. The MCS is a study of 19,000 children born during 2000-2001 and looks at their development in key areas of learning including literacy and numeracy.

WISERD find considerable variation in child development within the UK but, notably, **with no 'single story of success'**.⁷² **The results of the MCS do, however, give further indication of lower literacy levels in Wales than England at age 7** although some of this may be attributed to particular increases within London. The assessments are standardised tests which have been used in other studies and are age-adjusted, thus eliminating any variation attributed to age differences which can be significant at early years.

Data is currently available on these children up to the age of seven, with four sweeps of data collection undertaken at ages nine months, three years, five years and seven years. The results of a fifth sweep at age 11 are expected to be available in Autumn 2013.

⁷² Taylor, Chris, Rees, Gareth, Davies, Rhys, (2013) *Devolution and Geographies of Education: the use of the Millennium Cohort Study for 'home international' comparisons across the UK*, Wales Institute for Social and Economic Research, Data and Methods (WISERD), p1 (forthcoming in Comparative Education)

WISERD also analyse the potential for these results to form judgements about the respective national education systems within the UK and argue that ‘natural experiments’ in ‘home international comparisons’ such as the MCS, which track the progress of similar children over time, have a more robust methodological basis than narrower and ‘crude’ one- off comparisons such as GCSE attainment of successive cohorts or PISA.⁷³

8.2.1. Methodology

The advantage of the MCS in terms of comparing the home nations of the UK, as highlighted by WISERD, is that it retains the commonality of being part of the same overall nation state, the UK. It therefore overcomes many of the socio-economic and cultural limitations of making traditional international comparisons, such as PISA, whilst using propensity score matching to genuinely compare samples of similar children.

Propensity score matching is a technique used by statisticians to overcome inherent bias within samples caused by the issue of equivalence, which is a key limitation of any comparative study. The MCS uses a series of exogenous variables such as gender, household structure, social class and parental education to ensure as far as possible that samples for Wales and England can be reliably compared. In practice, this means identifying a sub-group of children in the MCS living in England who have similar characteristics with children in the MCS living in Wales.⁷⁴

There are a number of ways of ‘matching’ groups of children to arrive at similar samples. WISERD reports the results of two forms of matching, with one using more stringent criteria than the other. ‘Matching estimator 2’ is stricter than ‘matching estimator 1’, meaning that fewer but more closely matched children are compared in the second sample. To use word reading ability at age 7 as an example, 1,601 children were sampled under matching estimator 1 compared to 1,442 under matching estimator 2. Results are also presented on the basis of the full sample of children in Wales and England without the conditions on matching being applied.

⁷³ *Ibid*, p3-5

⁷⁴ *Ibid*, p9

8.2.2. Results

Table 7 shows the comparisons in cognitive development among children in England and Wales included in the MCS. The significance of the scoring is that 50 is the norm reference, i.e. the average score in the tests when they were originally taken prior to being used in the MCS. The scores should therefore not be used to judge progress between age ranges but for the purposes of comparing with the average and between nations.

Table 7: Matched Comparisons in Cognitive Development to Age 7

	Wales	<i>mean score</i> England
Naming Vocabulary at age 3		
Without matching	49.98	48.48
Matched estimator 1	50.04	50.02
Matched estimator 2	50.25	50.01
Naming Vocabulary at age 5		
Without matching	53.55	53.65
Matched estimator 1	53.70	55.17
Matched estimator 2	53.91	55.16
Word Reading ability at age 7		
Without matching	47.67	51.11
Matched estimator 1	47.78	50.28
Matched estimator 2	48.22	50.33
Maths Ability at age 7		
Without matching	49.87	50.23
Matched estimator 1	49.92	50.65
Matched estimator 2	49.97	50.45
Pattern Construction at age 7		
Without matching	54.29	52.73
Matched estimator 1	54.30	53.02
Matched estimator 2	54.35	53.00

Source: Taylor, Chris, Rees, Gareth, Davies, Rhys, (2013) Devolution and Geographies of Education: the use of the Millennium Cohort Study for 'home international' comparisons across the UK, Wales Institute for Social and Economic Research, Data and Methods (WISERD), p12 (Forthcoming in Comparative Education)

Notes:

The matched samples are not nationally representative but have been generated in order to be similar to each other. They are to be used for comparative purposes between Wales and England and not to assess either country's position in isolation.

According to the results for three measures of literacy, children in England appear to have improved their skills at a faster rate than comparable children in Wales. Whilst levels are similar at age 3 – in fact they are actually higher in Wales – a gap between England and Wales is established from then until age 5, and subsequently grows up to age 7. To put this gap into context, a difference of 2.5 in word reading ability at age 7, as with Matching Estimator 1, represents around one month in vocabulary development.

The picture for maths is somewhat different. Average scores for Wales and England at age 7 are similar in both the unmatched and two matched categories, suggesting that **levels of mathematics (and arguably by implication numeracy) are broadly the same at this age.**

Wales fares better than England in pattern construction at age 7, with a 1.5 difference in score equating to around three months in the development of spatial visualisation and non-verbal reasoning.⁷⁵

Less encouraging for Wales are comparisons of achievement levels of children living in poverty and at the lower end of the household income spectrum, which are also examined in the article. WISERD compared the results for literacy of both the 'richest' and 'poorest' 25 per cent of each matched sample in both Wales and England. They found that, **whilst levels were slightly higher in Wales at age 3, by age 5, children in Wales in both high income and low income households had fallen behind England. By age 7, this gap remained approximately the same for the 'richest' children and increased considerably for the 'poorest' children.**⁷⁶

A similar picture emerges in Scotland for children from low income households between ages 5 and 7. In what may perhaps be relevant to the context of the Literacy and Numeracy Framework and the introduction of national reading and numeracy tests, Taylor et al. comment:

Importantly, differences in the literacy development of low-income children in England, Wales and Scotland by age seven suggests that the more 'comprehensive' and perhaps less target-driven systems of Wales and Scotland appear to be associated with greater inequalities in child development.⁷⁷

It should also be highlighted that **Wales scored higher than England in respect of children living in low income households in several other categories.**

These were: Home Learning Environment (age 3); Personal Wellbeing (age 7); Attitudes to Learning (age 7); Wellbeing at School (age 7) and Enjoyment of Hobbies (age 7).

⁷⁵ *Ibid*, p12

⁷⁶ *Ibid*, p14

⁷⁷ *Ibid*, p14

8.2.3. WISERD's conclusions on the MCS

One important consideration drawn out by WISERD is the significant element of divergence of the results in England. When comparing literacy and numeracy abilities in Wales with its close neighbour, therefore, one needs to be wary of varying geographical patterns within England itself, which are not accounted for by the socio-economic conditions that have been overcome by the matching exercise. This is particularly the case with literacy where there would appear to be a 'London effect' on child development.

WISERD found from the MCS that children in London at age 3 are associated with low vocabulary scores. Whilst they gradually improve in relative terms from then up to age 5, it is after this point that the improvement outstrips other parts of England, as well as Wales. By age 7, children in London are associated with significantly high word reading ability scores, all other things being equal, compared with children from most other regions / countries of the UK. In light of the fact that it is between ages 3 and 7 that the literacy gap is established between England and Wales, **it is possible that much of the 'improvement' in literacy skills in England could be attributed to children in London.**⁷⁸

A suggested reason for this is the relatively high concentration of ethnic minorities in London and their propensity to make substantial advances in literacy in the period directly before they are aged 7.⁷⁹

In conclusion therefore, although the MCS results do show some variation in literacy and numeracy levels between England and Wales, **Taylor et al.'s conclusion is that there is no single story of 'success' suggesting that one education system is 'better' than the other.** They argue that more analysis is needed of educational outcomes in the different countries in the UK and the next sweep of MCS results at age 11 will add considerably to this.

WISERD criticises the over-reliance on 'crude' comparisons with a small number of narrowly defined outcomes, instead making the case for longitudinal studies which track the progress of cohorts of children over time. They highlight the importance and benefit of longitudinal comparisons such as the MCS, advocating a greater and wider use of them in policy development and evaluation.

⁷⁸ *Ibid*, p18

⁷⁹ *Ibid*, p16,18

9. Conclusion

This paper has sought to explain the context for the policy interventions aimed at improving levels of literacy and numeracy in Wales and the reasons they are seen as so important.

The perceived lack of influence of the previous non-statutory Skills Framework, combined with unflattering international and UK level comparisons for Wales, has convinced the Welsh Government that radical action with statutory backing is needed. Whilst the literacy and numeracy programmes may possibly have materialised as policies in any case, they are arguably direct consequences of this.

Many of the reforms will take several years to have an impact and the Minister for Education and Skills, Leighton Andrews, has said that the more realistic aim is to achieve progress identified in the 2015 round of PISA results rather than 2012 (published in December 2013). The Welsh Government's aim is that Wales will be in the top 20 when the PISA 2015 results are published in December 2016.

The Minister set this out in his [statement](#) announcing his 20 point action plan in February 2011 and was also quoted in July 2012 in *The Times Educational Supplement (TES)* as saying:

I know my ambition for Wales to climb the Pisa rankings is a significant challenge, and it would be unrealistic to expect significant improvements in the 2012 result. Systemic change takes time if it is to have a lasting impact. Experience tells us that quick fixes are seldom sustainable.⁸⁰

The *TES* article also quoted Michael Davidson, Principal Analyst at the OECD, who is responsible for overseeing PISA, on the scale of the challenge facing Wales in reaching its top 20 goal by PISA 2015. He said:

A 20-point increase in the space of six years would be a challenge. It's not impossible, but it would be at the upper end of what other countries have achieved. It's a stretching target, but then that's what targets should be.⁸¹

The fact that the interventions on literacy and numeracy are taking place during a time of substantial change in education in Wales is highly relevant and one which this paper has sought to highlight.

The significance of change was highlighted by Ann Keane, Her Majesty's Chief Inspector of Education and Training in Wales in her annual report for 2011/12. In her foreword, she cited the importance of strong leadership in delivering improvements and making the most of the opportunities that go with significant change.

⁸⁰ The Times Educational Supplement, [We'll reach Pisa goals but perhaps not this year](#), Friday July 2012 [accessed 13 May 2013]

⁸¹ *Ibid*

It is clear that local authorities, schools and other providers are entering a period of major change, to do with the curriculum, with qualifications and even with possible structural change.

I hope that leaders will use the findings in this annual report to think about how they can manage change in their organisation to refresh the culture, focus on professional development and enhance self-evaluation.⁸²

Indeed, the Chief Inspector asserted that ‘it is in the capacity and quality of leadership that the remedy lies’ with this meaning the distributed leadership offered by everyone involved in delivering and servicing education and training in Wales.⁸³ This is a view endorsed by the Minister when he addressed the Welsh Government’s *Raising School Standards* conference in March 2013, which was also broadcast as a ‘webinar’.⁸⁴

In response to a question from the Children and Young People Committee about the current level of change within the education and training sector, the Chief Inspector said it would be useful to consider how the various changes and reviews were inter-connected and the best way of implementing these to ensure sufficient stability to deliver them.

Before introducing wholesale change there will be an opportunity to reflect on the likely effects and cumulative effects of changes when or if some or all recommendations from the different reviews are implemented. Some kind of large-scale modelling exercise would help at that point to consider aspects such as the dependencies between review strands, the resourcing implications and the optimum timing for implementation or transition so as to maintain stability.⁸⁵

It is now approaching two and a half years since the PISA 2009 results were published in December 2010. This period has seen the Welsh Government outline a 20 point action plan aimed at driving up performance and standards, the development of national literacy and numeracy programmes and subsequently a national framework to be delivered in schools, as well as the introduction of new annual tests for children in Years 2-9, the first of which took place in May 2013. This has been set against a rapidly evolving policy landscape characterised by substantial change in the education sector generally.

⁸² Estyn, *The Annual Report of Her Majesty’s Chief Inspector of Education and Training in Wales 2011-12*, Foreword, p11 [accessed 13 May 2013]

⁸³ *Ibid*, p9

⁸⁴ Leighton Andrews, Minister for Education and Skills, “Raising our sights” speech to the, *Raising School Standards Conference*, 18 March 2013 [accessed 13 May 2013]

⁸⁵ National Assembly for Wales, Children and Young People Committee, *Estyn – Additional Evidence on Annual report*, 13 March 2013, p5 [accessed 13 May 2013]

The development stage in respect of the LNF and national tests is now evolving into one of implementation and this is seen as crucial to the success of the efforts to improve literacy and numeracy levels. PISA's Michael Davidson commented that:

The **implementation** of those actions [the 20 point plan] is what's going to reap the success - or not - as far as Wales is concerned. [my emphasis] ⁸⁶

Speaking more generally about change and delivery in education, Sir Michael Barber, chief education strategist with Pearson and former adviser to the UK Government told the *Raising School Standards* conference that:

One of the commonest mistakes that politicians around the world make is this. They think that getting the policy right is difficult and they are right about that. They also think that it is 90 per cent of the task done ... and they are completely wrong about that. They think that it is 90 per cent getting the policy right and then implementation will take care of itself. Actually, ... it is pretty much the reverse of that. Getting the policy right is difficult but it is only 10 per cent of the task. Ninety per cent is making sure it happens in an effective way.⁸⁷

It should be made clear that Sir Michael Barber was not talking about politicians in Wales or any country in particular. The first series of annual reading and numeracy tests in May 2013 and the start of the LNF from September 2013, with formal assessment commencing a year later, mark a key development in education in Wales. The proof of their effectiveness or otherwise will be in the implementation and, according to the Welsh Government's own terms, the impact in Wales on measures such as PISA and GCSE attainment.

⁸⁶ Western Mail, [Changes being put into effect can turn our dire PISA ratings around - OECD](#), 12 July 2012 [accessed 13 May 2013]

⁸⁷ Sir Michael Barber, "Deliverology, how do you make things happen?", Presentation to the [Raising School Standards Conference](#), 18 March 2013 [accessed 13 May 2013]