Children's early experience of education

As a result of their experiences during the first three years of their life, children start education with a variety of levels in language, mathematics and their knowledge and understanding of the world. In general, children from disadvantaged backgrounds tend to have lower skill levels than their peers, particularly in language, literacy and communication. Their personal and social development, physical development, and creative development are also all at different stages. In particular.

"The first 1000 days, during pregnancy and up to a child's second birthday, represent a critical part of childhood when we form attachments to our caregivers, learn how to safely explore and trust the world around us, and start to communicate. It is when we see the most rapid phase of brain growth and development and where the foundations are laid down for our future health and wellbeing. This critical period has a long lasting impact on individuals and families. They shape the destiny for children as they grow up: their educational achievements, their ability to secure an income, their influences on their own children, and their health in older age" (NHS Wales, 2018).

Many non-maintained settings and schools in disadvantaged areas offer Flying Start provision for two to three-year-olds in addition to providing early education. Flying Start promotes language, cognitive, social and emotional skills and physical development. Where settings and schools develop strong links with their local Flying Start provision, practitioners value and build on the information they receive when children transfer. In these settings and schools, practitioners generally know the children well, respond to their individual needs and plan effectively to develop their skills. This supports children to engage with wider aspects of the foundation phase curriculum.

All three-year-olds are eligible to receive funded education, and most parents take up this offer. These children initially receive their education in a non-maintained setting that the local authority funds to deliver education, such as a playgroup or day nursery, or in a maintained nursery class in a school.

The foundation phase curriculum currently sets out the education that three to seven-year-olds receive. In effective schools and settings, practitioners use the information from their observations and assessments to develop children's skills through active and experiential learning³ that provides hands-on, play-based opportunities to build on children's skill levels. They respond intuitively to children's needs and develop their skills through an appropriate balance of adult-led and child-initiated activities. They use questioning skilfully to develop children's thinking and know when to stand back and when to intervene to take learning forward. In the most effective schools and settings, practitioners combine this approach with a strong understanding of child development. They use this understanding to plan tasks at an appropriate level and do not introduce children to new concepts before they are ready or try to force their learning, for example by introducing

children to letters before they are at a suitable developmental stage. They know when children are ready to move on and when they need to consolidate their skills through a wider variety of practical experiences.

In these effective schools and settings, children, including children from disadvantaged backgrounds, make strong progress and gain confidence in applying their skills to new situations. In schools and settings where skill development is less effective, children begin to feel that there are things that they cannot do at an early age.

Around three-quarters of four-year-olds' physical development is in line with that expected for their age (Welsh Government, 2019g). In the best schools and settings, physical development has a high profile and practitioners make good use of indoor and outdoor environments to provide an active curriculum where children take managed risks and develop their physical skills, such as through balancing and climbing. Around seven-in-ten four-year-olds have outcomes for personal and social development, wellbeing and cultural diversity that are consistent with their age (Welsh Government, 2019g).

In recent years, there has been less focus on young children's creative development in schools and settings. When creative development is part of a focused task⁴, adults often over-direct the activity to make sure that children achieve a specific outcome or product, rather than teaching a skill and then providing exciting opportunities for children to learn, develop and practise this skill. In many schools and settings, there are also generally too few opportunities for children to develop their creative skills through music and dance.

Developing literacy skills - speaking, listening, reading and writing

In primary and secondary schools, despite improvements in aspects of literacy skills, standards of literacy overall are broadly similar to those three years ago. Progress in reducing the impact of disadvantage on pupils' educational attainment in literacy, and in providing enough challenge in literacy teaching to meet the needs of more able pupils, has been limited. These areas should remain priorities for many schools.

Where schools use effective teaching and learning strategies in the foundation phase, this has a positive impact on developing pupils' speaking and listening skills, and provides a sound foundation for developing their reading and writing later on. In schools where standards are good or better, most younger pupils communicate well with each other and with adults. They extend their vocabulary and talk confidently about their experiences in school and at home in the language of the setting or school.

⁴ A focused task in the foundation phase is where adults teach pupils specific skills, knowledge and concepts through whole-class teaching, working in groups or alongside individuals.

Nearly all Welsh-medium settings and primary schools develop their pupils' language skills effectively through immersion in Welsh across all areas of learning during the foundation phase, whatever the home language of the pupils. Many pupils in Welsh-medium secondary schools speak well in Welsh and use the language confidently in different contexts across the curriculum. In English-medium secondary schools, a majority of pupils develop strong speaking and listening skills. These pupils listen and respond to others carefully. They use a wide general and subject-specific vocabulary to communicate their ideas clearly.

In general, pupils in primary and secondary schools do not always have enough opportunities to take part in learning experiences that focus specifically on talking, for example to improve their ability to question, challenge and build on the contributions of others through debate. In less effective schools, listening and speaking are viewed as skills that support reading and writing, rather than as skills that need to be developed in their own right. Frequently, teachers' interventions and comments focus exclusively on what pupils are talking about rather than also on how they are saying it.

Generally, pupils in both primary and secondary schools have a slightly better understanding of, and make wider use of, different reading strategies than three years ago. Applying these strategies supports pupils' independent learning across the curriculum and accelerates the progress they make. In a minority of primary schools, there is the lack of opportunity for pupils to listen to adults role-modelling reading in key stage 2, or to engage with more challenging fiction and non-fiction books. Schools do not always build pupils' vocabulary and knowledge of language as well as they could, or develop their higher-order reading skills well enough. In general, too few teachers read enough new children's literature themselves, and this does not encourage children to read recently published books. In a majority of secondary schools, pupils do not have enough opportunities to use and develop their higherorder reading skills, particularly inference and deduction, to increase their understanding of texts other than those they already know well, such as GCSE English or Welsh Literature set texts. As a result, pupils do not develop or transfer these skills to new situations well enough.

The latest PISA results broadly confirm these findings⁵. In particular, pupils performed better in tasks that required them to consider more than one text. They feel more confident about their reading ability than the average pupil across the other countries that take part in PISA, but are less likely to read a book. Pupils in England, Scotland and Northern Ireland continue to perform significantly better in reading than in Wales.

The standard of pupils' writing in many primary and secondary schools remains weaker than other aspects of their literacy. Pupils generally have more opportunities to write at length than was the case three years ago, but the quality of those opportunities and the expectation for pupils to check, correct and re-write their work is too variable. Even in a minority of schools where pupils develop useful editing skills to check and improve the accuracy of their writing, few of these schools help pupils to improve

⁵ Please see Annex 2 for our analysis of the latest PISA results. PISA results for Wales are available here: <u>https://govwales/sites/default/files/</u> statistics-and-research/2019-12/achievement-15-year-olds-program-international-student-assessment-pisa-national-report-2018 0.pdf

the content and structure of their writing well enough. This, along with ineffective feedback from teachers in a minority of secondary schools, results in basic errors remaining and contributes to a minority of pupils, particularly boys at key stage 4 not being able to structure their writing or express their ideas clearly enough. In addition, teachers do not identify precisely enough weaknesses in pupils' writing.

In schools that are most successful in developing pupils' literacy skills, there is a clearly understood and co-ordinated whole-school strategy for doing so. These schools have embedded the literacy aspects of the Literacy and Numeracy Framework (Welsh Government, 2013) into their planning and teaching. Leaders ensure a systematic approach to developing literacy across the curriculum and keep this approach under review, using a range of first-hand evidence to evaluate pupils' standards. Self-evaluation and improvement planning enable the schools to pinpoint specific aspects of literacy provision that require improvement. This helps these schools to ensure learning experiences offer a suitably high level of challenge for all pupils to develop their literacy as they move through the school.

Increasingly, in response to Curriculum for Wales developments, primary schools use a wide range of engaging real-life and imaginative contexts to develop or extend pupils' listening, speaking, reading, and writing skills. Teachers who have a strong understanding of how children develop language ensure that pupils develop a thorough grasp of the purpose, intended audience, structure and language features of different forms of written texts and speech. They ensure that pupils use these different forms in their language sessions and design purposeful opportunities for pupils to apply their skills independently outside of language sessions. Progress in providing opportunities for pupils to develop their literacy skills in secondary schools remains much slower.

Where provision for literacy is effective, leaders ensure that teachers and support staff access high-quality professional learning on technical aspects of language learning and on how to develop pupils' literacy skills progressively. This includes how to develop pupils' vocabulary and phonological awareness in the early years and their use of inference and deduction to understand a variety of texts in the secondary phase. In these schools, staff with specialist knowledge often share their expertise within their own schools and with others. Schools that are most effective at addressing inequalities in language acquisition provide exceptional teaching and learning that meet individual pupils' needs. They choose the interventions they use carefully, draw appropriately on research to inform their practice, and monitor pupils' progress closely.

In schools where shortcomings in pupils' literacy skills are not addressed well enough, this is often because leaders do not drive a co-ordinated approach to developing literacy across the curriculum. Teachers do not build on what a pupil has accomplished previously to plan literacy activities that challenge the pupil to develop the skill further or to apply the skill in a different context. Too often, pupils complete low-level activities that do not enable them to apply their literacy skills across the curriculum at the level of which they are capable. Creating opportunities for pupils to use their literacy skills but without clear teacher intervention does not help pupils to develop their skills and, in most cases, simply allows them to practise what they can already do. Leaders

monitor generic aspects of teaching and do not focus closely enough on subject-specific aspects of language teaching. This means that leaders do not identify teachers' professional learning needs and there is little impact on pupils' literacy.

Developing numeracy skills

Over the last two years, the provision for numeracy has improved a little. It is at least good in around eight-in-ten primary schools and nearly half of secondary schools.⁶

In non-maintained settings and in nursery and reception classes, children develop their numeracy skills well when they have plenty of rich opportunities to use the skills they have learned in their independent play. They learn to count though singing number songs and rhymes and use numbers in familiar daily contexts, such as counting how many children are present or how many plates are required for snack time. Where teaching is most effective, practitioners maximise opportunities for children to use numbers in real-life contexts and they use correct mathematical language when talking to children about their play. For example, they talk about the biggest and smallest size clothes when sorting laundry for the three bears. Practitioners provide interesting opportunities for children to look at and talk about patterns and shapes and to create repeating patterns in their independent play.

In the best schools, leaders ensure that planning for the progressive development of pupils' numeracy skills is a whole-school priority. They plan provision systematically so that pupils make strong progress in their numeracy skills year on year and at key transition points, such as when pupils move between the primary and secondary school. In these schools, teachers provide pupils with valuable activities that require pupils to apply the numerical skills they learn in mathematics lessons in a variety of other subject areas. For example, pupils use their knowledge about graphs to select the most appropriate graph to display the results of their science experiments, analysing their results to draw conclusions. In these schools, teachers use the numeracy aspects of the Literacy and Numeracy Framework (Welsh Government, 2013) and their knowledge of individual pupils' ability to ensure that the opportunities they provide are suitably challenging for all pupils. In the best schools, class teachers work in partnership with the numeracy co-ordinator or mathematics specialist to ensure that the opportunities provided enrich the subject and are at an appropriate level of challenge.

Many schools provide pupils with the necessary experiences in mathematics sessions to learn the basic mathematical facts they need to support their learning in the number, measurement and data analysis strands of the Numeracy Framework. In the best schools, teachers of mathematics ensure that pupils of all ages develop a deep understanding

of mathematical concepts, along with practical strategies that allow them to apply their numeracy skills in other areas of the curriculum. They identify misconceptions in pupils' understanding and intervene in a timely manner. In these schools, teachers provide pupils with valuable opportunities to develop their numerical reasoning and problem-solving skills.

Leaders in the best schools use data alongside other first-hand evidence from lesson observations, scrutiny of pupils' work and discussions with pupils to evaluate the quality of numeracy provision. They support staff by providing them with a range of professional learning opportunities to improve their skills. There are regular opportunities to discuss and agree suitable methodologies for teaching numeracy. They often arrange opportunities for staff to observe and share effective practice, in their own school or elsewhere. When leaders observe ineffective teaching, they encourage and support their staff to develop the appropriate skills and ensure that they improve their understanding of the subject.

Many schools have effective systems for monitoring pupils' progress in numeracy. They make good use of this information to identify those pupils with weak numeracy skills and plan interventions that help them to make progress.

In a few primary schools and around half of secondary schools, there are weaknesses in the provision for numeracy. In these schools, teachers miss opportunities for pupils to apply their numeracy skills in real-life situations or in other learning areas of the curriculum. The introduction of numeracy into other learning areas is often tenuous and at a much lower level than pupils are able to apply in mathematics lessons. In a few of the least successful classes, teachers do not have the skills to teach mathematics or the numeracy aspect of their subject. They mainly teach aspects of mathematics that they are comfortable with and do not plan opportunities for pupils to develop their numeracy outside of mathematics sessions. These teachers often have not been shown how to plan tasks that encourage pupils to use their mathematical skills in other learning areas. In a very few cases, teachers teach mathematical concepts incorrectly.

For the first time, Wales' performance in mathematics in the latest PISA test was not significantly lower than the average for all countries (Sizmur *et al.*, 2019). The improvement in mathematics follows the introduction by the Welsh Government of strategies aimed at raising pupils' standards in mathematics:

- the literacy and numeracy framework in 2013
- numerical reasoning tests in May 2014
- new GCSEs in mathematics and mathematics-numeracy for first teaching in September of 2015

The new GCSE mathematics and mathematics numeracy qualifications require pupils to have a deep understanding of mathematical concepts, to be able to reason mathematically, and to solve problems that are set in context. These skills are also at the core of the mathematics domain of the PISA framework.

Developing information and communication technology skills and digital competence

Standards of information and communication technology (ICT) skills are good or better in around four-in-ten primary schools and a quarter of secondary schools. Although standards have improved a little over the last three years, they are still much lower than for literacy or numeracy. For further detail, see the reports we have published on how schools develop ICT skills across the curriculum (Estyn, 2013, 2014, 2017b, 2018e).⁷

Most pupils use basic ICT skills competently to research facts, and to retrieve and present information. Many primary pupils apply their ICT skills alongside their creative skills, for example while using green screens to create engaging videos and animations. Many primary schools provide pupils with opportunities to interrogate and create their own databases. In a very few excellent examples, pupils understand that data fields can hold different types of information and use this to check the validity of the data retrieved. The majority of primary schools are introducing simple coding and pupils' coding skills are developing well, as they learn to persevere and understand the importance of being precise when developing algorithms. Although there is an improvement in data handling and modelling skills in primary schools. This hinders the development of pupils' thinking and problemsolving skills, and their application of higher-order number skills.

Many secondary schools do not provide pupils with enough challenging opportunities to apply and develop their ICT skills across the curriculum. Pupils in key stage 3 often copy information from websites without summarising it in their own words or reorganising it when preparing for a presentation. In many secondary schools, pupils tend to use only basic word processing and presentation skills outside of formal ICT lessons, and the standard of work is little better than at the end of key stage 2. A few secondary schools are making good progress, as highlighted in the case studies in Estyn's 'Preparing for the Digital Competency Framework' (2018e).

Poor standards in the use of ICT across the curriculum in many secondary schools, along with recurring weaknesses in a minority of primary schools, suggest that school leaders have not used the two years since the digital competence framework (DCF) was made available well enough to prepare for its implementation. Too few teachers, especially in secondary schools, have received training to enable them to implement the DCF confidently. On the other hand, there has been a notable growth in the proportion of staff and pupils using a learning platform well. Most schools use the Welsh Government provided Hwb learning platform and many use it to access digital resources, collaborate on tasks and save their work.

⁷ We currently inspect standards of ICT skills, as ICT is part of the current national curriculum. Digital competence is 'the set of skills, knowledge and attitudes that enable the confident, creative and critical use of technologies and systems' (Welsh Government, 2018b, p.1). Digital competence is a cross-curricular responsibility, distinct from ICT, and is currently non-statutory. The new Curriculum for Wales will introduce digital competence as a mandatory cross-curricular skill alongside literacy and numeracy. The new curriculum includes Science and Technology as an Area of Learning and Experience, within which there will be a specific curriculum requirements for computing. For further information on the difference between ICT and digital competence is available from the Welsh Government: https://hwb.govwales/storage/85f69bca-0134-426d-bff1-c46b4c1d067b/digital-competence-framework-your-questions-answered.pdf

A few leaders of Welsh-medium schools change the interface language of key computer software into Welsh, which reinforces that Welsh is a natural part of the digital world. In other best practice, a secondary school uses its staff subject expertise to train and upskill staff in its partner primary schools in creating videos.

PISA

You can read more about our view of PISA results in reading, mathematics and science in Annex 2.