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Research and analysis

Best start in life part 1: setting the scene

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Applies to England

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[Based on this research review, high-quality curriculum and pedagogy may have the following features](#)



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Introduction

A high-quality early years education is vitally important. Children attend early years provision at a crucial developmental point in their lives. The education and care that they receive affects not only future educational attainment but also their future health and happiness.

This report is part of our series of subject-based curriculum research reviews.^{[\[footnote 1\]](#)} Our 2017 report ‘Bold beginnings’ and the more recent schools research reviews covered the Reception Year of the early years foundation stage (EYFS), whereas this review focuses on the pre-school age range, from birth to 4 years.^{[\[footnote 2\]](#)} Its purpose is to support early years practitioners to raise the quality of early years education.

This review examines the factors that contribute to a high-quality early education. We explore literature relating to early years education, drawing on a range of sources, including academic and policy literature.

This review considers:

- the early years context for children aged from birth to 4 years
- staffing in the early years sector
- the principles behind the early years research review series
- early years curriculum and pedagogy

Subsequent reviews, to be published at a later date, will explore the EYFS’s 7 areas of learning. In all our reviews we will take into account that the areas of learning and development are interconnected. For example, planning a walk in the park to look at different types of trees may encompass shape (mathematics), local knowledge (understanding the world), new vocabulary (communication and language) and cooperation (personal, social and emotional development).

A high-quality early education can prepare children for success in their later education. During their early education, children begin to explore the building blocks of national curriculum subjects that they will go on to study. The ‘Effective provision of pre-school primary and secondary education’ study found that children who attended pre-school provision, of any kind,

attained higher total GCSE scores than those who did not. The higher the quality of the pre-school provision, the higher the GCSE scores. [\[footnote 3\]](#)

Importantly, preparing children for school and for learning separate subjects are not the only purposes of early education. Only preparing children for future study would be deficient, but so too would be early education that did not consider what children will go on to learn and do next.

Definitions

We have used the word ‘setting’ to mean any early years provision that children might attend between birth and the age of 4.

The words ‘teacher’, ‘practitioner’ and ‘adult’ are interchangeable. Our definition of ‘teaching’ is in the [‘Teaching in the early years’ section](#).

We use the term ‘planning’ to indicate the thinking and preparation that go into the curriculum. Our inspection handbooks make it clear that curriculum planning does not need to be in any specific format. It is up to providers to determine if and how they record their planning.

The early years context from birth to age 4

Early years education in different settings

Since the late 1990s, successive governments in England have offered greater numbers of funded early education hours. In 2019, there were 491 million hours of funded provision for 3- and 4-year-olds, an increase from 276 million hours in 2003 (not including Reception Year). [\[footnote 4\]](#) In particular, funding for 2-year-olds has increased considerably. In 2021, there were 1.5 million Ofsted-registered early years places available for children up to the year of their fifth birthday. [\[footnote 5\]](#)

In 2021, 62% of 2-year-olds and 90% of 3- and 4-year-olds took up a place in a formal early education setting. This had fallen slightly since 2020, when the proportions were 69% and 93% respectively.^[footnote 6] It seems likely that this reduction was because of the COVID-19 pandemic. Still, the current generation of children in the UK is the first in which the majority of under-5s are spending a large part of their childhood in nurseries and other registered childcare.^[footnote 7]

The early education system up until the year of a child's fifth birthday comprises of a range of different providers, and provision has been developed and funded variably.^[footnote 8] Settings can be divided into 2 broad categories:

- the maintained sector (nursery schools and nursery classes in schools)
- the private, voluntary and independent sector (such as day nurseries and childminders)^[footnote 9]

Children therefore may be educated and cared for in very small groups, such as in a childminder's home, or in larger groups at day nurseries or maintained nursery schools. There are also differences in the ways settings are funded, and the expertise of staff. All of these factors mean that children could have different experiences in different types of setting.

Ambition for all

Early education is important for all children, and particularly so for children who come from disadvantaged backgrounds. We know that early education has a positive effect on the life chances of disadvantaged children and that these children, on average, need more opportunities to develop the wider habits and capacities for learning that they will need for later success. Many disadvantaged children need more chances to develop their language and communication and to learn the knowledge they need.^[footnote 10] Despite this, disadvantaged children and children who speak English as an additional language are less likely to take up the full duration of funded early years provision than their peers.^[footnote 11]

Successive governments have recognised that early education benefits

children from disadvantaged backgrounds, and have reflected this in policy.^[footnote 12] Children aged 2 years from low-income families are offered 15 hours of free provision per week for 38 weeks of the year. All children aged 3 and 4 are offered 15 hours per week of funding, with an additional funded 15 hours for working parents. Some have criticised this policy because it means that children who come from homes where parents do not work, or who work fewer than 16 hours per week, are losing out on 15 hours of free provision per week compared with their peers, and these could be some of the most disadvantaged children.^[footnote 13]

A high-quality early education is also important for pupils who have, or may have, special educational needs and/or disabilities (SEND).^[footnote 14] A case study of families of children with SEND in early education settings found that parents reported that the provision had a positive impact on their children. The most frequently reported benefits were improved social skills, greater confidence and more independence.^[footnote 15]

A lot of research has focused on the importance of communication and language for children from disadvantaged backgrounds. Several studies have indicated that, if children do not develop sufficient communication and language skills before starting school, this disadvantage persists and affects future attainment.^[footnote 16] If children do not develop and learn these abilities in their early years, then it has a lasting impact on their educational progress. One in 4 (23%) children who struggle with language at age 5 do not reach the expected standard in English at the end of primary school, compared with just 1 in 25 (4%) children who had good language skills at age 5.^[footnote 17]

There is also evidence that, by the end of the Reception Year in school, there is a gap between boys and girls from disadvantaged backgrounds: girls do not lag as far behind as boys. Boys who are eligible for free school meals are much more likely to fall behind in communication and language by the age of 5: in 2015, this was 38% of boys eligible for free school meals compared with a national average of 20%. The gender gap is the highest in more deprived areas.^[footnote 18] These children are less able to access the curriculum and to articulate their thoughts and feelings. This can have a negative impact on their personal, social and emotional development.

These findings mean that it is important for early education providers to

offer plenty of opportunities for all children to learn and practise speaking and listening.

Some children may need additional support because of the ongoing effects of COVID-19 restrictions. Although many early years settings remained open throughout much of the pandemic, and schools with early years provision for 2- and 3-year-olds were open to some children (such as those eligible for pupil premium and those with SEND), there have still been many challenges. For example, children and staff may have had multiple periods of self-isolation, and many providers had fewer children on roll after the first lockdown. [\[footnote 19\]](#)

Children in early years settings today will have spent a good proportion of their lives in the pandemic. They have had fewer opportunities for social interaction beyond their immediate family because of lockdowns and social restrictions. Our research into education recovery in early years providers found that these children's communication and language skills were not as strong as those of previous cohorts. Their social skills, such as turn-taking and sharing with other children, were also less developed. [\[footnote 20\]](#) A study focusing on older children starting school in autumn 2020 found that schools reported that more children were struggling with communication and language and personal, social and emotional development, as well as literacy. [\[footnote 21\]](#)

Our research also found that providers were implementing several catch-up strategies. These focused on approaches to communication and language such as creating language-rich environments that emphasise interactions between adults and children. Providers were also supporting children with their personal, social and emotional development. For example, some childminders were forming networks and taking children to communal spaces so that they could socialise with each other.

Staff in the early years sector

The early years workforce

The early years workforce is large and varied. This is because of the ‘split system’ nature of early education, and means that practitioners may work as sole childminders, or in nursery settings and schools. Some provision is funded by the government; other provision is funded privately. The scope of the EYFS also means that teaching staff in maintained nursery schools, maintained nursery classes and reception classes are considered part of the early years workforce, although they work to school teachers’ pay and conditions and hold qualified teacher status. This means that examining the early education workforce is a complex undertaking.

When examining the quality of provision in early years settings, researchers look at ‘process quality’ (children’s experiences in the setting) and ‘structural’ quality (such as staff ratios and qualifications). These two aspects of quality are interlinked. For example, if staff have higher qualifications, then this leads to better outcomes for the child. [\[footnote 22\]](#)

The Organisation for Economic Co-operation and Development (OECD) has produced several reports on structural quality of the early years workforce, [\[footnote 23\]](#): identifying what the sector needs to do to recruit a high-quality workforce. [\[footnote 24\]](#): They include:

- promoting the status of jobs in early years
- boosting the qualifications of early years staff
- increasing the level of pay

Other studies have identified concerning findings about the early years workforce. [\[footnote 25\]](#) For example, a report by the Nuffield Foundation has described the early years workforce as poorly paid and undervalued. [\[footnote 26\]](#) The House of Commons Education Committee considers that barriers to progression for early years teachers should be removed in order to improve the recruitment and retention of a skilled, high-quality early years workforce. [\[footnote 27\]](#) Practitioners have reported that a positive team culture and inclusive, approachable managers were strong motivators for staff to stay in the workplace in the longer term. [\[footnote 28\]](#)

Ratios and qualifications

The EYFS statutory framework sets out rules that determine the ratio of adults to children in early education settings. Generally, the younger the child, the higher the adult-to-child ratio.^[footnote 29] For children aged 3 and over, these ratios are also determined by the level of qualification that practitioners hold. For example, if a practitioner in a setting has a level 6 qualification, then the permitted ratio of staff to children is one staff member for every 13 children, compared with one staff member for every 8 children if staff have lower-level qualifications. The list of ratios and qualifications for different types of practitioners in different settings highlights the complexities of the 'split system' of early education before the Reception Year.^[footnote 30]

In a small-scale study in England that looked at practitioners' views about quality, almost all participants thought it was important that adults working in early years settings were well trained. They also thought it was important that staff knew the children well enough to engage them in activities that interest them.^[footnote 31] High staff turnover rates could therefore negatively affect the relationships between staff and children if it means that staff do not know children well.

In 2012, the Nutbrown Review highlighted that the qualification system for early years was ineffective and overly complex.^[footnote 32] Many of the qualifications available did not produce a workforce with the knowledge and skills to provide high-quality early education. The review recommended that staff should hold level 2 qualifications in English and mathematics before they could achieve a level 3 early years qualification. This recommendation was implemented by the government, who made it a requirement for early years practitioners to hold GCSEs in English and mathematics. However, from 2017, this was amended to any level 2 qualification in English and mathematics, including functional skills qualifications. This was because the GCSE requirement resulted in a recruitment shortage; currently, 33% of the early years workforce do not hold either an English or mathematics GCSE.^[footnote 33] Having a qualified teacher in an early years setting has the greatest impact on the quality of provision.^[footnote 34]

Continuing professional development

Continuing professional development (CPD) is also important for good-quality early years provision.^[footnote 35] A 2021 study synthesised the findings from surveys of early years managers and practitioners about CPD.^[footnote 36] The study noted that surveys that are carried out by sector organisations are the primary means of finding out what CPD is taking place in the sector, and that as a result there are gaps in what we know about CPD in the early years.

The study also found that many early years managers limit staff training opportunities to those that are mandatory (safeguarding, health and safety, and first aid). Where additional training is taking place, it is often focused on SEND or English as an additional language. One of the surveys examined in this synthesis, which was carried out by the National Day Nurseries Association, found that, in 2015, 39% of nursery managers reported that they could not afford to fund any non-mandatory training.

A further Education and Training Foundation study found that practitioners were keen to participate in professional development activities, but cost is a barrier to accessing CPD.^[footnote 37]

CPD helps practitioners to understand the latest research or changes to policy.^[footnote 38] The Royal Foundation Centre for Early Childhood recommends that practitioners should have easy access to the latest scientific research to inform their practice.^[footnote 39]

There is evidence that access to CPD varies across the sector, and is poor in some cases. The Nutbrown Review recommended that a suite of online induction and training materials should be made available to practitioners across the sector. However, a recent Sutton Trust report noted that this has not yet been implemented.^[footnote 40] This means that CPD is likely to be patchy and dependent on the approach taken by individual providers or local areas. There are several paid-for CPD courses advertised for the early years sector, some of which are offered by local authorities. However, in one survey of the sector, managers reported concerns that local authority CPD was pitched at a level aimed at inexperienced practitioners. This meant that ongoing support for professional development could be lacking.^[footnote 41]

The principles behind our early years research review

This review now goes on to consider the principles that have shaped our research review, with a focus on curriculum (what is taught) and pedagogy (how it is taught).

There are many ways to construct and teach a high-quality curriculum that meets the requirements of the EYFS. Our schools subject research reviews have highlighted that there is no **one** way to teach a high-quality subject-based national curriculum. [\[footnote 42\]](#) Similarly, there is no single way to plan and teach high-quality early education. What matters is that leaders and practitioners have considered what knowledge they want children to learn and the order in which to teach it, as well as which methods are most effective for teaching. As providers face the challenge of helping children to catch up after COVID-19, they will need to think carefully about what content to prioritise, what to limit and what to leave out. By setting out the most effective ways to secure progress in each area of learning, our research reviews provide a set of guiding principles for leaders.

Establishing an evidence-based ‘conception of quality’ for each area of learning

We are committed to doing all we can to ensure that our inspections are reliable and valid, and to being a force for improvement.

Inspectors base their understanding of quality of education on the criteria in our inspection framework. We developed these criteria from our review of relevant research on education and from our own 3 phases of curriculum research. [\[footnote 43\]](#)

We have continued to improve our inspection practice by developing a well-evidenced view of what constitutes a high-quality education in each area of

learning. We call this view the ‘conception of quality’. It sets out principles, specific to an area of learning, that can be used to support the quality of education judgement. The principles do not specify what must be taught or how.

Selecting research

The reviews set out the research that has informed our conception of quality for each area of learning. This is not a systematic literature review. When selecting literature, we draw on research that aligns with the criteria for high-quality education, published in our education inspection framework (EIF) and summarised in our ‘Education inspection framework: overview of research’ [\[footnote 44\]](#).

This early years curriculum review focuses on research relevant to the areas of learning addressed in each section of the review. However, we will also look at general research on curriculum and pedagogy and any research on teaching, assessment, administrative systems and policies that is relevant to each area of learning.

As well as academic papers, the research review includes evidence from:

- the Education Endowment Foundation
- the Department for Education
- large-scale international studies, such as the Programme for International Student Assessment (PISA)
- our own research and guidance
- secondary evidence, such as teacher-authored blogs

Educational research is often contested. However, we hope that publishing the evidence base that we have used to develop our conception of quality in early years education will provide an insight into both the evidence we have used and how we have interpreted that evidence.

We have not tried to summarise all of the research about early years education. We have used several criteria to select the most relevant research, as explained below.

Filters we use to select research

An understanding that curriculum is different from pedagogy

In the EIF, we set out a conception of a high-quality curriculum. This is based both on our review of existing research and on our own curriculum research programme. Progress in curricular terms means knowing more and remembering more, so a curriculum needs to plan carefully for that progress by considering the building blocks and sequence in each subject. In contrast to some definitions of curriculum, we see it as different from (though of course connected with) pedagogy and assessment. Curriculum is about what teachers teach and when, and what children learn.

How children learn and cognitive science

In recent decades, we have seen a knowledge explosion in the field of cognitive science, which has given us a growing insight into how learning happens. This important body of work has informed our thinking in developing the EIF, and we believe it is necessary to take into account the way children learn to develop a high-quality curriculum. Unfortunately, some literature is based on outdated understanding, for example that children have different learning styles. We are therefore using alignment with cognitive science (as outlined in the EIF overview of research) as part of this filter.

Relevance to inspection

All of our research and evaluation work must be relevant to our role as a regulator and inspectorate. Relevance to the evaluation criteria set out in the EIF is therefore a key filter. This means that purely theoretical pieces are less likely to feature in our research reviews.

Relevance to areas of learning

We have applied the insights of cognitive science to the EIF, but the implications of these insights can vary in the context of each area of learning. Therefore, our research and reporting will be through the lens of

areas of learning.

What achieves the aims of each area of learning

We do not consider what the high-level aims of education in each area of learning should be. The EYFS sets out the statutory requirements for each area of learning, so our conceptions of quality consider the nature of a high-quality education to achieve these aims.

Early years curriculum and pedagogy

Our overview of research for the EIF provides an explanation of how we understand curriculum:

“ Our working definition of curriculum is that it is a framework for setting out the aims of a programme of education, including the knowledge and skills to be gained at each stage (intent); for translating that framework over time into a structure and narrative, within an institutional context (implementation); and for evaluating what knowledge and understanding children have gained against expectations (impact). The curriculum lies at the heart of education. It determines what learners will know and be able to go on to do by the time they have finished that stage of their education. [\[footnote 45\]](#)”

The areas of learning and development in the EYFS must shape the educational programmes or curriculum for children in all settings. It is crucial that all providers carefully consider what children need to learn over time so they are able to reach ambitious end points by the end of their time in the early years. High-quality curriculums are coherently planned and well sequenced. [\[footnote 46\]](#) Although the EYFS framework enables practitioners to decide on the detail of the curriculum they teach, it is important that they plan and sequence what they intend all children to learn, rather than it happening by chance or for some children and not others.

We consider a curriculum (or programme of learning) to be a **progression** model. [\[footnote 47\]](#) A coherently planned and well-sequenced curriculum enables children to make progress by knowing more, understanding more

and being able to do more. In the early years, the curriculum enables all children to make progress in the areas of learning. In this way, early education provides the building blocks of knowledge for subjects that children will study in later years. The early years curriculum does not include formal subjects. However, it does prepare children for later learning in those formal subjects. For example, learning about kings, castles and knights from traditional story books, together with language such as 'a long time ago', helps children to develop foundational knowledge for learning history later on.

Once practitioners have decided what they want all children in their setting to learn, they need to consider the most effective ways to teach it. Sometimes it will be appropriate to show or tell children what to do through explicit teaching. For example, when they are learning something for the first time. This may be followed by opportunities for children to use and apply this new knowledge through play. At other times, it may be appropriate for children to explore something through play first and for the practitioner to intervene with guidance at appropriate points. Judging what to teach and when to teach it is a key part of a practitioner's role, and the curriculum acts as the framework on which to base those decisions.

Curriculum

This section first considers the curriculum before moving on to examine the implications of the curriculum for choices of pedagogy.

Cultural capital

Cultural capital has an impact on children's access to education. We define cultural capital as 'the essential knowledge that children need to prepare them for their future success' or 'essential knowledge that children need to be educated citizens'. [\[footnote 48\]](#) When judging the quality of education in an early years setting, inspectors will consider how well leaders use the curriculum to enhance children's experiences and opportunities, particularly

those of the most disadvantaged children.

From a sociological point of view, the term ‘cultural capital’ is associated with Bourdieu.^[footnote 49] It means the kind of cultural knowledge that serves as ‘currency’ within society, for example ability in language (including vocabulary); familiarity with the ways of behaving in different social situations; and knowledge of the ‘canon’ of literary and artistic works. According to Bourdieu, cultural capital is ‘reproduced’ within families: if parents have a lot of cultural capital, their children will too. This can lead to greater success in the education system, and is a reason why educational disadvantage perpetuates.^[footnote 50]

Sullivan, Moulton and Fitzsimons use the terms ‘literary’ cultural capital

and ‘non-literary’ cultural capital to refer to cultural activities that relate to books and reading and those that do not.^[footnote 51] Some studies suggest that literary cultural capital has more impact on educational attainment than non-literary cultural capital.^[footnote 52] In their own study, Sullivan, Moulton and Fitzsimons found that there was a positive correlation between higher levels of parental education, a larger number of books in the home and reading to the child at age 3, and higher scores on a vocabulary test.^[footnote 53] However, the most significant factor was the parents’ vocabulary: the parents who scored more highly themselves (especially mothers) had children who scored more highly at age 14. This indicates the importance of a focus on vocabulary for those children who do not benefit from a rich vocabulary at home.

Prior knowledge and the importance of knowing children’s starting points

When considering the curriculum in the early years, it is important to think about the knowledge that children may already have. Effective practitioners do not make assumptions about the kind of knowledge that children may bring with them from home. For example, some children may be more familiar with well-known children’s stories while others may not. Therefore, curriculum planning should include making sure that these children have the prior knowledge they need so that **all** children can learn what leaders

intend.

As an illustrative example, imagine one child has been read ‘We’re Going on a Bear Hunt’ several times. [\[footnote 54\]](#) The child has been shown the pictures and encouraged to repeat the rhyme. The caregiver has repeated the vocabulary and encouraged the child to do the same. Now imagine another child who has heard the book once. They have not picked up the rhythm of the language; they were not encouraged to repeat the vocabulary. They may not even be familiar with the settings or animals described in the book. If an early years setting plans activities around this book, such as outdoor or role play, then the child who knows the book well will have greater prior knowledge and therefore may have greater access to the activities. Practitioners need to make sure that both children are in a position to learn what was intended. A child’s lack of prior knowledge should not prevent them from accessing the intended learning.

All children bring knowledge and different forms of cultural capital with them to their early years setting. It is important to value this as part of an appreciation of the unique child. The different forms of cultural capital and prior knowledge that children bring with them can also contribute to an understanding and celebration of diversity. This can help children to be more familiar with a range of traditions, customs and cultures.

Just as no 2 children are the same, no 2 settings are the same. Some settings may have higher numbers of children who speak English as an additional language, while others have higher numbers of disadvantaged children and/or those with SEND. This means that practitioners and leaders should construct a curriculum that considers the local context, while ensuring that they have high expectations for all children. If practitioners know all of the children well, [\[footnote 55\]](#) they are more likely to be aware of the knowledge the children have brought from home or other settings, and the interests they have already formed. If practitioners know the children’s starting points, this will help them to consider what knowledge each child needs to acquire to reach the ambitious end points of the curriculum.

These points indicate that, having decided on the knowledge that all children should gain, the practitioner should take into account the child's prior knowledge when planning activities and experiences to teach the curriculum. Some children will have come from homes where they have not had the opportunity to explore and develop their interests. It does children a disservice to plan learning that is based only on their pre-existing interests and does not give them the chance to develop new ones.

It is important to ensure that all children have the opportunity to really develop and talk about a full range of interests. This is because some may have been encouraged to develop an interest in books but not sport; others may have been taken to art galleries and given support to draw and paint but have not experienced much music. In their setting, this might mean that these children are keen to take part in book-related activities or seek out the painting table, but do not choose active play or explore music-making. The consequence of planning based purely on a child's interests is that the curriculum begins to narrow for them at a very young age.

Teaching in the early years

This section considers what research says about effective teaching for young children. The definition of teaching in our early years inspection handbook sets out the broad use of the term, which is used to describe a range of pedagogical approaches.

“ Teaching is a broad term that covers the many different ways in which adults help young children learn. It includes their interactions with children during planned and child-initiated play and activities, communicating and modelling language, showing, explaining, demonstrating, exploring ideas, encouraging, questioning, recalling, providing a narrative for what they are doing, facilitating and setting challenges. It takes account of the equipment that adults provide and the attention given to the physical environment, as well as the structure and routines of the day that establish expectations. Integral to teaching is how practitioners assess what children know, understand and can do, as well as taking account of their interests and dispositions to learn

(characteristics of effective learning), and how practitioners use this information to plan children's next steps in learning and to monitor their progress.^[footnote 56]

When practitioners are clear about what children already know and can do, and what they need to learn next, then they can decide what to teach the children and how best to use their time with them to ensure that they learn the intended curriculum. Every interaction a practitioner has with a child is an opportunity for teaching and learning.

Executive function

Executive function (also known as cognitive control) refers to mental processes that begin to develop from birth and are considered essential for learning, as well as for cognitive, social and psychological development.^[footnote 57] Researchers in cognitive science agree that there are 3 core areas of executive function:

- inhibition (self-control of behaviour and attention)
- working memory (holding information in mind and working with it)
- cognitive flexibility (changing approaches to a problem, and switching between tasks)^[footnote 58]

Essentially, executive function makes it possible to mentally play with ideas and successfully navigate challenges, and to stay focused while doing so.

Well-developed executive function leads to better educational attainment as well as a healthier life. A study in the US administered a variety of executive function tests to 5-year-old children and followed up when the children were in the fifth grade (age 10–11). It found that executive function at age 5 strongly predicted academic ability when the children were in the fifth grade.^[footnote 59] Other international studies have found a correlation between the development of executive function and higher academic outcomes. In England, a study carried out by the University of Bristol found that attention in 5-year-olds predicted ability in literacy at the end of primary school.^[footnote 60]

Implications of executive function for early years teaching

Findings from research on executive function have implications for the ways that young children are taught, as well as the ways that babies are cared for and interacted with from birth. Teachers should consider what we know about executive function, how children's executive function develops and what early education can add to that development.

Considering executive function has several implications for early years teaching:

- Research from cognitive science highlights that the practice of retrieving knowledge at intervals over time helps children to remember that knowledge in the long term.^[footnote 61] This means that learning should be revisited periodically to ensure that it has been remembered – that it has entered the long-term memory, which reduces demand on the working memory. This also means that, when new knowledge is taught, it can be integrated with existing knowledge.
- Young children do not actively choose to use their executive function (as older children do); they use it in response to environmental demands, such as when an adult encourages them to.^[footnote 62] This means that it is not sufficient just to provide opportunities for children to take part in activities (such as setting up an outdoor area). Practitioners need to guide children towards engaging with activities. This is also an equality issue: research from the University of Bristol, for example, has shown that boys participate less in the types of activities that support language and literacy development, and are given less encouragement in settings to do so.^[footnote 63]
- Executive function demands need to be continually and incrementally increased or they will not improve.^[footnote 64] This means that practitioners should be aware of what children already know and are able to do in terms of inhibition, working memory and cognitive flexibility, so that they can provide opportunities and teaching activities that will continue to develop the children's executive function. This is important, because children's executive function will develop at different rates.^[footnote 65]

The role of play

Play is essential for children's development. This includes children both leading their own play, and taking part in play that is guided by adults. In a synthesis of international studies that examined practitioners' attitudes towards play in early education, most practitioners saw a natural link between play and learning. However, many also considered play to be different from play-based learning. Some studies highlighted that practitioners need to time interventions in children's play carefully and skilfully if the children's learning is to be enhanced. [\[footnote 66\]](#)

There are many ways in which play can support young children's learning and development. It is likely that, in a high-quality setting, children will experience many different types of play. This includes playing during social times with their peers, which also aids their personal, social and emotional development. There is a spectrum of play, some of which could be completely unguided (including play at home), and some of which will be guided to support particular learning. As play comes naturally to children, skilful practitioners will be able to harness it to help teach the curriculum.

The purpose of play

Play is an important and enjoyable part of children's early education. When planning for play, practitioners should consider whether children are learning something new or are consolidating previous learning. Thinking about what children already know can help practitioners consider how much adult support and guidance the children require in their play. If children are learning something for the first time, it might be more appropriate for them to be taught it explicitly.

In a mathematical context, for example, studies have indicated that play is important for encouraging interest and enthusiasm, but that some guided instruction from a teacher is also needed, as this provides structure to the learning. [\[footnote 67\]](#) Otherwise, children do not make connections between

what they are playing with and mathematical ideas.

In physical play, children may throw and catch independently, but if they do not know how to do so effectively, a practitioner could join in the play to model this. Otherwise, children could go on not knowing how to throw and catch effectively, which could later affect their ability to play team sports.

It is not necessary for an adult to be physically present to support play. Practitioners can support children by planning how to use play areas within the setting. Book corners and room displays can provide stimulus material that encourages further play, building on teaching that has taken place. These activities should be planned carefully so that children are able to make connections between what is set out and what they have already learned. This gives them opportunities to use and apply the knowledge and vocabulary that they have already learned during their play.

Practitioners should consider whether children are encouraged and supported to take part in all types of play, not just those that conform to their previous experience and preferences.

Play in the early years should be an enriching experience for all children. Adults should ensure that children do not miss out because they lack the prior knowledge they need to take part in play activities. For example, children who have not used glue and paint before may need careful support to help them enjoy the full range of creative play opportunities on offer. It does children a disservice if they **only** take part in play in which they have a previous interest or enthusiasm.

The role of explicit teaching

Explicit teaching is an approach to teaching where the practitioner introduces information or skills through direct instruction. In the context of early education, it can be an effective way to teach children specific

knowledge, for example early mathematical concepts such as counting or how to fasten the buttons on a coat.^[footnote 68] This is because explicit teaching can make clearer the steps of learning, as practitioners demonstrate and explain the steps.^[footnote 69] In the EYFS, explicit teaching is likely to be for very short periods of time and take place in different areas of a setting. It can also be followed by other forms of teaching, such as guided play.

Direct vocabulary teaching and modelling are important ways for children to learn new vocabulary.^[footnote 70] For example, a practitioner may draw children's attention to the vocabulary they want them to learn on a visit to the park: 'Now we're going past the supermarket; now we're crossing the road'.^[footnote 71] To ensure that the child learns the intended knowledge about different types of trees, the practitioner could draw the child's attention to their distinctive characteristics: 'This one has small leaves and is really tall'; 'this one is short and has spiky leaves'. In these cases, direct instruction draws the child's attention to the intended learning, and teaches the vocabulary associated with this. Adults are then able to reinforce children's understanding of the new vocabulary they have introduced by using it in other contexts.

Based on this research review, high-quality curriculum and pedagogy may have the following features:

- The curriculum considers what **all** children should learn. It offers plenty of opportunity for children who are disadvantaged or who speak English as an additional language to learn and practise speaking and listening.
- Practitioners choose activities and experiences **after** they have determined the curriculum. The most appropriate activities and experiences then help to secure the children's intended learning.
- Adults think carefully about what children already know and can do when deciding what to teach first.

- Children with gaps in their knowledge get the additional teaching they need so that they can access the same curriculum as their peers.
- Practitioners consider a child's interests when choosing activities and they expand children's interests, to make progress in all areas of learning.
- Children's play is valued and is used to teach many aspects of the curriculum. Their learning through play is enhanced by skilful adult intervention.
- Explicit teaching is used to introduce children to new knowledge and followed up by practice through play.

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