



Public Health
England

Protecting and improving the nation's health

Best start in speech, language and communication:

Supporting evidence



Department
of Health &
Social Care



Department
for Education

About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. We do this through world-leading science, research, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health and Social Care, and a distinct delivery organisation with operational autonomy. We provide government, local government, the NHS, Parliament, industry and the public with evidence-based professional, scientific and delivery expertise and support.

Public Health England, Wellington House, 133-155 Waterloo Road, London SE1 8UG

www.gov.uk/phe Twitter: [@PHE_uk](https://twitter.com/PHE_uk) Facebook: www.facebook.com/PublicHealthEngland

Acknowledgements:

We would like to thank the Speech, Language and Communication Expert Advisory Group (see Appendix A for members) who provided invaluable insight, expertise and challenge to the development of this publication. In addition, we are grateful to all the local areas, including commissioners, service providers, voluntary organisations and individuals who provided feedback on pre-publication versions.

We are also grateful to Dr Deborah Gibbard, Clinical Academic and SLT Professional Lead, Solent NHS Trust who drafted early versions of this document.

For queries relating to this document, please contact: Beststartinlife@phe.gov.uk



© Crown copyright 2020

You may re-use this information (excluding logos) free of charge in any format or medium, under the terms of the Open Government Licence v3.0. To view this licence, visit [OGL](https://www.ogil.io). Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.

Published September 2020
PHE publications
gateway number: GW-1162

PHE supports the UN
Sustainable Development Goals



Contents

Executive summary	4
Introduction	5
Differences in language learning and the social gradient	5
Speech, language and communication development and key milestones	8
Speech, language and communication development	8
Identification and assessment of speech language and communication needs	10
Developmental flags for review	10
Multilingual Learners (MLL) and English as an Additional Language (EAL)	12
Core principles for best practice in supporting children’s speech, language and communication	13
Behaviours and strategies to support communication development	13
Supporting the home learning environment	17
Effective interventions	19
Key components of interventions	19
Appendix A: Members of the expert advisory group	22
Appendix B: Chat, play, read	23
Appendix C: Sources of evidence for specific interventions/best practice	27
References	29

Executive summary

This document should be read in conjunction with ‘Best Start in Speech, Language and Communication: Guidance to support local commissioners and service leads’ and ‘Best Start in Speech, Language and Communication: Case studies’. These together, form a series of joint publications by Public Health England (PHE) and the Department for Education (DfE) providing guidance to support local areas to develop integrated speech, language and communication (SLC) pathways from pregnancy through to the end of a child’s first year in school. In recent years there has been a growing body of evidence on early language development, which makes a powerful case for language as a primary indicator of child wellbeing(1) due to its links with other social, emotional and learning outcomes. Gaps in early speech and language development can be recognised by the time children are 2 years old and they have a more visible impact by the time they enter school. This document includes a summary of the evidence on early speech and language development, with key features of effective interventions for children with speech, language and communication needs (SLCN), delivered using a tiered intervention model of services designed around the needs of the family.

Introduction

This document includes:

- a summary of the ways that early SLC develops and the risk and protective factors that influence this – it sets out a case for prioritisation of the first 1000 days of life and the period up to transition to school to strengthen SLC skills and reduce inequalities in early language
- key messages, behaviours and strategies that are important in enabling speech, language and communication in the under-fives
- ways to improve identification, monitoring and assessment of SLCN and determine when additional specialist support is required
- key features of effective interventions for children with SLCN, designed around the needs of the family. It sets out the important role that parents and those closest to the child play in supporting SLC development

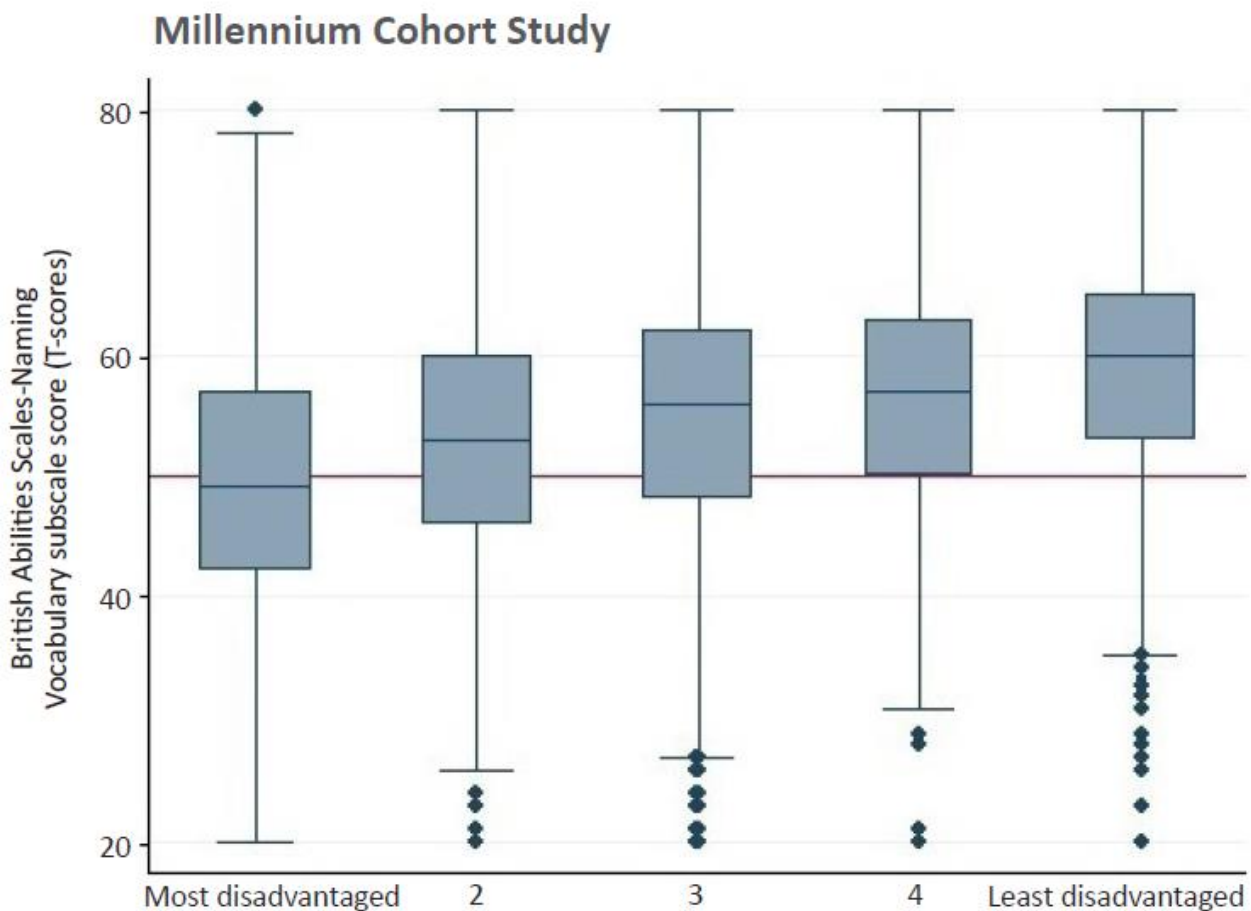
Differences in language learning and the social gradient

Almost all children learn to communicate through language, although there are strong and persistent differences in their ability to do so. Differences may be as a result of neurodevelopmental factors and/or environmental factors, such as reduced developmental opportunities limiting the child's learning of language; the latter are more commonly linked to social gradient. Differences may also arise from interactions between these risk factors(2).

Figure 1 below is a chart (box and whisker plot) showing the mean, interquartile range and variance in oral language skills (based on vocabulary test scores) among five-year-old children, plotted by quintile of deprivation (Index of Multiple Deprivation, IMD). The mean score increases as deprivation decreases.

The mean score for the most deprived quintile is less than the assessment's standardised mean and the mean scores for all other quintiles are above the standardised mean. In the two least deprived quintiles, 75% of all data points (the interquartile range) lie above the standardised mean.

Figure 1: Social gradient in oral language skills among 5-year old children, by deprivation quintile group (vocabulary test scores)(3, 4)



(Children are grouped in quintiles according to social disadvantage. The reference line in the graph is the standardisation mean for the assessment)

The opportunity to communicate is recognised as a basic human right(5). Reducing social and health inequalities requires a focus on improving educational outcomes, with communication skills identified as being central to success at school(6). Children’s life chances are linked to their development in the first 5 years(7), and some children will need specific interventions to reach their full potential(8). SLCN have a knock-on effect on emotional wellbeing, school readiness, literacy and school attainment, putting children at increased risk of long term consequences such as poor literacy, mental health problems and unemployment(9, 10). For example, children who are behind in language development at age 5 are 6 times less likely to reach the expected standard in English at age 11, and 11 times less likely to achieve the expected level in maths(11).

The **quality and the quantity** of spoken language that children hear in interactions with caregivers during the early years of life are important influences on language development(12-15). The '30 million-word gap' study conducted in the USA(16) measured the language environments of typically developing infants and toddlers, finding that adult word exposure between 10 and 36 months of age predicted child language and IQ at age 3 years. By the age of 3 years, children with professional parents had heard 30 million more words than children whose parents were in receipt of state benefits. These findings have been replicated in many studies, with mothers from high socio-economic status backgrounds (SES) more likely to speak to their child more often and with more varied vocabulary than mid SES mothers, and their children more likely to develop more advanced vocabularies(17). Conversational turn-taking is particularly predictive of later language and cognitive skills, even more than the number of words children hear in the home(18). Income-based gaps are already present at 18 months, with higher-income children processing language at a significantly faster rate than their lower income peers(19). Income-related learning gaps are deep by 4 years and are subsequently difficult to reverse(20). These findings support the rationale for early identification of learning gaps.

Although socio-economic deprivation is associated with an increased risk of SLCN, with a specific impact on children's core language skills, the presence of deprivation in early childhood is not predictive of individual language ability(1). The communication environment is a more dominant predictor of early language than social background(21, 22); children's language and other learning outcomes are associated with processes that take place within low-income households, which are open to change. It is therefore important to avoid assumptions that all children from disadvantaged backgrounds will have poor language skills, or that coming from a better-off family automatically confers an advantage(23). Approximately 10% of children will have persistent SLCN regardless of their background.

The negative effects of low SES may be minimised by a protective caregiver environment(21). Key factors include communicating with children in a literacy rich home environment, quantity and quality of cognitive stimulation, parental sensitivity, child-centred emotional support and an emphasis on the value of learning(24-26). The early years workforce can have an important effect on children's language skills(27, 28).

Speech, language and communication development and key milestones

Speech, language and communication development

Children whose skills develop more slowly than those of their peers are less likely to be 'ready for school' and may have difficulties with several different aspects of their development(29), including their ability to make friendships and gain peer acceptance at school(30). However, there is also individual variability in language development and it is relatively common, given the right communication environment, for many very young children to outgrow initial delays in SLC.

While some young children outgrow initial delayed development in SLC, 10% of all children will go on to have some level of SLCN that persists throughout childhood and beyond, for example, Developmental Language Disorder, and it is difficult to diagnose some communication disorders before the age of 5 years(30). However, children with SLCN will benefit from early identification and targeted support to ensure they are able to develop to their full potential, with referral onwards to specialist services as required.

Although there is variation in the rate children learn to talk, there are key communication milestones to indicate what children should be doing at different ages. It is important for parents and the early years workforce to know what to expect, so that if key milestones are not reached, children can be identified early, enabling further assessment and consideration of both the risk factors present and general development of the child. The key communication milestones are outlined in detail in Figure 2. This table is an adaptation of the table developed by the Early Intervention Foundation (EIF) and the Royal College of Speech and Language Therapists (RCSLT) and cited by DfE(31). It is important to note that young children develop at unique rates, so a child may display a particular milestone in a different order, or at a slightly later date. Figure 2 aims to serve as a guide and is not for formal assessment purposes.

Accessible summaries of typical key communication development are available and include:

- The Communication Trust's 'Universally speaking ages and stages from 0 to 5 years'
<https://www.thecommunicationtrust.org.uk/resources/resources/resources-for-practitioners/universally-speaking/>
- I CAN's ages and stages, including progress-checkers for parents
<http://www.talkingpoint.org.uk/>

Figure 2: Typical speech, language and communication development (This table is an adaptation of the table developed by the Early Intervention Foundation (EIF) and the Royal College of Speech and Language Therapists (RCSLT) and cited by DfEⁱ)

Infancy (0 to 6 months)	6 months to 1 year	1 to 3 years	3 to 5 years
<p>Birth-1 month</p> <ul style="list-style-type: none"> ▪ Babies can recognise and turn their head towards their parent’s voice ▪ Makes pre-speech lip and tongue movements in response-talk ▪ Demonstrates a strong preference for human faces <p>1 to 4 months</p> <ul style="list-style-type: none"> ▪ Vocalises delightfully in response to chat or enjoyable play ▪ Recognises the difference between happy and sad faces and can copy simple facial movements ▪ Responds to positive touch and can see, hear and smell ▪ Can discern whether a person’s gaze is towards/away from them or if people are open to interaction <p>4 to 6 months</p> <ul style="list-style-type: none"> ▪ Babies can recognise own name ▪ Expresses a range of emotions such as pleasure, fear and excitement through facial expressions, vocalisations and body language ▪ Begins to engage in babbling that replicates in pitch and tone of adult speech ▪ Shows clear like, dislike, acceptance and rejection of experiences ▪ Can track gaze of others and share attention towards an object, such as household item or toy 	<p>6 months</p> <ul style="list-style-type: none"> ▪ Are chatting to them ▪ Canonical/reduplicative babbling begins – babies tunefully using repetitive sounds in a sing-song tone ▪ Babies start to understand routines, simple words and activities ▪ Looks around the environment at people, objects and things that are happening ▪ Responds when name is called <p>9 to 12 months</p> <ul style="list-style-type: none"> ▪ Gesturing and joint attention – baby looks to where another person points ▪ Object play – using everyday objects, infants understand they can communicate and share information. ▪ Joins in with give-and-take games ▪ Makes requests by pointing ▪ Imitates playful vocalisations and actions, e.g. cough, smacking lips ▪ Shows understanding of a few every day object words and words embedded in familiar routines, e.g. bedtime ▪ Baby’s first words ▪ Understands “no” and “bye” 	<p>1 to 2 years</p> <ul style="list-style-type: none"> ▪ At around 18 months, children will know around 50 words and can say about 20 ▪ Children use sounds to represent meaning, e.g. “moo” for a cow ▪ Starting to form sentences – combining 2 words, e.g. “doggy gone” ▪ Can follow simple commands in context, e.g. “come here”, “give it to me” ▪ Follows 2-part instructions <p>2 to 3 years</p> <ul style="list-style-type: none"> ▪ Understanding of words and phrases grows quickly during this time ▪ Children of this age understand between 200 to 500 words ▪ Uses “no” or “not” in phrases ▪ Refers to past/future events ▪ Asks questions, e.g. “What’s that?” ▪ Can pick out objects by function, e.g. which one do we drink from? ▪ Uses pronouns “I”, “me” and “you” ▪ Uses descriptive concepts, e.g. big/little 	<p>3 to 4 years</p> <ul style="list-style-type: none"> ▪ Ability to form multi clause questions and narrative skill develop ▪ Phonological awareness grows ▪ Can listen to stories with increasing attention and recall ▪ Joins in with repeated refrains and anticipates key events and phrases in rhymes and stories ▪ Understands sentences of 3 to 4 information-carrying words (at 4 years) ▪ Uses pronouns “he”, “she” and “they” (36 to 40 months) ▪ Ask questions – “Why?” (36 to 42 months) ▪ Uses language to pretend (42 to 48 months) <p>4 to 5 years</p> <ul style="list-style-type: none"> ▪ At 5 years, children are now able to understand sequencing, e.g. ‘first we will eat breakfast and then we will go to nursery’ ▪ They understand past, present and future tense ▪ Children will choose their own playmates ▪ They can take turns in longer conversations and will not need to stop what they are doing to listen and understand what is being said to them ▪ Most speech sounds are clear by 5 ▪ Enjoys jokes ▪ Uses language to compare e.g. bigger

ⁱ Department for Education (2018) ‘The Home Learning Environment’ <https://www.gov.uk/government/publications/improving-the-home-learning-environment>

Identification and assessment of speech language and communication needs

This section summarises the risk factors, protectors and predictors relating to early SLC, and provides information relating to early identification and monitoring. Both environmental and biological factors may impact on a child’s SLC development.

Figure 3: Supportive and risk factors associated with early language development(20)

	Family factors	Early childhood factors
Supportive Factors	<ul style="list-style-type: none"> • The mother was between the ages of 30 and 39 at the time of the birth of her first child • Being a girl • First-born child • Degree educated parents • High family income • Language rich home learning environment (quality and quantity of language/vocabulary) 	<ul style="list-style-type: none"> • High levels of age-appropriate infant-directed speech that is responsive to the child’s specific interests • Frequent, child-led, joint attention activities and object play • The availability of books in the home and shared reading • Child care from 1 adult in the first 2 years. • Enriching pre-school education from age 2 onwards
Risk factors	<ul style="list-style-type: none"> • Family history of neurodevelopmental disorders and/or SLCN • Preterm birth • Maternal/paternal/partner mental health problems • Maternal use of harmful substances • Adolescent parenthood • High number of siblings • Social disadvantage/low income households • Lack of parent qualifications 	<ul style="list-style-type: none"> • A home learning environment with low levels of language/responsive interaction

Developmental flags for review

It is essential that health visitors have a working knowledge of the typical SLC development in children as this will support them in identifying any children who are showing delay. There are a range of tools that can support this assessment, all health visitors use the ASQ-3 at the universal 2 to 2.5 year health review as a population measure of child development, but some areas may use additional tools to support assessment either universally or targeted to improve critical decision making (N.B. PHE

and DfE are currently developing a national language measure which will be rolled out in 2020). Holistic assessments should take account of risk factors, supportive factors and ‘flags for review’ alongside the general development of the child. ‘Flags for review’ are those presentations observed in a child that indicate a significant delay or problem with language development. Where key communication milestones are not reached by specific ages, further assessment should be made of the risk factors present, developmental ‘flags for review’ⁱⁱ and general development of the child. This should determine whether referral for specialist assessment is required, such as referral to speech and language therapy, to support identification of those children who may be likely to have ongoing SLCN(30). The table below is intended as a reference guide and should not be considered in isolation of wider holistic assessment.

Table 1: Developmental ‘flags for review’, grouped by age, in identifying a child who may be having some difficulty with developing speech, language and communication (30, 32)

Age of child	Developmental ‘flags for review’
0 to 1 years	<ul style="list-style-type: none"> • No babbling or other sounds by 6 months • No pointing by 12 months • No simple gestures by 12 months
1 to 2 years	<ul style="list-style-type: none"> • Not responding to speech and/or sounds • Minimal or no attempts to communicate
2 to 3 years	<ul style="list-style-type: none"> • Minimal interaction • Does not display intention to communicate • No words • Minimal reaction to spoken language • Regression or stalling of language development
3 to 4 years	<ul style="list-style-type: none"> • At most, 2-word utterances (in their first language) • Child does not understand simple commands • Close relatives cannot understand much of the child’s speech
4 to 5 years	<ul style="list-style-type: none"> • At most, 3-word utterances • Poor understanding of spoken language • Strangers cannot understand much of child’s speech • Close relatives cannot understand more than half of what the child says

ⁱⁱ There is much debate in current practice and the literature over the terminology that should be used. The terms “red flags”, “warning signs”, “alerts” have all been used in the literature, however for some agencies these terms may also be associated with safeguarding. To avoid misinterpretation, the term “flags for review” will be used, however it is recommended that local pathways are based on agreed local terminology.

Multilingual Learners (MLL) and English as an Additional Language (EAL)

Bilingualism, which includes the concept of multilingualism, EAL and multi-modal language use such as sign language can be defined as individuals who acquire communication skills in more than 1 language. There is no evidence that learning more than 1 language puts children at risk of delayed speech and language development(33). There may be some benefits to bilingualism, particularly when a child is using both languages regularly, including cognitive advantages such as with problem solving(33, 34) or memory(35), which may be evident where a child is proficient in both languages.

It is important that parents/caregivers support their child in learning their family's different home language(s). They should talk to their child in their home language(s) – that is, the language in which they are confident. This will provide the child with a good model on which they can build when they learn to use a second or third language(36). Children need adults to be consistent with language, as this allows them to tune in more easily and learn the grammar and structure of a language. However, parents should not be concerned about mixing languages with their child as there is no evidence that this reduces code-switching (using 2 languages in the same sentence), or that code-switching is an issue for concern for children acquiring language(33).

Dual language learning children go through the same basic milestones in language acquisition as children who learn only 1 language, but some children may reach these milestones at a later date(37). However, these slight delays should not be confused with more enduring language delays that are associated with inherited or other environmental factors; most children will quickly catch up. They begin to babble, say their first words, understand familiar words, reach a 50-word vocabulary (which may be shared between languages) and start to combine words in the same way as children learning 1 language. However, different languages all have different sounds and grammatical systems.

Where specialist referral and assessment are required, speech and language assessments should be conducted in a child's home language to gain an accurate picture of skills and enable assessment to differentiate diversity from disorder. Collaborating with professional interpreters should be viewed as an essential part of the assessment process.

Core principles for best practice in supporting children's speech, language and communication

This section summarises the core principles for best practice in supporting children's SLC, behaviours and strategies to support communication development, and presents key recommendations for selecting interventions and effective practices.

Behaviours and strategies to support communication development

A review carried out by the EIF identifies key behaviours and strategies that are important in influencing the development of children's SLC skills(20):

Infant Directed Speech (IDS): this refers to talking directly to a child. The use of age-appropriate IDS by parents and caregivers has been found to be beneficial in infancy. Increased use of IDS during shared attention activities is consistently associated with acceleration in children reaching their language milestones.

The quality of IDS is important, as well as quantity. During the second and third years, the quality of the caregiver's IDS is consistently associated with language development.

Caregiver's responsiveness to child behaviours, their gestures, the diversity of their vocabulary and their use of one-word utterances to name objects have all been found to predict the size of children's vocabularies and the speed with which they process language during the second year(20).

Joint attention: this refers to 'a back-and-forth type of play that involves an infant's abilities to follow another person's actions and to influence another person's focus of attention'(38) The amount of time spent in joint attention activities between the caregiver and child involving object play is associated with children's vocabulary at 24 months(39, 40).

Book sharing: the extent to which children participate in book sharing activities is highly predictive of their language development throughout childhood and their achievement at school(41). Sharing a book encourages parents to be an active partner in their child's communication(42).

For parents, caregivers and anyone coming into contact with, or supporting 0 to 5-year olds, the key components that appear to be included in effective interventions are summarised in Table 3.

Table 3: Key communication strategies to support language learning

	Key communication strategy	What to do	Why is this important
1.	Face to face	Adult moves themselves to be opposite and at the same level as their baby/child and makes eye contact Adult uses gesture, facial expressions and intonation in their communication	Develops eye contact and a shared focus Facilitates interaction
2.	Interpret	Adults interpret the baby's/child's gestures, sounds or attempts at words as meaningful (e.g. "Uh" = Shoes off)	This increases the baby's/child's understanding that their communication attempts mean something. Increases turn-taking.
3.	Watch, wait and listen	Adult actively waits for the child to initiate interaction, either verbally or using gesture	Shows awareness of the baby's/child's communication Gives the infant/child time to initiate interaction (either verbally or using gestures) and leads to balanced exchanges between the caregiver and the child Allows the child time to process words and phrases and gives them time to respond
4.	Follow child's lead	Join in the child's play, following the child's lead Focus on the child's actions and interests rather than directing them	This increases the child's attention and focus on play Increases a shared focus and joint attention
5.	Copying, repeating and imitating	Adult copies or interprets any attempts that the child makes to communicate, through vocalisations, or words, or actions	This encourages interactions and communicative exchanges. Provides a model for the child to learn language
6.	Commenting	Adults should use more commenting language (e.g. "look, cat") and more specific questions (e.g. "Is that a black cat?") rather than "what's that?"	This increases child initiation and reduces pressure on them to speak It helps the child's language to develop as there is an increased scope of responses
7.	Share books	Adults should share books and look at them/read with their baby/child	Develops shared focus, joint attention and reciprocal communication Develops communication and vocabulary

	Key communication strategy	What to do	Why is this important
8.	Labelling	<p>Naming/labelling objects and actions as the baby/child is playing. This should be in line with the child's level of development</p> <p>For example, at 12 months the adult should name an object, whereas at 3 to 5 years, the adult should talk about people and events not present in the immediate context (e.g. at the park yesterday we played on the slide), and use less frequent words to expand vocabulary (use different types of words e.g. daisy, rose, daffodil, rather than flower)</p>	This increases vocabulary development
9.	Expansions	<p>Adult adds a word to what the child has said</p> <p>This should be in line with the child's level of development (e.g. at 18 months, the child says "cat", and the caregiver responds, "big cat"; at 3 to 5 years, the child says, "we jumped in the sea", and the caregiver responds "we jumped high in the sea")</p>	This increases vocabulary and language structures
10.	Everyday routines	Adult uses daily routines (e.g. meal-times, washing) to model language in predictable ways for the baby/child	Daily routines provide ideal contexts for modelling language in predictable ways allowing children to learn slot-and-frame patterns(43)

Appendix B provides more detailed key messages around behaviours and strategies for parents, caregivers and early years practitioners to follow to support communication development.

Children's SLC can be best supported through:

1. **The home learning environment:** several studies have confirmed that an enriching home learning environment is especially important during the early stages of children's development(15). The quality of the home learning environment relates not only to the amount of verbal stimulation a child receives but also the extent to which children are exposed to other enriching activities (for example, regular visits to the library, book sharing, high-quality toys).
2. **The early education environment:** a high quality early education environment supports young children's early language development(20).
3. **Early identification and intervention:** early identification and support for those children identified as at risk, or falling behind with their SLC(20).

Supporting the home learning environment

Parents, caregivers and those closest to the child have the most important role in supporting SLC development and are best placed to affect the context in which children live(44).

Findings from behavioural insights studies have identified that there are 3 main barriers that families may face that need to be addressed(31):

Capability: Parents

- i. may not understand the importance of language development or the activities that can support it
- ii. may have low literacy skills, or lack confidence in their ability to support their child's language development
- iii. may not see a need for these skills, and some low SES parents are less likely to proactively seek information

Opportunity: Fewer financial resources, physical environments in or near the home, and other disadvantages (for example, poor health) may make it more difficult to provide enriching activities, and the reality of daily life can reduce parents' time or prioritisation of these

Motivation: Parents, and the communities that influence them, may not understand the potential benefit of early language development, or education and prioritise other areas of child development and wellbeing instead – they may also lack confidence or networks of support

Engaging those closest to the child to influence their child's SLC development in a strengths-based way that improves the home learning environment is a key component of the Department for Education's **Home Learning Environment Behaviour Change model**(31).

'Improving the home learning environment - A behaviour change approach'(31), sets out the government's ambition for a society-wide approach to promoting early language development. It is important to recognise, however, that there will always be some children who will have severe, specific or complex SLCN who will require more specialist support. The document sets out a behaviour change model to ensure that the messages delivered to families are consistent, with 3 simple concepts:

- **chat:** encourages talking, but crucially, reciprocal communication
- **play:** language thrives when children interact and explore in a playful and creative manner
- **read:** sharing books, parents and children talking together

In addition, the DfE behaviour change model aims to rally and support those professionals, volunteers and communities working with families day to day.

Children are active learners and learn language by participating in naturally occurring, everyday interactions and activities with their caregivers(45). Language development happens in the context of everyday conversations and routines, rather than in isolation, and the home environment and family life provide the context for language learning(46). Parents and caregivers are the most important figures in a child's life and have a role in maximising communication opportunities and interactions with their child; to model speech and language; build on the child's communication skills and to be responsive and encouraging of the child's communication attempts(47-49). For children with SLCN, parents also have this critical role in any intervention or therapy.

Effective interventions

The pathway guidance, 'Best start in speech, language and communication: Guidance to support local commissioners and service leads' sets out the case for a system-wide approach to support SLC in the early years. This sets out how all services should engage with children and families, with a life course approach from pregnancy through to the end of their first year in school to address the current inequalities in early language acquisition. It shows how provision should be organised using a tiered framework based on a continuum of need to include universal, targeted and specialist services from 0 to 5 years, with a focus on meeting the needs of disadvantaged groups, but also including children with persistent SLCN. The pathway should include universal identification, monitoring and assessment of SLC over time, as well as evidence-based intervention proportionate to the level of need.

Key components of interventions

There are a number of early years interventions in use that aim to improve children's speech, language and communication. They vary in strength of evidence of impact.

The Education Endowment Foundation (EEF)(50) indicates that the current evidence base for specific intervention programmes and practices suffers from a number of limitations around detail, methodology, effect sizes and knowledge around how transferable results may be to the home or early years setting. The EEF review focused on 45 intervention studies as these constituted a relatively robust level of evidence. The results of this review summarised that early year's services can be optimised to support children's cognitive development from the antenatal period onwards through the following activities and support:

- during the antenatal period, activities include those that target risks associated with a preterm birth and those which increase mothers' access to effective mental health treatments
- during the first year, activities include intensive home visiting interventions for families with pre-identified risks, including the risk of economic disadvantage
- activities found to support children's cognitive development during toddlerhood include targeted home visiting support
- offering high-quality and enriching childcare starting at the age of 2
- offering speech and language interventions for children from the age of 2 onwards where there is preliminary evidence to support the use of them(41, 50)

- offering enriching, curriculum-based preschool education which can substantially improve learning outcomes for disadvantaged children, starting from the age of 2 onwards
- supporting parents and children from low income families, from birth to 2 years may substantially improve disadvantaged children's learning outcomes, using intensive support that provides parents and carers with important key strategies and skills that can support their children's learning
- offering intensive support for the most economically disadvantaged families with children over 2 years (which may be via the 2-year childcare entitlement)

The review indicated that effective language interventions are not limited to activities carried out directly with children but include the way in which the messages are generalised to the home or the setting; it also suggested that the training of staff is key to the implementation of effective interventions. It is worth noting the importance of dosage when selecting evidence-based interventions, as high dosage interventions are consistently shown to have greater efficacy than low dosage messaging(50).

The evidence indicates a number of specific shared components which are common to effective interventions to support the improvement of children's outcomes. These are summarised in Table 4.

The detail and information on specific interventions and best practices for children's SLCN outcomes can be found via the sources included in Appendix C.

Table 4: Key components of effective interventions to support language learning

Component	Approaches to Interventions
Parent engagement – actively involving parents in supporting their child’s SLC development	<ul style="list-style-type: none"> • Talk to children at home using key communication strategies to support language learning • Use key communication behaviours and strategies to support language learning • Share books and read with children at home • Use daily routines and everyday interactions as the context for modelling language
Communication and language	<ul style="list-style-type: none"> • Support children’s SLC development through following the child’s lead, commenting on what they are interested in, conversational turn-taking and modelling a wide range of vocabulary and language structures • Trained early years practitioners to work with a child or a small group of children to develop communication
Book sharing and reading	<ul style="list-style-type: none"> • Start early and share books regularly and frequently • Use a dialogic reading style(41)
Implementation of multi-faceted approaches by settings and early year practitioners(50)	<ul style="list-style-type: none"> • Training and professional development is key(50) • Support early years practitioners to identify evidence-based interventions • More intensive support for disadvantaged families
Beginning Early Years Education Early	<ul style="list-style-type: none"> • Childcare provided from the second year of the child’s life onwards has been found to improve language development for socially disadvantaged children(51)

Intervention programmes and practices are frequently delivered by non-specialists such as parents, early years practitioners, and teaching assistants, specifically in the contexts in which children learn language. Thus, language interventions are partly about what is specifically taught, but critically include the way that these messages are generalised to the home or the class(50).

It is important that the nature of the intervention is multifaceted—including, for example, training parent-child interaction, facilitating dialogic book-reading (the adult helps the child become the teller of the story), fostering narrative skills, or teaching vocabulary. In implementing any intervention practices or programmes locally, it is important to determine and evaluate outcomes (refer to Measuring Outcomes: Key Metrics section in the accompanying ‘Best Start in Speech, Language and Communication Pathway for Children under 5 years: Guidance to support local commissioners and service leads’ document). Innovation in developing future interventions should be encouraged, with intervention developers being clear about the target population; strength of the evidence; outcomes achieved and for who; specificity in the elements of the intervention and the circumstances under which it works best.

Appendix A: Members of the expert advisory group

Our expert advisory group was made up of the following individuals in addition to representatives from Public Health England, the Department for Education, and the Department of Health and Social Care:

Cheryll Adams /Vicky Gilroy
Institute of Health Visiting

Katie Alcock
Lancaster University

Obi Amadi
CPHVA

Kirsten Asmussen/Ben Lewing
Early Intervention Foundation

Kamini Gadhok
Royal College of Speech and Language Therapists

Sarah Gibbs
The National Lottery Community Fund

Jean Gross
Independent consultant

Dr Sakthi Karunanithi
Association of Directors of Public Health

James Law
Newcastle University

Courtenay Norbury
University College London

Bob Reitemeier/Maxine Burns/Mary Hartshorne
I CAN

Sally Savage
Association of Directors of Children's Services

Appendix B: Chat, play, read

Age	Chat, play, read: Behaviours and strategies to support communication development
From 0 to 6 months	<p>Chat</p> <ul style="list-style-type: none"> • Spend time together face-to-face, talk to your baby about anything and everything, follow the baby's lead and make eye contact. • Talk to them in an animated, tuneful voice with lots of smiles, laughter and facial expressions • Respond to infant babbling as if they are initiating a conversation, describe your baby's emotions as you speak to them. • Respond when your baby tries to communicate, take the time to have “conversations” with your baby with each of you taking turns. • Make lots of actions and gestures along with speech - use gestures and actions to help your child understand what you say (e.g. saying “bye bye” and waving). • Respond to baby's movements and communication – copy the noises they make. Interpret their sounds and say what they are trying to tell you <p>Everyday routines</p> <ul style="list-style-type: none"> • Talk to your baby during daily routines and activities (e.g. mealtimes, bath time, commenting on what you are doing together) • Use every-day experiences such as shopping or going to the park as a chance to point things out and name things. • Use daily activities as an opportunity to stimulate your baby's learning (e.g. go outside and smell a flower) • Comment on what is being seen and done and point out things of interest in the environment around you <p>Play</p> <ul style="list-style-type: none"> • Talk and sing, use action rhymes and songs with lots of repetition, and do the actions with them (e.g. ‘round and round the garden’, ‘heads, shoulders, knees and toes’) • Play games with baby following predictable routines, but also contain an element of surprise (e.g. peek-a-boo) • Play with toys that are large, colourful and easy to handle, with different properties i.e. textures, shapes and colours <p>Read</p> <ul style="list-style-type: none"> • Point out pictures in books • Engage with books that are colourful, chunky, interactive and robust • Use books with textures that your baby can feel • Use vinyl bath books
From 6 to 12 months	<p>Chat</p> <ul style="list-style-type: none"> • Gain your infant's attention and talk to them about things as they happen, gesturing to increase their understanding • Use words, simple short phrases and lots of repetition • Tell your infant the name of things when they point to them • Offer choices visually between toys (e.g. ‘do you want the ball or the book’. Encourage infant to take the one they want) <p>Everyday routines</p> <ul style="list-style-type: none"> • Talk to the infant during everyday routines (e.g. getting dressed – talk about what you are doing)

	<p>Play</p> <ul style="list-style-type: none"> • Join in play activities with your infant, let them lead the play using objects and toys they are interested in, talk about the things they explore or look at • Play ‘people games’ like ‘Row, Row, Row Your Boat’ and get other family members to join in. • Play simple cause and effect games, e.g. blowing and popping bubbles • Play games involving turn-taking (e.g. rolling a ball) <p>Read</p> <ul style="list-style-type: none"> • Let the infant turn the pages in books • Offer board books with simple stories, use books with pictures of people and familiar objects, such as animals. • When you are looking at a picture book with your child, notice what they are looking or pointing at and describe it, for example ‘Oh, see the dog’ or ‘Wow, she’s jumping’ - try to do this within 2 seconds, before their attention is on something else
<p>1 to 2 years</p>	<p>Chat</p> <ul style="list-style-type: none"> • Building on the ideas above, chat about the things that interest your child • Name objects and offer choices to build vocabulary • Talk about what you are doing together – use words for actions as well as things • Use short simple sentences • Repeat the child’s utterance and add an extra word e.g. “car” would be repeated as “car gone” and “car gone” would be repeated as “yes, blue car gone” • Repeat words clearly for the child to hear but don’t insist on the child repeating them back accurately <p>Everyday routines</p> <ul style="list-style-type: none"> • Talk to the child during everyday routines e.g. getting dressed – talk about what you are doing. • Repeat key words frequently during regular routines and activities <p>Play</p> <ul style="list-style-type: none"> • Building on the ideas above, play with the things that interest your child, and follow the child’s lead. • Offer choices - ask the child what they want to sing, or play with • When you are playing, comment and name objects, and ask your child to hand you items you ask for, e.g. teddy, book, ball • Model actions to the child • Model joining play sequences together for the child e.g. cook dinner for bear and then feed him. • Repeat key words frequently during play • Encourage use of and play with sounds. Introduce more songs and rhymes using gestures and objects to reinforce key words <p>Read</p> <ul style="list-style-type: none"> • Share picture books with your child and help them to name the pictures • Repeat key words frequently • Ask them to find familiar objects in books • Discuss what’s happening in the pictures and ask questions about the book such as “Who is hiding behind the tree?” • Offer choices - ask the child what book they want to read • Use stories with rhymes and repetitive phrases • Look for ways to connect the story to the child’s life, such as asking the child to jump like the rabbit in the book • Try pausing before you say a favourite line or phrase in the story to see if your child will fill in the final word

	<p>Everyday reading routines</p> <ul style="list-style-type: none"> incorporate reading into daily routines, such as on the bus, before bedtime carry a book with you if need to take your child somewhere where you may have a wait, such as in the GP's waiting room
<p>2 to 3 years</p>	<p>Chat</p> <p>Building on the ideas above</p> <ul style="list-style-type: none"> Build (expand) on children's talk, e.g. Child: 'Big bird!', Adult: 'Yes, it's a big, noisy bird called a crow' Engage in conversations about feelings and important memories Encourage the child to talk about the future and anticipate events <p>Everyday routines</p> <ul style="list-style-type: none"> Continue to talk to the child about everyday events as you engage in them <p>Play</p> <ul style="list-style-type: none"> Sing songs together that encourage your child to use their imagination, for example, try singing 'Wheels on the bus' and ask your child to suggest other things on the bus and what sound they make When playing with your child, give a running commentary on what they are doing, using action words, describing words, position words and feelings as well as object words Play with the child to model extended sequences of play Use everyday objects /clothes for role play and dressing up, and provide adult commentary Initiate imaginative/symbolic play with familiar objects e.g. a large box becomes a castle <p>Read</p> <ul style="list-style-type: none"> Use books with regular pages, good illustrations and an engaging plot Continue to use stories with rhymes and repetitive phrases You can use the same book many times – children like repetition of stories Ask questions about the story that are a little tougher such as "What do you think will happen next?" Make connections between the book and your child's life by asking questions such as "This boy played in the park. What did you do in the park today?" Encourage the child to re-tell familiar stories to practice organising sequences of language <p>Everyday reading routines</p> <ul style="list-style-type: none"> incorporate reading into daily routines, such as on the bus, before bedtime Carry a book with you if need to take your child somewhere where you may have a wait, such as in the GP's waiting room
<p>3-5 years</p>	<p>Chat</p> <ul style="list-style-type: none"> Tell your child about your day Ask your child questions about what happened in their day, helping them to use memory and to talk about things that happened in the past Use open questions such as "What did you have for lunch?" Ask decontextualized questions about past and future activities, "What did you do at the park last week?", "What will you do on holiday next week?" Tell your child about things you did in the past and will do in the future <p>Everyday routines</p> <ul style="list-style-type: none"> Continue to talk with the child about everyday events as you engage in them <p>Play</p> <ul style="list-style-type: none"> Try role-playing games together such as shopping. Set items out on the sofa, give your child a bag and some pretend money. Then switch roles and let them be shopkeeper.

	<ul style="list-style-type: none">• Or play teddy bears' picnic. Put soft toys in a circle and give your child a few cups and spoons. Give your child a chance to tell you what to do like 'stir teddy's tea'• Use open questions with lots of possible answers. "What are you going to play with today?", "How do you think the character will solve the problem?"• Use new words in the context of play and activities.• Talk about cause and effect relationships with appropriate games• Talk about sounds at the beginning of words and words that start with the same sound e.g. words beginning with 'p'. Play word-based games such as eye-spy. <p>Read</p> <ul style="list-style-type: none">• Share humorous books• Encourage your child to recall what has happened, 'Why is bear feeling sad?', predict what might happen, 'What should they do next?' <p>Look for real-life reading opportunities such as: signs, food packaging, recipes, notes, catalogues – and talk to the child about what they see e.g. "what's on the cereal packet?" over breakfast.</p> <p>Everyday reading routines</p> <ul style="list-style-type: none">• Incorporate reading into daily routines, such as on the bus, before bedtime• Carry a book with you if need to take your child somewhere where you may have a wait, such as in the GP's waiting room
--	--

Appendix C: Sources of evidence for specific interventions/best practice

The Cochrane Library of systematic reviews: an open access database of systematic reviews
www.thecochranelibrary.com/view/0/index.html

EIF Guidebook: information about early intervention programmes that have at least some preliminary evidence of positive outcomes for children e.g. home visiting programmes which can improve child language outcomes
<https://guidebook.eif.org.uk/>

Early Intervention Foundation: Key competencies in early cognitive development: Things, people, numbers and words. This sets out the evidence on how best to support children's foundational cognitive development in the early years, covering their theory of mind, objects, numbers and words <https://www.eif.org.uk/report/key-competencies-in-early-cognitive-development-things-people-numbers-and-words>

Early Language Development: Needs, provision, and intervention for preschool children from socio-economically disadvantaged backgrounds (EEF Report 2017): information on the 45 included interventions in the review to support children with delays in early language development between birth and 5 years -
https://educationendowmentfoundation.org.uk/public/files/Law_et_al_Early_Language_Development_final.pdf

EEF Early Years Toolkit: provides accessible summaries of educational research for the early years
<https://educationendowmentfoundation.org.uk/evidence-summaries/early-years-toolkit/>

Foundations for Life: What works to support parent child interaction in the early years (EIF, July 2016): evidence for interventions that aim to support children's early cognitive and language development through parent-child interaction
<https://www.eif.org.uk/report/foundations-for-life-what-works-to-support-parent-child-interaction-in-the-early-years>

What works to enhance the effectiveness of the Healthy Child Programme: An evidence update (EIF, July 2018): evidence for home visiting interventions shown to support children's early language outcomes (pages 90-91)
<https://www.eif.org.uk/files/pdf/what-works-to-enhance-effectiveness-healthy-child.pdf>

What Works: a moderated online library of evidenced interventions that aim to support children's speech, language and communication, developed by the Communication Trust and endorsed by the Royal College of Speech and Language Therapists

Report:

<https://www.bettercommunication.org.uk/Better%20Communication%20low%20res%20file.pdf>

Database: <http://www.thecommunicationtrust.org.uk/projects/what-works/what/>

Speechbite: provides a quality rating and a checklist of included features for published trials and systematic reviews

<http://speechbite.com/>

Home Visiting Evidence of Effectiveness: this is a review of US home visiting programmes by the US Department of Health and Human Services (and should therefore be treated with some caution compared to studies with UK-based evidence).

<https://homvee.acf.hhs.gov/>

References

1. Law J, Charlton, J, Asmussen, K. Language as a child wellbeing indicator. 2017.
2. Law J, Todd, L, Clark, J, Mroz, M, Carr, J. Early Language Delays in the UK. 2013.
3. Law J, Mensah, F, Westrupp, E, Reilly, S. Social disadvantage and early language delay: The Centre of Research Excellence in Language; 2015 [Available from: https://www.mcri.edu.au/sites/default/files/media/documents/cres/cre-cl_policy_brief-1_social_disadvantage_and_early_language_delay.pdf].
4. Centre for Longitudinal Studies. Millennium Cohort Study [Available from: <http://www.cls.ioe.ac.uk/page>].
5. International Communication Project (ICP). The Opportunity to Communicate is a Basic Human Right 2014 [Available from: <https://internationalcommunicationproject.com/>].
6. Marmot M. Fair Society, Healthy Lives: The Marmot Review. 2010.
7. Field F. The foundation years: Preventing poor children becoming poor adults. The report of the independent review on poverty and life chances. 2010.
8. Allen G. Early intervention: The next steps. 2011.
9. Clegg J. Childhood speech and language difficulties and later life chances. In: Clegg J and Ginsborg J (eds) Language and social disadvantage: Theory into practice, editor. Chichester: John Wiley; 2006. p. 59-73.
10. Courtenay F, George V, Debbie G, Gillian B, Tony C, Emily, S, et al,. Language growth in children with heterogeneous language disorders: a population study. *Journal of Child Psychology and Psychiatry* 2017;58(10):1092–105.
11. Save the Children. Early language development and children’s primary school attainment in English and maths: new research findings 2016 [Available from: <https://www.savethechildren.org.uk/content/dam/gb/reports/policy/early-language-development-and-childrens-primary-school-attainment.pdf>].
12. Hoff E. The specificity of environmental influence: socioeconomic status affects early vocabulary development via maternal speech. *Child Dev.* 2003;74(5):1368-78.
13. Murray A, Egan, SM Does reading to infants benefit their cognitive development at 9-months-old? An investigation using a large birth cohort survey *Child Language Teaching & Therapy.* 2014;30(3):303-15.
14. Weisleder A, Fernald, A Talking to Children Matters: Early Language Experience Strengthens Processing and Builds Vocabulary. *Psychological Science.* 2013;24(11):2143-52.
15. Huttenlocher J, Haight, W, Bryk, A, Seltzer, M, Lyons, T Early vocabulary growth: relation to language input and gender. *Developmental Psychology.* 1991;27(2):236–48.
16. Hart B, Risley, TR. The Early Catastrophe: The 30 Million Word Gap by Age 3. *American Educator.* 2003(Spring):4-9.
17. Hoff-Ginsberg E. The relation of birth order and socioeconomic status to children’s language experience and language development. *Applied Psycholinguist.* 1998;19(4):603–29.
18. Gilkerson J, Richards, A, Warren, S, Kimbrough Oller, D, Russo, R, Vohr, B. Language Experience in the Second Year of Life and Language Outcomes in Late Childhood. *Pediatrics.* 2018;142(4).
19. Fernald A, Marchman, V, Weisleder, A. SES differences in language processing skill and vocabulary are evident at 18 months. *Developmental Science.* 2013;16:234-48.
20. Asmussen K, Law, J, Charlton, J, Acquah, D, Brims, L, Pote, I, et al. Key competencies in early cognitive development Things, people, numbers and words. 2018.

21. Roulstone S, Law, J, Rush, R, Clegg, J, Peters, T. Investigating the role of language in children's early educational outcomes. London: Department for Education,; 2010. Contract No.: Research Report DFE-RR134.
22. Gregg P, Goodman, A. Poorer children's educational attainment: how important are attitudes and behaviour? : Joseph Rowntree Foundation; 2010.
23. Gross J. Two Years On: final report of the Communication Champion for children: The Communication Trust; 2011 [Available from: https://www.thecommunicationtrust.org.uk/media/9683/nwm_final_jean_gross_two_years_on_report.pdf].
24. Kernan M. Parental Involvement in early learning: A review of research, policy and good practice. The Hague: International Child Development Initiatives Leiden, Berbard van Leer Foundation; 2012.
25. Colmar S. A parent-based book-reading intervention for disadvantaged children with language difficulties. *Child Language Teaching and Therapy*. 2014;30:79–90.
26. Gutman L, Feinstein, L. Parenting behaviours and children's development from infancy to early childhood: Changes, continuities and contributions. London: Centre for Research on the Wider Benefits of Learning; 2007.
27. Cabell S, Justice, LM, Piasta,SB, Curenton, SM, Wiggins, A, Turnbull, KP, et al. The Impact of Teacher Responsivity Education on Preschoolers' Language and Literacy Skills. *American Journal of Speech-Language Pathology*. 2011;20(November):315–30.
28. Pinto A, Pessanha, M, Aguiar, C. Effects of home environment and center-based child care quality on children's language, communication, and literacy outcomes. *Early Childhood Research Quarterly* 2013;28:94-101.
29. Bishop D, Snowling, MJ, Thompson, PA, Greenhalgh, T. CATALISE: A Multinational and Multidisciplinary Delphi Consensus Study. Identifying Language Impairments in Children. *PLoS ONE*. 2016;11(7).
30. Gibson J. Investigating Children's Relationships with Peers through Play. 2017.
31. Department for Education. Improving the home learning environment: A behaviour change approach. 2018.
32. Visser-Bochane M, Gerrits, E, Der Schans, C, Reijneveld, S, Luinge, M. A typical speech and language development: A consensus study on clinical signs in the Netherlands. *International Journal of Language & Communication Disorders*. 2017;52(1):10-20.
33. Paradis J, Genesee, F, Crago, M. Dual Language Development and Disorders: A handbook on bilingualism & second language learning. Baltimore, MD: Paul H. Brookes Publishing,; 2011.
34. Lauchlan F, Parisi, M, Fadda, R. Bilingualism in Sardinia and Scotland: Exploring the cognitive benefits of speaking a 'minority' language. *International Journal of Bilingualism*. 2012;17(1):43-56.
35. Wodniecka Z, Craik, FIM, Luo, L, Bialystok, E. Does bilingualism help memory? Competing effects of verbal ability and executive control. *International Journal of Bilingual Education and Bilingualism*. 2010;13(5):575-95.
36. I CAN. Factsheet: Bilingualism. English as an additional language.
37. Genesee F. Early Dual Language Learning Zero to Three. 2008;29(1):17-23.
38. Center for Early Literacy Learning (CELL). Joint-Attention Activities [Available from: http://www.earlyliteracylearning.org/cellpractices_rev/CELLpracT_JointAttn.pdf].
39. Masur E, Flynn, V, Eichorst, DL. Maternal Responsive and Directive Behaviours and Utterances as Predictors of Children's Lexical Development. *Journal of Child Language*. 2005;32(1):63-91.

40. McGillion M, Herbert, JS, Pine, JM, Vihman, MM, Matthews, DE. Supporting Early Vocabulary Development: What Sort of Responsiveness Matters. *IEEE Transactions on Autonomous Mental Development*. 2013;5(3):240–48.
41. Mol S, Bus, AG, De Jong, MT, Smeets, DJ. Added value of dialogic parent–child book readings: A meta-analysis. *Early Education and Development*. 2008;19(1):7-26.
42. Law J, Charlton, J, McKean, C, Beyer, F, Fernandez-Garcia, C, Mashayekhi, A, et al. Parent-child reading to improve language development and school readiness. 2018.
43. Pine J, Lieven, E. Slot and frame patterns in the development of the determiner category. *Applied Psycholinguistics*. 1997;18(2):123-38.
44. Law J. Population woods and clinical trees. A commentary on Evidence-based pathways to intervention for children with language disorders. *International Journal of Language and Communication Disorders*. 2018;54(1).
45. Bruner J. *Child’s Talk: Learning to Use Language* Oxford: Oxford University Press; 1983.
46. Rodriguez E, Tamis-LeMonda, C. The formative role of home literacy experiences across three years of life in children from low income families. *Journal of Applied Developmental Psychology*. 2014.
47. Gibbard D. Parental-based intervention with preschool language delayed children. *European Journal of Disorders of Communication* 1994;29:131–50.
48. Girolametto L, Weitzman, E. Girolametto, L. and Weitzman, E. (2006) It takes two to talk—The Hanen program for parents: early language intervention through caregiver training. Brookes, M.A., Baltimore: MacCauley, R.J. and Fey, M.E. Eds; 2006.
49. Watts-Pappas N, McAllister, L, McLeod, S. Parental beliefs and experiences regarding involvement in intervention for their child with speech sound disorder. *Child Language Teaching and Therapy*. 2016;32(2):223-39.
50. Law J, et al. *Early Language Development: Needs, provision and intervention for preschool children from socio-economically disadvantage backgrounds* Education Endowment Foundation,, Report for the Education Endowment Foundation; 2017.
51. Department for Education. *Study of Early Education and Development (SEED): Impact Study on Early Education Use and Child Outcomes up to Age Three*. 2017.