

What are speech sounds?

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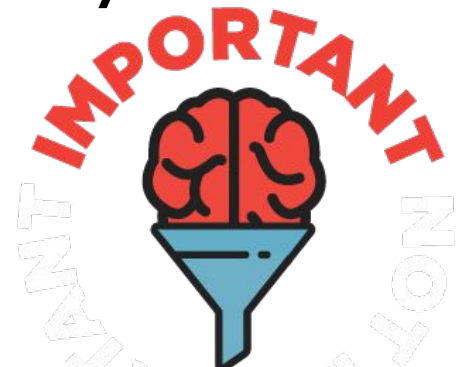
What Is Speech

- We express our thoughts, feelings, and ideas **ORALLY** to one another through our speech.
- Speech is how we use sounds → words and sentences



Why is Speech Important?

- **Speech** is made up of the sounds within a language, and it is one of the main ways in which we communicate with people.
- Communication is the foundation of relationships and is essential for learning, play and social interaction.
- Speech is also an important part of learning.
- Children who learn to speak correctly usually find it easier to read and write.

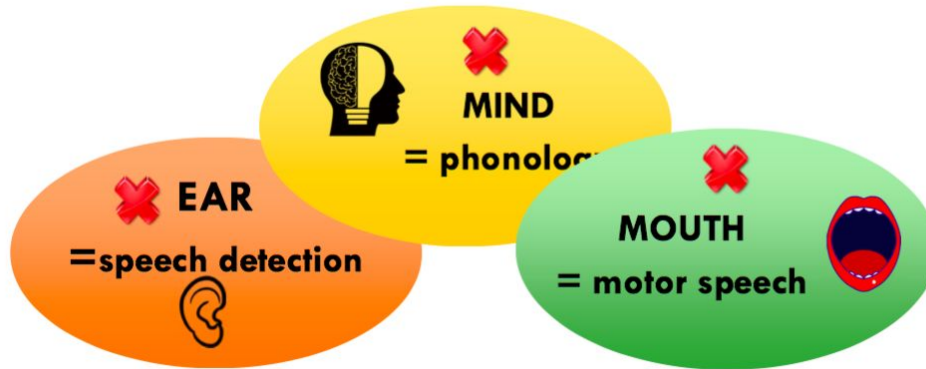


How Do We Produce Speech

Language's
sound system

Production of
speech
sounds

Movement of
articulators

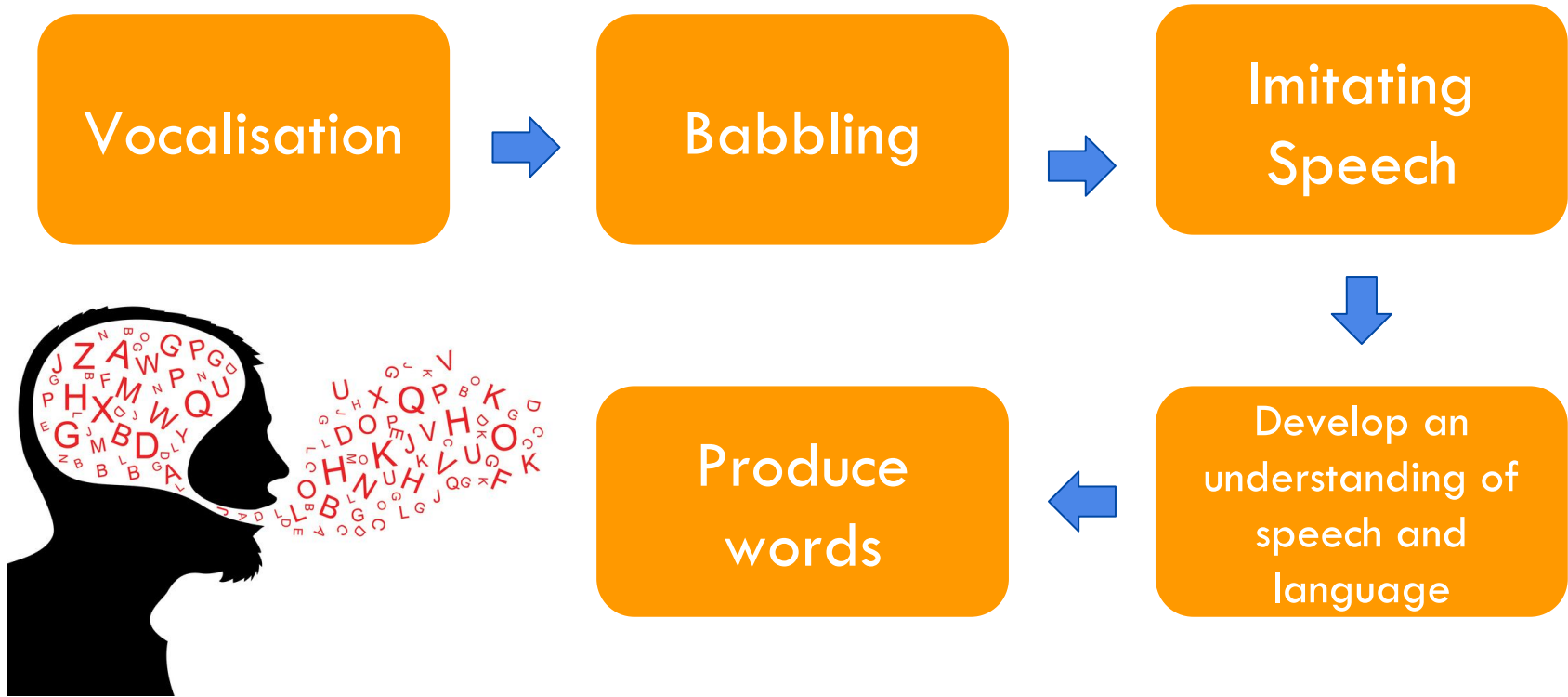


How Do Children Start To Talk

- **Children communicate with sounds and vocalisations from birth**
- **Begins with early, involuntary sounds and develops into sophisticated sequences of movements**

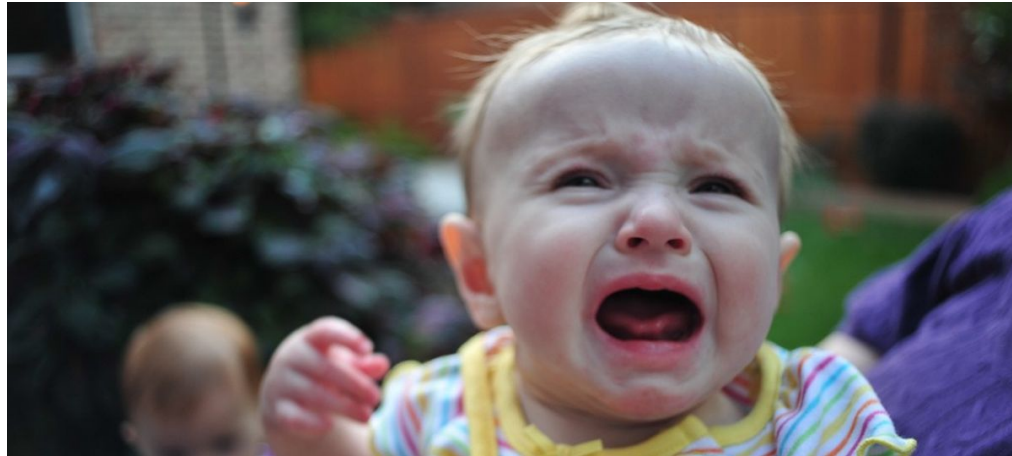


How Do Children Start To Talk



What is Vocalisation?

- **First stage of speech production**
- **Prior to uttering speech sounds (e.g. /b/, /p/, /d/)**
- **Babies make different sounds - crying, cooing, gurgling.**
- **Around 6 months, children begin to babble → produce repeated syllables e.g. baba, momo**



So...How does it look like?

Cooing:



What is babbling?

- **Second stage of speech production**
- **It's practice for speech → requires muscles to work together**
- **There are various types of babbled sounds**
- **Babies' babbling begins to sound more and more like conversation.**



MAMAMA

So... How does it look like?

Babbling:



https://www.youtube.com/watch?v=sMaxy8uaJjY&ab_channel=LauraMcGarrity

How Does Speech Develop Over Time

Birth to 5 months

- Coos
- Vocalizes pleasure and displeasure sounds differently (laughs, giggles, cries, or fusses)
- Makes noise when talked to

6 to 11 months

- Babbles (says "ba-ba-ba")
- Says "ma-ma" or "da-da" without meaning
- Tries to communicate by actions or gestures
- Tries to repeat your sounds
- Says first word

12 to 17 months

- Answers simple questions nonverbally
- Says 2 to 3 words to label a person or object (pronunciation may not be clear)
- Tries to imitate simple words
- Vocabulary of four to 6 words

18 to 23 months

- Vocabulary of 50 words, pronunciation is often unclear
- Asks for common foods by name
- Makes animal sounds, such as "moo"
- Starting to combine words, such as "more milk"
- Begins to use pronouns, such as "mine"

How Does Speech Develop Over Time

2 to 3 years

- Speech is becoming more accurate, but may still leave off ending sounds. Strangers may not be able to understand much of what is said.

3 to 4 years

- Uses most speech sounds, but may distort some of the more difficult sounds, such as *l*, *r*, *s*, *sh*, *ch*, *y*, *v*, *z*, *th*. These sounds may not be fully mastered until age 7 or 8.
- Uses consonants in the beginning, middle, and ends of words. Some of the more difficult consonants may be distorted, but attempts to say them

4 to 5 years

- Say all speech sounds with some errors

5 to 6 years

- Speech should be mostly clear and easy to understand, but some immaturities may still be noted(e.g. with 'r' and 'th' sounds)

6 years +

- The child is able to say all of the speech sounds in words with no noticeable errors

Speech development of School-aged children

- **Speech is intelligible**
- **Can produce most of the consonants.**
- **The fricatives /v, th, z/ and the approximant /ɹ/ are usually the latest consonants to be acquired**
- **Able to produce all syllables shapes in English**



What is Typical Speech Sound Development?

Early 8 Sounds:

m, b, y (as in 'you'), n, w, d, p, h

Middle 8 Sounds:

t, k, ng (as in 'running'), g, f, v, ch (as in 'chew'), j (as in 'jump')

Late 8 Sounds:

sh, th (as in 'think'), th (as in 'that'), r, z, l, zh (as in 'measure')



Speech development of bilingual children

- **Myth**: Bilingual children's speech development is always less advanced than monolingual children.
- Numerous studies - having both sides opinions.
- **Fact**: Bilingual children generally exhibited a similar rate of acquisition compared to monolinguals and that their speech sound skills were within normal limits compared to monolingual peers



Speech Sound Disorder (SSD)



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What is Speech Sound Disorder (SSD)?

- **Most children achieve intelligible speech by simply listening to speech**
- **Toddlers and young children typically produce speech errors when they talk**
- **However, by four years old they should have intelligible speech (i.e. they should be understood mostly by unfamiliar listeners)**
- **By 9 years old, they should sound adult-like**

- **SSD is when children do not say sounds correctly by the expected age**



Is SSD Common?

- **Occurs mostly in pre-schoolers**
- **Study showed that 1 in 4 (25%) of parents of 4-year old children had concerns of their child's speech**
- **1 in 5 (20%) of these children were diagnosed with a SSD**

- **SSD is common: at least 1-2 children in every classroom would have a SSD.**

Bilingual children with SSD

- **Typically, we can expect that children with SSD will have the same speech errors in both languages they speak.**
- **For example, if a child has a lisp in one language, it is likely they will have a lisp in their second language also.**

Phonological Difficulties

- **Phonological disorders are the most common type of SSD**
- **Occurs when children have difficulties learning the sound system of a language**

Or

Learning the patterns of sound in a language

- **Simplification of the sound system that affects intelligibility (i.e. the child's ability to be understood by listeners)**

→ **But this does not mean that the child cannot actually produce the sound**



Phonological Difficulties

- **Phonological Processes: a variety of patterns of errors**
- **Phonological processes are characterised by predictable, rule-based errors that affect more than one sound**
- **Some of these processes are typical at young ages but should be outgrown by a certain age**
- **Some of these processes will only be heard in children with a phonological disorder**

Typical Phonological Processes (should be outgrown) - Examples

Name of Process	Definition	Examples	Age it should be eliminated by:
Final Consonant Deletion	A sound at the end of a syllable or word is not said	Saying “hou” instead of “House” Saying “ba” instead of “Bat”	3 to 3.5 years
Fronting	A sound made at the back of the throat (velar sound), like /k/ or /g/ is spoken as a sound at the front of the mouth, like ‘t’ or ‘d’	Saying “tea” instead of ‘key” Saying “date” instead of “gate”	3 to 3.5 years
Stopping	Long fricative sounds, such as ‘s’, ‘sh’ or ‘v’ are replaced with short stop sounds, like ‘t’ or ‘d’	Saying “tee” instead of ‘see” or ‘she’ Saying “ban” for “van”	3 to 4.5 years
Gliding	Sounds ‘l’ and ‘r’ are replaced with ‘w’ and ‘y’ sounds	Saying “wabbit” instead of “rabbit” Saying “yewow” for “yellow”	By 5 years

Atypical Phonological Processes - Examples

Name of Process	Definition	Examples
Initial Consonant Deletion	A sound at the start of a syllable or word is not said	Saying “ee” for “ b ee” Saying “at” for “ s at”
Backing	A front sound such as ‘t’ or ‘d’ is replaced by a back/throat sound like /k/ or /g/	Saying “ k ey” for “ t ea” Saying “ g ate” for “ d ate”

Articulation Difficulties

- **Articulators: Lips, tongue, teeth, jaw, throat**
- **Children with an Articulation disorder have difficulties **physically** producing individual sounds using the articulators**
- **Usually the speech sounds are distorted**



Another Example - A Lisp

Also see the
tongue stick
out on her /t/
sounds in
numbers like
10, 12 and 20



Did You Know?

Children with Speech Sound Disorders are more likely to have reduced educational (e.g. difficulties with reading) and social outcomes in comparison to typically developing children. Their Speech Sound Disorders affect their confidence and participation in classroom learning experiences (Daniel & McLeod, 2017).



Tips to Help Children with Speech Sound Disorder

- **Encourage students to have a go!**
- **Monitor their participation in class**
- **Assist parents in identifying the need for Speech Pathology Intervention**



Other Strategies Include:

- **Model** the correct word (i.e. repeat words as they should sound)
 - E.g. If a child says 'tar' for 'car', you could say "Yes it's a car. It's a blue car. It's a fast, blue car".
 - There is no expectation for the child to repeat the word.
- Ask the child to listen to certain sounds in the words (remembering to **focus on letter sounds, not letter names**)
 - E.g. if a child says 'tar' for 'car', you could say "Yes it's a car. Car has a /k/ sound, can you hear it? **C**ar"
- Do sound awareness activities
 - E.g. if a child replaces 'k' with 't', go on a sound hunt for things that start with 'k' in the classroom.

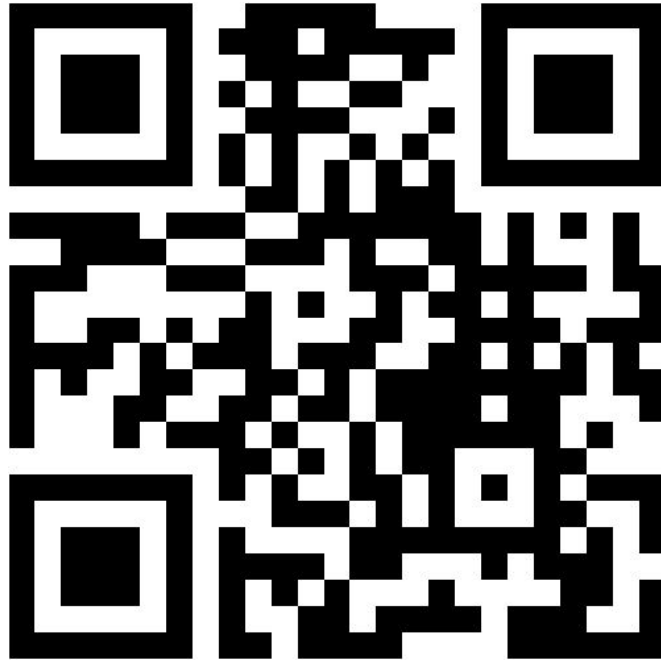
Example of Sound Awareness Activities



Speech Modelling



Quick Quiz



<https://www.menti.com/yjsr7i25w2>

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Questions?



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