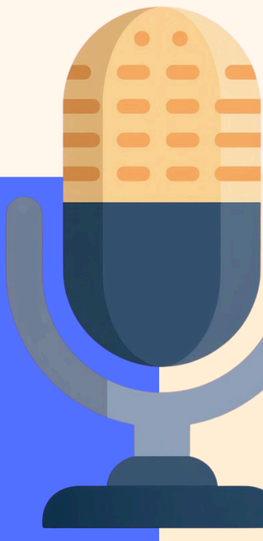
VariCS
Variability in Child Speech

Project Aims

1. To find out how children's speech develops as they grow.
2. To see how breathing, voice and articulation work together during speech development.
3. To build a database that can help speech and language therapists understand when a child's speech is developing as expected — and when extra support might be useful.

How data was collected



- Children's speech was collected from 275 children aged 5 to 12 years from 23 primary schools in the central belt of Scotland.
- Data was gathered four times, every six months, over 18 months — that means we could follow changes as children grow.

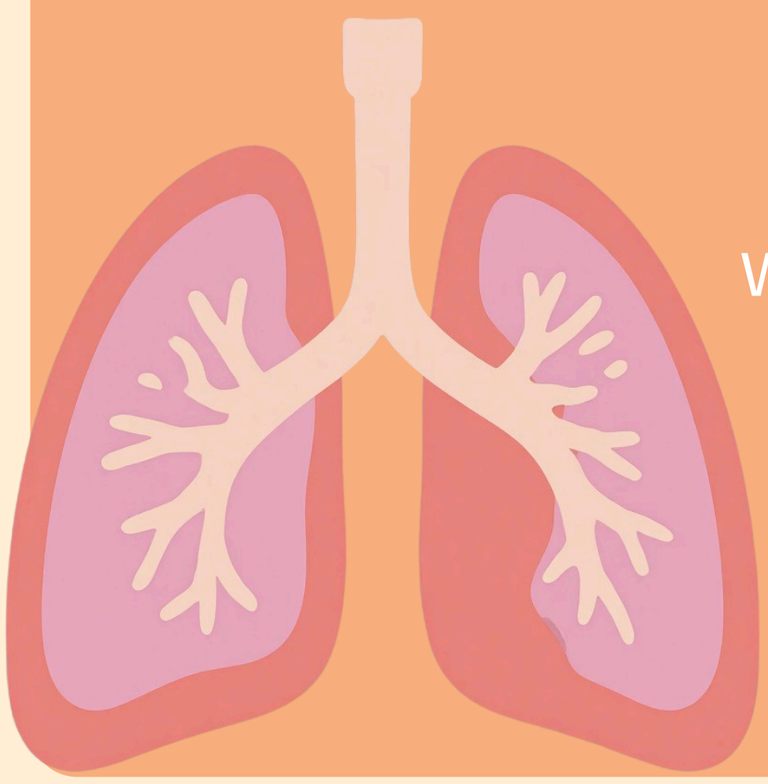
Key Milestones

✓ All four waves of data collection completed in June 2025!

✓ Speech data from hundreds of children now form a rich, detailed database for research.

✓ We've shared early findings with researchers and speech and language therapists.

What we've learned



Breathing (respiration)

We have found that:

- Children's breath support increases as they grow.
- Children's lung capacities increase as they grow allowing them to produce sounds for longer.

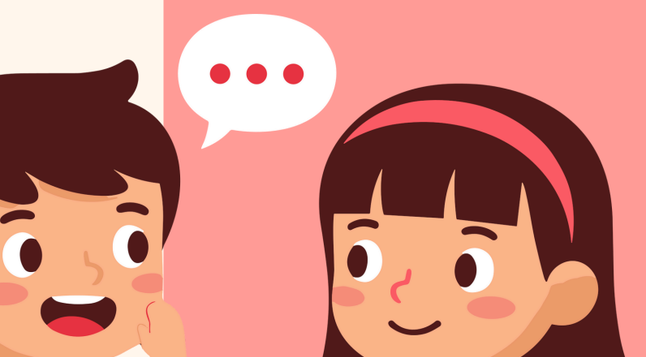
What we've learned

Phonation (voice)

Phonation is how the voice is produced in the larynx ('voice box').

We have found that:

- Children's voices become more stable as they get older.
- Variation in children's voices is normal, especially in younger children.



Articulation

Articulation is how children use their lips, tongue, and jaw to make sounds.

We have found that:

- Children produce sounds quicker as they get older, when they can coordinate their lips, tongue and jaw more effectively.
- Younger children show more variation in how fast they can produce different speech sounds.

Putting it all together

1. Showing variation in speech is normal:
- Children naturally vary in how they use their breath, voice and articulation — even from one speech task to another.
2. Speech develops gradually:
- We see changes over time in how consistently children speak and in the clarity of sounds as children get older.

Thank you for your support!

Learn more about the project here: https://varics.ac.uk