

Ask the Experts

Is the communication pyramid a useful model of language development?

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If you work in the UK, particularly if you work in paediatric practice, the chances are that you will have used a ‘communication pyramid’ with parents, carers and other professionals to discuss language development. Recent conversations on Twitter bear this out. But where do these frameworks come from, what do they depict, and are they evidence based?

Pyramid design

A quick internet search shows the scale of acceptance and use of the communication pyramid on speech and language therapy and school websites. There is a good deal of consistency in the blocks or stages included in each pyramid diagram, but there is also a wide variety of design styles, perhaps indicating that people are drawing from the same idea but creating their own versions.

Typically, the pyramid is represented by a foundation block of ‘attention and listening skills’, on top of which lay successive blocks labelled ‘play and interaction’, then ‘receptive language’, ‘expressive language’ and, finally, ‘speech sounds’. There are slight

variations in the terminology used and some pyramid diagrams add extra blocks for pragmatics and literacy, but, overall, there is surprising homogeneity. Often, the pyramid itself will be supplemented with text or arrows to suggest that one stage must be achieved before the next level can develop.

To the best of our knowledge, there is no single source for the communication pyramid in either the language development or the speech and language therapy literature. Although it is highlighted as being in common usage in many speech and language therapy services across the UK by The Communication Trust (TCT), and appears in a number of publications that parents and practitioners use (eg TCT’s *Misunderstood* booklet – TCT, 2011), there is no evidence base that we can find in searches of academic databases to support it.

Strengths and limitations

As speech and language therapy educators, our students tell us they frequently see the use of the pyramid in practice when on placement. We have found that it is often interpreted as a



model of normal speech and language development, which it is not. While we acknowledge the popularity of the pyramid, and its evident usefulness for discussing the different skills underpinning communication, we think it is important to emphasise its limitations.

Our students tell us that the pyramid is used in a variety of ways. Often, the layers are referred to as the ‘building blocks’ of communication, and there

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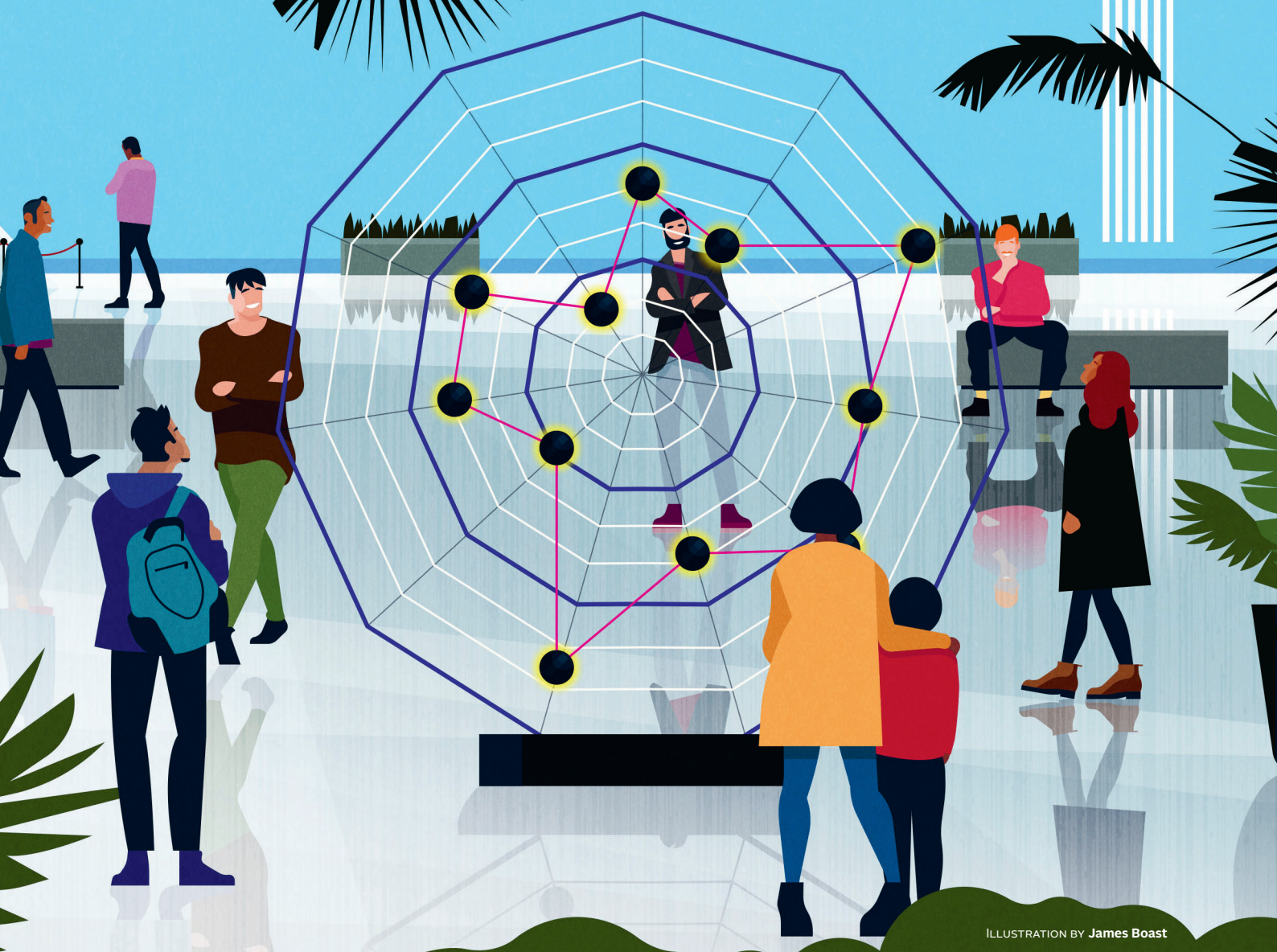


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is some truth in this because good attention skills, eye contact and interactional skills learnt through play would indeed provide a solid foundation for language development (Carpenter et al, 1998). The pyramid is also used simply to raise awareness that there are various component parts of communication (typically, more than just speech/pronunciation). Undoubtedly, the pyramid helps convey this to parents and other key agents of intervention, and we recognise that it is often used for these purposes only. Also, it is true that language comprehension starts to develop ahead of production and stays that way for the majority of key milestones in language development (Samuelson, 2008). However, there are dangers in the way the pyramid depicts each skill.

The design of the pyramid appears to suggest that each layer represents a stage of development that is completed before the next layer, which is clearly untrue. For example, it could mislead people to think that the development of all receptive language skills must be

completed before expressive language skills can emerge, and that no language development occurs after clear speech is established. Our students report that they have also seen the pyramid used ‘developmentally’, or that they have done so themselves, and examples of this misuse can be found online. This is where the danger lies.

As SLTs know, attention, listening and speech skills develop alongside each other, not just first and last, as the pyramid suggests. Indeed it was the placement of the final ‘speech sounds’ block at the top of the pyramid that prompted the discussion on Twitter (September 2017), with an established speech-sound development researcher from Canada expressing alarm at the implication that phonological skills come last. There are, of course, some evidenced-based key milestones in language development, but these are not represented as such in the pyramid. For example, cooing is expected at around two to three months, babbling at four to six months; first expressive words appear in isolation at around 12 to 15

months, and in combination at 18 to 24 months; at the same time, the earliest speech sounds are emerging (Owens, 2008). Speech sounds then continue to expand and develop alongside continued language, cognitive development and pragmatic development – not as the ‘final piece’.

Common misconception

The communication pyramid is not intended to be a model of development but instead to be used to help explain how speech and language are supported by other skills, and to make the complex processing accessible to parents, carers and health and educational professionals who are not trained in language development. Clearly these diagrams are perceived to be useful in highlighting the multifaceted nature of communication and in upskilling others – a key role for SLTs (RCSLT, 2010).

The pyramid diagram has enduring popularity: a picture of it was the most re-tweeted tweet from one particular NHS SLT service in an individual week in September 2017. In our experience →

as clinical educators, this model is very appealing to student SLTs too because of its clarity, but it is frequently misunderstood and used as a step-by-step approach to development and often intervention. This misunderstanding occurs despite our teaching the key milestones in typical speech and language development. This leads us to ask whether this misunderstanding also occurs when the pyramid is used in discussion with parents and carers, even when it is not presented as a model of development.

A new model

Is it time for a new model? There is clearly a need to highlight the multifaceted nature of communication, and a need for a diagrammatic way to depict the network of skills underpinning communication. In our opinion, it would be beneficial if this model did not also appear to represent the stages in speech and language development.

There is a range of potential alternative options. One of our favourites is the Target Profile Diagram (Figure 1), which was developed to help assess children with moderate learning difficulties (Charatan, 2006). The tool, which won a Sternberg Award for Clinical Innovation in 2006, shows receptive and expressive language and core skills broken down into 11 areas, with a 10-point scale (1 = lowest; 10 = highest) to reflect developmental progression. The resultant peaks highlight areas for target setting.

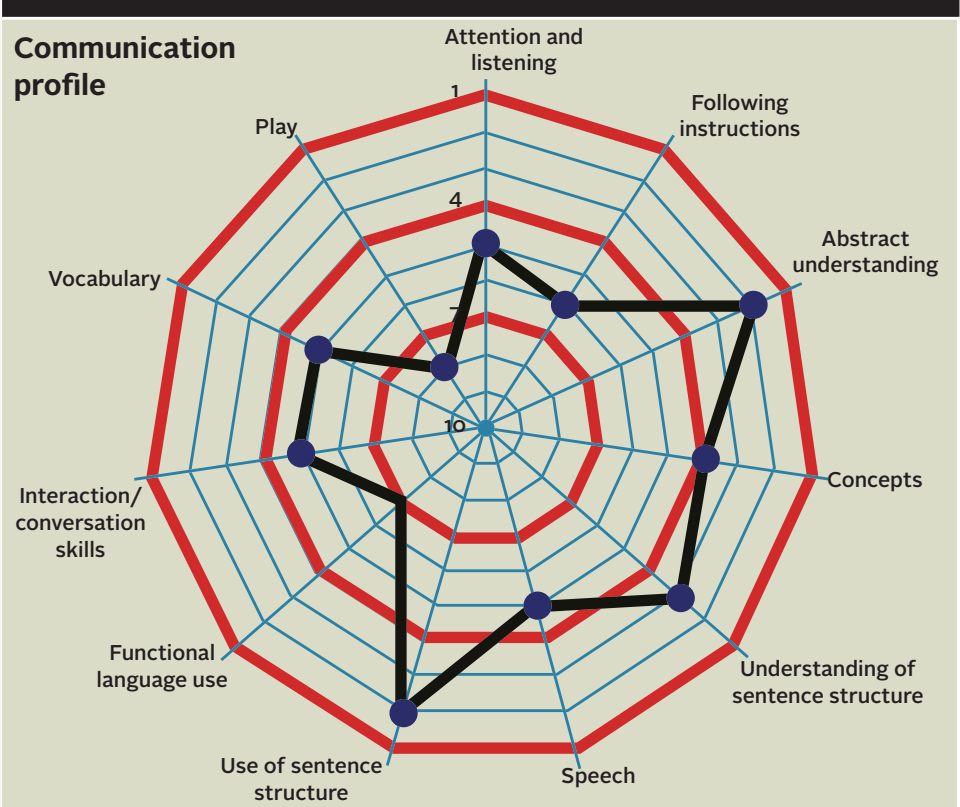
We also like Scarborough's Rope Diagram of Skilled Reading (Scarborough, 2001), which is useful for representing the multifaceted interaction between skills. It compares skilled reading to a rope comprising various strands, or skills (five language comprehension strands in one braid and three word recognition strands in another), which are interwoven and work together to create a single strong rope, resulting in fluent reading skills.

What do you think...? ■

Acknowledgements

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Figure 1. Example of Target Profile Diagram (Charatan, 2006 – redrawn)



References & resources

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