

Words, Music, and Pictures Together

Why pairing words with sound and image helps memory

The mind has more than one channel for taking in information. It processes words in one channel and images and sound in another. When a lesson uses both at once, it doubles the paths to memory, which is why pairing words with music and pictures helps students learn and remember more.

Two channels are better than one

Dual coding theory holds that information encoded both verbally and visually is remembered better than information encoded only one way, because the learner builds two connected traces instead of one (**Paivio, 1986; Clark & Paivio, 1991**). Two roads to the same idea make it far easier to find again.

How to combine them well

Combining words and pictures helps, but only when it is done with care. People learn better from words and graphics together than from words alone, and better still when the two are aligned and the clutter is stripped away (**Mayer, 2009**). The pairing has to support the idea, not decorate it.

A fact set to music, or tied to a picture, gives the brain two ways to hold it, and two ways to bring it back.

What this means for Teach BIG

This is why so much of our content lives in songs, and why our frameworks use symbols, colors, and simple images alongside the words. When students sing a concept and see it, they are coding it twice, which is exactly what the research says makes learning stick.

References

Clark, J. M., & Paivio, A. (1991). Dual coding theory and education. *Educational Psychology Review*, 3(3), 149 to 210.

Mayer, R. E. (2009). *Multimedia learning* (2nd ed.). Cambridge University Press.

Paivio, A. (1986). *Mental representations: A dual coding approach*. Oxford University Press.