

Explaining Science Visually and Verbally

 -Minute Paper

Aaron Woodcock | 4 November 2025 | BALEAP STEM SIG



3-Minute Paper Series



- Fast, focused, and fun:
 - colleagues share a piece of research, a classroom insight, or a work-in-progress in just 3 minutes
- Inspired by the “3 Minute Thesis (3MT)” format
- Today:
 - 3-min summary
 - 30-min discussion

Explaining Science Visually and Verbally

1 CORE CONCEPT

modal alignment

Now *here*, blood returns from the body into the right auricle.



3 APPROACHES

Slide-based

Poster-style

Text-based

most successful

3 RECOMMENDATIONS



Teach verbal-visual interaction

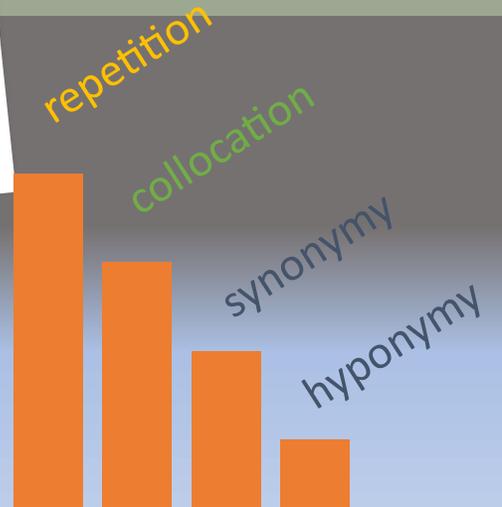


Teach intersemiotic relations



Use authentic disciplinary visuals

4 INTERSEMIOTIC RELATIONS



 Let's Talk

1. How do you teach students to connect what they say and what they show?
2. How might we model “modal alignment” in our own teaching materials?
3. What other genres or disciplines need more support with verbal–visual interaction?

➔ Key insights

1. Teach **visual–verbal alignment** explicitly — not as an add-on
2. Teacher **confidence** with STEM visuals shapes whether alignment is taught
3. Flowcharts / infographics / posters / 3MT = ideal for **synonymy & hyponymy**
4. Alignment is a **rhetorical choice** (audience + purpose), not decoration
5. Multimodality now includes **AI-generated visuals**
6. Direct link to **graduate attribute**: communicate for varied purposes/media

Stay Connected

- **Website:** baleapstemsig.org
- **Next session:**  Spotlight Session – December 2025
- **Join** our mailing list & share your ideas **#baleapstemsig**

