

LEARNING NUGGET E-LEARNING & AI 24 SEPTEMBER 2026

Less on the slide, more room to think

Why a full slide gets in the way while you speak, what Mayer's redundancy and coherence principles say about it, and how to declutter your next presentation.

By Rico Eberle, e-learning expert for continuing education and municipal councillor in Dübendorf

RICO EBERLE · LEARNING NUGGET

94 words**How many will stick?****Project management: the basics**

- A project is a one-time undertaking with a clear goal, limited time and defined resources.
- Success factors: clear objectives, realistic planning, regular communication and active risk management.
- The project lead coordinates stakeholders, monitors costs, deadlines and quality, and reports to the sponsor.
- Typical phases are initiation, concept, implementation and rollout, each with milestones and a formal approval.
- Common mistakes are unclear goals, missing resources, optimistic schedules and poor involvement of those affected.
- Methods such as Hermes, PRINCE2 or Scrum support a structured approach, but must be adapted to each organisation.

**Video for this post**

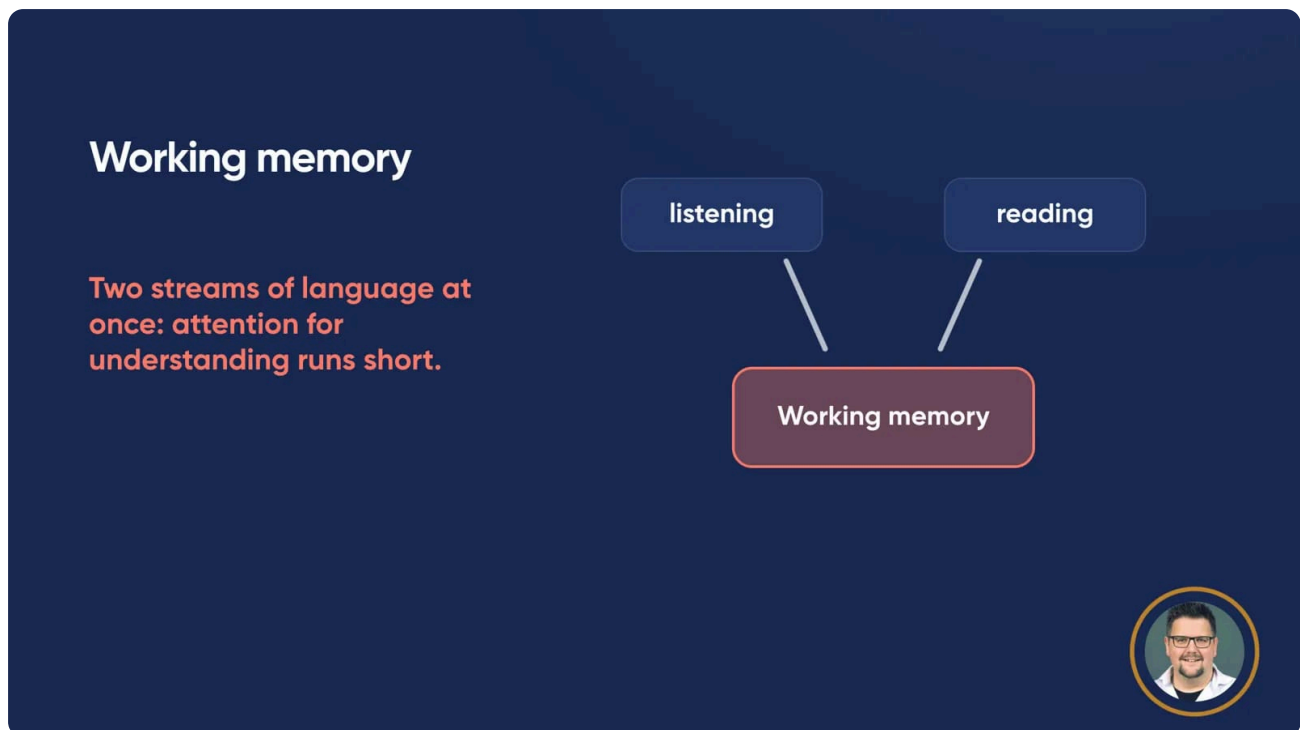
This learning nugget is also available as a video with transcript (1:04 min). Scan the QR code or open the link:

ricoeberle.ch/en/blog/less-on-the-slide/

You have probably seen slides like the one in the video in training sessions, meetings and courses: a title, six bullet points, 94 words. Well meant, because everything important is on it. The catch: while you speak, your audience reads. And doing both at once works worse than we think.

The bottleneck is working memory

Cognitive load theory goes back to John Sweller. Its core idea: our working memory is tightly limited. Anything we want to understand has to pass through this bottleneck.



Listening and reading at the same time sends two streams of language through the same narrow working memory.

If you listen and read a full slide at the same time, you push two streams of language through it. Mayer and Moreno described in 2003 how exactly this duplication creates an additional, unnecessary load. That costs attention, which is then missing for understanding.

Redundancy and coherence

In 2017, Richard Mayer translated the research into design guidelines for e-learning. Two of them apply directly to slides:

- **Redundancy principle:** people learn better from pictures and spoken words than from pictures, spoken words and the same text on screen. Mayer puts it as a rule: do not add on-screen text to narrated graphics.
- **Coherence principle:** anything that doesn't serve the learning goal distracts. So leave out extraneous material.

What research shows

Pictures + spoken words

learn better

Pictures + spoken words + the same text

Redundancy principle, Mayer

Coherence principle: anything that doesn't serve the goal distracts.



Redundancy and coherence principles: the same text on top of the voice does not help learning.

This doesn't mean text on slides is forbidden. It means that text which only repeats what you are saying anyway doesn't help. It gets in the way.

What about the subtitles in this video?

Fair question, since the nuggets also show text alongside the voice. The redundancy principle refers to learning situations with sound, such as slides being read aloud. I still chose to use subtitles: they make a short video understandable without sound, and they help when watching in a foreign language and for people with hearing impairments.

Three things for your next presentation

1. **One message per slide**, as a short sentence.
2. **A picture or diagram instead of bullet points.**
3. **What you say doesn't need to be on the slide.** The details belong in the handout.

My exercise for you

A suggestion you can try in half an hour: take your last presentation and find the fullest slide. Count the words. Then write the one message that should stick as a single sentence on a new slide. Think of a picture or diagram that shows this message. Everything else goes into your speaker notes or the handout.

Less text.
More room to think.



Less text on the slide leaves more capacity for understanding.

The next time you give the talk, pay attention to where your audience is looking: at you or at the screen.

Less text doesn't mean less content, it means more room to think.

Frequently asked questions

How much text should go on a slide?

The post suggests one message per slide as a short sentence, and a picture or diagram instead of bullet points. What you say doesn't need to be on the slide; the details belong in the handout.

What is the redundancy principle?

A design guideline by Richard Mayer: people learn better from pictures and spoken words than from pictures, spoken words and the same text on screen.

What is cognitive load?

Cognitive load theory goes back to John Sweller: our working memory is tightly limited. Listening while reading a full slide pushes two streams of language through it, and Mayer and Moreno (2003) describe how this duplication creates an additional, unnecessary load.

Sources

1. Sweller: Cognitive Load During Problem Solving: Effects on Learning, Cognitive Science (1988)
https://doi.org/10.1207/s15516709cog1202_4
2. Mayer & Moreno: Nine Ways to Reduce Cognitive Load in Multimedia Learning, Educational Psychologist (2003)
https://doi.org/10.1207/S15326985EP3801_6
3. Mayer: Using multimedia for e-learning, Journal of Computer Assisted Learning (2017)
<https://onlinelibrary.wiley.com/doi/abs/10.1111/jcal.12197>



ABOUT THE AUTHOR

Rico Eberle

Rico Eberle is an e-learning expert, business economist (FH) and municipal councillor in Dübendorf, Switzerland. He chairs the foundation board of WBK Dübendorf, a continuing education foundation. In the learning nuggets he explains research on learning, AI and digital sovereignty, briefly and with sources.

Contact: ricoeberle.ch · LinkedIn: linkedin.com/in/rico-eberle

LICENCE

Text, transcript and video by Rico Eberle are licensed under CC BY 4.0 (music and sound effects in the video excluded). You may share and adapt the content, including for teaching, as long as you credit the source. creativecommons.org/licenses/by/4.0/

SUGGESTED CITATION

"Less on the slide, more room to think", Rico Eberle, ricoeberle.ch, 2026, <https://ricoeberle.ch/en/blog/less-on-the-slide/>, CC BY 4.0