Plan Lessons That Stick

You update your syllabus each term, but when was the last time you updated how you teach it?

Even the most seasoned instructors can fall into familiar routines that don't always match how students learn best. The good news: you don't need to be an expert instructional designer to design better learning experiences. A few simple frameworks can transform your lessons from content-heavy to truly learner-centered.
Join Sophie Oberstein, adjunct faculty member in NYU's Learning Design certificate program and author of Troubleshooting for Trainers, for a practical session on how to plan your courses like an instructional design expert. You'll leave with actionable tools and new ways to bring evidence-based teaching into your classroom—just in time for spring 2026.

You'll learn how to:

- Apply easy, research-backed techniques that grab students' attention, connect
- ideas, and build retention
- Incorporate 10 proven adult-learning principles into your teaching approach
- Prevent cognitive overload while still challenging learners

Harvard Business Impact
December 11th, 2025

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What we'll be talking about

- Easy techniques that grab students' attention, connect ideas, and build retention
- 8 evidence-based strategies to incorporate into your courses

ISD is a practical and systematic process whose output is the acquisition and application of knowledge and skills. That process includes analysis of learner needs, measurement of learner success, and evidence-based learning design.



Knowles' Theory of Andragogy

The Neuroleadership Institute's AGES

Constructivism

Connectivism

Gagne's Nine Events of Instruction

Kolb's Experiential Learning

Behaviorism

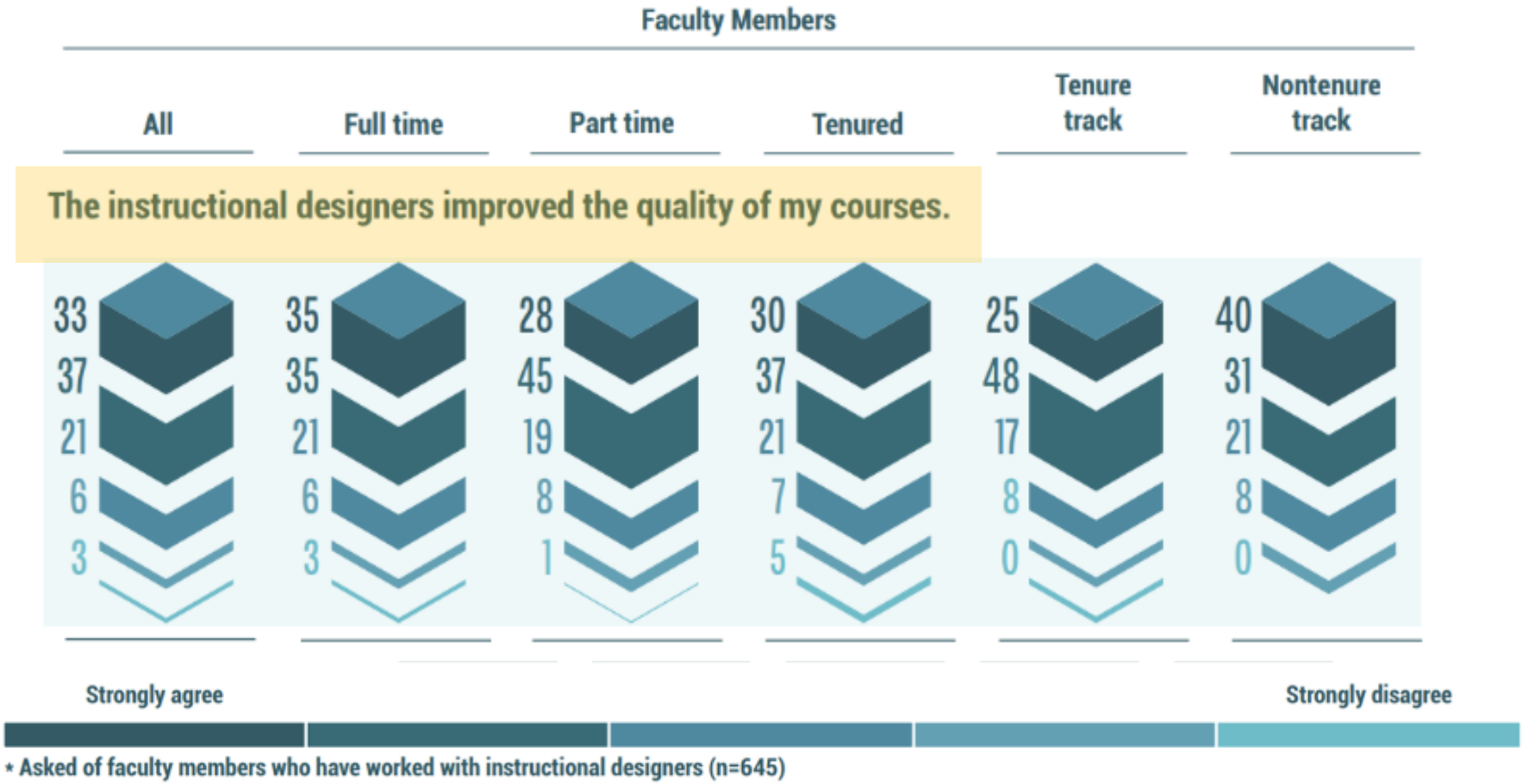
Social learning

Gardner's Multiple Intelligences

Maslow's Hierarchy of Needs

Kirkpatrick's 4 levels of evaluation

2018 survey by Gallup and Higher Ed - 7 in 10 faculty members who worked with instructional designers said the instructional designers improved the quality of their courses and helped them in areas in which they personally lacked expertise.



https://www.insidehighered.com/sites/default/files/media/IHE_2018_Survey_Faculty_Technology.pdf

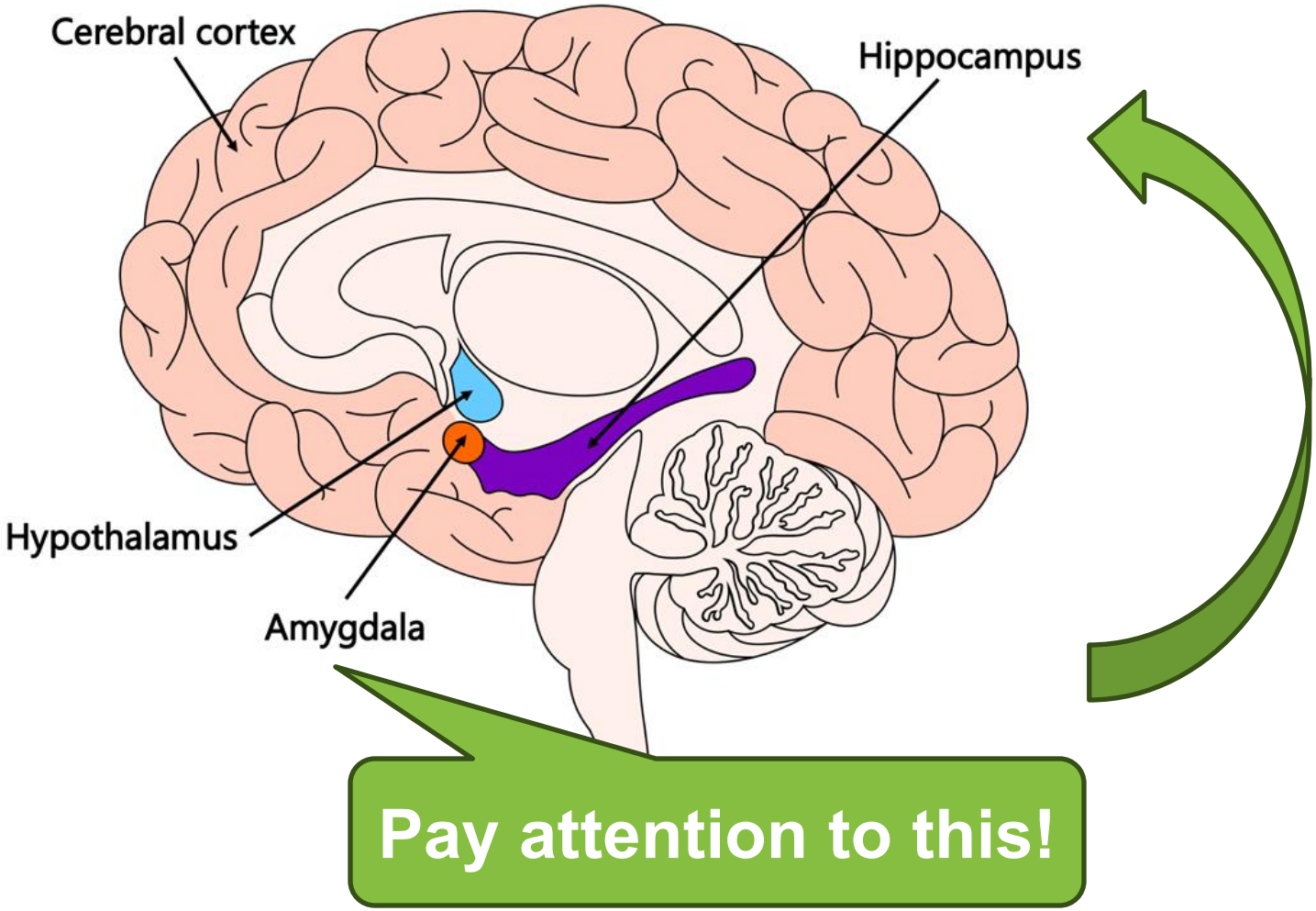
8 strategies

1) Grab learners' attention
2) Create psychological safety
3) Enagage emotions
4) Meet learners where they are
5) Incorporate interleaved practice
6) Use explanatory visuals
7) Incorporate Universal Design for Learning
8) Avoid overload

1

Grab learners' attention

Why grab learners' attention?



How to grab learners' attention

Start a session with something that focuses attention, e.g.

- Poll
- Self-assessment
- Provocative quotation
- Demonstration
- Case study
- Intriguing statistic

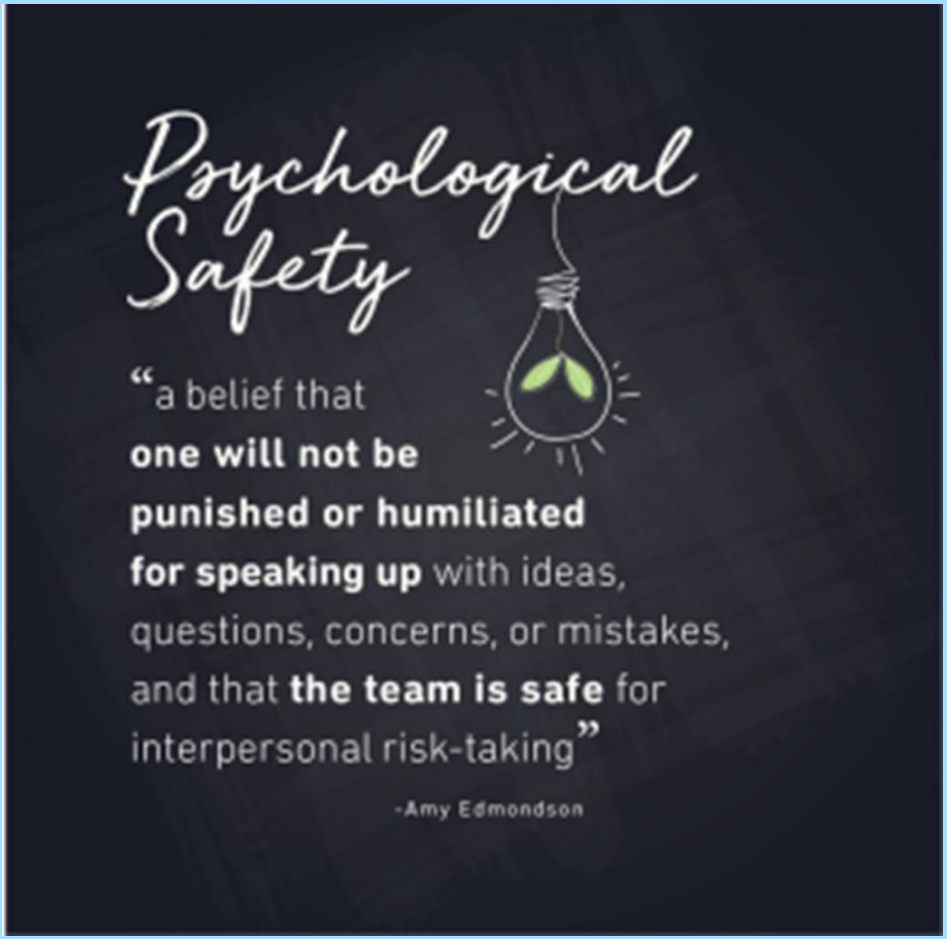
Read up

The Neuroleadership Institute's AGES model starts with Attention. This is a good overview of the model:

https://trainingindustry.com/blog/content-development/the-cognitive-science-behind-learning-that-resonates-the-ages-model/

2

Create psychological safety



Why create psychological safety?



How to create psychological safety

- Incorporate icebreakers that increase psychological safety, like “Smart / Not-so-smart” (**https://hbsp.harvard.edu/inspiring-minds/why-students-stay-quiet**)
- Establish group norms, e.g. What do you need in order for this to be a valuable learning experience / a safe learning environment from yourself, your peers, your instructor?
- Be vulnerable

Read up

Start with Amy Edmondson's website:

https://amycedmondson.com/psychological-safety/

Engage emotions

Why engage emotions?

Emotionally arousing events tend to be better remembered than neutral events

How to engage emotions

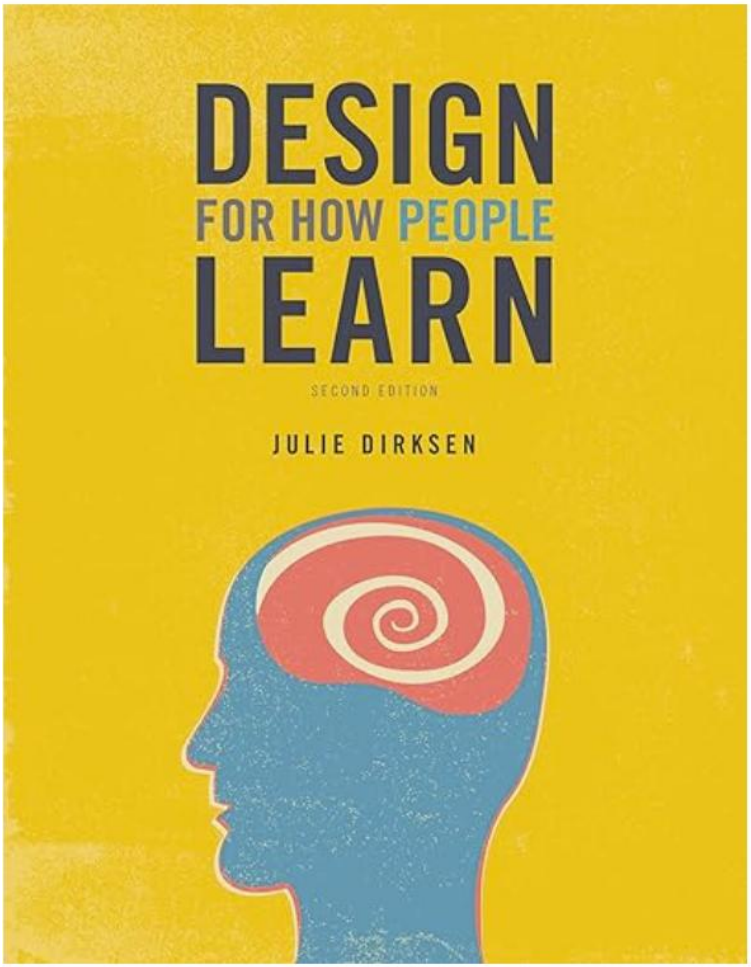
Incorporate:

- Storytelling
- Experience / simulation
- Case study
- Dramatic demonstration
- Guest speakers
- Music
- Personal connections

Read up

This entire book is fantastic for the fundamentals of learning design.

Chapter 4, “How Do We Remember?” talks about engaging emotions.



Meet learners where they are

How to meet learners where they are

- Start with "*What do you already know about…?*"
- Use self-assessments
- Have learners create personal course objective(s)
- Provide scaffolding – supports that can be removed as learners build proficiency
- Prepare an alternative activity, exercise, or question

Read up

This article provides a decent overview of Malcolm Knowles' adult learning principles. I see this less as an educating children (pedagogy) vs educating adults (androgogy) approach, than as an instructor-centered approach (pedagogy) vs a learner-centered approach (andragogy).

https://www.educatorstechnology.com/2024/05/what-is-andragogy.html

5

Incorporate interleaved practice

Traditional blocked/massed practice

Teach circles

- Circle exercise 1
- Circle exercise 2
- Circle exercise 3

Teach squares

- Square exercise 1
- Square exercise 2
- Square exercise 3

Teach triangles

- Triangle exercise 1
- Triangle exercise 2
- Triangle exercise 3

Chapter 1

- Chapter 1 discussion

Chapter 2

- Chapter 2 discussion

Chapter 3

- Chapter 3 discussion

- **1 midterm**
- **1 final**

Interleaved practice

- **Teach circles**
- Circle exercise 1

- **Teach squares**
- Circle exercise 2
- Square exercise 1

- **Teach triangles**
- Circle exercise 3
- Square exercise 2
- Triangle exercise 1

Wrap-up program

- Square exercise 3
- Triangle exercise 2

Chapter 1

- Chapter 1 discussion

Chapter 2

- Chapter 2 discussion
- Chapter 1 discussion

Chapter 3

- Chapter 3 discussion
- Chapter 1 discussion
- Chapter 2 discussion

- **Weekly reading reflection**
- **Weekly "Check Your Knowledge"**
- **Weekly deliverable towards final project**

Why interleaved practice?

- Makes both the learning and the memory stronger
- Interleaving two or more subjets during practice provides a form of spacing

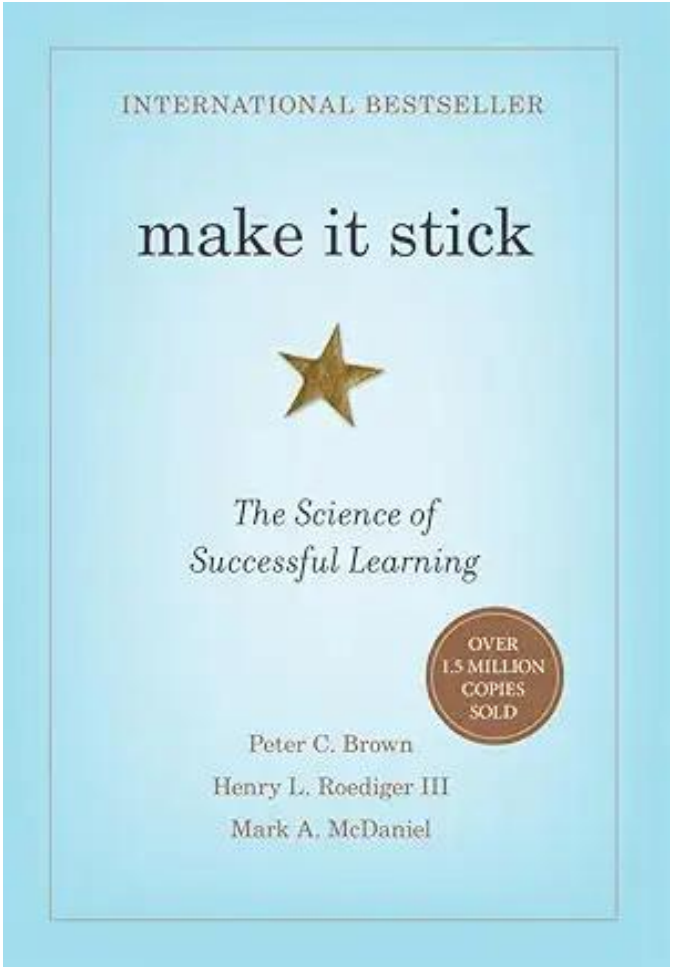
How to incorporate interleaved practice

- Increase the percentage of class time for practice
- Shuffle your practice activities between (or within) sessions
- Switch to weekly assignments

Read up

There is so much written about the benefits and features of good practice activities.

Chapter 3, “Mix Up Your Practice” is a solid introduction to the research in this field. And, again, the entire book is worth reading.

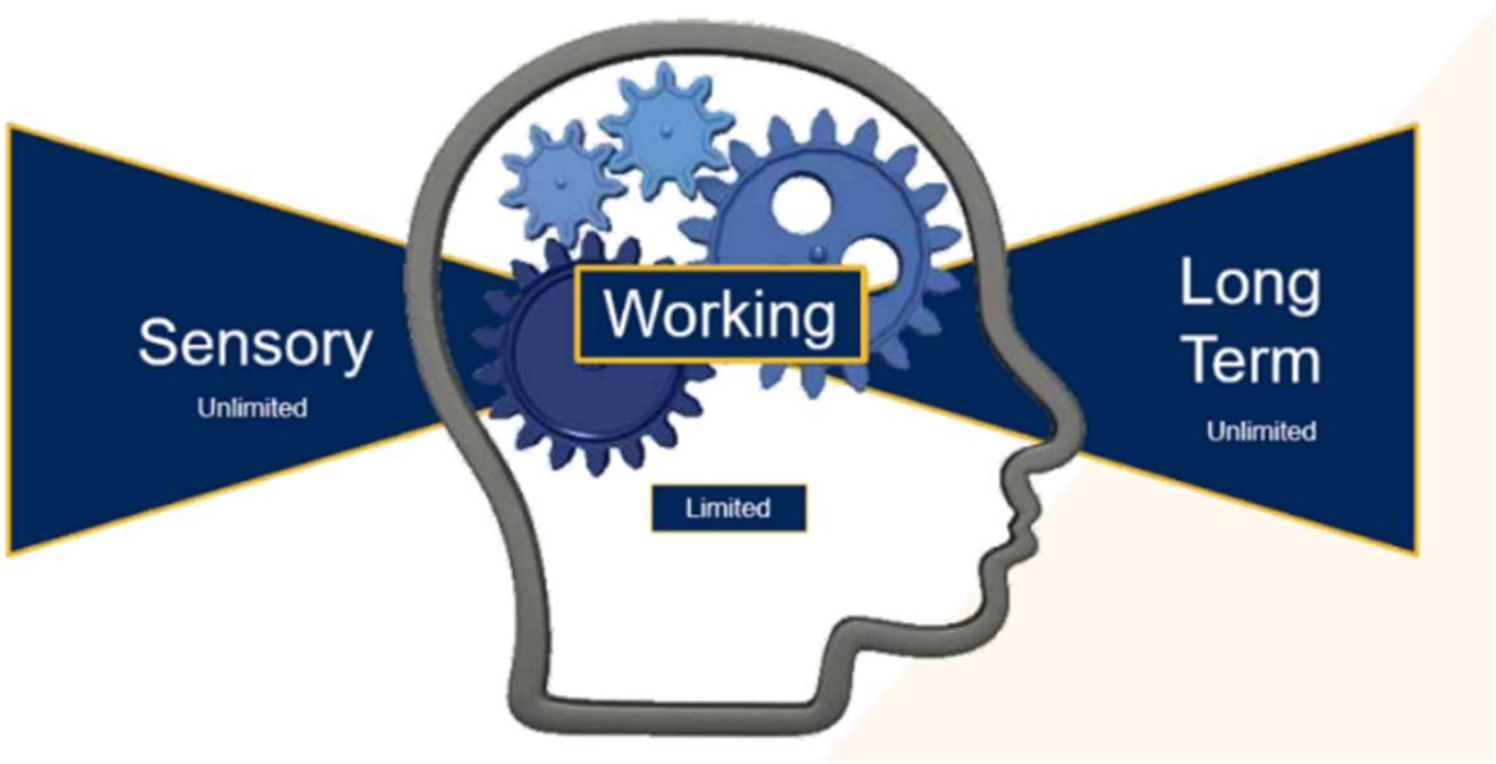


Use explanatory visuals

Why use visuals?

Visuals expedite information moving to long-term memory:

- Create emotional pathways
- Consolidate (chunk) information



Our short-term, or working, memories have two dual tracks for processing – visual and auditory. If we can share information in both ways, we double the chances that people will take in that information.

Why use explanatory visuals?

Decorative visuals are added for visual appeal or humor and serve no instructional purpose. In fact, they can be harmful.

Explanatory visuals are relevant graphics that depict relationships among your content, or make complex content more accessible. They align with course objectives and content.

How to use explanatory visuals

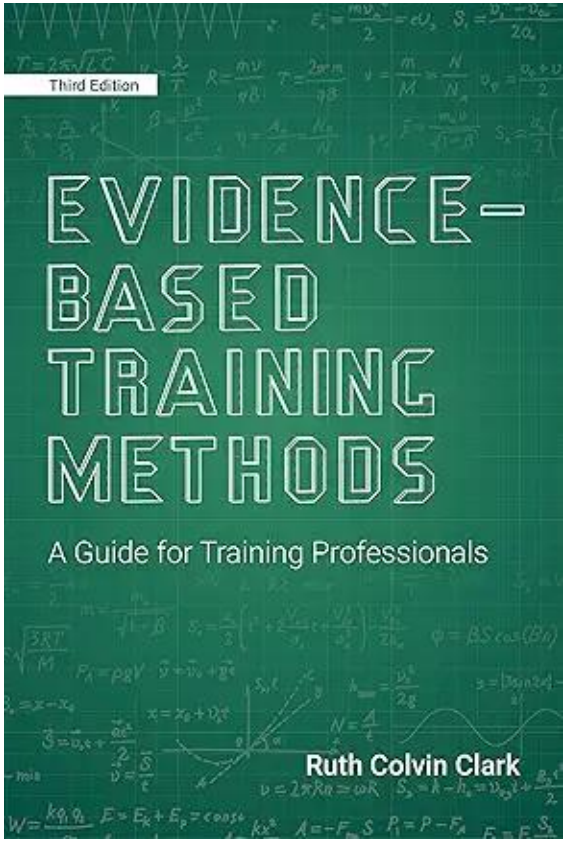
- Try the 5x5 rules with text (5 bullets maximum; 5 words per bullet)
- Replace text with visuals (Possible exceptions: Closed captions, for non-native English speakers, in reference material)
- Remove decorative visuals
- Ensure diversity in photos of people

Read up

Part 2, “Evidence-Based Use of Graphics, Text, and Audio” in the book at right, is where you’ll find the science behind using visuals – and so much more!

Reading about Meyer’s multimedia principles is also fascinating.Here’s a great recap:

https://waterbearlearning.com/mayers-principles-multimedia-learning/



Incorporate Universal Design for Learning

Universal Design – Essential for some; Good for all







The idea of Universal Design is to improve and optimize teaching and learning for all people. So, instead of giving everyone extra time (like first image), you could just give it to those who need it (2nd picture). Or, you can make it untimed (e.g. open book test due at last class) (3rd picture). (Added advantage: You can go over in class together, which is good for learning, rather than submitting it and never getting feedback).

Or, instead of having everyone respond by speaking in front of the entire class, give students a choice to respond by holding up a yes or no card, by putting something in a parking lot, **or** by telling a partner.

Why incorporate Universal Design?

To create learning environments that are accessible, inclusive, and challenging for every learner. Universal Design aims to change the design of the environments, rather than to situate the problem as a perceived deficit within the learner. When environments are intentionally designed to reduce barriers, every learner can engage in rigorous, meaningful learning.

To provide learner agency, the capacity to actively participate in making choices in the service of learning goals.

How to incorporate Universal Design

Provide multiple means of engagement, representation, and action & expression

Some examples:

Engagement –

- Ask for real-life examples
- Ask for student feedback

Representation –

- Highlight relationships
- Provide a map showing where you are in the session/course

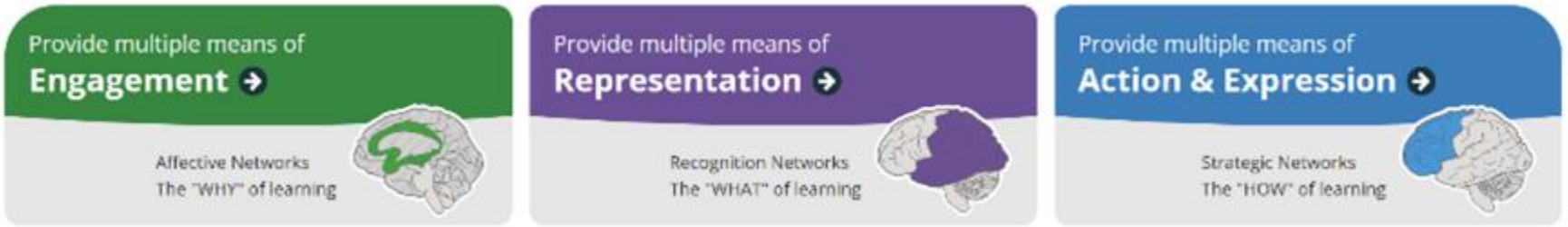
Action & Expression –

- Allow non-graded drafts and rewrites
- Allow written, audio, or video submissions
- Chat or raise hand in virtual session
- Provide choice of individual reflection or small group discussion, wherever appropriate

Read up

The “go to” source for all things UDL:

https://Universal Designguidelines.cast.org/



Avoid overload

Content that is complicated

Poor learning design

Too much content



Why avoid overload?

Learning stops when our working memories are overloaded

How to avoid overload

- Think back to when you were a novice in your subject area
- Separate the “nice to know” from the “need to know”
- Work on some mindset shifts (see next slide)

Mindset shifts

It’s all important	→	To whom? For what?
It’s all foundational	→	Would another format work?
Students liked this	→	They’ll like something new, too
It’s how I learned it	→	Is that relevant?
To stay current	→	What older content can I remove when adding current content?

Read up

Here's a brief description of cognitive load theory with some suggested strategies to overcome it:

https://static1.squarespace.com/static/5c47c0b3e17ba324ad0c9d7f/t/6906efc67e00bd67a73f0a5a/1762062278315/CLT.pdf

Best practices for distracted minds

Dr. Anastasia Dedyukhina, *Consciously Digital*

- Frequent physical offscreen breaks
- Longer regular breaks to neutralize attention residue effect
- Alternate between screen and non-screen time

Applying the strategies

My courses are content heavy / I often run out of time	→	Avoid overload; Cut the “nice to know”
I’m often lecturing	→	Incorporate interleaved practice; Integrate learners’ prior experience
Students seem distracted / aren’t participating	→	Grab learners’ attention; create psychological safety; incorporate Universal Design
I’m not sure learning is sticking	→	Incorporate interleaved practice; Meet with an instructional designer