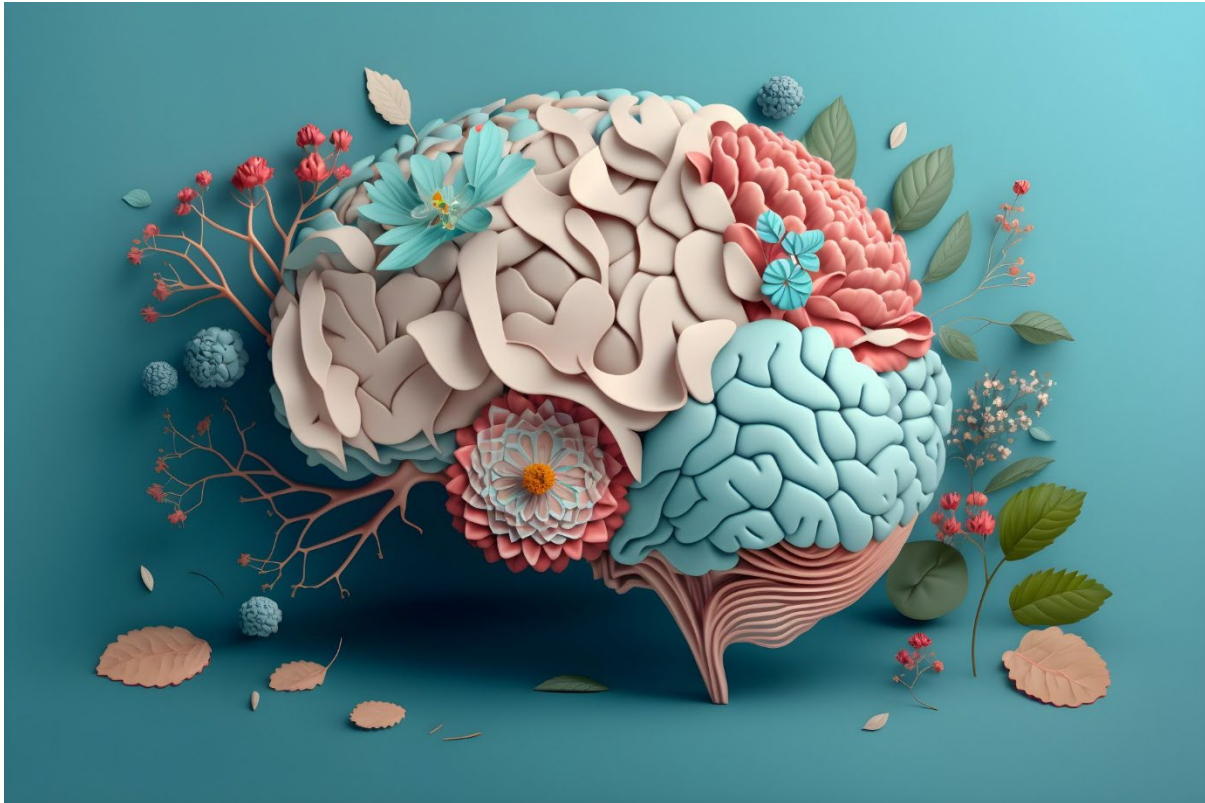




Elaboration

What does it mean to elaborate when learning?

When you sit down to learn course content, the instinct can be to condense the material into its simplest form. However, if you study using elaboration, you will instead take extra time to expand on what you're learning by:

- asking questions about how and why things work
- making connections between different ideas
- drawing on concrete examples to understand abstract ideas.

If you study using elaboration, you create much richer mental representations, which means you'll be more likely to remember what you're learning and be able to apply it to novel situations.

How to elaborate

Link what you are learning to concrete examples and stories

We are much better at understanding abstract ideas when they are linked to **stories and concrete examples**.

Try:

- finding relevant examples in your lectures and class readings and include them in your study materials
- generating your own examples
- thinking of what you are learning in terms of an individual story
- using Generative AI tools such as ChatGPT to find relevant examples. Try a prompt such as: "can you give me a well-known example of [theory name]?". Please remember, you'll need to fact check anything generated on these platforms.

Attach new information to old

When you learn new information, try to consciously attach it to what you already know.

As you go through your day, link what you are learning to:

- previous course content
- an idea you've encountered in a different unit
- something you've seen on the news
- your personal experiences.

The key here is that you connect old with new. Try to select, organise and integrate new information into existing mental representations. Think about how what you're learning fits with or challenges what you already know, while monitoring your growing understanding by asking lots of questions about how and why things work.

Ask questions and answer using many details

Another way you can elaborate is by asking yourself questions. The questions should elicit a response where you need lots of detail to really answer it. These questions will differ depending on the content, but here's a broad guide:

- "What is it?"
- "How does it work?"
- "Why? What are the mechanisms of action?"
- "Why does it make sense that...?"
- "When does this apply and for whom?"
- "Why is this true of X, but not true of Y?"

References

Dunlosky, J., Rawson, K. A., Marsh, E. J., Nathan, M. J., & Willingham, D. T. (2013). Improving students' learning with effective learning techniques: Promising directions from cognitive and educational psychology. *Psychological Science in the Public interest*, 14(1), 4-58.

Weinstein, Y., Sumeracki, M., & Caviglioli, O. (2018). *Understanding how we learn: A visual guide*. Routledge.