ACADEMIC SLIDE DESIGN

Cognitive Load Theory

Intrinsic Load	Germane Load

Extraneous Load

The overall goal of everything we do is to **increase germane load** while **reducing intrinsic and extraneous load.**
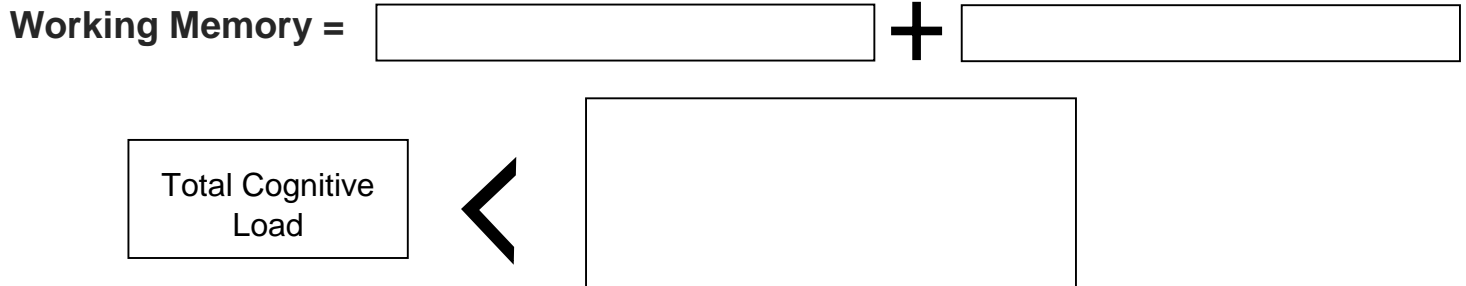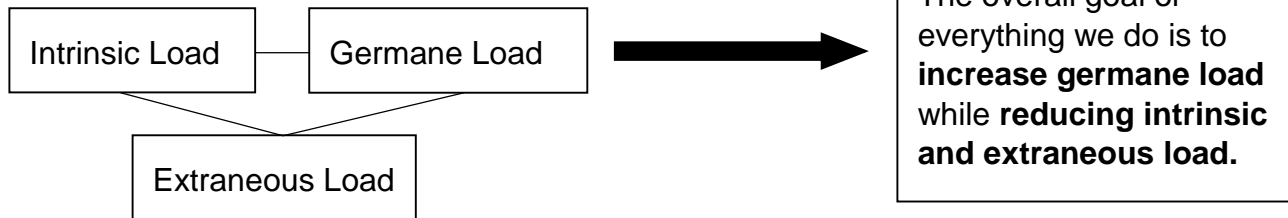
Working Memory = [ ] **+** [ ]

Total Cognitive Load

<

[ ]

A Different Approach

The traditional **topic sub-topic design approach** (which is heavily promoted by PPT's default layouts) attempts to complete **three tasks at once**:

1.

2.

3.

The 3 C's ⟶ [ ] [ ] [ ]

Do you need a slide?

Fandrey (2018) suggest you need a slide if it:

- provides a **visual means of organization** for forthcoming information
- helps students locate where they are in the lecture (**wayfinding**)
- shows a **concept, process, relationship, or idea** via a graph, chart, diagram, image, or other visuospatial treatment;
- maps **directly to the learning objectives** or outcomes of your talk—that is, you're showing something that really does deserve to be **powerfully pointed at**; or
- contributes to a climate of good **digital citizenry**

Three types of (organizational) slides

1.

2.

3.

Consistency

Consistency in design throughout a presentation allows students to predict how information will be displayed and **makes wayfinding much easier**. This **reduces** the overall **cognitive load** for students and makes it easier for them to receive and process information.

Consider the following when working toward consistency in your slide deck:

- Font
- Repetition of section headers
- Placement of repeated elements
- Color scheme
- Surface level design features

Using Color

You should select a **total of four colors** for your presentation:

1.

2.

3.

4.

Color is a means of _____ and not _____.

Use color throughout your presentation to accomplish the following:

- Call attention.
- Show amount, quantity, severity.

- Differentiate sections of a graph.
- Create a visual break.

Preparation

Start with [   ] tools first, then move to [   ] tools.

Fandrey's (2017) Academic Slide Design Method

1.

2.

3.

4.

5.

6.

7.

Preparing a Handout

➢ A **handout** is a great tool for:

  1.

  2. .

  3.

➢ Avoid using the "print to handouts" feature in PPT.

➢ Use **guided notes** to:

  1.

  2.

  3.

Selecting Visuals

➢ Visual aids are meant to facilitate the **communication of an idea** or concept not decorate the slide.

➢ Stay away from built-in themes in PPT.

➢ Use a template to sketch out the presentation before creating it in PPT. During this process, ensure that each slide conveys _____.

➢ Sketch visuals and typologies to be used for each slide. These don't need to be good or accurate sketches. As long as you know what it represents that's all that matters.

Academic Slide Design

➢ Without proper preparation and design concepts presentations usually end up as either: **1)** segmented outlines or **2)** a hodge podge of semi-related concepts and decorations.

➢ Most design flaws stem from **one main issue**:

➢ Our eyes naturally follow a _____ when reading slides.

➢ Each slide should seek to convey _____.

Why not bullets?

➢ Bullets promote the use of the slides as a _____.

➢ Overuse of bullets creates a phenomena known as the **split-attention effect**.

➢ Bullets are great for listing main points, but not for _____.

➢ It is impossible for students to **LISTEN, READ, and WRITE** all at the same time.

➢ What makes a great lecture/presentation:
  - Instructor's charisma
  - Well-chosen visual aids
  - Cadence of the spoken word
  - Repetition of main ideas
  - Active lecturing techniques

Design Strategies

Communicate **one main idea per slide**. This does not mean you are dumbing down your slides. Rather, you are **limiting the amount of mental effort required** to process the information on the slide.

Assertion-Evidence Structure:

1. Identify the main idea.
2. Write it as a brief statement at the top of the slide.
3. Use the remaining space on the slide to provide visual evidence.
4. Be sure you are making an assertion and not simply describing the graphic.

Spatial Positioning

We can use spatial positioning to communicate:

➢

➢

➢

➢

Lines and Shapes

➢ The eye will follow a line automatically so be careful not to be haphazard when including lines on a slide.

➢ We can use lines to:

- Demonstrate relationships

- Communicate the magnitude of relationships

- Create separation between topics

- Communicate stories, pathways, progressions

➢ We can use **shapes** to easily convey inclusion and exclusion. **Contrasting the size** between shapes is an excellent way to indicate severity, quality, or degree.

➢ Certain shapes carry _____ which may be culturally specific so be careful when using symbols to convey meaning.

Proximity and Similarity

➢ Objects placed close together are perceived to be related.

➢ Objects sharing the same surface features (size, shape, color) are perceived to be related.

Whitespace

➤ Think of whitespace as _____.

➤ Whitespace can be more effective at showing emphasis than bolding, underlining, or a bevy of exclamation marks

Layout and Composition

➤ Use a **consistent layout of slides** throughout the presentation. This will help the students with **wayfinding** and they come to know what info can be found where on your slides.

➤ In terms of composition, there are three main issues to consider:

　　1.

　　2.

　　3.

Typeface

➤ The most important thing about your font is that _____.

➤ At the core of the conversation surrounding typeface is a list of things not to do:
　　1. Use all caps
　　2. Bold excessively
　　3. Italicize
　　4. Underline
　　5. Center text
　　6. Mix fonts

➤ What you should do:
　　• Choose one font
　　• Use strategic bolding
　　• Pay attention to spacing and alignment

➤ **Guide** students' **attention** using the following strategies:

　　•

　　•

　　•

　　•