

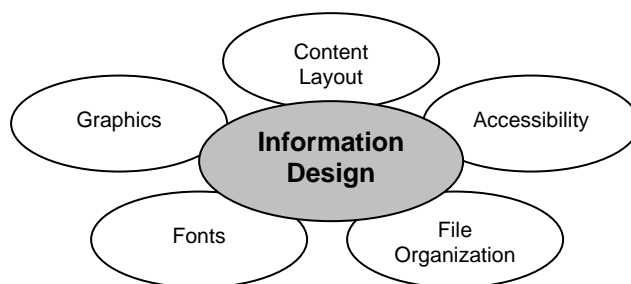


Lens on Learning Theory

“Design is the intermediary between information and understanding.”
(Richard Grefé. International Institute for Information Design)

In a data-filled world, information design, as a discipline, is growing in scope and complexity. In this field, professionals research **how people process information** and recommend **design and presentation principles**. They have shown that **effective design** enhances a reader’s ability to process and understand information.

This pedagoggle identifies a few subcategories of information design and some general ideas for **applying them in learning documents** (i.e. assignments, web resources, handouts).



Reflection on Practice

1. What design considerations could you apply to improve the readability of learning documents for students?

Expanding Your Teaching Toolkit

This section offers practical tips in several areas of information design: Content Layout; Graphics and Images; Font; File Organization; Accessibility

1. Content Layout

- Articulate a **clear purpose and/or objective** for the information that links it to course outcomes and/or assessment.
- Use **clear and concise** written language. For a Tip Sheet on Eliminating Wordiness, visit http://owl.english.purdue.edu/handouts/print/general/gl_concise.html .
- Use **graphic highlighting** (bulleted and numbered lists) wherever possible and maintain parallel structure in lists. For more information on parallelism in lists, visit <http://www.kcittraining.com/styleguide/fag/fag59.html> .
- Use **headings** and subheadings **consistently** throughout the document.
- Organize information into **short paragraphs** with one key idea per paragraph.
- Incorporate **white space** (i.e. between paragraphs, margins, above and below headings)

2. Graphics and Images

- Optimize** all images to ensure that they load and print easily
 - o **Scanning:** Select 72 DPI (this is the highest resolution that will show on a computer screen). Always “save for web” to reduce the file size of the image. For more information on scanning and editing digital images, visit <http://staff.georgianc.on.ca/ctl/edtech/digitalimages.htm>
 - o **Size:** Keep image to a maximum of width of 800 pixels and height of 600 pixels. This is the size of most computer screens and larger images will require scrolling.
- Include **text descriptors** with images so a text reader can process the information

- ☑ Strive to enhance text with **content-rich graphics** that have a defined educational purpose (i.e. illustrate an idea, draw attention or create interest in a topic, present an overview or big picture related to the topic)
- ☑ **Reference** all images properly

3. Font

- ☑ Select fonts that are **easy to read**.
 - **Size:** 12 pt font is preferred, although anywhere from 10-14 pt is acceptable
 - **Style:** Sans-serif fonts (Arial, Verdana) are easiest to read
- ☑ Use fonts **consistently** throughout the document.
- ☑ Use **colour sparingly** to highlight important points. Select font colours that contrast with the background. Avoid red, which is difficult for colour-blind people to see.
- ☑ **Bold key words** to help readers skim information and find specific information. Do not overdo bolding or it will be ineffective.

4. File Organization

- ☑ Break up long documents into more **reasonable chunks** (i.e. Word documents over 4 pages and Power Points over 20 slides).
- ☑ **Group all files** related to a topic or assignment in one folder.
- ☑ Use consistent and **meaningful naming conventions** for files and folders throughout a course, lesson, and assignment.
- ☑ Indicate clearly for readers how the document fits into the course/unit/lesson. Include concise information about **what came before this document and what comes next**.
- ☑ **Document changes** made to files and make note of unclear sections for future revisions.
- ☑ Keep **back-ups** of everything.

5. Accessibility

- ☑ Ensure that **file types** used are accessible to students.
 - Provide links to appropriate plug-ins so students can view Word, PowerPoint, or Excel files without having the software on their computer
http://blackboard.georgianc.on.ca/login/student_help/General_Plugins.htm
 - Consider providing text accompaniments to PowerPoint and Audio files. Text in PowerPoint files can be saved as an ".rtf" (rich text format) file type.
- ☑ Keep **file sizes** as small as possible to ensure accessibility from home computers as well as to reduce bandwidth requirements on college computers.

File Size	Approximate Download Time			
	56K Dial-up	DSL (Home)	Cable (Home)	T3 (College)
0-100 KB (Word files should be under 100KB)	14 sec	1 sec	1 sec	1 sec
101-500 KB (PPT's should be under 500 KB)	1 min 9 sec	2 sec	1 sec	1 sec
501-1000 KB/ 1 MB	2 min 19 sec	12 sec	1 sec	1 sec
1-3 MB (Consult with someone about reducing the size of files over 1 MB)	7 min	37 sec	1 sec	3 sec

References and More Information

InfoDesign (n.d.) *Understanding by design*. <http://www.informationdesign.org>

Petterson, R. (1998). *Information design and learning*. International Institute for Information Design. Retrieved March 8, 2005 from http://www.idp.mdh.se/forskning/amnen/informationsdesign/publikationer/pdf/ID_Learning_Austria-98.pdf

University of the West of England. (2004). *Blackboard Guide: Accessibility Issues*. <http://info.uwe.ac.uk/online/blackboard/guides/accessibility.asp>