DESIGN FOR LEARNING: OPTIMIZE CONTENT

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Overview

When creating your online course, it's important to pay attention to your writing style and the design choices you make. These decisions will have an impact on how learners experience your course. In particular, online courses with good design will:

- Consider how learners process information;
- Help learners create meaning from content;
- Foster learner interest and curiosity to learn.

How can I design a valuable online course?

Based on the University of Waterloo's User Experience Design for Learning model, we can consider a valuable online learning experience as one which is useful, desirable, accessible, credible and intuitive for students. For a full description of these categories and examples, we suggest accessing their website. Otherwise, look below for some of the main ideas.

University of Waterloo UXDL Honeycomb

Key Takeaways

To help learners process new material, minimize distractions and help them construct a model or schema.
- Principles to minimize distractions:
  - Coherence: Leave out unnecessary words, sounds, and pictures
  - Signaling: Point out important material (use sparingly)
  - Redundancy: Don't add on-screen text that duplicates narration
  - Spatial/temporal contiguity: Place pictures and related text close together, and have them appear at the same time
- Principles to help learners process material
  - Segmenting: Break content into shorter, user-controlled chunks
  - Pre-training: Introduce names and characteristics of main concepts first
  - Modality: Have pictures, not text, accompany narration
- Principles to help learners construct a model or schema
  - Multimedia: Pair words with pictures rather than using words alone (helps constructing mental models to process info and integrate it.
  - Personalization – voice: Use a conversational style
  - Image: Humanize learning (for ex.: add the instructor's picture; show hands of instructor while drawing)
  - Demonstrate with worked examples: Effective for novices (scaffolds learning by making problem-solving techniques visible; reduces cognitive load); Experienced learners benefit from open-handed questions.

What design strategies can I use to enhance interactions and communication in online learning?

Organize material
- Bring clarity to content and format: breakdown complex information; keep format and content consistent (learning outcomes, graphics, videos, activities, navigation, layout, writing style and structure).
- Avoid providing extra material on the same page as the main content – it is distracting
- Structure menu in a logical and temporal way: Micro-macro; Close to far in time; By phenomenon or key topics; 12 weeks; 24 classes; n modules

Order content strategically
- Write using the inverted-pyramid: Communicate the essential points in the first few sentences of your paragraph or section
- Think of web users' 'F' reading method – they are selective, scan key words, power-browse, and click on links. Likewise, they tend to prefer visuals like images or videos rather than paragraphs of text.

Consider your writing style
- Personalize interactions, make the reading dynamic to keep attention and reduce cognitive overload
- Personalize text by using the first and second person
- Use concise, plain and easy to scan language for optimal retention
- Add short stories or anecdotes, use narrative form to share information
- Storytelling allows learners to: relate to content, internalize subject matter, interpret concepts, and become familiar with problem solving scenarios

Include actionable content
- Design clear interactions and instructions
- Identify 'clickable' items as such
- Use hyperlinks, videos, audio files, pictures of resources or of themes
- Lists - bullets and numbers: numbers for procedures or sequences; start with verbs (or nouns)

Manage visual cues
- Use proper titles, subtitles, font, highlights, contrasts, colours, icons, and relevant images.
- Animations are best used for physical procedures and still images for processes
- Use contrast for key elements to stand out (this can be in the form of colours, fonts, size, or images)
- Be consistent in how you format your course, use repetition across elements to create a sense of cohesiveness. For example, the same colors for headers, the same icons to represent ideas, the same vocabulary when referring to technology or key concepts.
- Align connected elements together. For example, place images next to the paragraph that mentions it.

How can I review the design of my online course?

If you have enough time, we suggest completing a short pilot test of your course and material. In general, we make poor judges of whether our content is effective, intuitive, or understandable for *other* people. Having someone take a second glance before releasing our course can help identify potential problem areas. You can ask colleagues, former students or teaching assistants, or our service to review the content.

You should specific which sections of the course a user should review and provide them with guiding questions. For example:

- What is the purpose of the item(s) being presented?
- What actions do you believe are expected from the student?
- What is the page communicating and is it doing so effectively? Specify why or why not…

Additional Resources

- Dirksen, J. (2015). *Design for how people learn*. New Riders.
- Mayer, R. E. (2002). Multimedia learning. In *Psychology of learning and motivation* (Vol. 41, pp. 85-139). Academic Press.
- Garrett, J. J. (2010). *Elements of user experience, the: user-centered design for the web and beyond*. Pearson Education.
- Elements of learning experience design by Andre Plaut. Retrieved on April 15th, 2020
  URL: http://boxesandarrows.com/elements-of-learning-experience-design/
- UX for learning: Design guidelines for the learner experience by Dorian Peters. Retrieved April 15th, 2020.
  URL: https://www.uxmatters.com/mt/archives/2012/07/ux-for-learning-design-guidelines-for-the-learner-experience.php

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