

## SEEKING SYMBIOSIS:

### Bringing User-Centered Design & Learner-Centered Practice Into Harmony



## Workshop Toolkit

### Learner-Centered Design

#### *Key Points to Consider*

- Understanding is the goal
- Motivation is the basis
- Diversity of learners is the norm
- Growth of learners is the challenge
- Consider context of the guide, tasks users are asked to do, construction of knowledge and meaning for learners, and collaborative learning strategies

(Soloway et. al., 1994)

#### Design Approach

- Effective learner-centered design is based on the integration of learning theory and usability principles. As designers we need to understand the process of learning-centered design and how in that process usability and user experience can be integrated with instructional design concepts, techniques, and practices
- Learner-centered design is based on **authentic learning contexts**, **problem-based** and **situated** learning. It requires us to pay attention to affect and motivation and should include metacognitive strategies.

## References and Further Reading

- Jonassen, D., Davidson, M., Collins, M., Campbell, J., & Haag, B. B. (1995). Constructivism and computer-mediated communication in distance education. *American journal of distance education, 9*(2), 7-26.
- Jonassen, D. H., & Strobel, J. (2006). Modeling for meaningful learning. In Hung, D. & M. S. Khine (Eds.), *Engaged learning with emerging technologies* (pp. 1-27). Springer.
- Soloway, E., Guzdial, M., & Hay, K. E. (1994). Learner-centered design: The challenge for HCI in the 21st century. *interactions, 1*(2), 36-48.
- Zaharias, P., & Poulymenakou, A. (2006). Implementing learner-centered design: The interplay between usability and instructional design practices. *Interactive Technology and Smart Education, 3*(2), 87-100.

## Accessibility

### *Key Points to Consider*

- Use easy-to-read fonts (sans serif)
- Use real text when possible, not text within graphics
- Always provide an alt-text version if you want to include a graphics-based object, like an infographic
- Write in plain language
- Headings on tables
- Avoid [click here](#) and “mystery links”
- Caption and include transcripts for other media

(University of Illinois, n.d.)

### Tips

- Be flexible and adaptable to different users’ needs or preferences
- Consider users first and design for them
- Aim for usability across multiple platforms and technology setups
- Be willing to make design or functionality adjustments to ensure usability
- Align with standards for accessible web design

## Toolkit

- [Web Accessibility Initiative's Design and Develop Overview](#)
- [Wave Web Accessibility Evaluation Tool](#)
- [Association of Research Libraries' Web Accessibility Toolkit](#)

## **References and Further Reading**

University of Illinois at Urbana-Champaign. (n.d.). *Best Practices: Accessibility*. Getting Started with LibGuides. Retrieved February 4, 2020, from [https://guides.library.illinois.edu/libguides\\_intro/accessibility](https://guides.library.illinois.edu/libguides_intro/accessibility)

Association of Research Libraries. (n.d.). *Standards & Best Practices*. Web Accessibility Toolkit. Retrieved February 4, 2020, from <https://accessibility.arl.org/standards-best-practices/>

Turner, J., & Schomberg, J. (2016, June 26). Inclusivity, Gestalt Principles, and Plain Language in Document Design – In the Library with the Lead Pipe. *In the Library with the Lead Pipe*. <http://www.inthelibrarywiththeleadpipe.org/2016/accessibility/>

## **Usability**

### *Key Points to Consider*

- Learnability
- Efficiency
- Memorability
- Errors
- Satisfaction

(Nielsen, 2012)

## Usability Testing

*Can be done before the product has been designed or implemented:*

- Focus groups or surveys
- Card sorting
  - Can be done using online tool ([Proven by Users](#) offers a free plan)

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- Wireframe
  - Can be done on paper or using a free online tool like [Mockflow](#) (opt for the Basic plan). Adobe XD is also an option, but the learning curve is steeper.

*Can be done once the product has been implemented:*

- Task-based usability testing
  - The [UX @ Harvard Library wiki](#) offers usability testing scripts and project plan templates. A number of university libraries also make their usability testing scripts and reports available online.
- First-click testing
  - Can be done using a free online tool (e.g. [Optimal Workshop](#))
- Feedback forms or satisfaction surveys

### User Experience and Accessibility

- [A web for everyone: designing accessible user experiences](#) (Horton & Queensberry, 2015) looks at creating a user experience with a diverse audience in mind.
- [Universal Design Center](#), California State University
- [Accessibility, Usability, and Inclusion](#) (W3C)

### **References and Further Reading**

Almeida, N., & Tidal, J. (2017). Mixed Methods Not Mixed Messages: Improving LibGuides with Student Usability Data.

Bowen, A., Ellis, J., & Chaparro, B. (2018). Long nav or short nav?: Student responses to two different navigational designs using LibGuides Version 2.

Conerton, K., & Goldenstein, C. (2017). Making LibGuides work: Student interviews and usability tests. *Internet Reference Services Quarterly*, 22 (1), 43-54.

Nielsen, J. (2012). Usability 101: Introduction to Usability. Retrieved from <https://www.nngroup.com/articles/usability-101-introduction-to-usability/>

Zaharias, P., & Poulymenakou, A. (2006). Implementing learner-centred design: The interplay between usability and instructional design practices. *Interactive Technology and Smart Education*, 3(2), 87-100.

## Appendix – Discussion prompts

Consider your LibGuides

- Is the content accurate?
- Is the content relevant to your learners?
- Is the content sequenced logically and chunked meaningfully?
- Is the vocabulary and terminology easily understandable and appropriate for your learners?
- Are abstract concepts illustrated with concrete, specific examples?
- Do your guides offer tools (handouts/aids, glossaries, help menus, etc.) that support learning?
- Are your fonts (color, saturation, style, etc.) easy to read?
- Will learners always know where they are and how to get where they want to go in the guide?
- Are your guides accessible?
- Do your guides offer games, simulations, cases, activities, etc. that gain the attention or increase the motivation of your learners?
- Do your guides stimulate the desire for further inquiry?
- Do your guides provide formative or summative feedback for your learners?
- Are your guides engaging, enjoyable, and interesting?