

ASCILITE 2023

People, Partnerships and Pedagogies

It's the vibe – Course environment and the intersection of environmental psychology and learner experience design

Carmen Weaver

University of Canterbury

Overstimulated, anxious, and overwhelmed or relaxed, focused, and confident. Our environment affects the way we feel and recently the impacts of our environment on health and wellbeing have been widely publicised. We often associate mood-impacting environmental factors with our physical environments, both natural surroundings or built environments such as homes, workspaces, or classrooms. When considering learning environments through a post-digital lens, it is important to consider the impact of the design of the physical and digital learning spaces.

Creating a learning environment that supports the wellbeing of learners, in addition to supporting academic success, can be difficult due to the individual needs of diverse learners and the nuances of the content being presented. However, by combining insights from environmental psychology and learner experience design (LXD), a sweet spot can be found. In this session, we will examine how these fields intersect with learning theory and how this intersection was leveraged to enhance course design through the inclusion of an LMS course template for credit bearing courses in a university.

Canter and Craik (1981, p.2) defined environmental psychology as the relationship between “human experiences and actions with pertinent aspects of the socio-physical surroundings”. Aspects of the online environment as well as the physical environment that learners are in when engaging in online learning will be examined. We will look at how learners engage with components of the environment including course media, content organization, and connections with others and the alignment with learning theories such as cognitive load theory, situated cognition, and cognitive theory of multimedia learning (Brown, et al., 1989; Mayer, 2020; Schumacher, et al., 2013; Sweller, et al., 1998).

According to Schmidt and Huang (2021), “LXD is a human-centric, theoretically-grounded, and socio-culturally sensitive approach to learning design, intended to propel learners towards identified learning goals, and informed by UXD methods.” It extends on principles from usability and User Experience (UX) design. This focus on the technical aspects of the learning environment considers how the learners’ interactions with the environment impacts the learning process (Schmidt & Tawfik, 2021). LXD may consist of both the learner's interaction with the learning environment and the perception of value of the elements in the learning space (Tawfik, et al., 2021).

In January of 2023, the University of Canterbury implemented a course template for all credit bearing course instances in the LMS. The design of the template was informed by principles from learning theory, environmental psychology, and learner experience design. Efforts were made to decrease cognitive load, provide consistent organization of administrative information across courses, and to allow for flexibility in the presentation of subject specific content.

Essential to this case is the human experience with the interactions with technology and content, as well as the role social elements play. When guided by the overlap of research-based theories and methods focused on learning, well-being, and technical interactions, courses can be designed to best support acquisition of knowledge and skills as well as to promote the wellbeing of the learners.

This session aligns with the conference themes of Diverse People, Digital Partnerships, and Digital Pedagogy by supporting the work of learning designers, educators, and digital technologists. Deeper partnerships are encouraged between pedagogy and the community as well as people in distinct roles. The wellbeing of learners is supported through the advocacy of purposefully designed learning environments. The session also explores the relationship between people and technology.

Keywords: learning environment, environmental psychology, learning experience design

References

- Brown, J. S., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. *Educational Researcher*, 18 (1), 32-42. <https://doi.org/10.2307/1176008> <https://doi.org/10.3102/0013189X018001032>
- Canter, D. V., & Craik, K. H. (1981). Environmental psychology. *Journal of Environmental Psychology*, 1(1), 1–11. [https://doi.org/10.1016/S0272-4944\(81\)80013-8](https://doi.org/10.1016/S0272-4944(81)80013-8)
- Mayer, R. (2020). *Multimedia Learning* (3rd ed.). Cambridge: Cambridge University Press. doi:10.1017/9781316941355
- Schmidt, M. & Huang, R. (2021). Defining Learning Experience Design: Voices from the Field of Learning Design & Technology. *TechTrends*, 66(3). <https://doi.org/10.1007/s11528-021-00656-y>
- Schmidt, M. & Tawfik, A. A. (2021). Activity Theory as a Lens for Developing and Applying Personas and Scenarios in Learning Experience Design. *The Journal of Applied Instructional Design*, 11(1). <https://doi.org/10.59668/354.5904>
- Schumacher, D. J., Englander, R., & Carraccio, C. (2013). Developing the master learner: Applying learning theory to the learner, the teacher, and the learning environment. *Academic Medicine*, 88(11), 1635-1645. <https://doi.org/10.1097/ACM.0b013e3182a6e8f8>
- Sweller, J., van Merriënboer, J. J. G., & Paas, F. G. W. C. (1998). Cognitive architecture and instructional design. *Educational Psychology Review*, 10(3), 251–296. <https://doi.org/10.1023/A:1022193728205>
- Tawfik, A.A., Gatewood, J., Gish-Lieberman, J.J., Hampton, A.J. (2022) Toward a Definition of Learning Experience Design. *Tech Know Learn* 27, 309–334. <https://doi.org/10.1007/s10758-020-09482-2>

Weaver, C. (2023, December 3-6). It's the vibe – Course environment and the intersection of environmental psychology and learner experience design. [Pecha Kucha Presentation]. Australasian Society for Computers in Learning in Tertiary Education Conference, Christchurch, New Zealand. https://doi.org/10.14742/apubs.2023.665

Note: All published papers are refereed, having undergone a double-blind peer-review process. The author(s) assign a Creative Commons by attribution licence enabling others to distribute, remix, tweak, and build upon their work, even commercially, as long as credit is given to the author(s) for the original creation.

© Weaver, C. 2023