Responsive Open Learning Environments: Outcomes of Research from the ROLE Project Outcomes of Research from the ROLE Project

Wahls, Naomi

DOI
10.5944/openpraxis.11.3.988

Publication date
2019

Document Version
Final published version

Published in
Open Praxis

Citation (APA)
Wahls, N. (2019). Responsive Open Learning Environments: Outcomes of Research from the ROLE Project: Outcomes of Research from the ROLE Project. *Open Praxis*, *11*(3), 321-325. Article 9. https://doi.org/10.5944/openpraxis.11.3.988

Open Praxis, vol. 11 issue 3, July–September 2019, pp. 321–325 (ISSN 2304-070X)

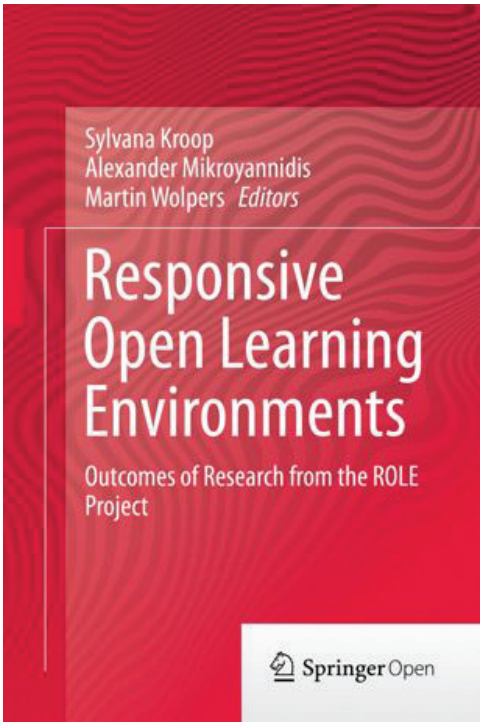
OPEN PRAXIS
INTERNATIONAL COUNCIL FOR OPEN AND DISTANCE EDUCATION

Book Review of *Responsive Open Learning Environments: Outcomes of Research from the ROLE Project*

Kroop, S., Mikroyannidis, A. & Wolpers, M. (eds.) (2015). *Responsive Open Learning Environments: Outcomes of Research from the ROLE Project.* Springer Open. 274 pages. ISBN 978-3-319-02399-1, $0.00 (ebook). https://link.springer.com/book/10.1007%2F978-3-319-02399-1

Reviewed by: Naomi Wahls
Technische Universiteit Delft (Netherlands) and University of Colorado Denver (USA)
n.l.wahls@tudelft.nl

Introduction



Responsive Open Learning Environments: Outcomes of Research from the ROLE Project (2015) was edited by Sylvana Kroop, Alexander Mikroyannidis, and Martin Wolpers. The project enabled learners to personalize the the learning environment and provided a unique tailored learning experience. The ebook consists of 3 initial chapters, 4 case studies chapters, lessons learned, a commentary, a consortium of universities, supplemental materials, and an index which focused on Responsive Learning Environments (ROLE) as a project in Europe. There are 31 authors, 8 external experts and commentators, and 3 editors in the book increasing the credibility of the content. The project used Self-Regulated Learning (SRL) competences and the SRL framework, specifically through widgets that were created and could be utilized by the learners. Widgets are "micro-applications performing a dedicated task (Kroop, Mikroyannidis, & Wolpers, 2015, p. 3)." An interactive eBook that utilizes widgets with learning activities was included as part of the course for learners.

In the initial chapter, the authors credited Personal Learning Environments (PLE) for the emergence of Open Educational Resources (OER), enabling students flexibility with content such as remixing materials. Chapter two contains the framework for the project, shows several models of learning through SRL and further explains that collaboration plays an integral part of SRL learning. Collaboration though doesn't appear in two of the framework models, although it could be implied in the models. Widgets need to be able to interact and recognize users (Sheila MacNeill, 2015). "Furthermore, the importance of adaption to individual learning preferences of a learner regarding visualisation and verbalisation has been proven" (Plass, Chun, Mayer & Leutner, 1998). One criticism of the project was that students need guidance on how to use technology, including the Learning Activity Recommender (AR) (Kroop et al., 2015, p. 39).

DOI: http://dx.doi.org/10.5944/openpraxis.11.3.988

Chapter three focuses on evaluating the framework provided in the previous chapter. Contextualized attention metadata (CAM) can be used to "observe the user at the application level, enabling association of tool usage with content-specific behavior in context." To evaluate self directed learning, questionnaires were deployed and analyzed. Interviews and reflections were also used to analyze the data. The community building and motivation approach in Figure 1 provides a realistic base to community based learning in an online setting. The level playing field was essential for the success of the students, particularly if peers are international, in a recent Massive Open Online Courses (MOOC) study by René F. Kizilcec, Andrew J. Saltarelli, Justin Reich, and Geoffrey L. Cohen (2017).

Need	Offline (Maslow)	Online communities (Kim 2000)	Personal Learning Environment
Physiological	Food	System access	Access to PLE technology, widget store, user profile
	Clothing	Ability to maintain own identity while participating in the community	Use of templates for assembly of environment
	Shelter		
	health		
Security and safety	Protection from crimes and war	Protection from hacking and personal attacks	Data security (automated monitoring data) and encryption
	Sense of living in a fair society	level playing field	multi-level privacy framework
		maintain varying level of privacy	
Social	Give and receive love	Belonging to the community as whole and within subgroups	Share and consume tools, content, and resources
	Feeling of belongingness		Belongingness
			Ability to collaborate across several social networks
Self-esteem	Self-respect	Contribute to community and get recognized	Sharing modified PLE templates
	Ability to earn respect from others		Altruism
			Mentoring
			Giving and receiving feedback
			Rating and ranking
Self-actualization	Develop skills and fulfill one's potential	Take on community role that develops new skills and opens new opportunities	Acquiring expert status within the community
			Assembly and regulation of own learning

Figure 1: Community building and motivation (extended from Kim, 2000).

The ROLE project used a framework (figure 2) based on the technological, organizational, psycho-pedagogical, and social (TOPS) model which "incorporates major dimensions with a gradual progression from the individual to community focus" (Kroop et al, 2015, p. 68). They concluded that the framework covers technological, organizational, psycho-pedagogical and social aspects to analyze the case studies in a multi-method approach (Kroop et al, 2015, p. 73). The analysis focus was on the technology rather than content. The ROLE project started with a self created Learning Management System (LMS) and moved to Moodle with extensions.

Figure 2: The "TOPS" integrated evaluation framework for PLEs

Case study 2 talks about *Graasp* (grasping resources, apps, activity spaces, and people), the social media tool used for collaborative learning. *Graasp* seems to be space focused, a main portion of multisensory learning. *Graasp* can be embedded into subspaces and allows subactivities, creating more freedom. It was helpful that the authors included images of Moodle and *Graasp*, however, it would be useful to include student's reactions to *Graasp.*

Case study 3 involves the OpenLearn Project from the Open University (OU). OpenLearn contains more than 12,000 hours of self-study materials as Open Educational Resources (OER). Part of the conclusions of this case study were that there was a need for culture with a willingness to use technology. "In order to maximise the adoption of PLEs, a suitable culture towards new technologies needs to be fostered (Kroop et al, 2015, p. 157)."

Graham Atwell, one of the authors, felt that MOOCs enable education to see other formats of online education and he expects to see new formats emerge: "The popularity of MOOCs has revealed a vast pent up demand for learning and at least in the form of the MOOCs has speeded the adoption of PLEs. MOOCs are in their infancy and we can expect the rapid emergence of other forms of open learning or open education in the next few years (p. 220)." MOOCs could be combined with other course formats, such as Blended or combined with teaching methods such as Virtual International Exchanges (VIEs) or Collaborative Online International Learning (COIL).

The commentary included the original definition of PLE (van Harmelen, 2006) and the redefinition of PLE, which is a "learning environment in which learners on the one hand actively integrate

distributed digital information, resources and contacts, on the other hand document learning progress and learning outcomes based on standards" (Schaffert & Kalz, 2008). This implicates that there is not a full agreement on what PLE really is still. According to Marco Kalz: "It is essential for the further development of PLE and their impact in education that the community develops evaluation frameworks that can systematically handle the complexity of evaluating a personal environment that changes its status dynamically over time and can thus fulfill different purposes" (p. 227). Kalz explains that PLE should be more adaptive, something that perhaps will come with more time and research.

Application from ROLE project to VIEs and intercultural competency

The ROLE project included an inquiry discussion widget, which could be used in Virtual International Exchanges (VIEs) that use Moodle. It might be possible to use such a widget to eliminate the enrollment issues often noted in VIEs as a widget could be created and added to both universities so the students could interact in the discussion between the universities. Intercultural competence can increase during collaborative learning opportunities. Students who are able to interact with peers on various topics perform better in cooperative learning situations as described by McConnell (2000).

eBook Recommended

The reviewer recommends this book to colleagues interested in PLEs. The evidence provided in the book was thorough as it included the framework, the evaluation of the framework, four case studies, and the details of the technology used. The conclusions drawn are interesting and provide a global perspective. The book was well written and requires college level reading skills due to the high level academic focus. This elaborate project exemplified university partnership and collaboration. Case studies 2 and 4 lacked feedback from the participants. One possible improvement to the ebook could have been incorporating cultural aspects of the project. Collaborative learning could have been used and analyzed further in the project.

Summary

In summary, *Responsive Open Learning Environments (ROLE): Outcomes of Research from the ROLE Project* is an ebook that covered the Responsive Open Learning Environment (ROLE) Project between multiple universities. ROLE investigated and operationalized PLEs. PLEs could provide new outlets for online education. Student or participant responses could have been covered more in the book and how ROLE affects culture could have been explored. The academic book is commendable for the number of authors and universities represented and is recommend for those interested in OER.

References

Kim, A. J. (2000). *Community building on the web: secret strategies for successful online communities*. London: Addison Wesley.

Kizilcec, R. F.; Saltarelli, A. J.; Reich, J. & Cohen, G. L. (2017). Closing global achievement gaps in MOOCs: Brief interventions address social identity threat at scale. *Insights: Policy Forum*, *355*(6322), 251-252. https://doi.org/10.1126/science.aag2063

Kroop, S., Mikroyannidis, A., & Wolpers, M. (Eds.) (2015). *Responsive Open Learning Environments: Outcomes of Research from the ROLE Project*. Springer International Publishing. https://doi.org/10.1007/978-3-319-02399-1

McConnell, D. (2000). *Implementing computer supported cooperative learning* (2nd ed.). London: Routledge.

Plass, J. L., Chun, D. M.,Mayer, R. E., & Leutner, D. (1998). Supporting visual and verbal learning preferences in a second-language multimedia learning environment. *Journal of Educational Psycholgy, 90*(1), 25–36. https://doi.org/10.1037/0022-0663.90.1.25

Schaffert, S. & Kalz, M. (2009). Perso ñliche Lernumgebungen: Grundlagen, Mo ğlichkeiten und Herausfor-derungen eines neuen Konzepts. In: Wilbers K, Hohenstein A (Hrsg.), *Handbuch E-Learning* (Gruppe 5, Nr. 5.16) (pp. 1–24). Ko Ïn: Deutscher Wirtschaftsdienst (Wolters Kluwer Deutschland), 27, Erg.-Lfg.

van Harmelen, M. (2006). Personal Learning Environments. In: Kinshuk R, Koper P, Kommers P, Kirschner P, Sampson DG, Didderen W. (eds). *Sixth IEEE international conference on advanced learning technologies (ICALT'06)* (pp. 815–816). IEEE Computer Society, Kerkrade.