Using Personal Learning Environment (PLE) Management to Support Digital Lifelong Learning

Cheng-Jyh Yen, Old Dominion University, Norfolk, USA
Chih-Hsiung Tu, Northern Arizona University, Flagstaff, USA
Laura E Sujo-Montes, Northern Arizona University, Flagstaff, USA
Hoda Harati, Northern Arizona University, Flagstaff, USA
Claudia R. Rodas, Northern Arizona University, Flagstaff, USA

ABSTRACT

Personal Learning Environment is a promising pedagogical approach to integrate formal and informal learning in social media and support student self-regulated learning. The use of PLEs to support lifelong learning can be expanded to the formal, non-formal, or informal learning environments. This study empirically examined how PLE management predicted the use of PLE to support three types of lifelong learning (i.e., formal, non-formal, or informal learning). This study concluded that PLE management was predictive of each type of learning respectively. PLE is not only a technical platform but also a new digital learning literacy, conceptual space, pedagogical process, and social networks that enable and support learners to achieve their lifelong learning goals. While Open Educational Resources (OERs) are perceived as a solution for social justice in digital lifelong learning, PLE and Open Network Learning Environment are identified as the key pedagogy and instructional strategies to empower learners gaining network-learning literacy and becoming competent digital lifelong learners.

KEYWORDS

Lifelong Learning, Network Learning Literacy, Open Network Learning, Personal Learning Environment, Self-Regulated Learning

INTRODUCTION

The prevalence of Open Educational Resources (OER), Web 2.0 tools, and Massive Open Online Courses (MOOCs), readily available lifelong learning is attracting the attention of people worldwide. The emerging practices of lifelong learning signals the need for more personal, social, and participatory approaches in learning, which support the active use and co-creation of learning resources to enrich learning processes and meet the personal needs of the learners (Leone, 2013). Regardless of its types (i.e., formal, non-formal, or informal learning), learning is always personal, collaborative, constructive, connective, and ubiquitous. Research reveals that Personal Learning Environments (PLEs) can be integrated into formal and informal learning (McLoughlin & Lee, 2010). PLE is a potentially promising pedagogical approach to integrate formal and informal learning in social media and to support student self-regulated learning (SRL) (Dabbagh & Kitsantas, 2012). As suggested by Ivanova and Chatti (2010), educators should foster organization of self-directed learning with open

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network environments where learners are allowed to select their own learning tools, services for
the access of content and human intelligence inside and outside the educational institutions. Given
that learning primarily occurs outside traditional formal situations (Leone, 2013), the use of PLE to
support lifelong learning should be implemented not only in the formal education setting but also in
the non-formal and informal environments (Greller & Drachsler, 2012). Therefore, it will be important
to understand how PLE management can predict the actual use of PLE to support lifelong learning.
This study empirically examined the following research questions:

1. How will each of the three aspects of personal learning environment (PLE) management (i.e.,
level of initiative, sense of control, and level of self-reflection) respectively predict the use of
PLE to support formal learning?
2. How will each of the three aspects of personal learning environment (PLE) management (i.e.,
level of initiative, sense of control, and level of self-reflection) respectively predict the use of
PLE to support non-formal learning?
3. How will each of the three aspects of personal learning environment (PLE) management (i.e.,
level of initiative, sense of control, and level of self-reflection) respectively predict the use of
PLE to support informal learning?

DIGITAL LIFELONG LEARNING

Lifelong learning includes formal learning, non-formal learning, and informal learning (OECD, 2014)
that are undertaken throughout life, resulting in an improvement in knowledge, skills and competences
within a personal-, civic-, social- and/or employment-related perspective. Lifelong learning includes
the provision of counseling and guidance services (Commission of the European Communities, 2001).
Although formal learning is important in lifelong learning, non-formal and informal learning are
estimated to constitute 70-90% of lifelong learning and is insufficiently represented in the literature
of open and distance learning and development (Latchem, 2014). This is because most people’s
learning throughout their lifespans is informal, occurring in family, community, and work settings
(Jeffs & Smith, 1997, 2005, 2011) and much of what they also learn is by means of non-formal
education (Latchem, 2014). Hall (2009) argued “more learning needs to be done at home, in offices
and kitchens, in the contexts of where knowledge is deployed to solve problems and add value to
people’s lives” (p. 31).
Lifelong learning consists of skills, knowledge, and practice. With the prevalence of open tools,
pedagogy, and resources, the lines among formal learning, non-formal learning, and informal learning
are blurred. Digital lifelong learning is the ultimate means for all citizens to realize their lifelong
goals. Digital lifelong learners can transform learning from self-actualization to goal-realization.
Digital open and network learning is a critical pedagogy to bridge formal and informal learning by
facilitating and recognizing lifelong learning with effective innovative pedagogies. Because digital
and open education can embrace the complexity of networked learning and can value the condition
of emergence that networked learning empowers, there should be time to encourage networked learning
as a structure and a disposition, a design and a habit of being (Campbell, 2016).
Digital lifelong learning is a learner-centered activity in which learners of different cultures
and life paths use digital technology to improve their diversified learning perspectives (Gibson,
Rimmington, & Landwehr-Brown, 2008). Effective digital lifelong learning does not occur in one
course nor can one just become a good cybercitizen; it requires human beings with the necessary skills
and knowledge to participate effectively as responsible members of society (Waters, 2012). Thus, it
is critical for lifelong learners to permeate formal, non-formal, and informal learning experiences on
the home campus, local community, and in the global community (Olson, Green, & Hill, 2006) to
grasp the interdependent and interconnected nature of digital learning, and to assume social learning
responsibilities to make learning communities and environments better.
Teacher-Designers: How Teachers Use Instructional Design in Real Classrooms
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A Research of Employing Cognitive Load Theory in Science Education via Web-Pages
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