

From mind maps to mind sets: shifting conceptions about OER in the faculty of education at the Open University of Sri Lanka

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From Mind Maps to Mind Sets: Shifting Conceptions about OER in The Faculty of Education at The Open University of Sri Lanka

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Abstract

This paper presents a case study of the adoption and use of Open Educational Resources (OER) in the redesign of five teacher education courses in the Faculty of Education at the Open University of Sri Lanka (OUSL). It describes the steps in the process of a project that is currently being implemented at OUSL in partnership with the Commonwealth of Learning (COL), in the orientation of a faculty group of thirty staff members to the concept of Open Educational Practices (OEP) and the adoption of OER in their teaching and learning. Qualitative data gathered through a series of concept mapping exercises by participants, followed up with individual commentaries on the concept maps will show the astounding developments in the breadth and depth of understanding of the various concepts related to OER as well as their adoption and use in the redesign of the five courses. The paper will also describe how concept mapping is being used to capture this incremental development of understanding and mindsets (conceptual understanding) of individuals around the concept of OEP.

Keywords: Open Educational Resources, Open Educational Practices, Concept Mapping

Introduction

The Open University of Sri Lanka (OUSL), in partnership with the Commonwealth of Learning (COL), implemented a project in 2013, to build the capacity of its teaching staff in the Faculty of Education in the integration of Open Educational Resources (OER) and ICT in their courses. Thirty

members of staff have been engaged in redesigning and integrating OER and ICT in five teacher education courses, selected from five key teacher education programs offered by the Faculty. This paper presents a case study of developments in the breadth and depth of understanding of staff of the various concepts related to OER and Open Educational Practices (OEP), as well as their adoption and use of those concepts in the redesign of the five courses.

Interpretative Phenomenological Analysis (IPA) was used as the methodology for examining participants' 'lived experiences' (Reid, Flowers & Larkin, 2005) and shifting conceptions of OER and OEP of staff during this process. Data was gathered through a series of mind mapping and concept mapping exercises, combined with individual narratives and focus group interviews that enabled studying the shifts, developments and changes of perceptions, perspectives and conceptual understandings of participants over time, around OER and OEP.

Open Educational Resources and Open Educational Practices

Open Educational Resources (OER) are “teaching, learning and research materials in any medium, digital or otherwise, that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions” (UNESCO, 2012). OER are becoming significant in education because of their implications for opening up of educational practices to enable greater flexibility and accessibility to resources, for teaching and learning.

Open Educational Practices (OEP) are ‘practices which support the (re)use and production of OER through institutional policies, promote innovative pedagogical models and respect and empower learners as co-producers on their lifelong learning path’ (Ehlers, 2011). It also incorporates notions of open learning, open scholarship and open access to educational resources with an open license.

Open licensing permits users to combine, modify and re-use any work, while allowing authors to have their work appropriately acknowledged (Creative Commons, 2010; Fitzgerald, 2007). A wide variety of teaching-learning materials are becoming available as OER that can be freely accessed, reused, revised, re-mixed and re-distributed through the open licensing framework (UNESCO, 2012).

Increasing adoption and use of OER supports and promotes a collaborative approach to the generation of knowledge (Hodgkinson-Williams, 2010). This requires a change in pedagogical practices, and beliefs, and a move towards a more open, participatory, collaborative, creative and sharing culture. While ICT can be used to harness the benefits of OER more efficiently, effective use of OER is best realized through systematic course design and careful integration of appropriate OER in the learning and teaching transactions. Promoting OEP through integrating OER into teaching and learning necessitates the adoption of more “learning-centered” pedagogical designs, such as Scenario-based Learning (SBL), which promotes the role of teacher as a ‘choreographer’ of the learning experiences of students (Naidu, 2010).

In a scenario-based learning environment, the learning activity provides the scaffolding for all learning and teaching activities. The scenario provides the context for learning and teaching, while the learning activities and the assessment tasks in the scenario provide learners the structure and scaffolding to pace their learning activities (Naidu, 2010). OER serve as essential fuel for scenario-based learning to work well and which is the focus of this case study on the impacts of OEP on faculty practice and perspectives.

Methodology

Interpretative Phenomenological Analysis (IPA) is used as the methodology for examining participants' 'lived experiences' (Reid, Flowers & Larkin, 2005) during this process. IPA explores in great detail how individuals are perceiving the particular situations they are facing and making sense of their personal and social world (Smith & Osborne, 2007). The approach helps to discover the meaning of the experience of each individual through the participants' and researchers' interpretations.

The participants are 30 academic staff members of the Faculty of Education at OUSL, in the age range of 30 – 60 years, with professional qualifications in education and active involvement in curriculum development, teaching and assessment in the teacher education programs of the Faculty. They are a homogeneous group, involved in the common pursuit of designing teacher education courses with ICT and OER integration.

This study explored the following research questions:

- What developments and changes of perceptions, perspectives and conceptual understandings of participants occurred around the concepts of OER & OEP?
- What challenges were faced by the participants during the process and how these were addressed?
- What are the impacts of this experience on the participants' professional development?
- How concept maps have been used to capture incremental development of understandings and mindsets of participants?

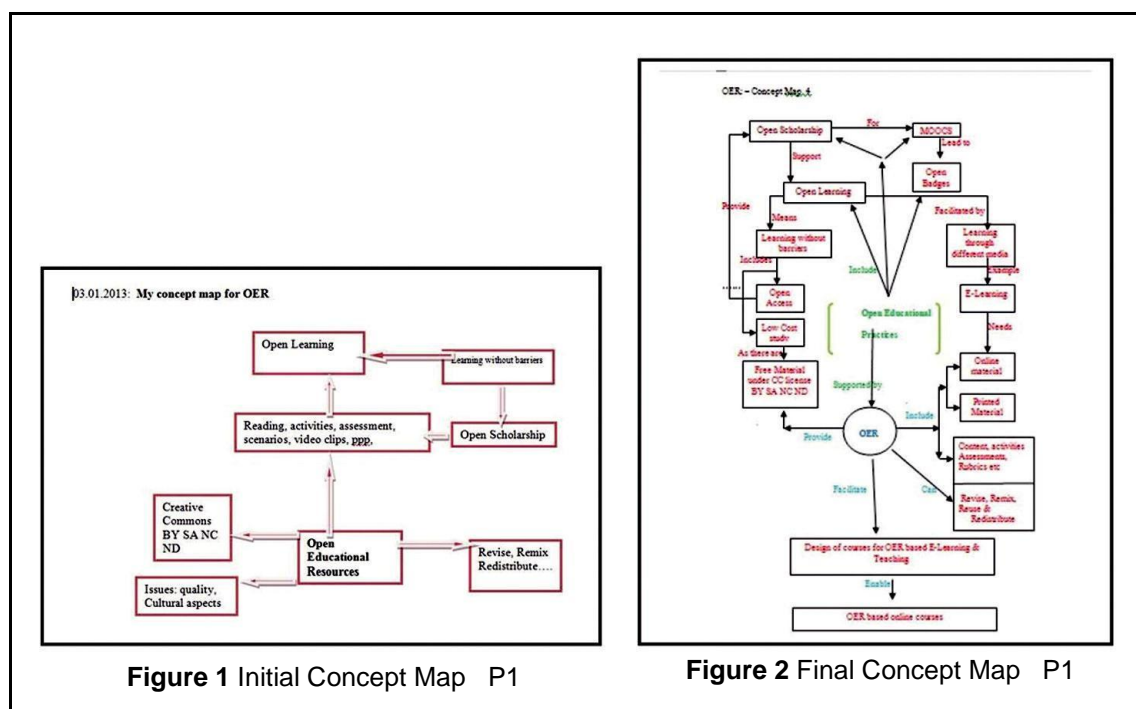
Data was gathered through a series of concept mapping exercises at different stages of the process, combined with individual narratives, self reflections on the maps, and focus group interviews. The contents of the concept maps, narratives, reflections and interview transcripts were examined in detail to explore and identify patterns of meanings as themes, which revealed understandings, ideas, thoughts and feelings of the participants about the experience.

Concept mapping is the key strategy used by participants for organizing and representing their knowledge. Concept maps have been described as 'relational' devices that outline relationships between different ideas (Davies, 2010). At the beginning of the process, the participants created their tentative maps of OER and OEP, and at latter stages developed concept maps comprising various concepts related to OER and indicating their relationships through linking words and cross links (Novak & Cañas, 2008).

Outcomes and Discussion

The different versions of concept maps clearly indicated the shifting conceptions among participants. In contrast with their first attempts at mapping OEP which was very simple and focused on OER and with only a few links showing simple associations among concepts, the latter versions, of concept maps, were a lot more complex with several concepts with links, linking words and cross links, showing relationships between various concepts related to OER. This was the case for all staff involved in the project.

Figures 1, 2, 3 and 4 represent a comparison of maps (initial and subsequent maps) of two of the participants with six months separating the two efforts, clearly demonstrating the significant changes of thinking and mindsets that occurred.



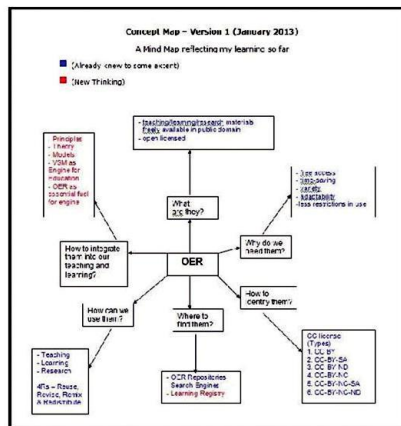


Figure 3 Initial Concept Map P2

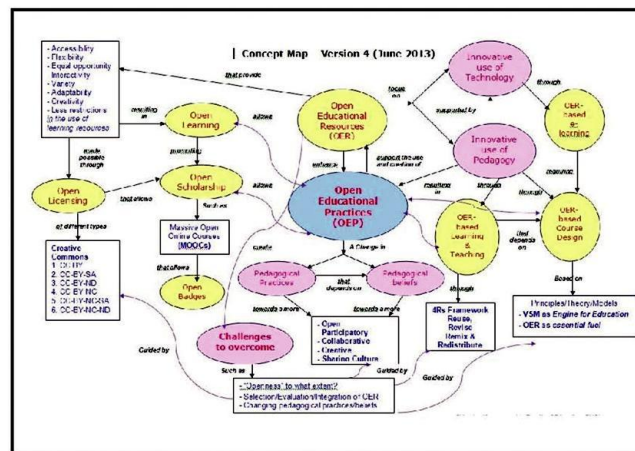


Figure 4 Final Concept Map P2

The comparison of two maps of each participant will show that initially and in most cases, the focal concept has been OER. Gradually, the expansion of thinking was clearly visible through the addition of a number of related concepts around OER such as 'open learning', 'open access', 'open scholarship', 'open licensing' and 'open badges', with the focus shifting more towards OER-integrated teaching and learning, OEP, and OER-based course design.

This concept mapping strategy has served as a powerful tool for facilitating participants' representation of their understandings of OER and related concepts. It has also revealed the incremental developments in their understandings and changes in their mindsets over time. Even though a concept map is never finished (see Novak and Cañas, 2006) it is useful to update a map regularly with the addition of new concepts. The links and cross-links in a concept map illustrate the participants' understanding of relationships between the domains and sub-domains of knowledge, while linking words describe the connections between related concepts. It is a powerful tool for capturing and representing higher level cognitive processes such as analysis, evaluation and synthesis.

The accompanying individual narratives of participants on their concept maps, further explained how their thinking has changed, as is evident by the following quotes:

“...The term ‘Open Learning’ gives the meaning that the learning is open, that is, unlike conventional learning, learning should be without restrictions. OER should be resources which facilitate for open learning. For the learning to be open, resources also should be available without restrictions...Are the people ready to share all what they have produced? Their thinking? I feel this is a little bit extra-ordinary thing...”

“...Open Learning is an energetic concept for giving opportunity to educate people in the dynamic world...Open learning concept is consisted with Open learning resources, open scholarship and the technology. Because of new technology developments open learning is making new opportunities for lifelong learning. Lifelong learning is a good trend to develop a learning-centered society. Therefore, open learning is a tool to develop a good learning society...”

“...As I think, Open Educational Resources (OERs) are freely accessible, openly formatted and openly licensed documents and media that are useful for teaching, learning, education, and assessment and research purposes...I can say students benefit from a variety of learning resources to enrich and support different learning styles; sharing resources enables teaching staff to provide a wider range of resources to their students...As an educator, can I compose and adapt OER for my class? But I will have to face some challenges in the process of integrating OER into my teaching-learning process. Really my question is how we can assure Quality, Accuracy, and Credibility, of OER available in the internet?”

It was clear that during the process, a significant amount of new thinking has emerged among the participants in relation to this novel concept. While the different versions of concept maps were helpful for mapping this ‘change’, the individual narratives were useful in understanding and elaborating these changes. The self-reflections and focus group interviews further revealed changes in the conceptions of participants as well as challenges faced by them and the impact of this experience on their professional development. Table 1 summarizes the key ideas that emerged, with quotes under different categories and codes.

Categories	Codes	Quotes to support
Changes	New knowledge New skills New thinking	“...I was wondering about this new concept.. It was very intangible at first. Now..it became more tangible...” “...Now I know what resources are available, what types to use and how to integrate...I can go beyond what I knew earlier...” “...The culture is being ‘changed’...People are being more ‘open’ and ‘free’...”
Challenges	Time constraints Skill limitations Working in a team Finding OER Concerns	“...The major constraint I had was time...” “... Different people had different ideas...Some of the ideas were not implemented or practical. I had a hard time explaining....” “Other thing is finding most suitable OER...I was thinking that is an easy task, but we have to have carefully find and select...” “...Is it going to make things more complex for us...?”
Impacts	Capacity Building Motivation Satisfaction Team Spirit Self-confidence	“...Now I understand the concept of OER through the lenses of course design concept ...” “...It’s a totally exciting work, a lot of enjoyments and motivations. I feel each step, each move as a way to success...” “...I feel happy that we have collectively achieved something important, which at first seen as very difficult...”
Preparedness	Application Future plans	“...It is an opening door to an enormous world, which provides us with the opportunity to find and incorporate resources...” “...I can influence my student teachers to find and use effective OERs in their classrooms...”

Table 1 Summary of Key ideas that emerged

The participants' reflections on their experiences of the course design process revealed their feelings, frustrations, motivations, and concerns about the process. While OER-Based course design was challenging for most, the facilitative and collaborative team work towards achieving targets helped them to overcome barriers and manage issues. A significant impact on capacity building of staff including development of knowledge, skills, attitudes and change in mindsets was revealed.

Concluding Remarks

The concept mapping exercise revealed astounding developments in the breadth and depth of understanding and development of mindsets of participants in relation to the various concepts related to OER and OEP, as well as their adoption and use in the redesign of the five courses.

The key outcomes of the process comprised enhanced knowledge of OER, OEP and related concepts, attitudinal changes, new perceptions, and views, skills in searching, identifying, evaluating and integrating OER, into course design using a situated learning approach. Collaborative team work and the development of a 'learning community was an additional benefit. Concept mapping comprises an effective tool for ascertaining the nature of this change and capturing the incremental development of understanding and *mindsets* (conceptual understanding) in individuals around the concepts of OER and OEP.

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