

# PROCESSES OF OER INTEGRATION IN COURSE DEVELOPMENT – ACTION RESEARCH STUDY OF TEACHER EDUCATORS – MALAYSIA

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# A Study on the Processes of OER Integration in Course Development



## Sub-Project 7 – Action research study of teacher educators – Malaysia

PROF MOHANDAS MENON



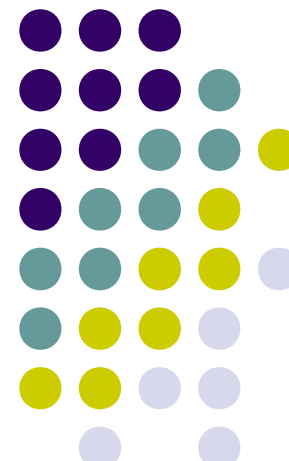
### Project Team

Mohan Menon

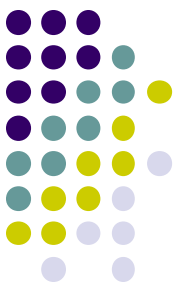
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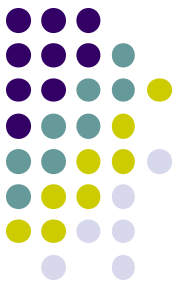


Presented by Cheryl Hodgkinson-Williams, ROER4D  
Principal Investigator, University of Cape Town



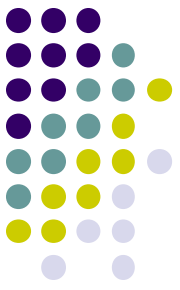
# Background to the study

- Training and ongoing **professional development of teachers** has been one of the priority areas in Malaysia & India, but the **costs of textbooks is high** and **do not have local examples**
- OER is regarded as having the potential to allow for the creation and adaption of **high quality** teaching and learning materials at relatively **low cost**
- There is **inadequate research evidence** on the process of reuse and integration of OER for designing and developing courses.



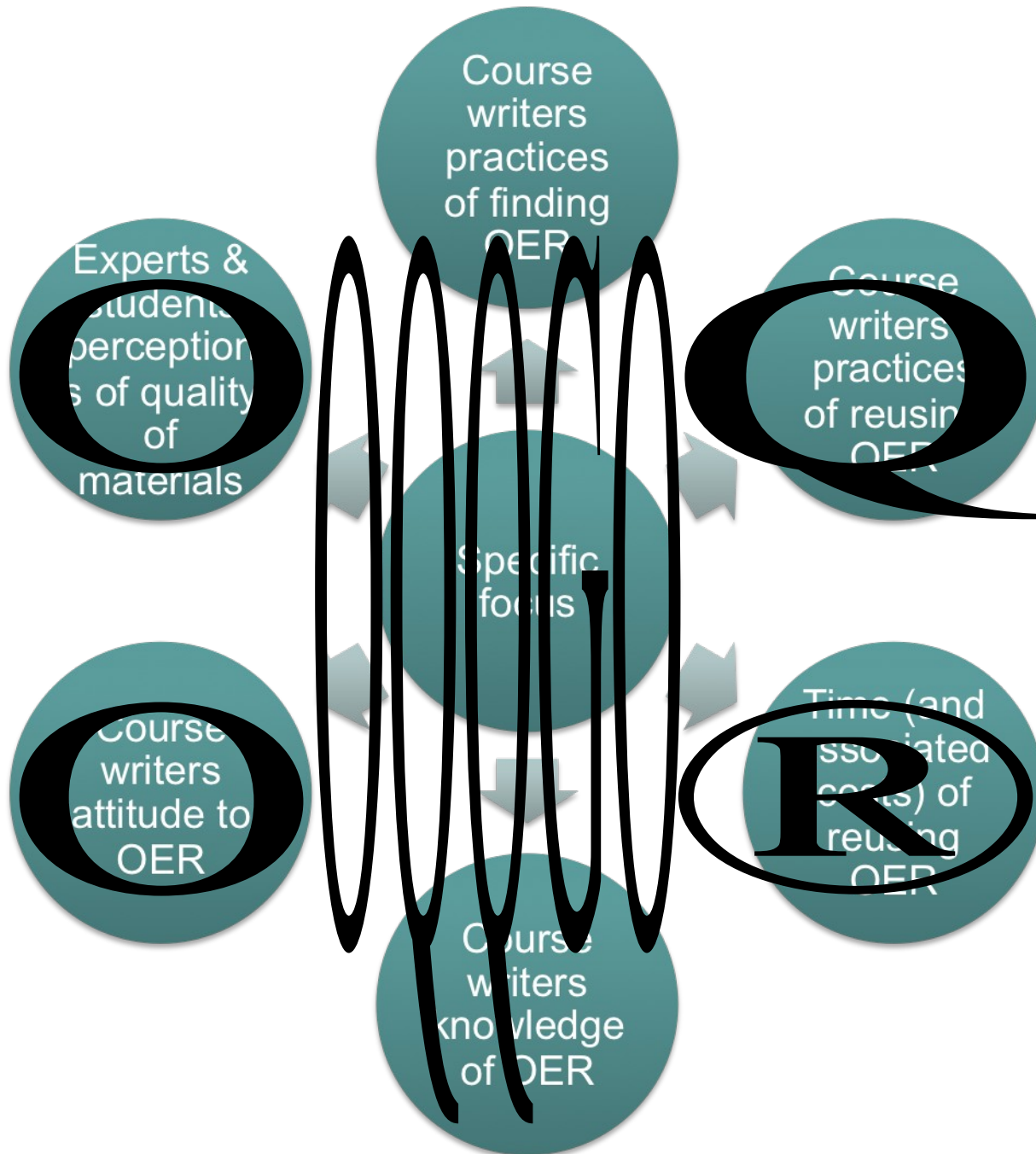
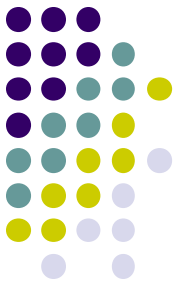
# Study

- This study probes the operational processes involved in course development using available online multi-media OER materials for a **5 credit (200 hours study) course on 'Research in Education'** at post-graduate level
- The collaborative course development is being undertaken at the host institution, Wawasan Open University in Penang, Malaysia and with a group of institutions in India and two others in Malaysia

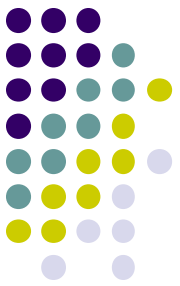


# General Objectives

- The present study intends to probe the:
  - operational processes involved in course development using available online text & multi-media OER materials and
  - the impact of this engagement with OER materials on the course writers' practices and experts and learners' perceptions of the quality of the materials.

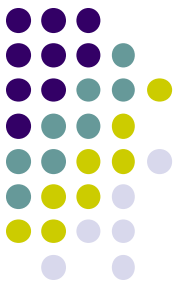


# Nature of data and collection process



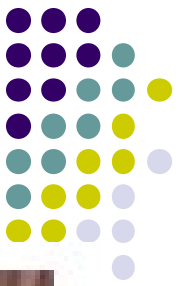
<b>Variable</b>	<b>Tools</b>	<b>Data Source</b>
<b>1. Findability</b>	<ol style="list-style-type: none"><li>1. Search LOG</li><li>2. Group reflections Questions</li></ol>	From the course writers before, during and after their engagement in course writing
<b>2. Usability/Reusability</b>	<ol style="list-style-type: none"><li>1. Course development LOG</li><li>2. Written individual reflection on OER use</li><li>3. Rating scale on a set of evaluation criteria</li></ol>	From course writers prior to, during and after development work
<b>3. Cost/Time efficiency</b>	<ol style="list-style-type: none"><li>1. Course development LOG</li><li>2. Individual Reflection Questions</li></ol>	From the course writers before, during and after their engagement in course writing

# Nature of data and collection process



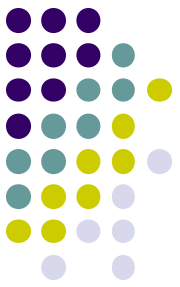
<b>Variable</b>	<b>Tools</b>	<b>Data Source</b>
<b>4. Conceptual knowledge of OER</b>	<ol style="list-style-type: none"><li>1. Concept Mapping</li><li>2. Individual/group reflection</li></ol>	From the course writers before, during and after their engagement in course writing
<b>5. Attitude towards OER</b>	<ol style="list-style-type: none"><li>1. Scale for course writers</li></ol>	<ol style="list-style-type: none"><li>1. Course writers before and after the course writing engagement</li></ol>
<b>6. Quality of learning materials</b>	<ol style="list-style-type: none"><li>1. Quality Assessment scale (Experts)-Adapted from Kawachi (2014)</li><li>2. Quality Assessment Scale (students)</li></ol>	<ol style="list-style-type: none"><li>1. Experts</li><li>2. Students</li></ol>





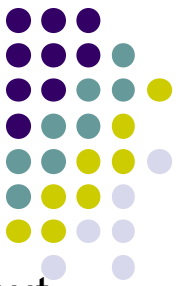
The writing session in progress at Kochi, India

# Curriculum and Material Development Workshops



Item	Purpose of the workshop	Dates	Course Outputs
			Research data
1.	Development of Curriculum in Research Methodology at Post-Graduate Level	May 2014	A Draft Curriculum Outline
2.	Concept analysis workshop	May 2015	Operationalisation of each variable with draft items for data collection
3	Module Development using Multi-media OER materials	Nov 2015 (5 days)	First draft of few units of Modules 3, 4 and 5 Concept mapping, reflection & Attitude survey
4.	Module Development using Multi-media OER materials	Jan 2015 (5 days)	First draft of few units of Modules 1 and 2 (As above)

# Proposed Module Tryout Workshops



	Venue	Proposed Dates	Modules/ Units being tried	Sample (about 120 students)
1.	MET College of Education, Nagakoel, India (RURAL)	25 <sup>th</sup> April	Module-4: All Units	32 M.Ed. Students
2.	St. Joseph college of teacher education for women, India (SMALL TOWN)	7 <sup>th</sup> May	Module-2- All Units	35 M.Ed. Students
3.	School of Education, Nottingham University Malaysia (SMALL TOWN)	3 <sup>rd</sup> Week of May	Unit-1- All Units	M.Ed. students
4.	School of Education,,University Sains Malaysia. (BIG CITY)	June	All five modules	5 groups of M.Ed. Students
5.	Azim Prenji University, Bangalore, India (BIG CITY)	July	All five modules	5 groups of M.Ed. Students

**TOOL****NATURE AND SCALE  
OF DATA COLLECTED****METHOD OF DATA ANALYSIS**

OER Search LOG and OER  
USE LOG  
Expert assessment tool

Verbal, descriptive – nominal  
scale

Qualitative interpretative  
categorisation/coding based on a set of  
criteria developed from Okada (2012)  
framework

OER Concept Mapping

Number of concepts covered  
and logical links

Analysis and assessment based on a set  
of criteria (Zelik, n.d)

Individual written reflection-  
Open and closed

Rating in a five point scale and  
verbal narration/description-  
Nominal & ordinal scale

Percentages of ratings and comparisons

Group reflection

Verbal, descriptive, narrative-  
nominal scale

Content/narrative analysis of transcribed  
data; Qualitative interpretative  
categorisation/coding

Attitude scale

Rating on a five point scale-  
Ordinal

Percentages of ratings and comparisons

Quality assessment scales

Ratings on a five point scale  
and verbal descriptive data

Percentages of ratings and comparisons  
Content/narrative analysis; Qualitative  
interpretative categorisation/coding

Expert rating tool

Ratings and descriptive  
observations

Percentages of ratings and comparisons  
Content/narrative analysis; Qualitative  
interpretative categorisation/coding

# Types of reuse (adapted from Okada et al. 2012)

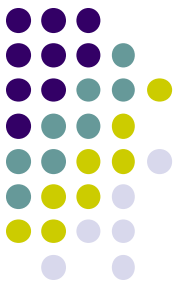


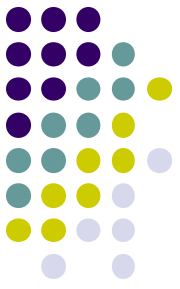
Table 1: Levels of reusability (adapted from Okada et al 2012)

Levels of reusability	Ways of reusing OER
Recreate content & contribute to new productions	Re-authoring: Transforming the content by adding your own interpretation, reflection, practice or knowledge
	Contextualizing: Changing content or adding new information in order to assign meaning, make sense through examples and scenarios
	Redesigning: Converting a content from one form to another, presenting pre-existing content into a different delivery format
Adapt part of the content	Summarising: Reducing the content by selecting the essential ideas
	Repurposing: Reusing for a different purpose or alter to make more suited for a different learning goals or outcome
	Versioning: Implementing specific changes to update the resource or adapt it for different scenario.

# Concept map analysis questions (following Zelik)



- Are the most important concepts depicted?
- Is there a substantial amount of branching hierarchy and cross-linking?
- Do any of the propositions suggest that the course writers display significant misconceptions of OER?
- How have their concept maps changed over the period of the course development ?



# ACKNOWLEDGEMENT

- We thank **Cheryl** for presentation of these slides in our absence
- We thank **Tess** for all the support provided

Warm regards to all participants from  
Mohan, Phala and Jasmine  
Sub-project-7 Team, WOU, Penang

# Thanks

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