Type of Session: Presentation

Track: Pedagogy and Design

Title of Session: Instructional Design of OER Produced/Contextualized for Pakistan

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Goals or Intended Outcome: The goal of the presentation is to explore the instructional design of OERs being produced/contextualized for Pakistan keeping in view the principles of Constructivism, Multimedia Principles, Cognitive Load Theory and Cognitive Theory of Multimedia. The context of Pakistan will underpin all discussion to augment understanding of instructional design. The instructional design of the OER material before being contextualized will be compared with the re-adapted material to see if the design had been changed in the process of re-adaptation.

Intended audience: Experienced open education professionals, those new to the field, general.

Description of the Study

Instructional Design of OER Produced/Contextualized for Pakistan

There is a great deal of interest in how Open Educational Resources can be used in developing countries to increase access, improve quality and reduce the cost of educational provisions.¹ ii iii Pakistan is facing serious challenges, stemming from education gaps that affect the quality of life, economic growth, and equal opportunities to its citizens iv. By the end of 2015, Pakistan aims to achieve an 88% overall literacy rate v. According to Pakistan Social and Living Standards Measurement (PSLM) Survey 2012-13 vii, Completion/Survival rate in Grades 1 to 5 is 50% and Literacy Rate for 10 years and above is 60%.

Government of Pakistan has included integration of ICT in its educational policy and aims to use ICT to “assist teachers and students” and to “strengthen the quality of teaching”.⁷ The National ICT Strategy 2007 emphasizes the use of ICTs in Pakistani education system and states that “ICTs must be used to extend the reach of educational opportunity to every citizen”. The statistics about ICT and internet usage in Pakistan are much better than it was a decade ago. viii Initiatives have been started by the provincial and federal government of Pakistan like IT Labs project through which 4200 public schools were equipped with IT labs and laptop schemes ix x through which around 200,000 laptops have been distributed and another 200,000 laptops will be distributed in
the coming years. A study was done to see the impact of technological infrastructure on the learning of students and it was discovered that these resources were not being used in the classes. Now that the secondary public schools in Punjab have the required infrastructure, different projects have started in Pakistan to promote and to contextualize the Open Educational Resources. Punjab is the first province to provide open access to science and math textbooks of grades 9 and 10 to public school students. The textbooks are augmented with videos, animations and simulations to help the students to interact with the text. Translation of Khan Academy videos is done in Urdu on topics pertaining to the mathematics curriculum of public school students. International organizations like UNESCO have developed training material for teachers in Urdu so that they can understand and implement what they learn.

OER producers and organizations that are contextualizing OER for students and teachers in Pakistan are doing this with the intent to improve the quality of teaching and learning. The field of OER is still in its infancy in Pakistan but with the rapid growth of contextualized OERs, educators are expressing concern about the instructional quality of resources as that will have an impact on the potential benefits of these resources for diverse users. There has been a recent shift towards improving the quality of OER material and UNESCO sponsored global dialogue also addressed the need that quality of OER is a priority research item. This is especially very important for developing countries like Pakistan where there is dearth of quality textbooks and teachers are untrained in public schools. The benefit for the producers of OER in Pakistan is that they can clearly identify end users and hence OERs can be more effective. The contextualized OERs target specific users as the material is directly linked to the curriculum and the specific grade level of students.

This study will explore the instructional design of the contextualized OERs to see how it is facilitating learning. There can be different models and designs of instruction but it is important to know what the learners will be able to learn from the particular design. The instructional design of contextualized OER will be reviewed from the perspective of Constructivism, Multimedia Principles, Cognitive Load Theory and Cognitive Theory of Multimedia. Data will be collected from the producers of OER or companies that are contextualizing OER for local users of Pakistan to get an insight of their perspective for starting and investing in this initiative.

The importance of incorporating principles of instructional design is all the more for students and teachers of Pakistan as teacher centered approach is prevalent in public schools in Pakistan and there is an emphasis on rote learning. OER can help the learners to learn in a constructivist way and thus improve the deep understanding of subject matter that is not possible in the regular classroom. While there are a growing number of IT professionals in Pakistan, there are hardly any instructional designers as this discipline has just been introduced in one university in the capital city of Islamabad.
The results of this study will provide guidelines to the prospective producers of OER in Pakistan and will also help the current producers to improve their instructional design. Instruments are available to measure quality of certain web based educational material but there is no universal framework for producing quality self-directed OERs. This study will propose a set of instructional design strategies to address concerns regarding the quality of OERs produced and contextualized in Pakistan. The instructional design of the OER material before being contextualized will be compared with the re-adapted material to see if the design had changed in the process of re-adaptation. This will give an idea of the framework that is being used in re-adapting the existing OERs for Pakistan.

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9 Prime Minister provision of laptop. http://youth.pmo.gov.pk/?page_id=28