Perceptions Regarding OERs: The Case of Prospective Teachers

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Abstract

Whatever its pedagogical credence or relevance, the open educational resource is above all an incredibly rich resource of learning, knowledge and research. At the turn of the twenty first century, its creation, dissemination and application are much more emphasised. This study examines the perceptions of prospective teachers regarding open educational resources (OERs). The methodology employed was descriptive survey and the subjects under investigation were chosen, based on simple random sampling from secondary teacher education programme. In the study, the investigator among other things found that the perceptions of prospective teachers regarding OERs are as production of educational resources and other learning management systems. The analysis brings forth that the OERs continue to be a potential resource to accelerate progress towards education, training and development for all. However, no significant difference was found when the subjects were compared with respect to the methodology of teaching, their gender and age groups. Considering OERs, as tool of education, training and development, link to the production and dissemination of knowledge, and the more recent perception as the agent of change in the learning process.

Introduction

Education being a dynamic process, changes with the prevailing global competitive environment. The need for creating and disseminating knowledge world over has been felt acutely. One of the most effective ways of achieving this would be to stimulate the development and dissemination of quality Open Access (OA) materials and Open Educational Resources (OERs) through broadband Internet connectivity (National Knowledge Commission, 2007, p.51). In the context, the open educational resource movement has got momentum in the domain of tertiary education. OERs are educational materials and resources offered freely and openly for anyone

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to use and under some licenses to remix, improve and redistribute (COL, 2009, 25). Another definition to open educational resources as proposed by the William and Flora Hewlett Foundation may be referred to

OERs are teaching, learning and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use or re-purposing by others. Open educational resources include full courses, course materials, modules, textbooks, streaming videos, tests, software and any other tools, materials or technologies used to support access to knowledge" (Atkins, Danial E. et al, 2007, p4).

OERs are learning resources specifically designed and developed in the digital format that are open and made available freely on the web. However, it is the openness of these resources that distinguishes it in good part from any other traditional methods of seeking information and knowledge. NKC (2007) maintains that it is vital for India to leverage these initiatives as they are readily available for adoption and adaptation and to serve as a model for further indigenous content production. To reach the masses we need to use the mass media and other technologies, because face-to-face communication cannot be scaled up to meet the challenge (Daniel, John et al, 2007, 24).

The powers of low-tech and high-tech go further than this, however. Indeed, observations have been made to integrate technology to strengthen the open-learning environment.

Scanlon (2011) maintains that: *The striking change that is currently happening is the ability to personalize educational resources in the widest sense and combine this with social networking enabled by technology, with control over how public or private your different information sharing activities are (Scanlon, E. 2011, p. 107).*

This tells us that the academia and researchers have to be consistent in their involvement for creative and innovative practices. One reason for the rapid take-up of the OERs is that it has the potential to narrowing the knowledge divide between various groups. Ostensibly, the spread of knowledge and learning provisions have made greater strides in the last two to three decades of technological advancements. Bates (2000) discusses World Wide Web both as presentational tool in lectures and as a means of making lecture notes conveniently available to students at other times (Bates, A.W. 2000, p.23). Developing OERs is therefore time and resource-consuming but promising and requires significant technical expertise. It also requires involvement in sophisticated tools, applications and appliances both for creation and dissemination of knowledge. Venkaiah (2008) found that the development and use of OERs in India is still low when compared to the developed countries. Given the situation, creative and innovative practices are more favourable to the large and growing number of people. Through OERs, learning tools and applications provide self-paced production of educational materials on a host of issues. To justify the endeavour, a considerable and rich

learning provision is made available globally. OERs are accessible on demand through WWW.

Need and Significance

At the turn of the twenty first century, the whole notion of education, learning and research is seen more in line with the ICT and other networking technologies. The Internet technology has emerged as a dynamic and potential medium for channelising the educational resources. In the highly cohesive and interconnected society, sources of learning become wider. The role of teachers, educators and researchers continues to change. This has led to the information and knowledge revolution taking place expeditiously. The emerging technologies have the potential to radically transform the ways and means of accessing and communicating information and knowledge. Contributors bring more focused and diverse educational materials than ever before. OER, as tool to produce and disseminate knowledge, is in tune with the requirements of the learning groups. For the effective utilisation of these resources, the teachers have to be consistent and positively involved in the creation and dissemination of the resourceful materials. In the present paper, analysis is made on the perceptions of prospective teachers regarding OERs with respect to the methodology of teaching, their gender and age groups.

Objectives of the Study

The objectives of the paper are

- to study the perceptions regarding OERs among prospective teachers;

- to analyse the significant difference, if any, in the perceptions regarding OERs between prospective science and social studies teachers,

- to find out the impact of gender in the perception of the prospective teachers regarding OERs; and

- to evaluate the impact of age group of the prospective teachers in the perception regarding OERs.

Hypotheses

- The prospective teachers perceive OERs as potential creative activity for creating and disseminating contents on interdisciplinary concerns.

- There is no significant difference in the perceptions regarding OERs between prospective science and social studies teachers.

- There is no significant difference in the perceptions regarding OERs among prospective teachers with respect to their gender.

- There is no significant difference in the perceptions regarding OERs among prospective teachers with respect to their age group.

Design of the Study

The methodology employed was descriptive survey wherein prospective science and social studies teachers' perceptions on OERs with respect to their gender and age groups at secondary level teacher education were compared.

Sample Size

Keeping the objectives in view, a total of 112 prospective teachers of which 50 (44.64%) prospective science teachers and 62 (55.36%) prospective social studies teachers enrolled under one year full time secondary teacher education programme at Maulana Azad National Urdu University, Hyderabad were selected using simple random sampling technique.

Tools

The present study was conducted with the help of a five-point rating scale developed by the investigator. The tool consists of 20 items representing with the different OER aspects. The tool was administered and the data was collected from the prospective teachers. Necessary instructions to the subjects were given to mark free and frank responses.

Data Analyses

Scores were calculated, based on the responses to all items of the tool. The responses were recorded on a five-point scale through survey method and the data were analyzed and interpreted with the help of statistical techniques, i.e. mean, standard deviation and t-test. Finally, conclusions were drawn with all objectivity and emotional detachment.

Findings

On the basis of the discussions and interpretations of the results, the following findings have been emerged out of the study:

Figure 1 shows the percentage of frequencies of all the 20 items marked

Figure 1: Distribution of Frequency Percentage of Prospective Teachers' Perceptions regarding OERs
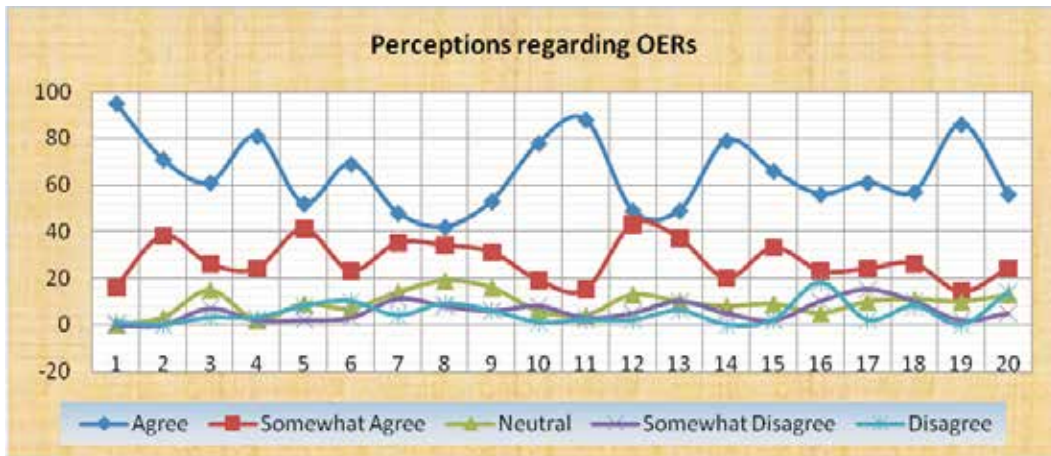
by the prospective teachers as agree, somewhat agree, neutral, somewhat disagree and disagree on perception regarding OERs.

The data gathered for analysis and interpretation were properly arranged to apply suitable statistics and the observed differences between means were tested with t-ratio.

Table 1: Significance of Difference between Science and Social Studies Prospective Teachers Regarding OERs

Group of Prospective Teachers		N	Mean	SD	t-ratio	Significance
Methodology of Teaching	Science	50	32.97	46.2528		
	Social Studies	62	40.11	57.0797	0.7307	NS*

Not significant at 0.05 level.

Table 1 shows that the t-value obtained for the comparison of the scores of science and social studies prospective teachers is 0.7307 which is less than 1.98 at 0.05 level. So the null hypothesis is accepted. Hence, it is concluded that there is no significant difference in the perception of science and social studies prospective teachers regarding OERs.

Table 2: Significance of Difference between Male and Female Prospective Teachers Regarding OERs

Group of Prospective Teachers		N	Mean	SD	t-ratio	Significance
Gender	Male	64	41.13	57.2497		
	Female	48	31.95	46.5792	0.9349	NS*

Not significant at 0.05 level.

Table 2 reveals that the t-value calculated for the comparison of the scores of male and female prospective teachers does not exceed 1.98, the required table value for significance testing at 0.05 levels. Here, H0 is accepted. Hence, it is concluded that there is no significant difference in the perception of male and female prospective teachers regarding OERs.

Table 3 shows that the t-value obtained for the comparison of the scores of prospective teachers up to twenty four years and above twenty four years is 1.612 which is less than the required table value i.e.1.98 at 0.05 level. So the null hypothesis is accepted. Hence, it is concluded that there is no significant difference in the perception of up to twenty four

Table 3 : Significance of Difference between Prospective Teachers upto Twenty Four Years and Above Twenty Four Years regarding OERs

Group of Prospective Teachers		N	Mean	SD	t-ratio	Significance
Age Groups	Up to 24	67	44.50	65.1477		
	Above 24	45	28.63	38.8677	1.612	NS*

Not Significant at 0.05 level.

years and above twenty four years prospective teachers regarding OERs.

Thus, the fact to which pointed attention needs to be drawn is that the open educational resource is a large-scale, web-based digital publishing initiative. The courses are made freely available for educational purposes that users across the world can use, reuse, redistribute and adapt materials under open licenses like creative common license (Ghalib, M.A.M, et al., 2009, p.43). It is high time to encourage the technology integration in all academic endeavours to benefit the ever increasing learning groups.

Conclusion

The study helps the investigator to draw the following conclusions: It is revealed from the study that the prospective teachers perceive OERs as resourceful learning provision. The methodologies of teaching, gender and age groups have no significant impact in the prospective teachers' perception regarding OERs. The prospective teachers irrespective of the methodology of teaching, gender and age groups believe that OERs' contents in multimedia formats benefit the large and growing number of learners. The study also concludes that OERs create new opportunities to accelerate progress towards education, training and development for all.

Educational Implications

On the basis of results obtained from the present study several educational implications can be derived; a few of them are outlined below:

- Uses of open educational resources be included as a part of creative learning activity.
- Prospective teachers have to be specially trained to share educational resources for the benefit of the various target learning groups.
- On the basis of rich and diverse materials produced and disseminated, the knowledge divide may be narrowed down.

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