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## A STUDY ON USAGE OF OPEN EDUCATIONAL RESOURCES (OER) FORMAT TO ENHANCING THE ACADEMIC PERFORMANCE OF HIGHER SECONDARY SCHOOL STUDENTS IN RAMANATHAPURAM EDUCATIONAL DISTRICT

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**A STUDY ON USAGE OF OPEN EDUCATIONAL RESOURCES (OER) FORMAT TO  
ENHANCING THE ACADEMIC PERFORMANCE OF HIGHER SECONDARY  
SCHOOL STUDENTS IN RAMANATHAPURAM EDUCATIONAL DISTRICT**

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**Abstract**

*Open Educational Resources (OER) are freely available, openly allowed text, media, and other digital resources that are useful for instruction. The Open Educational Resources (OER) formats are used for this study with the help of the internet. The investigator as a facilitator for this study. The learning is through open educational resources in three months. The quarterly marks were used for pretest and half-yearly marks were used for the post-test score. The experimental method and single group design were employed in the study. 40 students were taken for this study. The simple random sampling has used the study. The findings were there is no significant difference between the groups. The academic performance is may increase through Open Educational Resource (OER) format learning.*

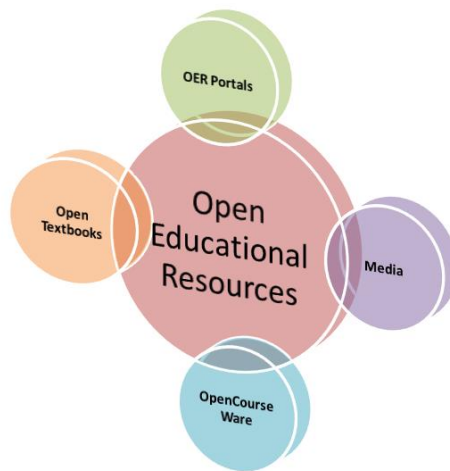
**Keywords:** *Open Educational Resources (OER), Academic performance*

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**Introduction**

Open educational resources (OER) are freely available, openly allowed text, media, and other digital resources that are useful for instruction, learning, and evaluating as well as for research determinations. There is no worldwide usage of open file setups in OER. The term OER describes openly accessible materials and properties for any user to use, re-mix, recover and

reallocate under some licenses. Higher education organizations around the world have been using the Internet and other digital tools to develop and distribute teaching and learning for decades. Educational Resources (OER) have gained improved care for their conceivable and promise to remove demographic, financial, and geographic informative borders and to encourage life-long information and modified knowledge. The rapid growth of OER provides new chances for teaching and learning, at the same time, they challenge recognized views about teaching and knowledge practices in advanced education.



## **ACADEMIC PERFORMANCE**

Academic performance is the information and skills that students have learned in a subject or a course. It's basically a measure of how well students have achieved in the various valuation items set for them based on some instructive criteria determined by professional educators. There are irresolute results over which separate factors positively predict theoretical performance, elements such as test anxiety, setting, incentive, and emotions require thought when developing models of school accomplishment.

## **REVIEW OF RELATED LITERATURE**

**NormFriesen (2009)** Open Educational Resources: New Possibilities for Change and Sustainability. In an effort to understand the possible of OER for alteration and sustainability, the results of a relaxed survey of active and sedentary gatherings of online educational resources, highlighting data related to gathering longevity and the project traits associated with it. Through

an investigation of the results of this survey, in amalgamation with other surveys of OER shareholders and projects, the paper comes to an initial supposition: Despite differences in urgencies and emphasis, OER initiatives are in danger of consecutively aground of the same sustainability challenges that have claimed frequent learning object collection or source projects in the past. OER projects suffer from the same mismatches with existing official cultures and urgencies that have dogged education object enterprises, and they face the attendant challenge of ahead access to the operational backing support that knowledge shows are necessary for their endurance. However, through an evaluation of one of the most positive of OER projects to date, the MIT Open Courseware Inventiveness, the paper ends by supplementing this significant caveat with a second, more hopeful deduction: OER projects, unlike learning object creativities, can accrue tangible benefits to instructive institutions, such as student staffing and advertising. Highlighting these benefits, it is contended, provides a chance to link OER creativities to core institutional urgencies. In addition to providing a likely route to financial sustainability, this typical of OER may help to foster the important changes in practice and philosophy long sought by organizers of both knowledge substances and OERs.

**Stephen Downes (2007)** expressed the Models for Sustainable Open Educational Resources. This study portrays the sustainability of Open Educational Resources (OERs) in the footings of the three models: subsidy, practical, and content. Conversation and recommendations are focused on the sustainability of OERs and the condition that we think of OERs as only part of a greater picture – one that includes helpers and incentives, civic and partnerships, co-production and allocation, distributed supervision and control.

**Vivien Rolfe (2011)** revealed that Open educational resources: staff attitudes and awareness. Attitudes are varying in education globally to encourage the open sharing of educational sequences and resources. The purpose of this study was to discover staff awareness and insolences to “open educational resources” (OER) as a standard for monitoring future development. Faculty staff (n-6) were requested to participate in semi-structured consultations that facilitated the growth of a questionnaire. Staff respondents (n-50) were not aware of the tenure OER but had a clear notion of what is destined. They were familiar with open content sources within the university but not outwardly. A culture of plagiarizing and sharing of capitals exists between close peers, but not further afield, and whilst staff would obtain capitals from the

Internet, they were discreet to place resources there. Drivers for assembling resources encompassed strong confidence in open education, the ability of OER to improve individual and recognized reputations and financial factors. Barriers to OER included misperception over patent and lack of IT provision. To conclude, there is a positive academic culture within the faculty, and overwhelming the lack of consciousness and dismantling the fences to sharing will help advance the open instructive practices, benefitting both ability staff and the global public.

### **OBJECTIVES OF THE STUDY**

1. To identify the academic performance of the XI standard Students.
2. To trained through the Open Educational Resources (OER) format.
3. To find out the academic performance of the XI standard Students.

### **HYPOTHESIS OF THE STUDY**

1. There is no significant difference between the academic performances of the XI standard male Students in pre-test and post-test.

2. There is no significant difference between the academic performances of the XI standard Female Students in pre-test and post-test.

3. There is no significant difference between the academic performances of the XI standard urban Students in pre-test and post-test.

4. There is no significant difference between the academic performances of the XI standard rural Students in pre-test and post-test.

### **OPEN EDUCATIONAL RESOURCES (OER) FORMAT**

Open educational resources include full developments, course resources, modules, textbooks, gushing videos, tests, software, and any additional tools, materials, or methods used to provision access to material. The new definition openly states that OER can comprise both digital and non-digital capitals.

## **EXPERIMENTATION**

The investigator is the facilitator to the students. The students were studied in the normal classroom with the help of the traditional method after the students were studied the content through the open educational resources format. The learning is continued from the quarterly exam to the half-yearly exam (3 Months). The three months students have continually studied the content with the help of open educational resources. The academic performance was identified with the marks of the half-yearly examination. The students studied the subject content through Images, videos, video lectures, e-books, infographics, slides, and audio podcasts. Academic performance was measured with the help of marks obtained by XI students in the quarterly examination. So the investigator used the quarterly marks for a pre-test of the academic performance and half-yearly marks for the post-test of the academic performance.

### **Limitation of the Study**

Limitations are those conditions that are beyond the control of the investigator that may place restrictions.

- i) The study deals with XI standard students only.
- ii) This study is limited to schools located only in Ramanathapuram Educational district.
- iii) Academic performance is measured in terms of the marks in Physics obtained by the students in XI standard quarterly examination and half-yearly examination.

### **SAMPLE FOR THE STUDY**

The investigator has used a simple random sampling technique for selecting the sample from the population. The stratification has been done on the basis of gender, locality of the students. The sample consists of 40 higher secondary school students from Government Higher Secondary School Uchipuli, Ramanathapuram District, Tamilnadu, India.

### **RESEARCH METHOD**

The experimental method and single group design were employed for the study.

## TOOLS USED IN THE PRESENT STUDY

As the study aims to Open Educational Resources (OER) Format of higher secondary school students, the investigator has used the following tools.

1. Adapted the study Open Educational Resources (OER) Format

## DIFFERENTIAL ANALYSIS

### Testing the Hypothesis

#### *Hypothesis: 1*

*There is no significant difference between the academic performances of the XI standard male Students in pre-test and post-test.*

**Table 1**  
**Academic performances Male Students in pre-test and post-test**

Male (N)	Test	Mean	SD	't' value	Level of significance
40	Pre-Test	64.1	7.34	11.49	Significant
	Post Test	85.25	3.79		

$$Df=20+20-2=38$$

$$0.05 \text{ level}=1.684$$

It is inferred from the above table 1, that the calculated 't' value (11.49) is greater than the table value. Hence the null hypothesis is rejected and there is a significant difference between the academic performances of the XI standard male Students in pre-test and post-test.

#### *Hypothesis: 2*

There is no significant difference between the academic performances of the XI standard Female Students in pre-test and post-test.

**Table 2**

**Academic performances Female Students in pre-test and post-test**

Male (N)	Test	Mean	SD	't' value	Level of significance
40	Pre-Test	85.05	1.74	14.86	<b>Significant</b>
	Post Test	63.2	6.36		

Df-20+20-2=38

0.05 level=1.684

It is inferred from the above table 2, that the calculated 't' value (14.86) is greater than the table value. Hence the null hypothesis is rejected and there is a significant difference between the academic performances of the XI standard Female Students in pre-test and post-test.

***Hypothesis: 3***

There is no significant difference between the academic performances of the XI standard urban Students in pre-test and post-test.

**Table 3**

**Academic performances Urban Students in pre-test and post-test**

N	Test	Mean	SD	't' value	Level of significance
40	Pre-Test	64.65	8.00	10.59	<b>Significant</b>
	Post Test	85.1	3.31		

Df-20+20-2=38

0.05 level=1.684

It is inferred from the above table 3, that the calculated 't' value (10.59) is greater than the table value. Hence the null hypothesis is rejected and there is a significant difference between the academic performances of the XI standard urban Students in pre-test and post-test.



***Hypothesis: 4***

There is no significant difference between the academic performances of the XI standard rural Students in pre-test and post-test.

**Table 4**  
**Academic performances Rural Students in pre-test and post-test**

<b>N</b>	<b>Test</b>	<b>Mean</b>	<b>SD</b>	<b>'t' value</b>	<b>Level of significance</b>
40	Pre-Test	62.65	5.35	16.93	<b>Significant</b>
	Post Test	85.2	2.54		

Df-20+20-2=38

0.05 level=1.684

It is inferred from the above table 4, that the calculated 't' value (16.93) is greater than the table value. Hence the null hypothesis is rejected and there is a significant difference between the academic performances of the XI standard rural Students in pre-test and post-test.

**.CONCLUSION**

As an interest in OER advances in India, it will be critical to understanding the attitudes and behaviors surrounding it. The current study provided an evaluation of perceptions of OER and associated behaviors and found. The researcher found a significant difference between the groups. The differences may help the development of OER through the teaching and learning process.

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