

**MODERN INFORMATION TECHNOLOGY STRATEGIES (MITS) FOR ENHANCING THE GEO-LITERACY
AMONG HIGHER EDUCATION STUDENTS**

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Abstract

Modern Information Technology (MIT) age becomes an era of enhancing the knowledge providing sound and unmatched feasibility for discovery, exchange of information, communication and exploration to strengthen the teaching learning process. Modern information technology pays more and more attention to e-learning in higher education. MIT Strategies help in promoting opportunities of enhancing the Geo-Literacy knowledge among Higher Education students. The present research paper focused on the study is to find the effectiveness of Modern Information Technology (MIT) for enhancing Geo-Literacy among Higher Education students. Modern Information Technology (MIT) and Geo-Literacy are important aspects of the education system. Now a days Modern Information Technology Strategies (MITS) playing a very vital role in human life because with connection in the daily Teaching-Learning Process. The vital roles of technology in education are that students and teachers can interact very well and teachers can serve all study material through online mode, so that students can better understand the topics and solve the problem. Modern Information Technology Strategies (MITS) approaches modern classroom, Smart classes, which primarily focus on improvising the performance of every student. Modern Information Technology Strategies (MITS) has brought about many dramatic changes in how teachers teach and how students learn. Education use Modern Information Technology (MIT) to design and assess learning activities, to communicate with students and the interactive education for continuous development. The present paper focused on the study of Modern Information Technology Strategies (MITS) for enhancing Geo-Literacy among Higher Education students with prime objectives are (i) To understand the concepts of Modern Information Technology (MIT) and Geo-Literacy. (ii) To Prepare and Develop the Modern Information Technology Strategies (MITS) for enhancing Geo-Literacy among Higher Education Students. (iii) To find the effectiveness of Modern Information Technology Strategies (MITS) for enhancing Geo-Literacy among Higher Education Students. MIT WPU, School of Education, Pune is the sample of present study. This study has been completed via use of experimental research method based on pretest - posttest research approach.

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The participants are registered from MIT WPU, School of Education students studying in B.Ed. Program, during the fall term of 2021-2023 academic year. Based on the selection criteria, 30 students are selected for the study. Research data was analyzed through various research statistical tools. Participating students believe that Modern Information Technology Strategies (MITS) are necessary component for enhancing the Geo-Literacy as an understanding the relationship between nature and human being.

Furthermore, participants stated that Modern Information Technology Strategies (MITS) could be integrated

into Geo-Literacy. Based on the findings, it is possible to conclude that offering Modern Information Technology Strategies (MITS) for enhancing the Geo-Literacy among Teacher Trainee students may significantly contribute to better understanding the Interactions-Understanding of human and natural systems, Interconnections-Geographic reasoning and Implications-Systematic decision-making. The methodology of the research is a different type involving an interpretative, conversation, observations and study secondary sources, like books, articles, journals, thesis, university news, expert opinion, and websites etc.

Key Words: Modern Information Technology Strategies (MITS), Geo-Literacy, Higher Education

Introduction:

Education is a continuous, systematic and a planned process. It is the development of the potential of a being to its maximum, by the harmonious growth of the physical, mental, social, emotional and spiritual.

Value Based Education Program offers an innovative way of thinking about education and how students can be supported to develop to become successful and happy members of the global society.

Modern Information Technology strategies (MITS) encourages reflective and inspirational attributes and attitudes. They can be nurtured to help people, discover the very best of themselves which enables them to be good global citizens and prepare them for their working life. Now present research based on Modern Information Technology strategies (MITS) researcher prepare and develop the Modern Information Technology strategies (MITS) for enhancing Geo-Literacy among Higher Education Students. Present Modern Information Technology strategies (MITS) is an approach to understanding the Interactions-Understanding of human and natural systems, Interconnections-Geographic reasoning and Implications-Systematic decision-making. Modern Information Technology strategies (MITS) creates and inculcate a strong learning environment that enhances academic achievement and develops students' social and understanding the Human-Nature system for enhancing Geo-Literacy.

Modern Information Technology strategies (MITS) is the real need for the current education scenario. As we see the importance of E-Learning in the pandemic outbreak. MITS is necessary for the today's Teaching-Learning process.

Now, the present research based on Modern Information Technology strategies (MITS) through Interactive Virtual Classroom (IVC), Online Quiz for Geo-Awareness (OQGA), Poster Preparation: Theme-Nature-Human being system (NHS) and Flipped Classroom (FC) for enhancing Geo-Literacy among Higher Education Students.

Significance of the topic:

Present research gives the learner to express the thoughts in a proper way. Modern Information Technology strategies (MITS) is that it helps students and teachers develop advanced technological skills. Present Modern Information Technology strategies (MITS) also promotes effective learning and underpins continuous improvement of the personal, social, technological and economic well-being. Modern Information Technology strategies (MITS) is very important to develop technological skills and make independent learners. This study helps to develop qualities and helps learners to get involved in daily learning process.

Present research enables the learners to invent and construct new idea to understand the positive attitude towards learnability. This study is important to help the

students to make decisions and develop their knowledge through their experiences.

Present study is important to find the effectiveness of MIT Strategies for enhancing Geo-Literacy among Higher Education Students. It also helps the teacher to create learning environment to support and challenge the learner's thinking and an investment in individual capability and self-responsibility through Information Technology.

Objectives:

- i) To understand the concepts of Modern Information Technology Strategies (MITS) and Geo-Literacy.
- ii) To Prepare and Develop the Modern Information Technology Strategies (MITS) for enhancing Geo-Literacy among Higher Education Students.
- iii) To find the effectiveness of Modern Information Technology Strategies (MITS) for enhancing Geo-Literacy among Higher Education Students.

Scope and Limitations:

Scope:

1. This research study is applicable to all the Teacher Trainee (B.Ed. Program) Students of MIT World Peace University, School of Education.
2. This research is applicable for Graduate students of Geography and Science subject.

Limitations:

1. The psychological aspects like thinking abilities, interest, motivation, behaviour, family background, readiness etc. no control over such variable.
2. This study is limited to 30 students at MIT World Peace University, School of Education, Pune
3. This study is concerned to B.Ed. students of the academic year 2021-23.

Population & Sample:

Population for present research study is consists of Teacher Trainee (B.Ed. Program) Students from MIT World Peace University, academic year 2021-23.

Sample & Sampling Method:

Sample for this present research study is consists of 30 students from MIT WPU School of Education, Pune was selected for the experimentations by incidental sampling.

Hypothesis:

Research Hypothesis:

There will be a significant difference between Mean score of pre-test and post-test of Teacher Trainee (B.Ed.) students taught by E-Learning Strategies for enhancing Geo-Literacy.

Null Hypothesis:

There will be no significant difference between Mean score of pre-test and post-test of Teacher Trainee (B.Ed.) students taught by MIT Strategies for enhancing Geo-Literacy.

Variables:

Dependent Variable:

The dependent variable for present research study is achievement score of Teacher Trainee (B.Ed.) students.

Independent Variable:

The independent variable for present research study is MIT Strategies.

Review of related literature:

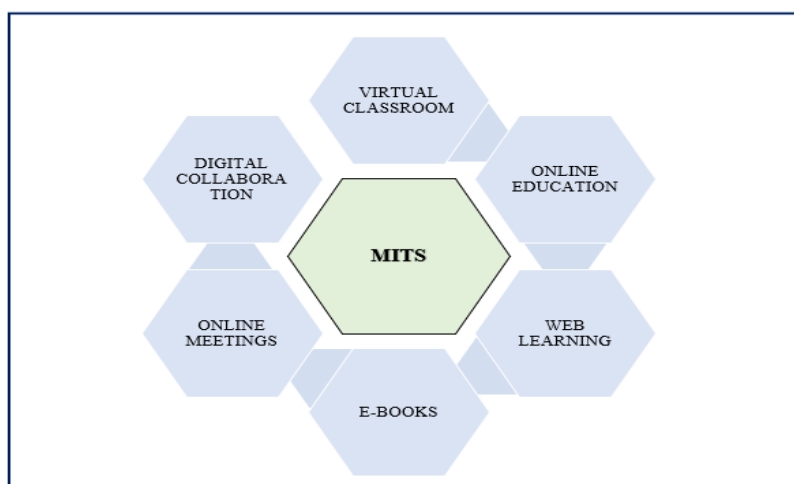
The reviews of related literature have a goal of providing previous studies and information concerned with the research problems. Researcher studied and review Modern Information Technology Strategies (MITS) related same books, magazines, articles, online sources for present study. Apart from that researcher review previous thesis, dissertations and same research-based projects related E-Learning.

Review of *E-Learning in Geography: new perspectives in post-pandemic* by Stefania Palmentieri published in AIMS press 2022, Volume 8, Issue 1: 52-67., shows that, E-Learning is playing very significant role in pandemic outbreak. There is a need of E-Learning in higher education system which empowers youth for self-sustainability by inculcating learnability skills.

The paper focused on the term Geospatial Technologies (GST) indicates the range of modern technological tools for geographic mapping and territorial analysis. Apart from that paper focused on E-Learning best practices related Geography subject. The paper was useful for defining the strategies for enhancing the Geo-Literacy among students.

Concept of Modern Information Technology Strategies (MITS): Modern Information Technology Strategies (MITS) is mostly related to computers, storage, networking and other physical devices, infrastructure and processes to create, process, store, secure and exchange all forms of electronic data.

Modern Information Technology Strategies (MITS):



(Ref. Bryn Holmes and John Gardner- *E-Learning: Concepts and Practice*)

Concept of Geo- Literacy:

According to National Geographic Society, The term "geo-literacy" arose from the National Geographic Society's "Fight against Geographic Illiteracy."

Geo-literacy is the ability to reason about Earth systems and interconnections to make far-reaching decisions. National Geographic Society set up the Fund for Geo-literacy, in which donations help fund the printing of materials for education, professional development for the educators, and programs to help build awareness of the importance of geo-literacy.

Researcher used virtual classroom, Online Learning, Web Based Learning, Digital Collaboration for enhancing the Geo-literacy among Higher Education Students.

Concept of E-Learning: The Basic concept of E-Learning means a learning system based on formalised teaching but with the help of electronic resources. While teaching can be based in or out of the classrooms through information technology like the use of computers and the Internet forms the major component of E-learning.

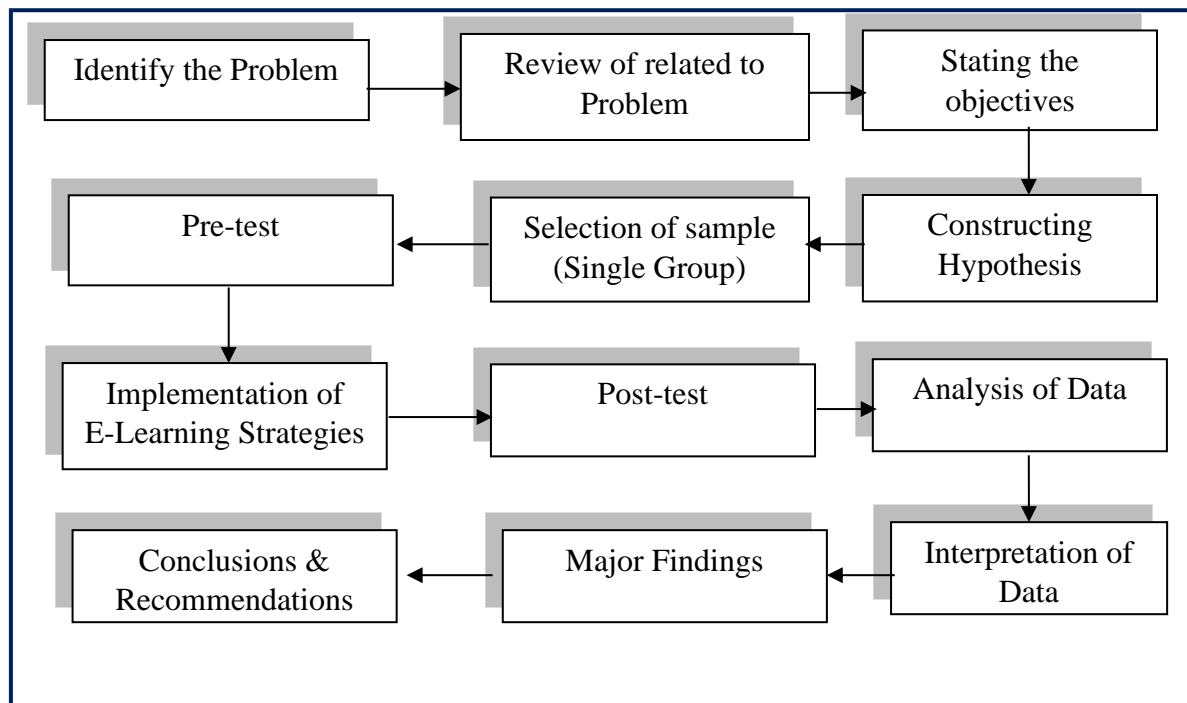
Tools and Methods: Techniques, Procedure followed:

Researcher used Experimental Method for the present study and selected the Single Group Pre-test- Post-test Design as a Research design.

For the present study researcher is using the Mean, Standard Deviation and 't' Test Statistical Tools.

Research Procedure:

Researcher defined the following procedure for present study: -

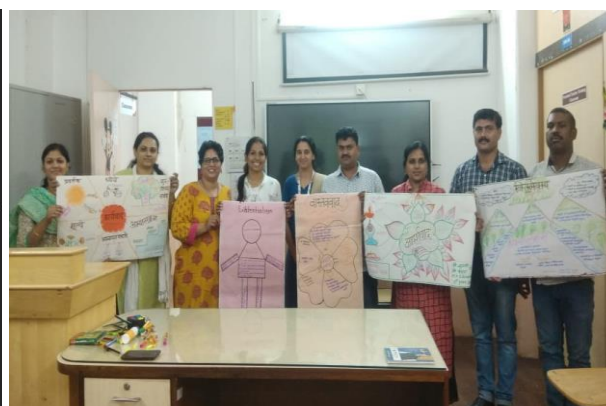
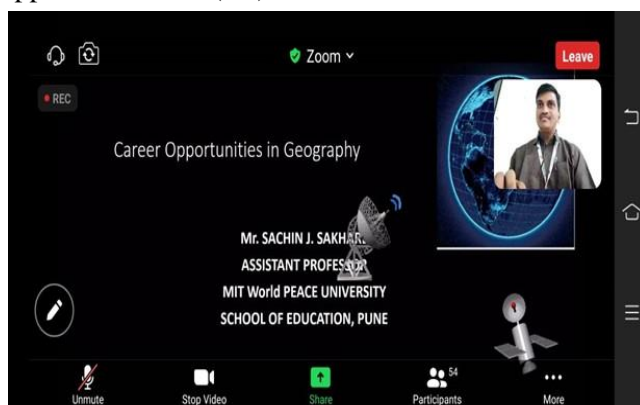


(Ref. Best J.W., Kahn- Research in Education)

Researcher identify the problem related present scenario. After selection of the problem researcher review same related literature and previous researches. According to the topic researcher finalized the objectives and construct the hypothesis for the study. Researcher select the sample and sampling method for present study. Pre-test-Program-Post-test was conducted for the same study. Mean, SD, 't' test are used as a statistical tools for data analysis. As per data analysis researcher finds observations and major findings as per objectives.

Researcher prepared following MIT Strategies for Enhancing Geo-Literacy:

1. Interactive Virtual Classroom (IVC) Career Opportunities
2. Online Quiz for Geo-Awareness (OQGA)
3. Poster Preparation: Theme- Nature-Human being system (NHS)
4. Flipped Classroom (FC)



Modern Information Technology Strategies (MITS) implementation

Results:**Data Analysis:**

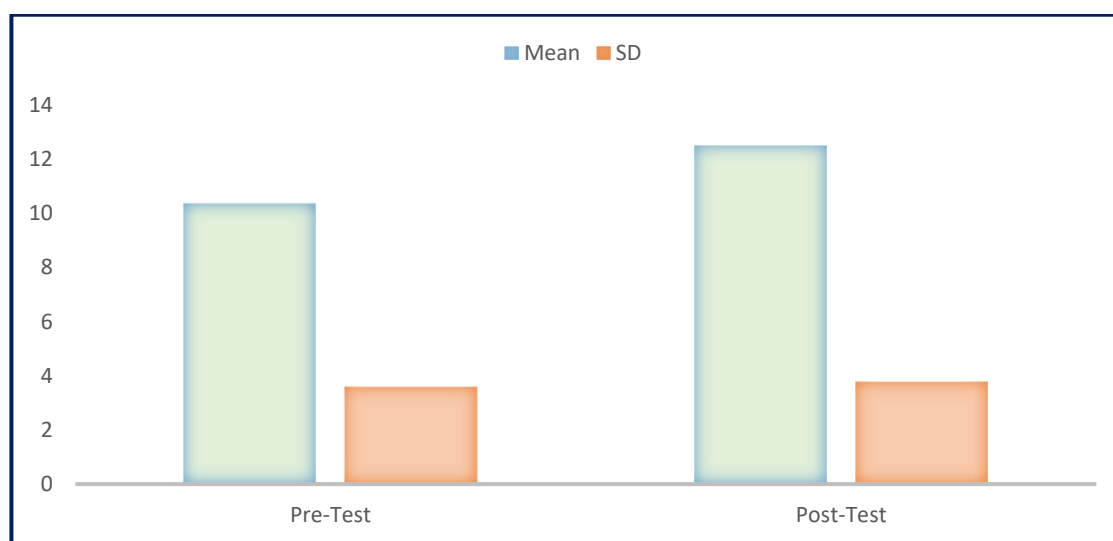
As per the research planning researcher prepared 20 marks MCQ pre-test and post-test for Teacher Trainee (B.Ed.) students. Researcher prepared and develop the Modern Information Technology Strategies (MITS) for Teacher Trainee (B.Ed.) students.

Statistical Tool	Pre-Test	Post-Test	Obtained 't' Value		Calculated 't' Value
			0.05 level	0.01 level	
Mean	10.33	12.47	2.05	2.76	4.17*
SD	3.56	3.76			
R	0.69				

* Rejected at 0.01 and 0.05 significance level

(Ref. Best J.W., Kahn- Research in Education)

After the implantation of the program researcher conduct the Post-test for same respondent. Finally, researcher analyzed the data and finds same observations.

Graphical Representation of Pre-test & Post-test Mean, SD
**Interpretation:**

The calculated 't' value is 4.17 which is exceeds than observed 't' table value at 0.01 and 0.05 significance level is 2.76 and 2.05 respectively.

It shows that the obtained value 't' = 4.17 is the result of treatment of Modern Information Technology Strategies (MITS) given by researcher. Hence the null hypothesis is rejected

and research hypothesis is accepted.

Findings:

From above interpretation of data it had been observed that,

The Modern Information Technology Strategies (MITS) for enhancing Geo-Literacy among Higher Education Students prepared by researcher

is found to be effective for Teacher Trainee (B.Ed.) Students.

Conclusions:

Modern Information Technology Strategies (MITS) is the ideal way of thinking and acting in a daily teaching-learning process. Modern Information Technology Strategies (MITS) can provide opportunities for relations between learners by the use of discussion forums through online mode. MITS helps the conclusion of the study is based on the following points.

- Learners was the able to construct their own understanding related nature-human system through use of new Information Technology.
- Teachers was the able to create a strategy for improvement of the drawbacks.
- Implementation of the Modern Information Technology Strategies (MITS) the Geo-Literacy awareness, Geographical attitude, confidence, coordination, personality development was improved.
- The learners were improved his/her skills related Geo-Literacy awareness in real world of living.

Modern Information Technology Strategies (MITS) played an important role for enhancing the Geo-Literacy of the Higher Education students. Now it is expected to help positive awareness and developing self-confidence.

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