IMPACT OF INTERNET HANDLING SKILLS IN SWAYAM PORTAL LEARNING AMONG B.ED TRAINEES

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Abstract

SWAYAM is an acronym that stands for "Study Webs of Active-Learning for Young Aspiring Minds". MOOC Platform was developed indigenously by AICTE in 2016 to facilitate the hosting of online courses that could be accessed by anyone, anywhere at any time free of cost to achieve three cardinal principles of Education Policy viz. access, equity, and quality. On the SWAYAM portal, Internet Handling Skills would involve navigating the platform effectively, accessing course materials, participating in online discussions and forums, submitting assignments, and engaging with instructors and peers. It also includes understanding how to use the features and tools provided on the portal to enhance learning, such as multimedia content, quizzes, and interactive modules. Additionally, being aware of online etiquette and security measures while using the SWAYAM portal is essential for a positive and productive learning experience. The investigator aims to study the impact of IHS on the SWAYAM portal among B.Ed. Trainees at Pudukkottai. Pre–Test / Post–Test single group design method was applied for the present study, the investigator divided two groups namely the first group and second group both are considered to be a sample. To find out the level of handling skill in the SWAYAM Portal among B.Ed. Trainees. To study whether there is a significant difference between Pre-test and Post-test scores in handling the SWAYAM portal among the first group, second group, and total sample B.Ed. Trainees. The investigator applied an experimental research method. A purposive sampling technique was adopted. 100 B.Ed. Trainees of first-year students in Government College of Education Pudukkottai district. SWAYAM Portal-related test was used as a pre-test and post-test. The split-half reliability of the test calculated is found to be (0.855). The magnitude of the difference between the pre-test and post-test scores for handling the SWAYAM portal was estimated to be 2.8601 through Cohen's d-effect size analysis, which was found to be very large. Thus, it was indicated that the intervention has a significant impact on Internet Handling Skills in using the SWAYAM portal. The students must possess skills in handling the internet for selection and comfortable completion of any online course, especially SWAYAM courses.

Keywords: *Internet Handling Skills (IHS), SWAYAM portal, online learning, MOOCS, smart classroom, e-module, YouTube videos.*

Introduction

SWAYAM provides an integrated platform and portal for online courses, using information and communication technology (ICT) and covering High School to all higher education subjects and skill sector courses to ensure that every student benefits from learning the material through ICT. This platform offers free access to the students and hosts courses from class 9 to post-graduation. It facilitates professors and talent of centrally funded organizations like IITs, IIMs, IISERs, etc. to teach students. MOOC's learning resources are presented to the students in new ways and structures. Learning in SWAYAM has four elements: e-tutorial, e-content, discussion forums, and assessment. The first element is direct teaching where students are taught through teaching video, animation, PowerPoint presentations, and podcasts. The second element is e-content. These include e-books, illustrations, Case studies, Open source content, Reference links, and further reading sources. The third element concerns clearing a student's query. A discussion forum is an element where students can interact with other students and faculties to clarify their doubts. SWAYAM is an Indian government program that provides educational opportunities for a huge number of university and college learners. The fourth element is self-assessment to assess what a student has deliberated and whether all people are eligible to get a certificate. The students are tested in the form of Multiple Choice Questions (MCQs), quizzes (online) short answer questions, long answer questions, etc.

IHS – Internet Handling skills: This skills includes access the internet, use navigational buttons: back, home, go, refresh, history, / favourites, change the default home page, clear temporary Internet files and search history, change the navigate using links, enter URL by typing or pasting, perform basic internet search, scroll in web page, print all or part of a web page, know email address and password, compose, send, open, read, reply to, and forward messages, store and retrieve email messages, attach a file and open an attachment, understand basic email etiquette, knowledge of common email providers, conduct a basic technology-based reference interview related to software and/or internet access, Interpret URLs, Search for text in a web page, use the print preview feature, add, use, and manage bookmarks text size on a website, fill out an online form, locate and use common search engines, evaluate internet search results for relevancy, currency, and accuracy, access and use online social media including blogs, wikis, discussion boards, and similar interactive sites, participate in webinars and self-paced online tutorials, search online resources for assistance with technology devices & applications, download and save files from the internet including image, audio and video, search and sort email messages by date, subject, sender, know how to set up an auto-reply message on email, understand how to filter email messages, know how to set up rules for email handling, use calendar software to create and share calendars, create folders for managing email messages, know virtual/IM reference policies and procedures, use virtual/IM reference software to assist others, knows how to disable/enable internet filtering software, subscribe and unsubscribe to an electronic

mailing list, post messages using appropriate netiquette, access archived messages, familiar with social networking tools and library policy on usage, understand privacy issues, edit options and settings. These were discussed in the intervention sessions.

In the current era, the education system is evolving towards online courses. SWAYAM (Study Webs of Active-Learning for Young Aspiring Minds) is an Indian online learning portal for MOOC (Massive open online course) platform. The SWAYAM initiative was launched by the Ministry of Human Resource Development (MHRD). The Government of India has been moving towards Digital India and to revolutionize the education sector, the SWAYAM initiative was launched which provides free access to web courses. SWAYAM was launched on 9th July 2017 by Ram Nath Govind, Honorable President of India. SWAYAM is equipped with 2,000 courses, partnering institutes (203), no. of completed courses (7042), no. of student enrollment (27190053), no. of exam registrations (1604055), and no. of successful certificates (1113399) as on 30th April 2022. The primary objective of the study is to examine the importance of SWAYAM (9 National Coordinators) AICTE, NPTEL, UGC, CEC, NCERT, NIOS, IGNOU, IIMB, and NITTTR. In this study, it was concluded that the SWAYAM (9 National Coordinators) has been providing innovative courses through its online portal. The Regression Analysis on SWAYAM (7 National Coordinators) Student Enrollment & Exam Registrations and Student Exam Registrations & Successful Certification based on F-value is 756.27 and 137709, R square value both are 99% and P-value both (0.000) is highly significant hence null hypothesis is rejected. So, properly utilized courses have to be implemented in the future for all learners so that SWAYAM portal online courses will play a prominent role in the current scenario. Key Words: AICTE, NPTEL, UGC, CEC, IGNOU, IIMB, NITTTR (Manickam, 2023).

SWAYAM is the new educational tool implemented by the government to enhance and improve the skills of the students. The analysis deals with the awareness and impact of MOOCs-SWAYAM among the students. To conduct the study questionnaire method of data collection has been selected and distributed to the college students and duly filled by them convenience random sampling technique is been used. The study is limited to Chennai. The sample size of the study is 50. The tools used for the study include percentage method, mean, standard deviation, and covariance. This helps to analyze the awareness level among the students (Ramadas, Bhagyalakshmi and Karthika, 2020**)**.

Need and Significance of the Study

The objective of this effort is to know the impact of internet handling skills, including the most difficulties faced by B.Ed trainees in the SWAYAM Portal, in this Research, the investigator stated how internet handling skills supporting SWAYAM Portal learning among B.Ed Trainees.

The Research Paradigm

Table 1 Short Table of Research Paradigm

Variables		Sample	Tool	Statistics
Independent	**Dependent**			
IHS (Internet Handling Skill)	SWAYAM Portal Learning	Government College of Education, Pudukkottai B.Ed. Trainees from first group 50 and second group 50	The pre-test consisted of 30 items and the same was used as the post-test.	Mean Standard Deviation t – Test, Paired sample t-test, Cohen's effect size analysis.

Objectives of the Study

1. To find out the level of handling skill in the SWAYAM Portal among B.Ed. Trainees.
2. To study whether there is a significant difference between Pre-test and Post-test scores in handling the SWAYAM portal among first group, second group, and total sample B.Ed. Trainees.

Hypotheses of the Study

1. There is a significant difference between Pre-test and Post-test scores in handling the SWAYAM portal among first group B.Ed. Trainees.
2. There is a significant difference between Pre-test and Post-test scores in handling the SWAYAM portal among second group B.Ed. Trainees.
3. There is a significant difference between Pre-test and Post-test scores in handling the SWAYAM portal among total B.Ed. Trainees.

Method of Research

The investigator applied an experimental study for this research study.

Sample Size: 100 (smart classroom convenience: 50 + 50) B.Ed Trainees of first-year students in Government College of Education Pudukkottai were selected for the study.

Sampling Technique: A purposive sampling technique was adopted.

Main Steps in this Present Study

1. Selection of college for experimental study.
2. Preparation of pre-test and post-test.
3. Discussion with experts and modification of Pre-Test.
4. Preparation of IHS based on smart classroom, YouTube videos, and e-module in handling the SWAYAM portal.
5. Conducting a pre-test.

6. Intervention session using smart classroom, YouTube videos, and e-modules in handling the SWAYAM portal.
7. Conducting post-test.
8. Comparing the test performance of the pre-test and post-test and finding the effectiveness of the intervention.

Tool used in the Study

A Pre-test will be conducted on a single group of 100 (50 + 50) B.Ed. trainees to know about their knowledge and competencies in IHS - Internet Handling Skill, SWAYAM Portal. The post-test will be conducted at last after the intervention is given to the single group. The pre and post-tests were prepared in the multiple-choice question pattern. A key was prepared and scoring was done by the investigator for each page. The page-wise total will be taken and then by adding them to arrive at the total. Pre – Test and Post – Test will be conducted for 30 marks.

Reliability of the Test

The reliability of the test was established by split half method. The test constructed was administered to 20 trainees. The split-half reliability was calculated and is found to be (0.855). So the test possesses adequate reliability.

Intervention

The investigator aims to study the impact of IHS on the SWAYAM portal among B.Ed. Trainees at Pudukkottai. Since the Pre–Test Post–Test single group design method was found to be more suitable for the present study, the investigator chose two groups namely the first group and second Group both are considered to be samples.

Figure 1 Pre-Test Conduction

The intervention was followed in three sessions,

- Smart Class Room session
- YouTube Video session
- E – Modules session

Smart Classroom Session

In the first session, the investigator used a smart classroom to explain how IHS - internet handling skills support handling the SWAYAM portal.

Figure 2 Intervention using Smart Classroom

YouTube Video Session

In the second session, the investigator provides some supporting YouTube videos to enrich their skills for handling SWAYAM portal specifications and applications.

Figure 3 Intervention using YouTube Video

E – Modules Session

In the third session, the investigator provides e-modules to explain the step-by-step procedures for handling the SWAYAM portal.

Figure 4 Intervention using E-Module

Figure 5 Post-Test Conduction

Data Analysis and Interpretation

The data collected were analyzed statistically. This is the final step in a research design. An interpretation of the results meansthat the researcher concludes the results for the research questions, hypotheses, and the larger meaning of the results not in review. The choice of parametric tests and non-parametric tests depends on the objective of the study and the normal distribution of the data. The following tests were used in the present study

- Descriptive Analysis (Mean, Standard Deviation)
- Differential Analysis (Paired sample t-test)
- Cohen's *d* effect size analysis

Hypotheses Testing

Hypothesis: 1

There is a significant difference between Pre-test and Post-test scores in handling the SWAYAM portal among first group B.Ed. Trainees.

Table 2 Mean, Standard Deviation, Paired Sample t Value, and Cohen's Effect Size Scores on Pre-test and Post-test with Respect to the First Group

Variable	Pre-Test		Post-Test		t-Value	df	Sig(2-tailed)	Hypothesis testing	Cohen's *d* Effect size	Remarks
	Mean	SD	Mean	SD						
First group (N=50)	13.00	3.482	25.90	3.835	20.454	49	.001	Accepted	3.5219	Very large

From Table 2 it was found that the calculated t-value (20.454) between pre-test (13.00) and post-test (25.90) scores in handling the SWAYAM portal of the First group is greater than the t-test table value for degrees of freedom 49 at 0.05 level of significance. Hence the hypothesis "There is a significant difference between Pre-test and Post-test scores in handling SWAYAM portal among first group B.Ed. Trainees" was accepted. The magnitude of the difference between the pre-test and post-test scores for handling the SWAYAM portal was estimated to be 3.5219 through Cohen's *d*-effect size analysis, which was found to be very large (Sawilowsky, 2009). Thus it was indicated that the intervention has a significant impact on Internet Handling Skills in using the SWAYAM portal in the first group.

Hypothesis: 2

There is a significant difference between Pre-test and Post-test scores in handling the SWAYAM portal among second group B.Ed. Trainees.

Table 3 Mean, Standard Deviation, Paired Sample t value, and Cohen's Effect Size Scores on Pre-test and Post-test with Respect to the Second Group

Variable	Pre-Test		Post-Test		t-Value	df	Sig (2-tailed)	Hypothesis testing	Cohen's *d* Effect size	Remarks
	Mean	SD	Mean	SD						
Second Group (N=50)	12.34	3.491	23.92	5.724	12.046	49	.001	Accepted	2.4426	Very large

From Table 3 it was found that the calculated t-value (12.046) between pre-test (12.34) and post-test (23.92) scores in handling the SWAYAM portal of the second group is greater than the standard t-test table value for degrees of freedom 49 at 0.05 level of significance. Hence the hypothesis "There is a significant difference between Pre-test and Post-test scores in handling SWAYAM portal among second group B.Ed. Trainees" was accepted. The magnitude of the difference between the pre-test and post-test scores for handling the SWAYAM portal was estimated to be 2.4426 through Cohen's *d*-effect size analysis, which was found to be very large (Sawilowsky, 2009). Thus it was indicated that the intervention has a significant impact on Internet Handling Skills in using the SWAYAM portal in the second group.

Hypothesis: 3

There is a significant difference between Pre-test and Post-test scores in handling the SWAYAM portal among total B.Ed. Trainees.

Table 4 Mean, Standard Deviation, paired sample t value, and Cohen's effect size scores on Pre-test and Post-test with respect to the Total sample

Variable	Pre-test (N_1=100)		Post-test (N_2=100)		't' Value	df	Sig (2-tailed)	Hypothesis testing	Cohen's *d* Effect size	Remarks
	Mean	Standard Deviation	Mean	Standard Deviation						
SWAYAM Total	12.67	3.485	24.91	4.948	21.258	99	0.001	Accepted	2.8601	Very large

Table 4 shows the calculated t-value (21.258) between pre-test (12.67) and post-test (24.91) scores in handling the SWAYAM portal of the second group is greater than the standard t-test table value for degrees of freedom 99 at 0.05 level of significance. Hence the hypothesis "There is a significant difference between Pre-test and Post-test scores in handling SWAYAM portal among total sample B.Ed. Trainees" was accepted. The magnitude of the difference between the pre-test and post-test scores for handling the SWAYAM portal was estimated to be 2.8601 through Cohen's *d*-effect size analysis, which was found to be very large (Sawilowsky, 2009). Thus it was indicated that the intervention has a significant impact on Internet Handling Skills in using SWAYAM portal in total B.Ed. trainees.

Major Findings

1. It was found that there is a significant difference between Pre-test and Post-test scores in handling the SWAYAM portal among first group B.Ed. Trainees. Thus it was indicated that the intervention has a significant impact on Internet Handling Skills in using the SWAYAM portal in the first group.
2. It was found that there is a significant difference between Pre-test and Post-test scores in handling the SWAYAM portal among second group B.Ed. Trainees. Thus it was indicated that the intervention has a significant impact on Internet Handling Skills in using the SWAYAM portal in the second group.
3. It was found that there is a significant difference between Pre-test and Post-test scores in handling the SWAYAM portal among total B.Ed. Trainees. The magnitude of the difference between the pre-test and post-test scores for handling the SWAYAM portal was estimated to be 2.8601 through Cohen's *d*-effect size analysis, which was found to be very large (Sawilowsky, 2009). Thus it was indicated that the intervention has a significant impact on Internet Handling Skills in using the SWAYAM portal.

Delimitations

Only first-year B.Ed. trainees of Government College of Education, Pudukkottai B.Ed. trainees were selected for the present study. There are many skills in Internet handling Skills, but the present study only focuses on SWAYAM portal handling skills.

Educational Implication

The students must possess skills in handling the internet for selection and comfortable completion of any online course, especially SWAYAM courses.

Suggestion for Further Research

This study has been done only for some selected skills on the SWAYAM portal. The investigator feels that the different skills can be applied for further study. The present study was carried out only far on a sample of 100 B.Ed. trainees the sample desire may be increased for best generalization of the findings. This study was limited only to government college B.Ed. trainees, Pudukkottai, but it may be extended to other types of management colleges such as aided and self-financed. This type of study can also extend to other professional courses for those who intend to do courses in the SWAYAM portal. The duration of the study may be truths increased to find out the effect of this approach.

Conclusion

The main aim of this study is to develop the skills of the trainees and to make to easy SWAYAM portal activity. E-module & YouTube package presentation method made the B.Ed. trainees develop an interest in the SWAYAM portal. It is evident from this study that the intervention done in the study is helpful to the trainees in developing their involvement SWAYAM portal. The strategies in the E-module & YouTube videos would bring positive results if applied in teaching and research.

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