A Descriptive Study to Assess the Effect of Web-Based Education Learning Among the Selected Schools of Nadiad City

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ABSTRACT

Background: The sudden outbreak of a deadly disease called covid-19 caused by corona virus (SARS Cov-2) shook the entire world. The WHO declared it as a pandemic. Efforts to slow the spread of covid-19 through Non-pharmaceutical interventions and prevention measures such as social distancing and self-isolation have prompted the wide spread closure of primary, secondary and tertiary schooling in over 100 countries. A descriptive study with non experimental design was conducted on 100 students of standard 10th and 12th of selected schools of Nadiad city by non probability purposive sampling technique. Assessment of effect of Web-Based Education Learning was done using tool of data collection which includes Performa of socio-demographic variables, and structured questionnaire. The study was conducted at selected schools of Nadiad city (Jivan Vikas School, Vision School of Science and Basudiwala school. There are total 32 questions. The Questionnaires

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were divided into four areas they are: Web-Based Education Learning which has 22 questions, E- Gadgets which has 6 questions, Technological Issues which has 2 questions, Cost-Effectives which has 2 questions. The items were assessed by the tool scores.

**Statistical Analysis Used:** Descriptive and inferential statistics applied where, data was analyzed by using SPSS software, and frequency, percentage, tables etc were used to represent the statistical data.

**Results:** out of 100 samples, 57(57%) are belongs to age group of 16 to17 year, 54(54%) are female, Monthly family income of most of the students ranges from 10,001-20,000 with 36(36%).71(71%) comes from joint family, 51(51%) live in rural area, 52(52%) are come from less than 5km of distance from school, 62(62%) are from class 12th, 76(76%) are study in Gujarati medium, 90(90%) are using mobile for their online learning, 90(90%) having good network connectivity with, 95(95%) are using mobile data as a source of internet, 50(50%) using 1.5-2GB per day internet package recharge, 49(49%) are using zoom as platform for online classes, 56(56%) having 3-4 lectures per day, 68(68%) have average resolution quality during lectures, 58(58%) are using mobile gadgets for online learning.

**Conclusion :** Regarding the web based education learning in which there is 62.54(62.54%) were effective and 37.45(37.45%) were not effective, web based education learning is cost-effective among 72(72%) and were not cost-effective among 28(28%) of students, Technological issues were faced by 77(77%) and were not faced by 23(23%) of students and there was a significant association of gadget used for online learning, internet availability at home and ownership of gadgets used for online learning with their variables.

**INTRODUCTION**

Web based education means the most extreme form of online education that uses streaming videos and the more advanced functionalities available in educational software and where there is no actual face to face contact between the teachers and the students.

In the last 20 years the internet has grown from being nearly non existance in to the largest , most accessible data based of information ever created. It has change the
way of people to communicate, socialize, do business and much more than just a new twist on distance learning, online schooling is changing the face of traditional classroom and making education more accessible than ever before.

Online education is form of education where students use their home computer through the internet. For many non-tradition students among them all those who want to continue working full time or rising families, online graduations and courses have become popular in the past few decades. Often online graduation and course programmes are conducted using digital technologies are provided via the online learning portal of the host university.

As online learning serve as panacea in the time of COVID-19 crisis. Though it provides huge opportunity for learning and has lots of advantages but it also has disadvantages so there is a need to find out whether the Web-Based Education Learning is effective for students and teachers of the educational institutions or not.

PROBLEM STATEMENT

“A Descriptive study to assess the effect of Web- Based Education Learning among the students of selected schools of Nadiad City”.

OBJECTIVES:

1. To assess the effect of web based education learning among the students of selected schools of Nadiad city.
2. To determine the cost-effectiveness of web based education learning among the students of selected schools of Nadiad city.
3. To identify the technological issues underwent during the web based education learning among the students of selected schools of Nadiad city.
4. To find out the association between selected socio-demographic variables and effect of web based education learning among the students of selected schools of Nadiad city.

ASSUMPTION

1. The web base education learning may have unfavourable response among the students of selected schools of Nadiad city.
2. The cost effectiveness of web base education learning could be higher than the classroom teaching among the students of selected schools of Nadiad city.

3. The technological issues may be arise during web base education learning among the students of selected schools of Nadiad city.

4. There may be a significant association between the socio-demographic variable and effect of web base education learning among the students of selected schools of Nadiad city.

METHODOLOGY

Research approach: Quantitative research approach

Non-experimental research design

Research design: Descriptive research design

Variables: 1. Research variable: Effect of web base education learning

- 2. Demographic variable: Age
  - Gender
  - Family income
  - Socio-economic status
  - Types of family
  - Area of living
  - Distance from home to school
  - Educational class
  - Medium of study
  - Gadget used for online learning
  - Network connectivity

Setting of the study: Selected school of Nadiad city.

Population: The students who are studying in the schools of Nadiad City.

- Target population: Students of standard 10th and 12th who are studying in selected schools of Nadiad city.
accessible population: Students of standard 10th and 12th who are studying in Basudiwala Public Highschool, Santram Municipal Girls Highschool and Shree Swami Vivekanand School of Nadiad city.

sample: Students of std 10th and 12th of the selected schools of Nadiad City.

Sample size: 100 Students of std 10th and 12th of selected Nadiad city.

Sampling Criteria

Inclusive Criteria

- Students who will give consent to participate in the study.
- Girls and boys both are involving in the study.
- Students of 10th and 12th class are included in the study.
- Students who received web-base education learning more than 3 months.
- Students who are studying in schools of Nadiad city.
- Students who are gaining education in Gujarati and English medium schools of Nadiad city.

Exclusive Criteria

- Students who are not willingly participate in the study.
- Students who received web-base education learning less than 3 months.
- Students who are not studying in schools of Nadiad city.
- A Non-probability Purposive Sampling Technique was used for selecting 100 students of standard 10th and 12th.

Sampling Technique: Non-probability Purposive Sampling Technique was used for selecting 100 students of standard 10th and 12th.

Description of Tool:

The tool used for the study was Structured Questionnaire. The tool consist of two sections.

Section A: (Socio-demographic variables) This consist of Age, Gender, Family income, Socio-economic status, Types of family, Area of living, Distance from home to school, Educational class, Medium of study, Gadget used for online learning, Network connectivity.
Section B: (Structured Questionnaires) In this study the data was collected by Structured Questionnaire to assess the effect of Web-Based Education Learning. We used Closed Format Dichotomous Questions. These require the respondent to make a choice between two responses such as YES or NO. There are total 32 questions. The Questionnaires were divided into four areas they are: Web-Based Education Learning which has 22 questions, E- Gadgets which has 6 questions, Technological Issues which has 2 questions, Cost-Effectives which has 2 questions. The items were assessed by the tool scores, which was given based on the nature of questions that is in positive manner for positive types questions and in reverse manner for the negative aspect questions. A total score was provided which consists of one point from each question.

RELIABILITY:

The reliability is refers to the degree of consistency, adequacy, accuracy of tool. The reliability of tool was checked before pilot study.

\[ r = \frac{\sum (x - \bar{x})(y - \bar{y})}{\sqrt{\sum (x - \bar{x})^2 \sum (y - \bar{y})^2}} \]

\[ r^1 = \frac{2r}{1 + r} \]

The reliability of the structured questionnaire was determined by Karl Pearson’s correlation coefficient formula by using Split-Half Method. The reliability of structured questionnaire was 0.68. Hence the structured questionnaire was originated to be reliable.

VALIDITY: In order to measure the validity of tool i.e Structured Questionnaire were given to the 10 nursing experts. The experts were requested to validate the relevancy objectivity, adequacy and appropriateness of content areas. Tools were developed under expert guidance to make the clarity of each item.

PILOT STUDY: The Pilot Study was conducted at the Jivan Vikas Education Academy Of Nadiad City.

Procedure for data collection: The investigators prepared the master data collection schedule for entire procedure. The data collection procedure was
conducted on 24/4/2021. The investigators approached 100 samples individually, discussed the objectives of the study.

a. Informed consent was taken from the eligible participants in the study.
b. 100 students were selected using Non Probability Sampling Technique from selected schools of Nadiad City.
c. Baseline data was collected from all the students.
d. The investigators send Structured Questionnaire to the students for the collection of data. The entire samples gave cooperation during data collection procedure and no major problem was faced during data collection.

PLAN OF DATA ANALYSIS: Data was to be analyzed on the basis of objectives and the hypothesis or assumption of the study. Data analysis is the schematic organization and synthesis of research data and the testing of research hypothesis using the data.

Section A: Socio-Demographic variables was analyzed using frequency and percentage.

Section B: The descriptive and inferential statistic procedure used the data from the Structured Questionnaire and analyzed using mean and standard deviation (SD) that presented in the form of tables.

MAJOR FINDINGS OF THE STUDY

Section-I Description of samples (Students of 10th and 12th standard) in term of socio-demographic Variables.

The sample was 100 Students of standard 10th and 12th of selected schools of Nadiad city. Samples was selected by using non probability purposive sampling technique.

According to socio-demographic information of 10th and 12th standard students, most of them are belongs to age group of 16 to 17 year with 57(57%). Majority of students are female with 54(54%). Monthly income of family of most of the students ranges from 10,001-20,000 with 36(36%). Majority of students come from joint family with 71(71%). Most of the students live in rural area with 51(51%). Majority
of students are come from less than 5km of distance from school with 52(52%). Most of the students are from class 12th with 62(62%). Largest portion of the students are study in Gujarati medium with 76(76%). Greater number of students are using mobile for their online learning with 90(90%). Approximately near half of the students having good network connectivity with 49(49%). Greater number of students are using mobile data as a source of internet with 95(95%). Half of the students using 1.5-2GB per day internet package recharge with 50(50%). Most of the students are using zoom as platform for online classes with 49(49%). Majority of students having 3-4 lectures per day with 56(56%). Most of the students have average resolution quality during lectures with 68(68%). More than half of the students are using parents gadgets for online learning with 58(58%).

Section-II Web based education learning is effective among more than half of the students with 62.5 (62.54%) . For greater number of students web based education learning is cost effective with 72( 72%). Majority of students facing technological issues with 77(77%). E-gadgets were available to most of the students with 67.5(67.5%).

Section-III Analysis of data to find out the effect of web based education learning among the students of selected schools of Nadiad city. Researcher applied for chi-square value in which gadget used for online learning, internet availability at home and ownership of gadget used for online learning respectively are 12.8539, 5.679, 11.2966 which is corresponding with tabulated value 11.070, 5.991, 7.815 respectively. In reference to the association of effect of web based education learning among students of selected Nadiad city with their socio-demographic variables there was a significant association of gadget used for online learning, internet availability at home and ownership of gadgets used for online learning with their variables.

CONCLUSION

The purpose of present study is to a Descriptive study to assess the effect of Web-Based Education Learning among the selected schools of Nadiad city. The study has indicated students personal characteristics as one of the main factors that influenced the effectiveness of online learning process. Instructors need to upgrade their skills to manage the achievement of technology development, since the ability to express knowledge through online mode represents the quality of the
instructors. On the other hand, technical support and technological advancement have provided learning facilities and stable network for interactive applications. This study has also proven that e-learning could provide greater flexibilities among the students as it can be accessed anywhere and anytime as long as they have a computer and an Internet connection.

**NURSING IMPLICATION**

The findings of the study have implication for nursing practice, nursing education, nursing administration and nursing research.

**NURSING PRACTICE**

The present study implies that web based education is highly effective among the student of 10th & 12th standard of selected schools of Nadiad city. So it's best and good study to assess the effect of web based education learning among the students of selected schools of Nadiad city.

**NURSING EDUCATION**: In health education programmer need to be plan and implemented for all students of 10th and 12th standard to assess their effect and provide education regarding effects of web based education learning.

**NURSING ADMINISTRATION**: 

1. The nurse administrator can support the nurses for conducting a research on various aspects of web based education learning.
2. Necessary administrative support should be provided for development of such educational materials. Nursing personnel should be motivated and provision for educational materials for effect of web based education learning among the students.
3. The nurse administrator can organize a conference, seminar, work shop on different media and e-gadgets used for the online education learning and motivate the student to actively involve in the online learning programmes.

**NURSING RESEARCH**: 

1. The findings of the study can provide guidelines to new nurse researchers to conduct similar studies in different settings.
2. The study can be published in various national and international journals.
3. The study findings can be presented in various local, regional, state, national and international conferences related to web based education learning.

4. The research design, findings and the tool can be used as avenues for further research.

RECOMMENDATIONS

Keeping in view that the finding of the present study, the following recommendations were made:

1. The similar study can be conducted on larger samples with different demographic variables. To make broad generalizations.

2. The similar study can be replicated at different setting to strengthen the findings.

3. The study can be conducted to identify the factors affecting the online education learning.

4. The similar study can be implicated among the students of various other standards.

5. The similar study can be conducted on different setting.

6. The study can be conducted by using different methods, scales and tools of data collection.

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