

IMPACT OF E-LEARNING ON SCIENCE ACHIEVEMENT OF 6TH GRADE SCIENCE STUDENTS.

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Abstract

This study aimed to investigate the impact of e-learning on science achievement of 6th grade students. The study population consisted of two schools i.e. Army public school and Kendriya Vidhalya. The objectives of the study was “there will be no significant difference in mean gain score on achievement in science achievement between Army public school and Kendriya Vidhalya. In this study, 50 students are selected by descriptive method. The data was analyzed and used the statistical techniques t-test. The study found that there is difference in mean score on achievement in science of 6th grade students between Army public school and Kendriya Vidhalya. It also showed that there is no significant difference between boys and girls of Army public school and Kendriya Vidhalya.

Keywords: E- learning, Science Achievement.

Introduction

Learning is promoting electronic technologies to get approaches to the educational curriculum. A course, program, or degree can be completed through online learning. At present time, e-learning is inspiring world societies at a high level. In this pandemic time, it is hard to get education in formal mode due to social distancing, economic or interconnected problems in the society. But everyone has an urge to continue their education within possible means. E-learning makes education flexible because there is no limitation of time and space. So, e-learning makes learning

easier to learn. With the internet presently having the option to make the incomprehensible conceivable, learning has moved to an online medium. Nations everywhere in the world are currently starting to enter the area of E-getting the hang of, permitting individuals to have broader access to learning opportunities that weren't generally conceivable previously. The motivation behind why this industry has gotten so famous in the course of the most recent couple of years is the accommodation it offers to the individuals who are keen on it. Generally, if an individual need to pick up something or get a degree, they would need to go to a college, a school, or any organization that can train them giving you an affirmation toward the end. With internet learning, then again, individuals don't need to get up each day just to go to a couple of talks. Individuals are currently ready to gain from the solace of their own homes, and as indicated by their favored timings. Also, all the maintenance benefits that E-learning plans offer. Never again are individuals limited by time and area to learn, yet the cycle has additionally become significantly simpler than what it used to be before E-learning turned into a thing. Despite the fact that there are a few advantages to creating E-learning areas in nations, there are as yet a couple of countries that are moving generally in reverse in this industry. There are, obviously, nations that have just ventured out in front of others, setting up increasingly Elearning stages. The E-learning can be done at any time and place. It gives a stage where the individual gets an altered bundle identified with key topical territories.e-learning brings perhaps the most potential uses of all(Singh,2020). E-learning isn't ideal for universally handy; it is impossible that it will supplant study hall preparation totally in an association. The calculated utilization of e-learning might be to supplement traditional preparation so as to reach whatever a number of students as would be wise (Ghirardini, 2011). E-learning alludes to "the conveyance of learning with the help of intelligent, electronic innovation, regardless of whether disconnected or on the web Procter (2003). E-learning is fundamentally an online framework that makes data or information accessible to clients or students and dismisses time limitations or geographic vicinity (Sun & Tsai, et.al.2008). E-learning is an instructive and learning technique that utilizes ICT to interface and work together in instructive media. E-learning rate and impact change from stage to organization in our life. E-learning is defined as any learning that involves using the internet (Cheng, 2006). E-learning should be an abbreviation for "evolving, enhanced, everywhere, every time and everybody (Li and Masters).The current research

investigate that there is any comparison between Army public school and Kendriya Vidhalya 6th grade students in Science subject.

ACHIEVEMENT

Achievement is one of the most important aims of education. It is the success or expertise of performance in a given skill. Achievement means the extent to which learning from instruction in a given area of learning. It is the amount of knowledge gained by the student to work hard and learn more, it also helps the teacher to know whether their teaching methods are effective or not and helps them in bringing improvements accordingly. At its best, academic achievement represents intellectual growth and the ability to participate in the production of knowledge. Achievement is a thing that somebody has done successfully; especially using his/her own efforts and skills (Oxford Advanced Learner's Dictionary, 2000). Academic achievement may be defined as excellence in all academic disciplines, in class as well as co-curricular activities. It includes excellence in sporting behavior, confidence, communication skills, punctuality, arts, culture, and the like which can be achieved only when an individual is well adjusted (Ganai & Mir, 2013). Academic achievement is the knowledge attaining ability or degree of competence in school tasks usually measured by standardized tests and expressed in a grade or units based on pupils' performance. Academic achievement is the knowledge obtained or skills developed in the school subjects usually designed by test scores or marks assigned by the teacher (Good, 1959). Academic achievement is the maximum performance in all activities at school after a period of training (Mishra, 2012). Academic achievement is the attainment of knowledge, competencies, and higher-level status, as reflected in grades, degrees, and other forms of certification or public acknowledgment.

REVIEW OF RELATED LITERATURE

Alsadoon (2020) conducted a study on “ The impact of an adaptive e-course on students' achievement prior knowledge”. The study was conducted on 130 students. The sample of the study was Quasi-Experimental. In this study, an experimental group learned using an adaptive ecourse while another group was taught using traditional methods. He showed that the academic

achievement of the Experimental group was more than the control group. The study also showed that activating relevant prior knowledge offered to beginner learners helped in minimizing the performance gap between them and their advanced peers.

Alsahhi and Eltahi (2019) investigated a study “The effect of blended learning on the achievement of Ninth-grade students in Science and their attitudes towards its use”. The sample of the study was 112 students. The study was conducted using a Quasi-experimental method. The result showed that the Experimental develop a more positive attitude towards the use of Blended learning in Science. It is also showed that blended learning positively affects the achievement of Science as compared to traditional methods. The results of the study also showed that Blended learning is more effective in Higher Education.

Robert (2016) composed a study on “Effectiveness of e-content learning package for mathematics education to the prospective teacher.” In this study, there were two variables i .e Econtent learning package and academic achievement. The sample of the study was 84 and an Experimental design for the study was used. He concluded that the students’ who teach through the E-content learning package give better results in Mathematics achievement as compared to the conventional method of teaching.

Binwal (2020) showed a study “Attitude towards Science: a study of 9th-grade adolescent students.” The sample of the study is 100 from different Government Schools. A stratified random sampling technique has been used. The findings of the study are the significant difference between rural and urban students toward their attitude of Science. It also concluded that scientific programs, Workshops, and Science activities develop the interest in rural and areas students.

Singh and Bai (2019) constructed a study on “A study of Scientific Attitude and Science Interest of Secondary School Students in West Tripura District.” They used random sampling for the study and the sample of the study was 110. The sample was collected from the Government and Private schools of Tripura. They found that there is a positive relationship between Scientific Attitude and the Science Interests of Secondary School Students. They also showed that there is a high association between Scientific Attitude and Science Interest in English medium as compared to Bengali medium students.

Jampannanvar (2018) conducted a study on “the relationship between scientific attitude and academic achievement in science among secondary school students”. The study concluded that there is a high correlation between scientific attitude and academic achievement in science of secondary school students.

NEED AND SIGNIFICANCE OF THE STUDY

After reviewing the literature the investigator found that sufficient research had been done on the effectiveness of e-content learning for mathematics, science achievement, academic achievement in science, and scientific attitude. In some of the reviews, researchers check the impact, effect of e-learning on students achievement but the investigator felt that learning may not produce the same results in every school, therefore the researcher intended to study the comparison between Army public school and Kendriya Vidhalya 6th class science students

METHODOLOGY

The data had been collected through a google form. The researcher used random sampling for the study and the sample of the study was 50. Researcher used experimental research design and data was collected from APS (army public school) & KV (Kendriya Vidhalya) school of Suratgarh.

OBJECTIVES

1. To find out the difference in mean gain score on achievement in 6th grade students of science between Army public school and Kendriya Vidhalya
2. To find out the difference in mean gain score on achievement in 6th grade boys and girls of science Army public school and Kendriya Vidhalya.

HYPOTHESIS

1. There will be no difference in the mean gain score on achievement in science of 6th grade students of science between Army public school and Kendriya Vidhalya.

2. There will be no difference in the mean gain score on achievement in science of 6th grade boys and girls of science Army public school and Kendriya Vidhalya.

STATISTICAL ANALYSIS

For this, it is decided to make use of the technique of t-test, mean standard deviation to find out the level of significance.

RESULTS AND DISCUSSION

H₀₁ There will be no difference in the mean gain score on achievement in science of 6th-grade students between Army public school and Kendriya Vidhalya.

To test the above hypothesis data is treated statistically to get the result. The mean, standard deviation, standard error deviation, and 't' value are computed which are presented in Table 1.1

| Group | N | M | SD | SED | T value |
|--------------------|----|----|-------|--------|---------|
| Army public school | 27 | 37 | 1.029 | 0.9624 | 3.40 |
| Kendriya Vidhalya | 23 | 36 | 1.090 | 0.9624 | 3.40 |
| df = 48 | | | | | |

1.1

from the above table the value of $t = 0.005$, $df = 48$ here calculated value is greater than tabulated value i.e. $3.40 > 2.70$ therefore the hypothesis is **rejected**.

H₀₂ There will be no difference in the main gain score on achievement in science of 6th grade boys and girls of science Army public school and Kendriya Vidhalya.

To test the above hypothesis data is treated statistically to get the result. The mean, standard deviation, standard error deviation, and 't' value are computed which are presented in Table 1.2

| Group | N | M | SD | SED | T value |
|---------|----|----|------|------|---------|
| Boys | 25 | 36 | 5.62 | 1.24 | 2.02 |
| Girls | 25 | 35 | 6.77 | 1.24 | 2.02 |
| df = 48 | | | | | |

1.2

From the above table the value of $t=0.005$, $df=48$ here calculated value is less than tabular value i.e. $2.02 < 2.70$, therefore, the given hypothesis is **Accepted**.

IMPLICATIONS

- Results of the study reveal that there is a significant difference between the mean gain score in the science achievement of Army public school and Kendriya Vidhalya's boys and girls. The study also showed that there is no difference between Army public school and Kendriya Vidhalya science students of 6th grade.
- Thus the researcher suggested to the teachers that they must guide the students about using information and communication technology in their self-study. Students can be allowed to use smartphones under the monitoring of parents and teachers. They have to be familiarized with the appropriate websites related to the teaching-learning process.

SUGGESTIONS

- Most of the students spent about one-fifth of class time on laptop, smartphones and tablets knowing that doing so could harm their grades so, it might be good idea to limit the use of the devices until the schoolwork is done.
- Many students misuse the device for different purpose than parents should keep checking their children while using mobile.

- Through e-learning most of the students who inevitably spend much of their time online learning he became socially isolated Students should be monitored for sign of social isolation.

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