

THE EFFECTS OF 5E LEARNING TECHNIQUE ON SECONDARY STUDENTS ACADEMIC ACHIEVEMENT IN SOCIAL SCIENCE

By

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Abstract –

The goals of this examination were to consider the Social study of Social science understudy when learning through the 5E learning cycle model. The example utilized in this examination were ninth standard Social science understudies using 38 understudies who were concentrating in the auxiliary school scholarly year 2019 in Bangalore. Which chose by bunch irregular testing. The exploration instruments were the exercise plan of the 5E learning cycle model of Atmosphere and Weather, the Social science accomplishment test. The exploration was done by the one-bunch pretest-posttest plan. The information were investigated utilizing mean, standard deviation, rate, and t-test for a ward. The aftereffects of this examination were as per the following: 1) The Social science understudy instructors who have been guidance with the 5E learning cycle model have Social science accomplishment pretest mean score 34.66 (57.76%) subsequent to learning their posttest mean score is 49.68 (82.81%).

Keywords - 5E learning cycle model, Social Science Achievement,

I. INTRODUCTION

Understudies start considering Social science in optional school and proceed through and past. The universe of Social science is interesting, Social science is an arrangement of realities and proof, however at the extremely fundamental center of each logical undertaking lies creative mind, investigation, revelation, and enthusiasm. The significant point of Social science instructing is to advance the comprehension of the idea being educated with the end goal of applying the information on such comprehension to genuine circumstances. Rouse of the much spotlight on showing methodologies in Social science, understudies' presentation in Social science subjects kept on recording a diligent and discouraging descending pattern. Studies show that understudies cannot effectively incorporate or differentiate retained realities and define with genuine applications outside the Social science study hall. Down to earth information and school information are being fundamentally unrelated; numerous understudies see little association between what they realizing the Social science homeroom with reality. Also, the conventional showing strategy where of the educator as data provider to uninvolved understudies seems obsolete. They underline the learning of answers more than the investigation of inquiries, memory to the detriment of basic idea, pieces, and snippets of data as opposed to comprehension in setting. What's more, they neglect to urge understudies to cooperate, to impart thoughts and data to one another, or to utilize current instruments to expand their scholarly abilities. Hence, Social science educators center around improving understudies' Social science accomplishment using more viable instructional procedures, advancing the dynamic job of the student, and advancing the facilitative job of the instructor in their investigations.

An instructional model, or learning cycle, is a grouping of stage educators may experience to assist understudies with building up a full comprehension of an exercise idea. The 5E learning cycle model is an instructional model dependent on the constructivist way to deal with realizing, which says that students manufacture or develop new thoughts on head of their old thoughts. The 5E learning cycle model can be utilized with understudies everything being equal, including grown-ups. Every one of the 5 E's portrays a period of learning, and each stage starts with the letter "E": Engage, Explore, Explain, Elaborate, and Evaluate. The 5 E's permits understudies and educators to encounter regular exercises, to utilize and expand on earlier information and experience, to develop meaning, and to consistently survey their comprehension of an idea. Robert Bybee created the 5E learning model.

1. **Engage (Draw in):** The reason for this basic stage, connect with, is to catch understudies' advantage. Here educators can reveal what understudies know and think about a subject just as decide their confusions. Commitment exercises may incorporate a perusing, a show, or other action that provokes understudies' interest.
2. **Explore (Investigate):** In the investigate stages, furnish understudies with agreeable investigation exercises, giving them normal, solid encounters that help them being building ideas and creating abilities. Understudies can assemble models, gather information, make and test expectations, or structure new forecasts. The design is to give hands-on encounters instructors can utilize later to officially present an idea, procedure, or expertise.
3. **Explain (Clarify):** In the clarified stage, students articulate their thoughts in their own words and listen fundamentally to each other. Instructors explain their ideas, right misguided judgments, and present logical wording. It is significant that educators obviously interface the understudies' clarifications to encounters they had in draw in and investigate stages.
4. **Expand (Elaborate):** At the intricate point in the model, a few understudies may at present have misguided judgments, or they may comprehend the ideas just with regards to the past investigation. Elaboration exercises can assist understudies with revising their outstanding misinterpretations and sum up the ideas in a more extensive setting. These exercises likewise challenge understudies to apply, broaden, or expand upon ideas and aptitudes in another circumstance, bringing about more profound comprehension.
5. **Evaluation (Assessment):** In the assessment stage, educators assess understudies' comprehension of ideas and their capability with different abilities. Instructors can utilize an assortment of formal and casual strategies to survey theoretical comprehension and progress toward learning results. The assessment stage likewise gives a chance to understudies to test their own comprehension and aptitudes. The destinations of this examination were along these lines to research the adequacy of utilizing the 5E learning cycle model on Social science accomplishment.

II. OBJECTIVES OF THE STUDY

- To study and relative Social science accomplishment when utilizing 5E learning cycle model of Social science understudy instructors.

III. HYPOTHESIS OF THE STUDY

- Sociology understudy educators' who concentrate with the 5E learning cycle model have Social science accomplishment posttest scores higher than 80% and posttest higher than pretest.

IV. METHODOLOGY

4.1 Design of the study

This research was a pre-experimental design. Research design used is one group pretest and posttest design. (John & James, 2005)

PT (Pre Test)	T (Treatment)	PT (Post Test)
O1	X	O2

4.2 Sample

- The example of this examination was ninth standard Social science understudies using 38 understudies who were concentrating in the auxiliary school scholastic year 2019 in Bangalore.

4.3 Variables

- **Dependent variable (DV):** Teaching Social science by using 5E learning cycle model.
- **Independent variable (IV):** Social Science achievement.

4.4 Instrument

1. Six exercise plans on Atmosphere and Weather utilizing the 5E learning cycle model for use in showing Social science understudy instructors. The showing content secured six themes, 1) Atmosphere, 2) Phenomenon of Weather 1 (wind, cloud, mist, downpour, day off), 3) Phenomenon of Weather 2 (thunder and tempest), 4) Weather estimate and 6) Global warming. Every exercise plan was for 4 hours that necessary 24 hours altogether.
2. A Social science accomplishment test on Atmosphere and Weather, the test was different decision.

4.5 Procedures

1. **Pretest:** Before gazing the trial research, the example bunch has been applied to a size of Social science accomplishment. Pretest by the Social science accomplishment test.
 2. **Trial:** The analysis was instructed by six exercise plans on Atmosphere and Weather utilizing the 5E learning cycle model. The instructor was educated about the reason for the investigation than utilizing the 5E learning cycle model during the procedure educator was watched, the cooperation between educator understudies and understudies; support and commitment of understudies into learning condition and instructor just as the states of being and material accessibility of the study hall. Understudies in the example bunch were told with the 5E learning cycle model. In guidance, instructing and learning exercises and exercise plans were intended to boost understudy's dynamic association in the learning procedure. The instructor just gives questions, recommended approaches, gave input, and evaluates understanding.
- **Posttest:** After the completed exploratory, the example bunch has been applied a size of posttest that the test same pretest. So the investigation apparatuses two months, a month and a half for the guidance, fourteen days for the utilization of the pretest and the posttest.

4.6 Data Analysis

- Mean, rate, and standard deviations of estimated amounts were decide and t-test for subordinate examples and for one example accomplished for theory testing.

V. RESEARCH FINDING

1. Sociology accomplishment :

Improvement in Social science accomplishment subsequent to applying the 5E learning cycle model, research information of this Social science accomplishment can be summed up in Table 1 beneath.

TABLE 1: Research data of Social Science achievement

N	Test	M	Standard Deviation	Percentage	'T' Test	p-Value
38	PT(Pre-test)	33.46	3.45	57.76	26.892**	.000
	PT(Post-test)	49.68	2.03	82.81		

As indicated by Table 1, it is realized that the Social science accomplishment pretest mean score acquired by Social science understudy instructors is 34.66 (57.76%). Subsequent to learning, their posttest implies the score is 49.68 (82.81%). This is a near that there is an improvement from pretest to posttest; the outcome shows that the posttest implies score was higher than 80% and it was likewise higher than pretest.

CONCLUSION AND DISCUSSION

In light of the discoveries got in the examination, it can finish up the accompanying focuses:

The Social science understudies who have been learning with the 5E learning cycle model have Social science accomplishment pretest mean score 34.66 (57.76%) in the wake of learning, their posttest implies the score is 49.68 (82.81%), the outcome shows that the posttest mean score was higher than 80% and it was likewise higher than pretest

The Social science understudies who have been learning with the 5E learning cycle model have Social science exercise plan capacity 12.08 (50.33%) subsequent to learning, their posttest implies the score is 20.08 (83.66%), the outcome shows that the posttest mean score was higher than 80% and it was likewise higher than pretest.

From the exploration results could be conversation as, the 5E learning cycle model is an instructional model dependent on the constructivist way to deal with learning; constructivism is a learning system that draws on understudies' current information, convictions, and abilities, with a constructivist approach, understudies orchestrate new comprehension from earlier learning and new data. Utilizing the 5E learning cycle model will help understudy comprehension of Social science ideas. Every exercise starts with a commitment action, yet understudies can reappear the 5E learning cycle model at other point in the cycle. For instance, "Atmosphere", understudies investigate the layers air then they clarify their layers environment perceptions and contrast how unique of layers air with their colleagues'. Next, the understudies return the investigate stage by playing out an action to discover the layers climate.

Move from the clarify stage once more into the investigate stage offer understudies the chance to add to the information they have developed so far in the exercise by partaking in extra hands-on investigations. Understudies take on a significant part of the duty regarding learning as they build information through disclosure. In the 5E learning cycle model, the instructor goes about as a guide: bringing up issues' giving chances to investigation' requesting proof to help understudy clarifications, alluding understudies to existing clarifications, remedying misguided judgments, and training understudies as they apply new ideas. This model driving understudies bit by bit to an answer, giving unequivocal answers, and testing separated realities. The 5E learning cycle model requires the understudies to take on much the obligation regarding their own learning. To finish up, specialist supports the proceeded with utilization of the model with the full acknowledgment that study hall instructors will bring proper variations dependent on the one of a kind conditions of their understudies.

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