EFFECTIVENESS OF EXPERIENTIAL LEARNING APPROACH IN SOCIAL SCIENCE IN TERMS OF ACHIEVEMENT AND REACTION OF UPPER PRIMARY STUDENTS OF ASSAM

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CHAPTER VI

SUMMARY AND CONCLUSION

6.0 INTRODUCTION

People learn through different ways but real and long-lasting learning occurs only when a person is immersed in learning engaging all the senses. To gain knowledgeand experience a person needs to have all the senses focused. As Rogers (1969) mentioned that people are inherently capable of learning. Significant learning occurs when a learner believes the content is relevant to their own purpose; learning happens quickly when a person has a goal they want to accomplish and believes the material they are being given is relevant to that objective. The act of learning is continuous; a person learns everyday throughout whole life. Learning describes a range of modifications brought about by experience. Learning is illustrated by relativelypermanent changes brought about by experience and practice. The primarycharacteristic of learning is that it always involves some kind of experience, thus experience and learning are synonymous terms. (Beard & Wilson, 2006). Learning should involve a variety of tasks, such as making connections between new and previous experiences, applying theories to real-world situations, and critically analyzing information. One of the main factors of quality learning in classrooms is the instruction provided in classroom and the pedagogy used to provide thoseinstructions. Students' understanding of content and their achievement in classroom mostly depends on the pedagogy used by the teacher. For this reason, learning must be facilitated by high-quality pedagogy that enables students to acquire the greatest amount of knowledge along with practical skills. Hence, rethinking learning tasks and pedagogy are essential to the global reinvention of educational systems (Leadbeater, 2008; Scott, 2015). Reconsidering pedagogical approaches for the modern era is of paramount importance, just as crucial as delineating the new skills required by contemporary learners for enhancement (Scott, 2015).

THE CONCEPT OF EXPERIENTIAL LEARNING

"Experience is the child of Thought, and Thought is the child of Action – we cannot learn men from books" (Benjamin Disraeli, 1826)

Although Disraeli's final sentence cannot be sustained, his underlying point contains some truth. Conventional learning, where the teacher or instructor provides only theoretical facts and information, is a relatively unproductive method of education. The teacher needs to involve the students through the creation of meaningful learning experience to provide a far more effective and lasting type of instruction and knowledge. The process of actively engaging the individual's inner world and the environment's outer world results in experiential learning. One of the fundamental principles of experiential learning is active engagement. Experiential learning unquestionably involves the person as a "whole". Because when a person involves experiential learning, the person uses his thoughts, feelings, and physical activity. Recognizing this "whole environment," internally and externally, is critical **(**Beard & Wilson**,** 2006**).** All learning processes involve experience, but its importance is frequently overlooked or even denied. That is why numerous authors have discussed the strong connection between experience and learning. A relatively permanent change in knowledge, attitude, or behavior that results from formal education or training and unstructured experiences is what Wilson (2005) defines as learning. According to Kolb (1984), "learning is the process where knowledge is created by transforming experience." Thus, it would seem that experience and learning are intimately related and nearly inseparable. Since experience and learning are essentially synonyms in many ways, experiential learning is a tautology or a repetitionof the same concept **(**Beard & Wilson, 2006**)**. By nature, experiential learning is the bedrock of all forms of learning since it embodies the transformation of most novel and vital experiences and includes them in a more comprehensive conceptual framework (Beard & Wilson, 2006). Talking about learning in isolation from experience seems pointless. Experience is an essential component of learning that cannot be ignored. Even though there are teachers, materials, and exciting opportunities which serve as external prompts to learning, without the engagement of the learner's experience, learning cannot occur, at least to some extent. Learningbuilds on and flows from experience. These outside forces can only have an impact by

altering the learner's experience. (Boud, Cohen & Walker 1993). So, the interaction between the self and the outside world, or experience, is the basis of much learning.

Dewey appears to be the main proponent of learning via experience, because the term "experience" can be seen in the titles of several of Dewey's books, including Experience and Nature (1925), Art as Experience (1934), and Experience and Education.

According to experiential theorists and educational practitioners, experiential learning is unquestionably not merely memorization of abstract theoretical information, particularly when it is taught through formal, conventional means of learning like lectures and reading from textbooks (Warner Weil and McGill, 1989). Beard and Wilson have mentioned that since experiential learning transforms most new and meaningful events and include them into a larger conceptual framework; it is essentially the process that underpins all other forms of learning. However, they have also mentioned that experience may not always lead to learning as it requires active engagement and reflection of the learner. If this isn't done, the experience will likely blend in with all the other stimulants, that assail a person's senses on a daily basis. Perceiving a stimulus, whether it be internal to us or external, can be seen of as a way of learning from one's experiences. Experiential learning can occur in both natural and artificial environments, including classrooms and outdoor spaces. One of experiential learning's main advantages is that it offers a foundational concept that unifies different learning theories into a cohesive whole. However, despite its seemingly simple nature, this philosophy is actually quite deep and makes us think critically about our identities and our definitions of experience (Beard & Wilson, 2006). Boud et. al (1993) have summarize the link between experience, prior experience and perception by saying that in one way or another, learning is constantly connected to the past. No new concept or experience can be started with a blank slate since they are just notion that are meaningless and solitary unless they are connectedto past experiences. Experience has an impact on all learning. An individual's inclinations, avoidance strategies, and approach to a task are influenced by his/her past reactions (Beard & Wilson, 2006).

6.1 RATIONALE OF THE STUDY

Effective teaching-learning in any level mostly depends upon the use of effective pedagogy, though other factors also influence but appropriate use of teaching-learning strategies can increase the achievement and understanding of the learners to a great level. For facilitating meaningful learning which is more retentive and effective, teachers need to choose the teaching-learning methods very carefully. Meaningful learning, as opposed to just storing and retrieving knowledge, is a cognitive process that entails the creation and manipulation of tangible objects and mental representations (NCF 2005). To enhance the effectiveness and potency of learning, it is crucial to provide students with a diverse range of opportunities for active engagement and conceptual development. This approach enables them to effectively apply their knowledge and comprehension to real-world problems. Accomplishing this objective presents a significant challenge for both teachers and students in classroom settings. It requires innovative teaching strategies, hands-on learning experiences, and a supportive learning environment that encourages inquiry and critical thinking. By cultivating these components, educators can assist students in bridging the disparity between abstract information and real-world implementation, preparing them for success beyond the classroom. People can learn or acquire knowledge through their experiences, but experience must be accompanied by action and thought. Every experience has the capacity to prepare a person for his/her future life. Proper educative experience can have long lasting effect on the learner. Whateverthe learners learn must be connected to the experience and actual conditions of life. If it is segregated from the actual experiences or the conditions of life then it will be likeputting the learning in a water tight compartment; resulting in little benefit from the learning.

Studies conducted by Kesercioglu (2012), Assab and Awad (2015), Joshi, K. H. (2015) Burch et. al (2019), Shivani (2018), Leal-Rodriguez et al (2018), Thote (2021),Gugale, A. (2023) and Devi, A. (2024) found that experiential learning increases the achievement and academic performance of students in different subjects, especially in science, mathematics and language.

Joshi, K. H. (2015) in her study, ‘effectiveness of Kolb's Experiential Learning Model for class IX students in social science subject’; found that the Model is effective in enhancement of learning for both boys and girls. Michael, R. (2014) also found that

the effectiveness of Experiential Learning Model in developing Socio-Emotional Competencies of class IX students in comparison of Activity Oriented Method'. Seerat (2014) in his study conducted on primary school students; proved that learning through Experiential Learning strategies can help in better attainment of Spatial Geometry skills than learning through traditional learning method. Efstratia (2014) asserted that experiential learning, particularly in project-based learning, enabled students to forge a link between academic knowledge and real-world situations.

Learners retain information most effectively when it is integrated into real-world activities, experiential learning, and natural, spatial memory (University of Kansas). Experiential learning can help the learners to realize the value of the subject. Experiential learning reduces the disparity between goals and methods, as well as between obtaining knowledge and putting it into practice, which are typical of traditional classroom learning (Hamilton, S. F. 1980).

From literature review and as per the access and knowledge of the investigator, it has been found that most of the studies have been conducted on teaching-learning of science, mathematics, language and business. Fewer studies have been conducted on social science subjects. However, it is obvious that, social science teachers need to work very hard to make the different topics of the subject interesting to the students. Because**,** many students perceive social studies as monotonous and uninteresting (Chiodo & Byford, 2006; Russel and Waters, 2010). Additionally, they lack theperception of the significance of social studies in relation to their daily experiences (Schug, Todd & Beery, 1982; Shaughnessy & Haladyna, 1985; Russel and Waters, 2010).

People also have the perception of social sciences as a non-utility subject and having less career options for students specializing in the social sciences (NCF 2005). However, social sciences are as important as the natural or physical sciences to adjust in the rapidly changing and interdependent world. To change the concept or the belief that social sciences only transmit information and are text centered, importance should be given on conceptual understanding and practicability. The teaching method of social sciences must promote active participation, creativity, problem solving capacity and critical thinking among the learners. The National Council for The Social Studies (NCSS) Task Force on Early Childhood/Elementary Social Studies (2009) said that teaching and learning elementary social studies should be meaningful,

integrative, value- based, challenging and active. Learning is best accomplished when the learning activity is connected directly to physical experience.

Again, studies conducted by Poonam, K. & Neetu, K. (2014), Muralidharan, K. & Sundararaman, V. (2013) and Singh, R. & Sarkar, S. (2012) stated that most of the government schools use traditional teaching methods along with less use of technology. Private schools also use traditional teaching methods but with the use of technology and more activities. Lack of innovative teaching-learning methods, minimum or no use of technology in teaching-learning, lack of students' engagement and experiential activities in classrooms leads to lower interest, motivation and learning outcome in the students.

Thus, it is high time to use Experiential learning methods in schools to enhance students' performance. That is why; government of India has taken initiatives such as Rashtriya Avishkar Abhiyan (RAA, 2015) and Atal Tinkering Labs (ATL) by NITI Ayog in 2016. Realizing the significance of experiential learning, in 2010 UNESCO recommended experiential learning as one of the teaching strategies for 21st century, so as to help the learners in the preparation for facing for 21st century challenges.

Another initiative has been taken by Sri Aurobindo Society that is "Inovative Pathshala" which aims to act as guide for experiential teaching in government schools by converting the school syllabus into evolving experiential learning content.

The CBSE (Central Board of Secondary Education) has also made Experiential Learning a requirement for schools and the annual theme for training. This is to enhance the effectiveness of learning in the 21st century by making it more experiential. In September 2018, the Ministry of Human Resource Development (MHRD) issued the Curriculum on Experiential Learning-Gandhiji's Nai Talim in 13 languages of India. The objective was to offer experiential learning at all levels of education, encompassing all states and stakeholders.

Also, the National Education Policy (NEP) of 2020 states, In all stages, experiential learning will be adopted, including hands-on learning, arts-integrated and sports-integrated education, storytelling-based pedagogy, among others, as standard pedagogy within each subject, and with explorations of relations among different subjects. Thus, experiential learning is getting significant importance for all the good reasons.

The aforementioned discussion has yielded the following points-

- **Lack of research in the field of social science education**- Although there have been many studies showing the efficacy of experiential learning in fields such as physics, mathematics, and language, there is a clear lack of research specifically examining its impact on social science education. There is a common perception that social science is not very interesting, so it is important to investigate how experiential learning might be used to improve students' interest and performance in this field.

- **Pedagogical innovation in the Social Sciences** - The social sciences have a reputation for being dull and uninteresting due to the prevalence of outdated pedagogical practices. Hence, it is needed to determine whether and how students' perceptions of social science may be improved through the implementation of experiential learning strategies.
- **Exploration of student interest and achievement:** Although the government and different organizations have been taking various steps and initiatives for integrating experiential learning in teaching-learning, the effectiveness of experiential learning methods in terms of student's achievement and students' interest is less explored, especially in social science subject in elementary level.
- **Contribution to educational policy and practice:** This research can provide valuable insights into the implementation of experiential learning in social science subject, as various policies emphasize experiential learning across all subjects. In order to better accommodate the requirements of 21st-century learners, the results could be used to inform educational policies and teaching practices.
- **Promoting critical thinking and problem-solving:** Social science is essential for cultivating skills in critical thinking, problem-solving, and comprehending societal matters. This research is needed to know how experiential learning can improve these skills in students, thereby making social science instruction more effective and in line with the objectives of holistic education.
- **Aligning with national and international educational goals:** This study is in line with the objectives of both national initiatives, such as NEP 2020, and international guidelines, such as those from UNESCO, which promote experiential learning. The research can offer empirical evidence to support these policies, soensuring their efficient implementation in classrooms.

Therefore, lack of research in the field of social science education, pedagogical innovation in the Social Sciences, exploration of student interest and achievement, this study's contribution to educational policy and practice, promoting of critical thinking and problem-solving, and alignment of the study's objectives with national and international educational goals have prompted the researcher to carry out this study.

6.2 STATEMENT OF THE PROBLEM

The present study has been stated as "Effectiveness of Experiential Learning Approach in Social Science in terms of Achievement and Reaction of Upper Primary Students of Assam".

6.3 OPERATIONAL DEFINITION OF THE TERMS USED

Experiential learning: Experiential learning refers to learning from doing, hands on practices and participating actively in various activities that are used to teach aparticular topic or concept. It is the learning that is opposite of traditional kind of learning where only lectures, simple reading and writing are used. Experiential learning occurs when learners reflect, critically analyze and synthesize the learning experiences provided inside or outside the classroom.

Social Science: Social Science refers to the social science textbook of the upper primary level, where the contents are drawn from History, Economics, Geography, and Political Science.

Achievement: Achievement refers to the student's performance in achievement test prepared by the researcher.

Upper Primary Students: Upper primary students refer to the students belonging to class VIII of government schools of Assam.

Reaction: Reaction refers to students' feedback towards the experiential learning teaching methods used by the researcher.

6.4 OBJECTIVES OF THE STUDY

1. To study the significant difference between the mean scores of achievements in Social Science of Experimental group and Control group students at Pre-test and Post-test stages.
2. To compare adjusted mean scores of Achievement test in Social Science of students belonging to Experimental group and Control group by considering Pre-Achievement in Social Science as the covariate.
3. To compare adjusted mean scores of Achievement test in Social Science of students belonging to Experimental group and Control Group by considering Intelligence as the covariate.
4. To study the effect of Treatment, Gender and their interaction on achievement in Social Science by considering Pre-achievement in Social Science and intelligence as covariate.
5. To study the effect of Treatment, Intelligence and their interactions on Achievement in Social Science considering Pre-achievement in Social Science as covariate.
6. To study the effect of Treatment, Study habits and their interactions on Achievement in Social Science by considering Pre-achievement in Social Science as covariate.
7. To study the reaction of students belonging to Experimental group towards the Experiential Learning Approach (ELA) used by the researcher.

6.5 HYPOTHESES OF THE STUDY

Ho1. There is no significant difference between the mean scores of achievement in Social Science of Experimental group and Control group students at Pre-test stage.

Ho2. There is no significant difference between the mean scores of achievement in Social Science of Experimental group and Control group students at Post-test stage.

Ho3. There is no significant difference between the mean scores of achievement in Social Science of Experimental group and Control group by considering Pre-achievement in Social Science as the covariate.

Ho 4. There is no significant difference between the mean scores of achievement in Social Science of Experimental group and Control group by considering Intelligence as the covariate.

Ho 5. There is no significant difference between the mean scores of achievement in Social Science of Experimental group and Control group by considering Pre-achievement in social science and Intelligence as covariate.

Ho 6. There is no significant effect of Gender on Achievement in Social Science by considering Pre-achievement in Social Science and Intelligence as covariates.

Ho 7. There is no significant effect of Treatment, Gender and their interaction on Achievement in Social Science by considering Pre-achievement in Social Science as covariate.

Ho 8. There is no significant effect of Intelligence on Achievement in Social Science by considering in Pre-achievement as covariate.

Ho 9. There is no significant effect of Treatment, intelligence and their interaction on Achievement in Social Science by considering Pre-achievement in social science as covariate.

Ho 10. There is no significant effect of Study habits on Achievement in Social Science by considering in Pre-achievement in Social Science as covariate.

Ho 11. There is no significant effect of Treatment, Study habits and their interaction on Achievement in Social Science by considering Pre-achievement in Social Science as covariate.

6.6 DELIMITATIONS OF THE STUDY

i) The study is delimited to the students of class VIII only.
ii) The study is delimited to social science subject only.
iii) The study is delimited to the Assamese medium government school only.
iv) The study is delimited to the Sonitpur district of Assam only.

6.7 DESIGN OF THE STUDY

A research design outlines the strategy for gathering and employing data in a manner that ensures the acquisition of desired information with precision or enables the effective testing of hypotheses (Peirce, 1989). The present study has been conducted using Quasi-experimental research design which comes under the Experimental research. The term experimental design refers to the statistical principles guiding the planning and analysis of experiments, allowing investigators to arrange treatmentsand measurements for maximum statistical effectiveness. It encompasses tasks suchas selecting factors and their manipulation levels, identifying and controlling extraneous variables, managing experimental units, choosing criterion measures, selecting specific designs, and analyzing data (Brooter, 1999).

For the current study, non-randomized pre-test post-test control group research design was employed. The description of the design is given below-

6.8 POPULATION OF THE STUDY

The population of the present study includes all the students studying in class VIII in government schools of Assam.

6.9 SAMPLE OF THE STUDY

The sample of the present study comprises of 140 students of class VIII in total from both Experimental and Control group. There are 71 girls and 70 boys in the sample. The Experimental group comprises of 70 students including 34 boys and 36 girls and the Control group also comprises of 70 students including 35 boys and 35 girls. There are 286 government schools in 7 blocks of Sonitpur district of Assam. Out of 286 schools, the following two schools have been selected randomly for control and experimental group.

1. Hem Baruah Higher Secondary School
2. Mansiri Higher Secondary School

6.10 SAMPLING TECHNIQUE

For selection of the two schools, the researcher used lottery method under simple random sampling. After selection of the two schools, the researcher used intact group sampling technique to select the students of entire class VIII without disturbing their regular schedules.

6.11 TOOL USED

For the present study the following tools were used-

6.12.1 Tool No. I - Achievement Test in Social Science subject

The researcher developed an Achievement test in Social Science for estimating the achievement of students belonging to class VIII. The objective of the achievement test is to ascertain the level of students' knowledge in Social Science subject.

i. Content Specification

For the development of the Achievement test, the researcher selected 7 lessons from the Social Science subject of class VIII of SEBA board. The same 7 lessons are included in the module.

ii. Specification of instructional objectives

After selection of the content for the achievement test, the researcher specified the instructional objectives for each lesson.

iii. Development and Standardization of the Achievement test

In this phase, the researcher followed the following steps-

a) Planning of the test
b) Writing the items of the test
c) Try-out and item analysis
d) Difficulty value
e) Index of discrimination
f) Distractor analysis

The development of the test is discussed below-

a) Planning of the test

After thorough study of the social science syllabus of class VIII, the researcher did the selection of the content for the test; then the researcher specified the instructional objectives for each lesson. Total 7 lessons have been selected for the test. The researcher developed 'short answer type questions', 'fill in the blanks', 'identify the picture', 'multiple choice question' and 'true/false questions'.

b) Writing the items of the test

After proper planning, the researcher wrote the items of the test in simple language. Total 70 questions were prepared on the basis of knowledge, understanding, reasoning, comprehension and application. The draft of 70 questions was sent to experts for their opinion and suggestions.

After getting feedback from the experts, some of the items were modified and excluded from the first draft. Out of 70 questions, 10 questions were excluded and finally 60 questions were kept for tryout phase.

The 60 questions cover all the 6 categories of Bloom's taxonomy which are- 'Remember' 'Understand', 'Apply', 'Analyze', 'Evaluate' and 'Create'.

The draft consists of –

- 29 Multiple choice questions
- 12 True/False questions
- 5 Identification of pictures
- 10 Fill in the blanks
- 4 Arrange in order

c) Try-out of the test

The tryout or the pilot testing of the achievement test is done in two phases as described below

i. **Preliminary try out:** The preliminary version was conducted on a group of 15 students from the ninth grade in order to assess their comprehension of statements. The students were instructed to openly express their challenges encountered when tackling the test items. Following this brief group trial, minor modifications were implemented to the wording and structure of the questions.

ii. **Final try-out:** After the initial try-out and necessary modification, the researcher administered the draft of achievement test on 80 students of class IX of Haleswar Higher Secondary School for pilot testing. After administration and evaluation of the achievement test, the researcher proceeded for item analysis ofthe test to know the level of difficulty and discriminating power of items.

d) Difficulty value: An item's difficulty value is expressed as the percentage of examinees, who properly answer the question. The primary goal of determining difficulty value (DV) is to select objects with an appropriate degree of difficulty. Item analysis involved sorting the scores from highest to lowest in descending order. Afterwards, two distinct groups formed; one had high scores and the other had low scores. From the two groups, 27% from the high scorer and 27% from low scorerwere selected for analysis of items (Kelly, 1939).

The following formula was used to calculate the Difficulty Value (DV)

$$DV = \frac{CR_U + CR_L}{N}$$

CR_U = Correct responses in the upper group

CR_L = Correct responses in the lower group

N = Total number of students who took the test

e) Index of Discrimination - Item discrimination is a measure that separates students in the top group based on their correct responses from those in the lower group. So, 27% from the high scorer and 27% from low scorer were selected for item discrimination of items (Kelly, 1939). To calculate Item discrimination index (DI), the following formula was used-

$$DI = \frac{CR_U - CR_L}{N/2}$$

CR_U = Correct responses in the upper group

CR_L = Correct responses in the lower group

N = Total number of students who took the test

The criteria for discrimination index level given by Ebel (1972); Ovwigho, 2013 has been followed.

f) Distractor Analysis - The method of examining how students respond to each option in a multiple-choice question is known as distractor analysis. The objective isto evaluate each option's ability to distinguish between students who perform well and those who don't, as well as how well it matches the intended learning objectives. A good distraction should only draw in underachievers and be convincing yet inaccurate. A poor distractor should draw in both high- and low-achieving pupils, or itshould be either unbelievable or correct. Distractor analysis aims to identify distracters that are chosen by less than 5% of test-taker, as they may not effectively differentiate between students who understand the material and those who do not (Haladyna & Rodriguez, 2013).

For distractor analysis of all the 15 MCQ items, the researcher has calculated the percentage of all the options selected by students in both the upper group and lower group in each statement.

iv. Reliability: The researcher has used the test-retest and Cronbach's alpha method to ensure the reliability of the achievement test. The internal consistency was estimated using the Cronbach's alpha method, while the test-retest method was used to determine the measures' consistency across time. For the test-retest, the time interval between the first and the second test was three weeks. The co-efficient of stability is found to be 0.88; hence the prepared Achievement test has good test-retest reliability. The items in the final achievement test were found to have acceptable reliability with a Cronbach's alpha score of 0.79, which is greater than 0.7.

v. **Validity:** In the current study, the content validity of the test was established by aligning the test tasks with the instructional objectives. The draft of the test was sent to subject experts for their judgment and suggestion. On the basis of their inputs, the researcher made necessary modifications and finalized the tool.

6.12.2 Tool No. II

The second tool is the self- developed Reaction Scale for assessing the reaction/feedback of students towards the experiential learning approach as used by the researcher.

This is a Five Point Likert Scale with responses such as Strongly Agree (SD), Agree (A), Undecided, Disagree (DA) and Strongly Disagree (SDA). At the beginning the researcher developed 26 statements covering various aspects of the module used by the researcher as the treatment. The draft of 25 statements was sent to experts for their opinion and suggestions. After getting the suggestions, the researchers removed some unnecessary and ambiguous statements and also modified some of the statements. Total 5 statements were removed from the scale; hence the final scale comes with a total of 20 statements. There are 9 negative and 11 positive statements.

6.12.3 Tool No. III

The third tool is the Group test of intelligence by Dr. Pramila Ahuja. This test was used to assess the intelligence level of the students. The test-retest reliability of thetest is .852 and the Split-half reliability is .943.

6.12.4 Tool No. IV

The fourth tool is the Study habits inventory by Prof. M.N Palsane and Anuradha Sharma. This test was used to assess the study habits of the students. The test-retest reliability of the test is .88 and split-half reliability is .56.

6.12.5 INSTRUCTIONAL MODULE BASED ON EXPERIENTIAL LEARNING APPROACH (INTERVENTION)

The researcher developed experiential learning lesson plans in Social Science subject of Assamese medium Class VIII. The module was used to provide treatment to the experimental group. While developing the lesson plans, the researcher followed the steps given in the handbook of experiential learning prepared and published by Central Board of Education (CBSE) in 2019.

While developing the module, the researcher has taken suggestions and opinions from experts. Necessary modifications had also been done on the basis of expert's opinion and suggestions.

Total 7 lessons from the Class VIII Social science book have been selected forpreparing the module. For developing the instructional module, the researcher followed the steps provided by CBSE 2019, for each lesson.

The researcher went through each step to ensure the proper use of experiential learning approach. The module included various activities in every lesson to make sure that the students actively engage in teaching-learning, they have interest and curiosity to learn, they can relate their learning to real life situation, and they can reflect on their learning and apply their learning as much as possible in their everyday situations. The module equally focused on theory and practice.

6.12 PROCEDURE OF DATA COLLECTION

After selection of the two schools, the researcher administered pre-test using the achievement test on social science on students of both the schools to ascertain their prior knowledge on the selected lessons of Social Science subject. Then the researcher used independent samples t-test to find out the difference between the pre-test score of the two schools. The researcher also administered the Intelligence test and Study habits test on both the groups of students. After testing all the variables involved in the study, the researcher randomly selected one school as Experimental and another school as Control Group. After selection of the Experimental group, the researcher provided the treatment using the experiential learning module. The control group did not get any treatment but was taught through the conventional learning approach. The treatment took 2 months to complete, after 2 months the researcher conducted the post-test using same achievement test on both the experimental and control group.

After completion of post-test, the researcher assessed the reaction or feedback of the students belonging to experimental group using reaction scale.

6.13 STATISTICAL TECHNIQUES USED

- Mean
- Percentage
- S.D
- Paired sample t-test
- ANCOVA

6.14 OVERALL RESULTS AND DISCUSSION OF THE STUDY

1. The researcher did not find significant difference between the Pre-Test Score of Experimental Group and Control Group but found find significant difference between the Post-test Score of Experimental Group and Control Group. Hence, the 'Treatment' means the experiential learning approach used by the researcher to teach SocialScience in class VIII is effective.
2. Also, significant difference is found between the mean scores of achievement in Social Science of Experimental Group and Control group by considering Pre- achievement in Social Science as the covariate. Hence, student's prior knowledge did not affect their Achievement in Post-test.
3. Significant difference is found between the mean scores of achievement in Social Science of Experimental Group and Control group by considering Intelligence as the covariate. Hence, student's knowledge did not affect their Achievement in Post-test.
4. No significant difference is found between the adjusted mean scores of achievement in Social Science obtained by Males and Females when Pre-achievement in Social Science and Intelligence were taken as covariates. Hence, Achievement in Social Science is not affected significantly by Gender when Pre-achievement in Social Science and Intelligence are considered as covariates.
5. Also, Treatment and Gender's interaction did not affect the Achievement of students in Social Science when Pre-achievement in Social Science and Intelligence are considered as covariates.
6. Significant difference is found in adjusted mean scores of achievement in Social Science obtained by the students belonging to the three groups namely High

intelligence, Average intelligence and Low Average Intelligence when Pre-achievement in Social Science was taken as covariates.

7. There is significant effect of Intelligence on Achievement in Social Science when Pre-achievement in Social Science is the covariate.
8. There is no significant effect of Treatment, Intelligence and their interaction on Achievement in Social Science when Pre-achievement in Social Science is considered a covariate.
9. Significant difference has been found in adjusted mean scores of achievement in Social Science obtained by the students belonging to the three groups namely Good Study habits, Average Study habits and Unsatisfactory Study habits when Pre- achievement in Social Science was taken as covariate.
10. There is significant effect of Study habits on Achievement in Social Science when Pre-achievement in Social Science is considered as covariate.
11. There is no significant effect of Treatment, Study habits and their interaction on Achievement in Social Science by considering Pre-achievement in Social Science as covariates.
12. Majority of the students show favourable reaction towards all the statements covering various aspects of the experiential learning instructional material.

On the basis of result and findings it is clear that teaching Social Science through

Experiential learning approach can enhance the achievement of all students, irrespective of gender, level of intelligence and study habits style. In school, Social Science is often regarded as boring or less interesting due to various reasons such as lack of relevance of learned things to the student's life, overload of factual information, lower level of engagement in classes and lack of hand on practice (Kim,
S. 2017, Brown, L. (2018) & Smith, (2022). Hence, it is crucial to bring some pedagogical changes in teaching-learning of social science. Experiential learning methods provide numerous opportunities to make social science interesting, relevant and much more engaging like STEM, language or arts. In the present study, the researcher could use the experiential learning methods to tackle the above-mentioned problems to a great extent. The result of this study is backed by previous studies that show how experiential learning improves academic performance, meaningfullearning, and learning outcomes (Gosen & Washbush, 2004; Gencel, 2006; McCarthy,

2006; Ives-Dewey, 2009; Clements & Cord, 2013; Ernst, 2013; McLeod, 2013; Konak, Clark & Nasereddin, 2014; Manav & Eceoglu, 2014; Matuso, 2014; Alkan.F., 2016). The study also revealed that the students of the Experimental group were curious and interested in learning Social Science. So, the reasons could be actively engaging the students in every learning activity through project work, field visit, storytelling, role plays, drama and discussion. According to the students, they understood the concepts more clearly and could relate the concepts to their real-life situations. Their communication skill, their relationship with peer group and social skill has also been improved through experiential learning methods used by the researcher in this study, such as Role play, Drama, Project, Think-pair-share, Discussions and surveys etc. Research has shown that experiential learning programs can improve students' collaboration skills, even in students who typically have difficulty with it (Strawhacker and Bers, 2018; Looijenga et al., 2020; Korfiatis and Petrou, 2021; English et al., 2021). Along with knowledge and awareness, experiential activities develop skills, starting with 'narrow skills' such as listening or questioning, map reading, juggling skills etc., and then gradually moving towards 'broad skills' such asteamwork, communication, and time management, emotional leadership or leadership (Beard & Wilson, 2010).

The students who were shy and introvert and find it difficult to communicate freely with the teacher as well as their classmates; they also became comfortable and confident, as they were given equal opportunities to participate in every activity. Students reported an increase in confidence as a result of completing experiential learning assignments (Cornell, Johnson & Schwartz, 2013, Ersoy & Pehlivan, 2018; Blucher, Aspden & Jackson, 2018; Zyngier, 2017). Students are given additional chances to integrate their conceptual, procedural, and factual knowledge within the context of the discipline through experiential learning activities (Bradley, Burch, & Burch, 2015). A large body of research (Acharya et al., 2020; Alvi and Gillies, 2021; English et al., 2021; Ersoy and Pehlivan, 2018; Koh et al., 2016; Strawhacker and Bers, 2018) indicates that children's social interactions improved following participation in experiential learning treatments. Experiential learning offers two distinct avenues for the cultivation of empathy in children. The first advantage is that kids develop more empathy as a result of learning to work together, which is

supported by research (English et al., 2021). Second, children's empathy was found to be enhanced through embodied experiences that aimed at strengthening their bonds with others, regardless of species (Adams and Beauchamp, 2021; Koh et al., 2016).

According to Adams and Beauchamp (2021), Berg et al. (2021), and Korfiatis and Petrou (2021), children reported feeling joyful and enthusiastic, particularly when the learning activity was conducted outdoors. Coates and Pimlott-Wilson (2019) and Hammarsten et al. (2019) found that students reported feeling peaceful and lessstressed. A number of students have shown an interest in participating in similar educational programs in the future (Korfiatis and Petrou, 2019; Zyngier, 2017).

Hence, the study could meet its objectives and prove the overall effectiveness and importance of Experiential learning approach.

6.15 EDUCATIONAL IMPLICATIONS OF THE STUDY

6.16.1 FOR TEACHERS

1. Implementing experiential learning methods enables teachers to develop more dynamic and interactive instructional sessions that enhance student learning.
2. Through the use of experiential learning, teachers can impart to their students' practical skills that they can use in everyday settings in addition to academic information. With the help of this experiential learning approach, students may effectively apply and transfer their knowledge and abilities outside of the classroom, closing the knowledge gap between classroom instruction and real-world problems.
3. The present study will provide guidance and understanding of how to develop instructional strategies based on Experiential learning approach to teach Social Science.
4. The current study also emphasizes the necessity for curriculum designers to include a variety of activities in their curricula to support students' experiential learning.
5. Teachers can expand their instructional techniques and methodologies, leading to professional growth and improved teaching effectiveness.
6. Experiential learning enhances the classroom atmosphere by creating a more immersive and interactive experience, hence increasing the satisfaction and enjoymentof teaching.

7. Engaging in hands-on activities and applying knowledge in real-life situations allow teachers to gain more precise understanding of students' understanding and abilities.

6.16.2 FOR STUDENTS

1. The result and findings of the present study is evident that experiential learning approach is effective in increasing the achievement of students in Social Science than the conventional approach.
2. Experiential learning enhances comprehension and memory by connecting theoretical knowledge with hands-on experiences, resulting in a more effective grasp and retention of concepts.
3. Students' analytical and critical thinking capabilities are improved through participation in practical activities and real-world problem-solving.
4. Experiential learning's interactive aspect enhances course engagement, hence boosting student motivation and excitement for learning.
5. Experiential learning approach not only enhances the Achievement of students but also enhances skills, such as communication skill, social skill and team work through group projects and collaborative tasks.
6. Through the application of information to practical settings, students enhance their readiness to confront future obstacles and adjust to diverse circumstances.

6.16.3 FOR PARENTS

1. Parents can enhance their children's education by actively participating in experiential learning activities at home, so reinforcing the principles taught in school.
2. Understanding the advantages of experiential learning motivates parents to engage in closer collaboration with teachers, supporting their children's education.
3. Parents acquire valuable knowledge about excellent pedagogical techniques, empowering them to provide enhanced assistance to their children's educational progress and growth.
4. Parents can assist children in applying the knowledge they acquire in school to real- life scenarios, so enhancing the relevance and practicality of their education.
5. Parents are more likely to have a positive attitude towards education at home when they observe the beneficial effects of experiential learning on their children's engagement and academic performance.

6.16 LIMITATIONS OF THE PRESENT STUDY

1. One of the significant limitations that the researcher faced was the dearth of experimental studies in the Social Science domain. Due to the lack of relevant literature, it was difficult to get enough advice or support the research issue. As a result, the researcher faced difficulties in accessing adequate resources or precedents to inform and support the study.
2. Additionally, the researcher encountered infrastructural limitation and a lack of instrumental support, e.g. The lack of a suitable classroom with access to electricity, white boards/black boards, projectors.
3. It was also not feasible to control the entire extraneous variable.
4. The high number of students also presented a limitation in implementing the approach smoothly.

6.17 SUGGESTIONS FOR FURTHER RESEARCH

1. The present study has been conducted using Social Science syllabus. Similar studies can also be conducted using syllabus of different subjects.
2. The present study has used the Social Science Textbook of SEBA board. Studies can also be conducted using Textbook of different education boards.
3. The present study is conducted on Class VIII students which is the Middle Stage of education according to NEP 2020. Future studies can also be done on different stages of education.
4. Future studies can also be done on development of various skills in students using Experiential learning approach.
5. The present study is conducted on students; similar studies can also be done on teachers, teacher educators and teacher trainees.
6. Similar studies can be carried out using variables different from the ones used in the present study.
7. Future studies on experiential learning can also be carried out using different approach of research such as qualitative and mixed method.

6.18 CONCLUSION

Educational research has extensively shown the efficacy of experiential learning in the context of teaching and learning. Kolb (1984) demonstrated that experientiallearning greatly improves students' retention and comprehension of concepts by involving them in active, practical problem-solving tasks. This approach is consistent with Dewey's (1938) idea that learning is a dynamic and ongoing process influenced by experience. Research has shown that experiential learning enhances student involvement and motivation, resulting in improved academic achievements (Cantor, 1995; Hake, 1998). There is much evidence to support the effectiveness of experiential learning in increasing student achievement. It is a useful approach to learning because of its capacity to bridge the knowledge gap between theory and practice, as well as its effects on critical thinking, engagement, soft skills, and readiness for the real world. Incorporating experiential learning into curricula will probably become increasingly important as education develops in order to produce successful, competent, and well-rounded students.

The present study aimed to assess the effectiveness of an experiential learning approach in teaching Social Science to class VIII students. The findings consistently indicate that experiential learning significantly enhances student achievement and engagement in Social Science, demonstrating its potential as a superior pedagogical strategy. The post-test scores of the experimental and control groups demonstrate the effectiveness of the experiential learning approach. This finding is consistent with prior studies that highlight the beneficial influence of experiential learning on student achievement (Kolb, 1984; Dewey, 1938). The increase in post-test results indicates that the involvement of students in practical, real-life tasks leads to a substantial improvement in their comprehension and memory of Social Science principles. The study also found that the pre-existing knowledge and intellect of students had no impact on their performance in the post-test, thereby confirming the effectiveness and reliability of the experiential learning approach. This discovery aligns with the concept that experiential learning accommodates a wide range of learning needs and abilities, offering an inclusive educational structure (Kolb, 2014). The adaptability and efficiency of experiential activities are seen in the achievement of equivalent academic success across students with different levels of intelligence, study habits and

prior knowledge. As a result, students with different study habits may find that the experiential approach helps them overcome the negative effects of their habits and provides a better way to learn. This is in line with findings from studies that show how experiential learning can make students more invested in their academic work and less dependent on conventional study methods (Kolb, Boyatzis, & Mainemelis, 2001). Furthermore, the method's capacity to engage and encourage students is demonstrated by the overwhelmingly favorable reactions of the students to the experiential learning instructional materials. Prior research has demonstrated that students' interest and motivation are boosted by practical learning, lending credence to this conclusion (Cantor, 1995; Hake, 1998). One way that experiential learning can improve students' outlook on school is by making lessons more hands-on and applicable to their everyday lives. Research shows that students retain more conceptual knowledge when teachers use active learning strategies, such experiential learning, rather than passive methods (Ernst, 2013). One more benefit of experiential learning is that it helps students to understand how their decisions impact the outcomes (Petrocelli, Seta & Seta, 2013). Students are encouraged to actively participate in their learning through experiential learning, which also gives them the chance to reflect on and make sense of abstract circumstances (Ramburuth & Daniel, 2011). Students' in-depth understanding of subject matter is enhanced by the experiential learning process (Groves et. al 2010). Opportunities for in-depth reflection and internalization are presented by experiential learning, which also guarantees a more meaningful acquisition of knowledge (Wu, He, Weng & Yang, 2013). Most of the time, research shows that, students find experiential learningincredibly engaging and inspiring. This is particularly true when the learning is tied toreal-life situations that children encounter on a daily basis. That lines up with what Kolb envisioned when he developed his concept of experience learning in 1984. Children may also be more receptive to learning through embodied experiences.

To sum up, the approach meets the demands of a diverse student body while simultaneously improving academic performance and fostering fairness and inclusivity. These results suggest that lawmakers and teachers should think aboutways to enhance student engagement and learning through the use of experiential learning methodologies. The fact that experiential learning improves students'

performance regardless of their background knowledge, IQ, gender, or study habits highlights its promise as an innovative form of education in the modern era.