

CHAPTER II

REVIEW OF RELATED LITERATURE

2.0 INTRODUCTION

The previous chapter deals with the introductory part of the study including objectives, hypotheses, rationale of the study and operational definitions.

The present chapter provides an overview of prior studies, research papers, committee and commission report etc. A literature review's objective is to gather timely, pertinent research on a selected topic and combine it into a coherent synopsis of the body of knowledge already known in the field. This then gets the researchers ready to present their own case or carry out independent study on the subject. Literature review also provides researchers with the chance to see and appraise both effective and ineffective techniques for doing research and assessment in their area.

Devi, A. (2024) studied ‘effectiveness of Multiple Intelligence Theory oriented experiential learning approach on development of 21st century skills and learning outcome in science’. The objective of this investigation is to create an instructional strategy that is grounded in experiential learning and multiple intelligence theory in order to help secondary school students comprehend science and acquire 21st-century skills. A quasi-experimental non-equivalent group design was used in the study. Secondary school pupils from Jawahar Navodaya Vidyalaya, Khumbong, comprised the sample. The control group consisted of 36 students, while the experimental group consisted of 38 students. The major findings of the investigation proved the claim that the Multiple Intelligence Theory Orientated Experiential Learning Approach is effective in enhancing critical thinking skills, creativity thinking skills, and science learning outcomes.

Mund, P. (2024) conducted a study to improve the integrated science process skills of ninth-grade students in Odisha. The primary goal of the investigation was to enhance students' comprehension of scientific processes and abilities through the

implementation of experiential learning in accordance with Kolb's model. The study also intended to evaluate the scientific process skills of students through the use of both quantitative and qualitative methods, such as on-the-spot assessment and paper pencil test. The study's results indicated that secondary school pupils possessed a low level of integrated science process skills. The necessity for innovative teaching strategies in science education was underscored by the low level of scientific process skills exhibited by students. The implementation of experiential learning was recommended as a method to improve the social skills and learning processes of students, thereby contributing to a more effective science education system.

Gugale, A. (2023) discovered that the experiential learning model is effective in improving the learning outcomes of students by employing the heuristic approach in her study, ‘_Effectiveness of experiential learning in history among CBSE secondary school students’. It was successful in cultivating students' enthusiasm for the study of history. Heuristic approaches to experiential learning in History can be a transformative and effective approach to bringing about a change in the teaching of History. This approach involves the use of scientifically proven techniques and a constructivist perspective to improve the learning experiences of students.

Conchas, D. et. al (2023) did a literature on ‘experiential learning and scientific process skills of senior high school STEM students. The review evaluated the scientific process skills of senior high school STEM students. The study investigated the efficacy of scientific process skills in science education and tried to connect previous research on individual practices to group activities. The study concluded that experiential learning, based on constructivist theory, focuses on engaging students in practical activities and immersive participation. This approach promotes effective and long-lasting learning experiences that seamlessly integrate theoretical concepts with real-world applications. It also fosters the growth of metacognitive skills.

Chopra, L (2022) studied ‘_effect of experiential learning strategies on learning outcomes and interpersonal skills of senior secondary students in relation to learning approaches’. The study employed an experimental method on a sample of 210 Senior Secondary students who were randomly selected from schools associated with PSEB in Amritsar city. The experimental group received instruction using experiential

learning methodologies, while the control group was instructed using conventional learning strategies. Data from the sample was collected using a self-constructed and validated Learning Outcome Test and Interpersonal skills Scale. The results demonstrated a considerable disparity in learning outcomes and interpersonal skills between the experimental group and the control group, which may be attributed to the implementation of experiential learning methodologies. The experimental group outperformed the control group in both dependent variables. Students who used a deep learning method outperformed students who used a surface learning approach in both dependent variables across both groups.

Thote (2021) conducted a study to determine the effect of experiential learning activities on the achievement of specific learning outcomes. The purpose of this paper was to evaluate the influence of the three experiential learning activities that were developed on the achievement of the intended learning outcomes. The research sample was composed of students who were divided into two groups: the study group and the control group, each of which contained a number of students. To procure the sample, the purposive sampling methodology was implemented. In light of the COVID-19 pandemic, the unit "Solution" was instructed online to both divisions. For a week, the study group's students participated in experiential learning activities. Data was gathered through the use of two formative assessments and one summative assessment. The study determined that experiential learning had a beneficial effect on the achievement of specific learning outcomes and contributed to the improvement and reinforcement of academic performance in the field of chemistry.

Sivagamasundari, R. (2021) studied the 'effectiveness of experiential learning in enhancing environmental ethics among prospective teachers.' The sample for this study comprises 80 potential teachers from two distinct colleges of education located in the Chengalpattu District of Tamil Nadu. The results indicated that enhancement of environmental ethics can be achieved by adopting experiential learning and producing a safe, open, and pertinent eco-friendly atmosphere, regardless of the variable being locality, topic stream, or parental vocation. The mean scores for post-test achievement in Environmental Education are higher in the Experimental group compared to the Control group.

Hemanatchatra, G (2020) explored the application of adopted and modified method of experiential learning theory for enhancement of language learning abilities of children with learning disabilities. The study included 30 students from 7th and 8th grade from Helikx open school and Learning center, Salem. These youngsters have learning disabilities, specifically ADHD (Attention Deficit Hyperactivity Disorder) and dyslexia. The researcher implemented an intervention program for two months for improving the children's learning capabilities. The study discovered that implementing the Experiential Learning technique enables students with learning disabilities to effectively acquire knowledge in a typical classroom setting. The potential of comprehensive and inclusive education lies in its strength.

Gohil, R.K. (2020) conducted a study on 'promoting learner's autonomy through experiential learning among secondary school students.' The research confirmed that eighth graders may learn autonomously through hands-on experience. Along with the traditional approach, 41 students were taught using the 5 E's constructivist instructional module and experiential learning, while 43 students were taught using a different approach. Topics of physical and chemical change were prepared for by the 5E's constructivist educational module. "Engage," "Explore," "Explain," and "Elaborate" are the five pillars of the constructivist philosophy of education. Results showed that compared to the control group, the experimental group did better on the science achievement test. As a result, it is safe to say that students' independence is increased through the use of 5E's constructivist approach and hands-on learning activities.

Mensah, R.O. (2020) conducted a study on 'Analysis of Teaching Social Studies: An Empirical Literature Review', and reviewed the aspects related to the scope of social studies and factors affecting the teaching learning of social studies and the pedagogical methods and strategies used in teaching social studies. The study pointed out various factors affecting the teaching learning of social science such as- i) incompetent teachers, ii) lack of conceptual understanding, iii) inability of teachers in providing skill training to the students, iv) lack of classroom discussion on controversial topics which are ongoing in the society. These factors also contributed to the lack of interest among students towards social studies and the attitude of the students towards social studies.

Voulkelatou (2019) investigated the concept of experiential learning and the implementation of the project teaching method in a case study titled 'The contribution of experiential learning to the development of cognitive and social skills in secondary education'. Within the context of this investigation, the researcher implemented qualitative research using the in-depth interview methodology. A sample of 20 students from a secondary school in Athens was selected. The views, perceptions, emotions, and attitudes of these 20 students who participated in the project were monitored. The results indicated that experiential learning had a substantial impact on the development of social skills and attitudes, as well as the acquisition of knowledge. Additionally, it contributed to the promotion of cultural heritage and the virtues of tradition.'

Narayan, B. B (2019) conducted a study on 'Teaching science to standard IX CBSE students through value integrated experiential learning'. The purpose of the research was to find out how to improve Science education for students in standard IX by creating an intervention program that uses a value-integrated experiential learning strategy, focusing on values like teamwork, loyalty, tolerance, and environmental ethics. The effectiveness of the program was assessed in terms of conceptual knowledge, value perception, value practice, achievement in science and students' reaction towards intervention programme. Almost all of the values that were studied showed improvement in participants' value conceptual understanding, perception, and actualization after participating in the Value Integrated Experiential Learning (ViEL) program. The intervention programme on ViEL enhanced the value perception of students in all the values except certain values like tolerance, discrimination and simplicity. Most of the components of the intervention programme on ViEL were given favorable reactions by the students. The intervention programme on ViEL was effective in value actualization of students which included all the taken values. The study also indicated that pupils' Science achievement was unaffected by ViEL.

Burch et. al (2019) conducted a meta-analysis of the relationship between experiential learning and learning outcomes. Experiential learning activities have been implemented for more than four decades with the intention of enhancing students' learning. It is the intention of this investigation to address the existing lacuna in the literature. In this meta-analysis, 13,626 journal articles, dissertations, thesis articles,

and conference proceedings that pertain to experiential learning are examined. A period of 43 years was the subject of this meta-analysis. The studies that contained empirical data and included both a treatment and control group were limited to 89. Based on the meta-analysis of these studies, students who were instructed using experiential learning strategies demonstrated superior learning outcomes when contrasted with traditional strategies. Experiential learning activities are quantitatively significant, as demonstrated by this review.

Chauhan, A. (2019) studied ‘The Effect of Concept Mapping on Understanding Social Science Concepts at Elementary Level.’ The study found concept making method is quite effective in providing conceptual understanding of social science to the students. It also found that concept mapping as a better method to understand cause and affect relationships. Students who are taught using concept mapping are having better conceptual clarity and are able to apply their acquired knowledge in practical life. The study also found that conventional teaching method is also effective in understanding concepts of social science when used in a systematic manner.

Leal-Rodriguez et al (2018) Leal-Rodriguez et al (2018) did a study on ‘enhancing academic performance through the implementation of innovative experiential learning practices: empirical findings from a Spanish Business School’. The study aimed to assess the efficacy of experiential learning, which involves learning via practical experience, as well as learning by doing and management simulations, in enhancing the students' current and future learning abilities. The study was conducted inside the particular framework of a Spanish private business school. The sample comprised 80 students enrolled in the Bachelor's Degree program in Business Administration at a Spanish Business School. The study determined that engaging in hands-on activities and managing simulations is a good method for enhancing one's skills and abilities. The implementation of Experiential learning methodologies facilitated the students' comprehension of theoretical concepts, leading to enhanced academic achievement. The students' enthusiasm and motivation were fostered through their active engagement in group-based learning activities and hands-on experiences.

Bhatnagar, R. (2018) conducted a study on ‘Challenges in teaching and learning of social science –the dual perspective and provided an overview of pedagogic practices of social science which is currently prevailing in India.’ The study also tried to find

out the gap between teaching by the teachers and students' understanding of the imparted knowledge. From the dual interviews of teachers and students the study revealed some points which are- i) Teachers need to be continuous learners to give their best in the classroom and to be updated with the changing times (ii) There is lack of satisfaction among some of the students when it comes to content delivery of the teachers (iii) Most of the teachers are not updated with the latest research in their field, which is an essential requirement for successful teaching-learning.'

Rajeshbabu, R. (2018) explored the influence of experiential learning approach in science among upper primary pupils. The researcher chose 80 pupils in the eighth grade for the study. The study employed a quasi-experimental design, where the experimental group received instruction using the experiential learning methodology for a period of four months, while the control group was taught using the conventional teaching method for the same duration. The lesson procedure and preparations were developed using the concepts of the experiential learning approach. The study's findings suggest that the Experiential Learning Approach is successful in enhancing upper primary level students' attitude towards science, science process abilities, and learning achievement. The study findings indicated that the Experimental group had considerably superior performance compared to the control group across all three measures. Nevertheless, the study concluded that gender does not have a significant role in shaping one's attitude towards science, science process abilities, and learning achievement when using the Experiential Learning Approach.

Hussain, S. (2018) in her study development of experiential learning model in environmental chemistry for enhancing reflective capacity of secondary school students found that students' ability to reflect on their own learning in Environmental Chemistry improved after using the Experiential Learning Model (ELM). Students' ability to reflect on their own learning is improved by the use of the Experiential Learning Model (ELM), which encourages active participation in class discussions. Experiential Learning Model is an effective strategy for achieving more lasting improvements in student performance in the classroom.

Shivani (2018) conducted a study on Effect of experiential learning programme on academic achievement science self-efficacy and scientific attitude of secondary school students. The study employed 90 students of Class IX of government

secondary schools in Sonapat district, Haryana. The study sought to examine the influence of experiential learning on the academic performance and scientific mindset of secondary school pupils. The experiment was carried out in three distinct phases: pre-testing, execution, and post-testing. The findings demonstrated that the utilization of experiential learning as a teaching method has a statistically significant and beneficial impact on science achievement. Students attained superior scores compared to traditional approaches, with experiential learning yielding three times more results than conventional instruction. The experiential learning programme significantly improved knowledge level accomplishment scores, comprehension level achievement, application objective achievement, and skill objectives attainment. The study revealed that the experiential learning programme was more successful than traditional instruction in improving individuals' self-confidence, self-concept, perceived science self-efficacy, and their expectations of achieving positive outcomes in the field of science.

Anu, N. (2018) conducted a study on 'experiential learning through drama: a study of children's reflection on social issues'. The objective of this study was to investigate how students' reflections during drama experience can contribute to a deeper comprehension of social concerns. The investigation was conducted in various phases and stages. The initial stage involved doing a content analysis of the upper primary social science curriculum in order to identify social issues using curriculum mapping. The second phase began with preliminary research to investigate pupils' comprehension of four important social issues that are situated. The preliminary study was succeeded by the main study, in which the topic of 'gender' was chosen to develop and carry out a theatre experience. The primary investigation was conducted in three distinct phases, with the sample size varying at each stage of the study. A total of 60 students from class VIII were selected for stage 1 of the study. These students were provided with preliminary drama practice. The results indicated that the drama experience had a significant impact on students, as they challenged stereotyped attributes, stereotyped occupations, traditional household chore distribution, stereotypical roles, and the decisions made by parents to ensure gender parity between girls and boys.

Reshmad'sa, L. and Vijayakumari, S. (2017) studied the 'effect of Kolb's experiential learning strategy on enhancing pedagogical skills of pre-service teachers of secondary school level'. In their study, the researchers investigated the impact of pedagogical skills and Kolb's experiential learning on pre-service teachers in secondary schools. The study found that Kolb's experiential learning is primarily concerned with acquiring direct firsthand experience. The study sample consisted of 40 pre-service instructors who were recruited using a random process. The pedagogical skills of pre-service teachers were assessed using a self-developed 'Observation-cum-Rating Scale'. The study found that Kolb's experiential learning technique was significantly more effective than the standard strategy for enhancing pedagogical skills.

Masilamani, C. (2017) studied 'enhancement communication skills of engineering students through experiential learning method'. The researcher conducted this experimental research with the aim of enhancing the learners' writing, speaking, reading, and listening abilities. The study is qualitative (observations and interviews) and quantitative (learning style questionnaires, Pre-Test, Post-Test, feedback questionnaire). The research found that activists progress in their productive skills, such as speaking and writing, when they are provided with additional opportunities to acquire language skills and perform. The research highlighted the impact of the learner's learning approach on their acquisition of English language skills in the classroom.

Wurdinger & Allison (2017) conducted a study that investigated the perceptions and utilization of experiential learning among faculty in higher education. This study conducted a survey among faculty members in US educational institutions, specifically focusing on their utilization and perspectives on experiential learning in undergraduate education. A Qualtrics survey consisting of eighteen questions was designed to gather data on faculty perspectives regarding experiential learning. The survey aimed to determine whether faculty members believe that this learning approach contributes to the development of life skills such as critical thinking, problem solving, creativity, communication, collaboration, time management, responsibility, perseverance, work ethic, and self-direction. The findings revealed that 97% of respondents agreed on the benefits of experiential techniques in increasing life

skill development. However, the main hindrances to implementing experiential techniques were the constraints imposed by the classroom structure, excessively large class sizes, insufficient time allocation, challenges in covering the entire curriculum, and reluctance from faculty members. This study discovered that although there is a growing recognition of the variety and importance of experiential learning, its implementation in higher education is still limited. Lectures continue to be the prevailing method of instruction; however, a number of academics have also indicated their use of collaborative learning. Nevertheless, the extent to which collaborative learning is employed remains uncertain.

Alkan (2016) investigated the impact of the Experiential Learning Model on the academic performance of student teachers in the subject of Chemistry, as well as their proficiency in scientific process skills. The study was conducted using a pre-test and post-test research approach, with both control and treatment groups.

The sample for the study comprises 40 student instructors who are pursuing a degree in Chemistry Education at Hacettepe University. The study determined that Experiential Learning is a successful method for improving the Academic Achievement and Scientific Process Skills of student teachers.

Chesimet M. C et al (2016) explored the effects of experiential learning approach on students' mathematical creativity among secondary school students of Kericho East Sub-County, Kenya. The study employed the Solomon Four Non-Equivalent Control Group Design within the framework of quasi-experimental research. Four secondary schools in the Kericho East Sub-County district that are coeducational were selected at random. Total samples of the study were 168 students. The study found that Experiential Learning Approach (ELA) had a significant effect on students' mathematical creativity. Students taught utilizing ELA had considerably greater improvement in their Mathematical Creativity Test scores compared to those taught using the Conventional Teaching Method.

Dolotallas and Nagtalon (2015) examined the impact of an experiential learning approach on Filipino language proficiency. Using a randomized group pre-test post-test experimental design, 82 students from both the freshman and sophomore years of high school participated in the study. Based on the results, it seems that the

Experiential Learning Approach helped the students perform better. In order to boost student performance, the study suggested incorporating the Experiential Learning Approach into additional fields of study.

Assab and Awad (2015) looked into how EFL teachers felt Experiential Learning helped their students' performance. Interviews and questionnaires were used to gather data on students' progress in areas such as social skills, cognitive abilities, motivation to learn, and exam scores. There were 429 English and Foreign Language (EFL) educators in the Northern Palestinian Governorates who participated in the survey. When looking at the data descriptively, it was clear that EFL students' performance was greatly improved by Exposure Learning. Different academic qualifications among teachers were associated with significantly different levels of cognitive ability and intrinsic willingness to learn.

Abu-Assab, N. A. (2015) studied the _effect of experiential learning on improving the performance of EFL students as perceived by teachers of English in the Northern Governorates of Palestine.‘ _The aims of the study were (i) To investigate the effect of experiential learning on improving the performance of EFL students as perceived by the teachers of English in the Northern Governorates of Palestine‘ (ii) To examine the role of gender, academic qualification, years of experience and type of schools on teacher’s perspective. The sample of the study was 429 EFL teachers. The study found that there was a positive effect of experiential learning on improving the performance of EFL students as perceived by the teachers. Majority of teachers(82.4%) agreed that experiential learning is useful in improving students' cognitive skills, social skills, high thinking skills, students' scores in exam, and attitude towards material and also useful in longer retention of the students' learning. Teachers also accepted that experiential learning can increase students' motivation for material and interest as well as active involvement with the material. 83.4% teachers agreed that students enjoy Experiential learning more than the traditional learning methods. The study also found that there were significant differences in teachers' perspective due to their academic qualifications. However, there were no significant differences in teachers' perspective due to their gender, years of experience and type of school.

Joshi, K. H. (2015) studied the ‘Effectiveness of Kolb's Experiential Learning Model for 9th standard students, in Social Science subject’. The objectives of the study were

(i) To construct and standardize Achievement Test (ii) To develop KELM programme for enhancing learning of 9th standard students (iii) To implement KELM programme for enhancing learning of 9th standard students (iv) To study the effectiveness of KELM programme for enhancing learning in relation to gender, SES and IQ. The investigator used Two Groups Post-test Design for the study. In the study 60 students were in Experimental group and 60 students were in control group. The study found that the KELM programme was equally effective for boys and girls. KELM Programme is more effective on both boys and girls of experimental group having high IQ and both High and Low Socio-economic status.

McManus & Thiamwong (2015) conducted an action research study to improve the writing skills of fourth grade children through intentional experiential learning. The findings indicated that the children in this study desired an educational experience that had a distinct individual objective, allowed for student autonomy, and enhanced the children's perception of personal control. The examination of their written work revealed that when children are placed in an environment that allows them to engage in writing and make decisions regarding their writing topics, their writing skills progress. Hence, the findings indicated that schools must be structured to identify the child's motivation for writing and education in order to inspire learners to achieve academic excellence.

M, Fragoulis, I. & Valkanos, E. (2015) conducted a case study on connection of environmental education with application of experiential teaching methods. The main objective of this case study was to examine the viewpoints of secondary education teachers regarding the correlation between environmental knowledge and experiential approaches to instruction. The research investigated the potential of experiential methods to enhance the learning process, thereby facilitating a more comprehensive approach. It concentrated on specific aspects of the current educational landscape in the field of secondary environmental education. According to the primary findings of the research, which involved a sample of secondary education instructors in Northern Greece, teachers are of the opinion that environmental education can significantly contribute to the current educational landscape. Respondents acknowledged that environmental education in secondary schools can be a useful tool for integrating environmental values into students' daily lives.

Anand. R. (2014) conducted a study on evolving pedagogic practices in social science teaching to high ability learner. The study was done in the region of Delhi and included classes from VI to X. The study found that social science textbooks which have been analyzed in the study have tried to move away from rote learning. The study mentions that to develop pedagogy for high ability learners' evaluation, classroom proceedings and textbooks must be taken into account. During textbook analysis no specific mention for high ability learners has been found. From the students' interviews and observation, it was also revealed that, the passion for the subject was not evoked during the class. It was also found that students are not satisfied with the teaching-learning process; an interactive method is favored by the students where they can participate. The teachers do believe in activity-based approach but they are not able to make full use of it. The study found that the teachers need support which will help them in exploring new approaches of teaching- learning. The reason for pedagogical rigidity which has been found in the study is the teachers' limited view of the potentialities of the subject. Though students wanted more flexibility in assessment and resources, they were not provided with.

Maharani, S. et al (2014) conducted an experimental study on effect of experiential learning toward students' writing skill at grade X high school 1 Vii Koto Sungai Sariak, Padang Pariaman, West Sumatera. The study aimed at finding out the effect of using experiential learning on students' writing skill of recount text. The samples of the study were 60 students, selected through random sampling technique. Out of 60 students 30 students from grade X.3 Social science were in experimental group and 30 students from X.4 Social Science were in control group. Observation was done to see the ability of the students. This research was done in five meetings by using experiential learning in experiment class and grammar translation method in control class. The research determined that the implementation of experiential learning had a substantial impact on the writing abilities of students at Koto Sungai Sariak 1 VII High School in Padang Pariaman Regency, West Sumatra. The experimental group had a mean score of 73.20, while the control group had a mean score of 66.97. The study also concluded that through experiential learning motivated students get opportunity to develop in their own way. Personal input, initiative and self-direction in the learning process is also encouraged by experiential learning.

Konak, Clark and Nasereddin (2014) have suggested Kolb's Experiential Learning Cycle as a framework for the development of hands-on activities in virtual computer laboratories. The researchers have argued that the learning outcomes of students are improved by the design of hands-on activities based on this framework. The study has demonstrated the incorporation of Kolb's model phases into hands-on activities and has presented the results of two empirical studies to evaluate the efficacy of the proposed framework. The empirical results of the initial study indicate that hands-on activities that are developed in accordance with the proposed framework are more likely to enhance student interest and competency than step-by-step hands-on activities. The second study employs structural equation modeling to analyze the collected data in order to ascertain the relationships among the factors that influence pupil learning outcomes as a consequence of hands-on activities. The conclusion of the second study is that student-to-student interaction is a critical factor in the determination of student learning experiences.

Ramesh, M. (2014) conducted research on eighth-grade students and investigated the correlation between experiential learning and the acquisition of scientific process abilities. The method of sampling employed was purposive. The sample was composed of 28 pupils, with 7 girls and 21 boys, all of whom were from the Nilgiri District of Tamil Nadu. The results indicated that the conventional chalk-and-talk method of instruction is ineffective in the development of fundamental science process skills. Therefore, the experiential learning method should be implemented. Experiential learning prioritized the development of concepts and comprehension by engaging students in experiment-oriented learning. It was also determined that experiential learning is beneficial in the cultivation of moral values, including a sense of responsibility, inquisitiveness, cooperation, and inquiry.

Michael, R. (2014) studied 'effectiveness of Experiential Learning Model in developing Socio-Emotional Competencies'. The study aimed to explore the effectiveness of the Experiential Learning Model in developing socio-emotional competencies among class IX students, identify learning styles, prepare instructional materials, test the model's effectiveness over Activity Oriented Method, and compare students' socio-emotional competencies in experimental and control groups based on learning styles, gender, locality, school management, and socio-economic status. The

study was done on 244 students of Kottayam District of Kerala State, by using quasi-experimental Pre-test Post-test Non-equivalent groups design. Kolb's Experiential Learning Model was used taught the experimental group and Activity Oriented Method was used to teach the control group. The students of both Experimental and Control group preferred Accommodating Learning Style (29.51%) than Diverging Learning style (19.67%) before the experiment. The pre-test mean score found that the Socio-Emotional Competencies of both the experimental group (246.19) and control group (245.77) did not differ much. After the experiment, the post-test mean score found that the Experimental group (311.61) showed better Socio-Emotional Competencies than the Control group (279.85). So, the study concluded that the score of the Experimental group in terms of Socio-Emotional Competencies was significantly different between the pre-test and post-test. The study also found that there was no significant difference in the mean gain scores of Socio-Emotional Competencies of students in both Control group and Experimental group for the sub- samples of Learning Styles, Gender, Locality, Type of Management of and Socio- Economic Status. The Kolb's Experiential Learning Model was significantly more effective than the Activity Orientated Method in the development of students' socio- emotional competencies, as the study confirmed.

Seerat (2014) studied the effect of experiential learning strategies on attainment of spatial geometry skills among primary school students in relation to locus of control. 'The study aimed to develop experiential learning programs for class IV students in spatial geometry studies, compare the effectiveness of experiential learning strategies and traditional instruction in achieving spatial geometry skills, and evaluate their effectiveness among students with internal and external locus of control'. The experiment was administered on 360 students of two schools. The study found that students learnt by Experiential learning strategies exhibited better spatial geometry skills than the students who learnt by traditional learning method. The students with 'internal locus of control' exhibited better spatial geometry skills than the students with 'external locus of control' on total spatial geometry skills.

Namputhiri, M. R. K. (2013) conducted a study on experiential learning method for enhancing communication skill of tertiary level 1 learners in Thrissur. The study aimed to evaluate the effectiveness of experiential learning methods in teaching

English language skills, assess tertiary level learners' proficiency, explore learners' approaches to perform the tasks, observe positive changes, examine didactic methods, examine cognitive processes, scrutinize learning theories, monitor reflection, analyze feedback after each task, and examine gender differences in learning styles. The study found that (i) The learners participated in performing the tasks more enthusiastically (ii) ELM for students from regional medium proved to be successful as shown in the result of the study (iii) There was a notable difference in the communication skill of the respondents (iv) The respondents showed improvement in their writing as they used their immediate experience (v) The feedback on the activities was highly positive.

Robinson, T. (2013) conducted a study on experiential education and learning engagement for year nine students: a case study. This case study investigated the way in which organized personal development learning experiences by Year 9 students outside the classroom may lead to changes in the way they engage in classroom learning. In the study the data were gathered from existing school records such as students' feedback, relevant class work and presentation, students' journal, administrative records such as attendance rolls. Besides these focus group students and online questionnaire was also used to gather data. The data gathered in the study expressed that direct and authentic experiences are necessary for contextualizing and making meaning of the contents which students are learning, only then deeper understanding of the content can be acquired. The study also found that personal development in at least 6 different aspects such as persistence, goal orientation, self-confidence, time management and spiritual development as well as learning transfer is facilitated through participation in experiential education programs. Experiential learning experiences enable participants to more effectively engage in their classroom-based learning, while development of relationships is fostered throughout classroom experiences as well. Experiential education programs like L4L (Learning for life) enhances meta-cognition of the students. Participation in Experiential Education Programme improved learning outcome and students' attendance.

In 2013, **Okechukwu** investigated how an experiential learning strategy affected the biology grades of secondary school students in the Awka urban area of Nigeria's

Anambra State. The research used a quasi-experimental design with a non-equivalent 72-control group. The research used a random sampling method to gather data from 74 high school seniors from two institutions. The results showed that compared to the traditional expository method, the experimental learning technique improved the achievement of both male and female students in biology. Findings from the study suggest that science teacher preparation programs, curriculum developers, and classroom instructors all benefit from using the Experiential Learning Strategy in their Biology lessons.

Groves et al. (2013) examined whether using the experiential learning approach would enable students to acquire the advanced study methods necessary for effective studying. He developed a curriculum that was structured around the 4 stages of Kolb's experiential learning cycle. The study revealed that the program motivated students to undergo an epistemological transformation, wherein they were compelled to view information as something that they are encouraged to critically examine and personally engage with, rather than accepting it as a collection of unquestionable truths.

Sreekala, K.L. (2013) conducted a study on 'experiential learning as a correlate of naturalistic intelligence of secondary school biology students.' The study aimed to assess the potential of experiential learning in biology studies, identify its extent, identify challenges faced by teachers, prepare an experiential learning package, evaluate its impact on student achievement, environmental experience, and pro-environmental behavior, and develop an inventory to assess naturalistic intelligence among secondary students. The study involved 360 students and 50 teachers from three Kerala districts. The results showed that the experiential learning package was effective in enhancing naturalistic intelligence, and the biology curriculum has potential for experiential learning strategies. The study also discovered a beneficial association between naturalistic intelligence and experiential learning among learners, underscoring the significance of integrating experiential learning strategies into the teaching and learning process.

Danhui et al (2012) investigated the efficacy of the Integrated Experiential Learning Curriculum (IELC) in China. The objective was to include Chinese elementary

children in science education and foster a society that is knowledgeable in scientific matters. The curriculum emphasizes the practical utilization of scientific knowledge and incorporates Science-Tech-Society teaching. The study encompassed a total of seven teachers and 201 pupils, whereas the control group comprised six teachers and 184 students. Pre- and post-measures were employed to monitor the attitudes of both teachers and students. The IELC demonstrated potential in enhancing teachers' attitudes and the quality of their teaching.

With a mixed-methods approach, **Albright (2011)** studied middle school students' engagement with and enthusiasm for science and mathematics as a result of Experiential Learning programs. Several instruments were used to gather data from the 336 middle school pupils. The results showed that students' interest in mathematics as a whole improved following the program, but that mathematics had less of an impact on their self-esteem. Overall, the study found that the program had a significant impact and has consequences for how science enrichment programs are evaluated.

Driscoll, A. B. (2011) studied graduate's perspectives regarding the impact of the integration of experiential learning in academic programs. It was a descriptive census survey that investigated the influence of graduates' participation in one of three integrated, experiential learning programs offered by the College of Agriculture and Life Sciences at Iowa State University. The study aimed to assess the impact of an experiential learning program on career/graduate school preparation, its skill improvement, influence on career development, and its effectiveness in enhancing preparation. The results indicated that programs such as AgPAQ and SWP facilitated the transition of participants from bachelor to employee/graduate student status by emphasizing real-world experiences.

Weinberg et al (2011) investigated the impact of an experiential learning program on the motivation of middle school pupils in the fields of mathematics and science. The mixed method design was employed by the researchers to assess the impact of four experiential learning programs on the interest and motivation of middle school students in the fields of mathematics and science. The research sample consisted of 336 middle-level students. Upon completion of the Experiential Learning Program on Middle School Students' Motivation towards Mathematics and Science, the study

determined that the overall interest in mathematics increased. However, the significance of mathematics in the students' sense of self decreased. Males demonstrated greater improvements than females. Although the pre-post student self-ratings revealed few significant differences, other evidence indicated that the program had a significant impact.

Ayob, A. et. al (2011) engaged in experiential learning experiences to foster the development of innovative thinking and creativity. Twenty-five second and third-year undergraduate students from the Department of Electrical, Electronics, and System Engineering, Faculty of Engineering and Built Environment, and Faculty of Information Science and Technology, UKM, participated in this study. These students were involved in the Malaysian ROBOCON 2010 competition. The data collection for this research is qualitatively analyzed and is based on five distinct approaches. Triangulation data is generated by the data collected from all five methodologies. The study confirmed that the experiential learning programme has the ability to foster creativity and develop new cognitive skills. Experiential learning serves as the basis for cultivating creativity and inventive skills that cannot be attained by conventional teaching approaches.

Cheriyann, V. (2010) studied the 'effectiveness of Kolb's experiential learning model on achievement in mathematics of students at the secondary school level'. The study aimed to determine the correlation between academic accomplishment in Mathematics and Kolb's experiential learning paradigm. The sample comprised 326 pupils of class IX from four schools in the Kerala state. The samples were separated into two groups: an experimental group and a control group. The experimental group was instructed using Kolb's model of experiential learning, whereas the control group was taught using an activity-oriented teaching style for a period of four weeks. The study determined that Kolb's method was more effective than the activity method in fostering mathematical interest and attitude among students varying learning styles. The level of accomplishment in Mathematics was not statistically significant in any of the groups.

Milligan, A. & Wood, B.E. (2010) conducted a study on 'conceptual understandings as transition points: Making sense of a complex social world'. It was mentioned in the study that most of the time conventional teaching methods promoting rote learning

which is based on facts and static knowledge. The study focused on more dynamic and innovative teaching-learning methods which can promote active participation of the learner as well as knowledge that can help the learners to relate with their practical life and solve their real-life problems.

Harjai, J. (2007) studied the ‘effectiveness of experiential learning strategies for enhancing environmental awareness and sensitivity among primary school students with internal and external locus of control’. The study aimed to develop instructional materials for Environmental Studies class IV students, compare the effectiveness of experiential learning strategies and traditional methods in enhancing environmental awareness and sensitivity among students with internal and external locus of control. The sample size of the study was 380 students of two schools. The study found that the experiential learning strategies were more effective than the traditional one. The students with internal locus of control exhibited better mean gain scores on environmental awareness than the students with external locus of control. Students taught using Experiential learning strategies exhibited better environmental sensitivity as compared to the students taught EVS by traditional learning methods. Also, students of experimental groups exhibited better sensitivity towards various domains of EVS.

Hawtrey, K (2007) in his study using experiential learning techniques advocated the use of experiential learning in economics courses at the tertiary level. The author also evaluated different learning methods including passive and active methods in a student survey. The survey provides data regarding attitude of graduate students towards various class activities. The sample of the study constituted 500 third-year undergraduate students of economics (Money and Finance, ECON350) at Macquarie University in Sydney. Out of 500 students 380 students were taught in daytime and 120 students were taught in evening. The students' learning goals and preferred learning methods were found out. According to 60% of the students experiential learning was important or very important to them and according to only 13% it was unimportant or very unimportant. Among the listed major learning goals, students' priority in ‘giving growth in knowledge’ was 83%, ‘exam preparation’ was 60%, and in ‘intellectual stimulation’ was 58%. The demand for intervarsity competitions, class debates, and group assignments was higher on the part of the male students than the

female students, but the female students were more interested in library research tasks and media assignments.

Ives, B. & Obenchain, K. (2006) conducted a study on ‘experiential education in the classroom and academic outcomes: for those who want it all’ using measures of higher order thinking skills (HOTS), and lower order thinking skills (LOTS) in six 12th-grade American Government classrooms taught by three experienced teachers over one semester. The study aimed to examine the effects of an experiential education (EE) approach to instruction on academic outcomes in traditionally structured 12th-grade American Government classes. The study found that students in the Experiential Education emphasized class demonstrated greater gains in HOTS than the students in the other four classes. There was no difference between the two groups in gains for LOTS. These results suggest that Experiential Education instruction in high school classes can promote HOTS more than traditional instruction does with no sacrifice in LOTS.

Blunsdon et al (2003) conducted a study on ‘experiential learning in social science theory: An investigation of the relationship between student enjoyment and learning’. The study aimed at evaluating the students' perceptions of an experiential learning exercise which was for enhancement of both enjoyment and learning by linking theory and survey data. The exercise taught the concepts in organizational theory in an experiential way so that integration of theory and data beyond convention can happen and it also aimed at engaging students more than the traditional. The study found that the majority of students enjoyed this way of learning. The students found that the exercise helped their learning of substantive theory, computing applications and the nature of survey data. They also felt that the learning can be generalized elsewhere.

Wright (2000) conducted a study titled ‘Getting more out of less: the benefits of short-term experiential learning in undergraduate sociology courses’ to determine whether short-term experiential learning mitigates the drawbacks that cause instructors to avoid utilizing this instructional technique. The research deployed instructor and student perspectives on short-term exercises identified as observations, participant-observations, and field trips. Findings indicated that logistical concerns associated with experiential exercises are mitigated by short-term experiential

assignments. In addition, this enhances the potential for analytical reflection, particularly for instructors of smaller courses and for non-field trip activities. To improve learning outcomes, it is crucial to make informed decisions regarding the use of exercises in courses that contain sensitive content and to select them appropriately. Experiential learning is a versatile instructional instrument that can be customized to accommodate the majority of courses.

2.1 SUMMARY AND RESEARCH GAP

From the review of related literature, it has been found that from the last two decades researches have been conducted on experiential learning. The pedagogical approach of experiential learning is associated with significant interest and positive outcomes, as evidenced by the literature that transcends various disciplines. Experiential learning has been shown to be effective in a variety of educational settings and subjects. Studies have explored the application of experiential learning methods in teaching- learning of Science, Language, Environmental Science, Business, and Mathematics and with variables such as socio-emotional competency, interest, motivation, value, awareness etc. Experiential learning is also found to be effective in the development of a variety of skills, such as socio-emotional competencies, communication skills, and pedagogical skills.

Despite the extensive research on experiential learning, there are still a number of gaps:

- The majority of studies have been conducted at the international level, with only a small number of them concentrating on national contexts, particularly in regions such as Assam. This suggests a necessity for conduct more localized research to comprehend the distinctive advantages and obstacles of experiential learning in these regions.
- Although there is a significant amount of research on experiential learning in the fields of science, mathematics, and language education, there are fewer studies that have investigated its application in the field of social science education. This provides an opportunity for future research to investigate the effective integration of experiential learning into social science curricula.
- Further investigation is required to examine experiential learning in a variety of educational environments, encompassing various grade levels, school types (public

versus private), and cultural circumstances. This would facilitate comprehension of the adaptability and efficacy of experiential learning in diverse educational settings. Future research can contribute to a comprehensive knowledge of experiential learning and its capacity to improve educational results in various situations and disciplines by addressing these gaps.