



Experiential learning and critical thinking in the context of NEP-2020

Pranta Sarkar

Research scholar, Department of Education, University of Gour Banga, Malda, West Bengal, India

Abstract: The practical necessity of child-centred education system has led to a major change in the education system all over the world. The curriculum is being presented to the children in line with real life, so that they can play an active role and participate in their own progress. Keeping this kind of modern education system in mind, the National Education Policy 2020 has emphasized hands-on practice from the foundation level of the education system. By prioritizing children's thinking, curiosity, creative exploration, interest, etc., elements like experiential learning and critical thinking have been given place in the education policy.

In this study, an attempt has been made to explain how the child's spontaneous and active participation helps in cognitive development, reflective observation being one of the important elements of child-centred education. Through this element, the student can become aware of his problems and how he can improve his problem-solving skills. Finally, it explains how to activate the classroom and knowledge system by combining both experiential learning and critical thinking to make teamwork fruitful. This study reveals that, active engagement has a positive effect on increasing the confidence, curiosity, and creativity of students. Hands on activities make children possess the power of reflective observation. That is, active engagement directly and indirectly helps in acquiring problem solving skills. Critical thinking is necessary to find multifaceted solutions to an incident or problem by going deep into that problem for the purpose of finding a suitable solution.

Key words: experiential learning, critical thinking, rote learning, NEP-2020, reflective observation.

I. INTRODUCTION

In the 21st century, there has been a stir in education all over the world. Almost every country in the world is moving in the same direction, that is - from rote learning to experiential learning and critical thinking. This is a continuous attempt to make education self-sufficient. In the modernization of education, rote learning can never be considered a logical means. Through experiential learning, children acquire knowledge and competence and can reach multidimensional solutions through critical thinking. Experience and practical ideals are not reflected in one-way reading, students often feel frustrated. Experiential learning helps to decode all the talents that are in the child. According to Kolb (1984), this process is completed in a certain cycle, in the first stage, the student acquires ideas about a subject, in the next stage, reflective observation skills are developed about the subject from different perspectives with the acquired ideas, after which abstracting depends on the analysis and synthesis skills. Concepts are created and in the final stage, the child applies all these abilities in real life to find solutions to problems.

The student will be able to put his experience into practice only when he is able to directly understand his problem deeply and apply the acquired skills positively. This will help him change his attitude and increase practical skills in real life (Umkabu & Lestari, 2023).

Critical thinking and judgment help students take the right steps in making decisions in their personal lives. It makes students rational and thoughtful. This kind of thinking works by collecting information logically in the context of a problem, comparing, evaluating and establishing ideas. It never supports the traditional memorization method. It is carried out by fostering the mentality of judging the subject from a different perspective in line with the interests of the individual.

Critical thinking not only helps the student in making decisions in his daily life, but also creates a supportive environment to take effective steps in social and educational situations and helps the student reach logical conclusions (Yusupaliyeva, 2024).

II. SIGNIFICANCE OF THE STUDY

In keeping with the times, many changes are being observed in the education system. In modern education, more priority has been given to the child to create a vibrant environment. Critical thinking and experiential learning have now become

essential for the development of the child. If the cooperative environment decreases, the development of human resources will come to a standstill. By thoroughly analysing any information with logic and intelligence, the student can make the right decision by comparing the wrong and the right.

Nep-2020 mentions experiential learning and critical thinking, various steps to conduct education in combination with these two have been mentioned, which proves that in the era of modern technology, there is sufficient relevance of independence, creativity, confidence, curiosity in the development of the child. Just as theoretical knowledge is needed in the development of the child, hands-on experience is also needed. Experiential learning helps children solve problems through experimentation, just as critical thinking can make everyday life enjoyable through freedom of expression and logical thinking. Artificial intelligence can never supersede human intelligence.

III. REVIEW OF THE LITERATURE

Golden, B. (2023) studied on “Enabling critical thinking development in higher education through the use of a structured planning tool” The researcher has emphasized on explaining the method of developing critical thinking. Data has been collected through interviews, surveys, and class work. The information that emerges through data analysis through action research is that attention is a prerequisite for learning something, and critical thinking development of students is possible if the project is properly formulated by creating a suitable environment.

D’Northwood, G., & Rattray, J. (2025) examined “What is this thing called critical thinking? Perspectives from business school academics.” in this research paper, the researcher wanted to see how critical thinking affects final year undergraduate students studying in business school. The research work is organized around 3 main themes, critical thinking as skills, critical thinking as dispositions and critical thinking as originality. It has been found that critical thinking skills enable students to make conflict-free, rational and credible decisions. They are inquisitive and take help of different perspectives while thinking about a topic and their principles and ideals will be innovative.

Loaiza Zuluaga, Gil Duque, and Narváez (2020) evaluated “A study of critical thinking in higher education students.” The researchers used qualitative research to collect data to determine the level of critical thinking among higher education students. The study reveals that, critical thinking has a significant impact on student motivation and achievement, and students who have high academic achievement and a strong interest in reading have higher levels of critical thinking skills.

Fahim, M., & Ghamari, M. (2011) identified “Critical thinking in education: Globally developed and locally applied.” This study was conducted to explore how teaching strategies can help to increase critical thinking and how teachers can apply them. Data was collected using conceptual and analytical research design from various teaching strategies and educational theories. The study revealed that critical thinking can be increased through reflective learning, discussion, questioning.

IV. OBJECTIVES OF THE STUDY

1. To identify the impact of active engagement on cognitive development
2. To investigate the role of reflective observation in enhancing problem-solving skills
3. To examine the relationship between collaborative experiential and group-level critical inquiry

V. RESEARCH METHODOLOGY

Researcher has collected information from various research papers, government reports, websites, policy documents, etc. to explain how experiential learning and critical thinking help develop children's creativity, confidence, inquisitiveness, and critical thinking. In this study qualitative research method was used to discuss the objectives.

VI. ANALYSIS

1. TO IDENTIFY THE IMPACT OF ACTIVE ENGAGEMENT ON COGNITIVE DEVELOPMENT

- **Sound health on cognitive development:** After acquiring any information, the correct reproduction is the work of the cognition process, the cognition process is not limited to the storage and application of information, but also various processes such as attention, reasoning, problem solving, etc. Holistic health has a positive effect on cognitive development. The Nep 2020 report mentions experiential learning in section 4.5, it is said that

experimental learning should be emphasized to make education more creative. Physical exercise helps prepare students mentally and enhances mental processes.

- **Active remembering:** Active remembering is organized through input process and output. In the conventional education system, education is only one-way, that is, even if the information is input, it is not possible to evaluate how effective that information has been. Discussion based learning and project-based learning can greatly expand the active learning of students, NEP- 2020 has highlighted this. Roediger & Karpicke (2006) showed in their study that if the input processing and output for active remembering are not done properly, the solidity of the acquired knowledge decreases.
- **Switch from rote learning to experimental learning:** When students are more likely to participate actively, external academic pressure is less. In the case of rote learning, the study load on students increases so much that their active participation in various co-curricular activities decreases. Rote learning only helps in acquiring knowledge temporarily, so appropriate measures must be taken to ensure that the knowledge acquired by students through experimental learning is retained for a long time.
- **Experiential learning accelerates critical thinking:** An important result of cognitive development is the ability to think critically at a high level. Experiential learning teaches students to work with their hands, that is, through mastering practical knowledge, students' characteristics such as problem solving and reasoning increase. Experiential learning can be considered as a part of experimental learning. Therefore, experiential learning is especially necessary to accelerate critical thinking.
- **PARAKH as an assessment changer:** NEP 2020 has been discussed to improve the quality of examination and assessment system in school educational institutions in India, due to which it is conducted under the supervision of NCERT. Its main objective is to establish interrelationship between the centre and the states by ensuring the same quality of examination across the country. Such reforms in assessment play a helpful role in increasing the competence of students. They can be aware of the overall idea of how much progress they have made in their studies. Peer assessment, self-assessment etc. are the base of this PARAKH.
- **Bilingual and multidisciplinary engagement:** Two elements that are particularly needed to make the curriculum dynamic in the 21st century are analysis and synthesis. There is a need for multidisciplinary engagement to bridge the gap between traditional learning streams, as a result of which a student from an arts stream can also study science and other subjects. As well as bilingual engagement is necessary, research has revealed surprising information that bilingual students are able to solve more abstract problems.

2. TO INVESTIGATE THE ROLE OF REFLECTIVE OBSERVATION IN ENHANCING PROBLEM-SOLVING SKILLS

- **Addressing the gap between theory and practice:** While the child becomes aware of the existence of the surrounding content while adapting to the environment, the knowledge acquired in the classroom will remain incomplete if it does not have practical requirements. By removing the gap between theoretical knowledge and application of knowledge, a cognitive bridge is created. In order to make it possible to achieve real-life problem-solving skills, it is necessary to address all the shortcomings that exist in both theory and practice.
- **Improvement of social emotional intelligence:** NEP 2020 has emphasized on social emotional intelligence. If emotions are controlled properly, an ideal personality will develop in the child. Uncontrolled emotions lead the person astray. Social emotional intelligence means when a person's emotions are managed to ensure the progress of society and prioritize the emotions of other people. Self-awareness, empathy etc. are important components of social emotional intelligence, which activates social relationships and the person becomes aware of the emotions of others as well as his own.
- **Meta cognitive awareness:** Meta cognition is thinking about thinking, to increase this type of awareness, NEP 2020 has given more emphasis on "how to learn". Although "what to learn" was given more importance in traditional education, its practical necessity has decreased in modern education. Students can solve their problems by reaching the core of the problem through the meta cognition process. Meta cognition process gives students multifaceted solutions. That is, meta cognition awareness is very necessary to free them from the narrowness of one-sided solutions.
- **Cross perspective analysis:** To understand the complexity of the problem, it is necessary to analyse the problem in a multidimensional way. When a student faces a problem, his first task will be to analyse it thoroughly. While analysing, the student will find the multidimensional complexity of that problem. The learner should be gradually moved from a passive attitude to an active one. In this case, the school authorities should play a key role in making the behaviour of the teacher and students during education two-way and pleasant, this idea enables the student to do cross perspective analysis.
- **Socratic questioning:** Socratic questioning is a process of encouraging learners to participate in questions and helping them to find answers by asking them questions. How a child's cognitive developments like logical

diversification, abstract problem solving, multidimensional ideas, etc. can be applied in a structural way depends on the pattern and level of the question. NEP-2020 has emphasized on Socratic questioning to positively impact students by integrating problem solving and critical thinking.

- **Encourage STEM curriculum:** SETM, (Science, Technology, Engineering, Mathematics) is an innovative attempt to bring the subjects of different streams under one umbrella, which is a combination of 4 disciplines. The combination of information, application and reasoning teaches students to be scientifically minded and rational. With the opportunity to learn through hands-on work, students can easily master complex subjects. This form of curriculum is undoubtedly a very effective step to deal with the problems faced in educational competition and social environment and to verify the authenticity of information.

3. TO EXAMINE THE RELATIONSHIP BETWEEN COLLABORATIVE EXPERIENTIAL AND GROUP-LEVEL CRITICAL INQUIRY

- **Increase intellectual depth:** To make learning enjoyable, a combination of experiential learning and critical inquiry is needed, so that classroom practice and its application can keep pace with real-life experiences. The new structure of education that has been proposed, 5+3+3+4, emphasizes a student-centered approach from the foundation level. This combination not only helps a learner gain experience but also helps him develop a critical perspective. The student can further expand his intellectual depth by expressing a critical attitude.
- **Integrated Knowledge Construction:** The first and main feature of a student is to have an inquisitive mindset, to find out an unknown fact, to keep himself busy with the questions of 'what' 'how' 'why'. Experiential learning and critical thinking create a free stage in front of the students. Students transfer ideas and knowledge among themselves in a joint coordination and co-generate understanding level increases. This type of self-construct and co-generate knowledge teaches to be independent from the concept of 'bookish' among the learners.
- **Collaborative Class Room:** The need for Collaborative Class Room to maintain the mobility of the class room cannot be denied. Essentially sensitive education helps to fulfil international needs. Classrooms where discrimination such as Gender, Sex, Caste etc., is unable to develop the personality of that class. Children's critical search and vision is suppressed and their search for exploration is reduced. Multicultural education should be carried out in the centre of attention of students and in a specific path i.e., in a structured way. The ethical ideal emphasizes the inclusion of the child's experiences by making them social and diverse.
- **Peer Assistance:** Peer Assistance is particularly helpful in making education self-sufficient and creative. The sooner the development of critical thinking is seen in the students, the more it will be possible to pave the way for them to participate actively. An important role in collaborative learning is that students who are increasingly lagging behind an experienced student can get help and take themselves to the level of other classmates. In NEP-2020, Peer Assistance or Support has been given a lot of importance. The student is interested in increasing knowledge and skills and is able to solve the problem of self-confidence.
- **Indigenous Knowledge System:** India is full of indigenous knowledge, while keeping pace with the progress of civilization, the ancient tradition is on the verge of extinction. NEP- 2020 highlighted the Indigenous Knowledge System. Knowledge, education, treatment should be adopted in various fields and advance by adopting indigenesness. If the Indigenous Knowledge System can be ensured with the help of Experiential Learning and Critical Thinking, it is possible to develop an ideal personality in the child. Not only will the preservation attitude of ancient traditions be laid in them, but critical research, justice, evaluation will be laid, (4.7 Section).
- **Values and ethics in team work:** When a group of students work together and organize themselves to achieve a specific goal, some values and ethics will be present among them. Without such principles and ideals in collaborative work, the desired success remains elusive. Open communication gives the team members the freedom to express their own opinions while encouraging them to give equal importance to the opinions of others. The demand for team work-based learning has gradually increased in modern education, because in this method, the development of social skills and social communication skills among students are strengthened.

VII. CONCLUSION

National Education Policy- 2020 has basically sought to reshape the education system based on child-centered education. The importance of experiential learning and critical thinking has also created a huge stir in the international education sector. It is essential to combine experiential learning and critical thinking to overcome all the obstacles in traditional education and make education practical. Experiential learning teaches students to hands on practice and critical thinking is against rote learning. It is necessary to follow the principle of activity in creating a pleasant environment in education and the teachers will play the role of a facilitator and make the knowledge, experience and thoughts of the students meaningful. Experience is gained through observation, analysis and synthesis, and through the experience gained in different situations, the student can develop a conscious and responsible personality.

REFERENCES

- [1]. Alexander, R. (2008). *Towards Dialogic Teaching: Rethinking Classroom Talk* (4th ed.). Dialogos. <https://www.scribd.com/document/356384013/towards-dialogic>
- [2]. Cummins, J. (1976). *The Influence of Bilingualism on Cognitive Growth: A Synthesis of Research Findings and Explanatory Hypotheses*. Working Papers on Bilingualism, No. 9.
- [3]. Dewey, J. (1938). *Experience and Education*. Macmillan. <https://archive.org/details/ExperienceAndEducation/page/n1/mode/1up>
- [4]. D'Northwood, G., & Rattray, J. (2025). What is this thing called critical thinking? Perspectives from business school academics. *Innovations in Education and Teaching International*, 62(4), 1363–1376. <https://doi.org/10.1080/14703297.2024.2422310>
- [5]. Fahim, M., & Ghamari, M. (2011). Critical thinking in education: Globally developed and locally applied. *Theory and Practice in Language Studies*, 1(11), 1632-1638. <https://doi.org/10.4304/tpls.1.11.1632-1638>
- [6]. Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive–developmental inquiry. *American Psychologist*, 34(10), 906–911. <https://doi.org/10.1037/0003-066X.34.10.906>
- [7]. Golden, B. (2023). Enabling critical thinking development in higher education through the use of a structured planning tool. *Irish Educational Studies*, 42(4), 949–969. <https://doi.org/10.1080/03323315.2023.2258497>
- [8]. Goleman, D. (1995). *Emotional Intelligence: Why It Can Matter More Than IQ*.
- [9]. Kolb, D. A. (1984). *Experimental learning: Experience as the source of learning and development*. Prentice-Hall.
- [10]. Loaiza Zuluaga, Y. E., Gil Duque, G. M., & Narváez, F. A. D. (2020). A study of critical thinking in higher education students. *Revista Latinoamericana de Estudios Educativos*, 16(2).
- [11]. Ministry of Education, Government of India. (2020). National Education Policy 2020. https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf
- [12]. NCERT (2023). *National Curriculum Framework for School Education*. New Delhi.
- [13]. Roediger, H. L., & Karpicke, J. D. (2006). Test-enhanced learning: Taking memory tests improves long-term retention. *Psychological Science*, 17(3), 249–255. <https://doi.org/10.1111/j.1467-9280.2006.01693.x>
- [14]. Umkabu, T., & Lestari, N. S. (2023). Strategi pembelajaran experiential learning terhadap peningkatan akademik siswa di sd muhammadiyah abepura. *EDUKASIA: Jurnal Pendidikan Dan Pembelajaran*, 4(1), 459–468. <https://doi.org/10.62775/edukasia.v4i1.284>
- [15]. Vygotsky, L.S. (1978). *Mind in Society: The Development of Higher Psychological Processes*. Harvard University Press. <https://www.scribd.com/document/845099157/Vygotsky-1978-Mind-in-Society-Development-of-Higher-Psycholo>
- [16]. Yusupaliyeva, I. (2024). Pedagogical conditions and need for the development of critical thinking in students. *International Multidisciplinary Journal for Research & Development (IMJRD)*. <https://www.academia.edu/121797306>