# Exploring the Role and Methods of Reflective Thinking

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***Abstract:*** *Through Reflective thinking higher-order thinking skills are developed including critical thinking, problem-solving, and decision-making. Because of the importance of reflective thinking, each teacher must provide an environment that conducive to encourages reflective thinking. It is imperative to use effective teaching methods in order to create an environment that fosters learning. Furthermore, reflection provides opportunities for higher-order thinking skills and communication, as well as the ability for transformative learning, which can help us cultivate lifelong learning skills.*

*As a result, the purpose of this paper is to explore methods/activities/strategies for helping students develop reflective thinking. To achieve the above purpose, Literature was collected that focussed on activities, programs, and methods for developing reflective thinking from variety of reports, research papers, books, official websites, and online resources to conduct this study. Researchers identified several methods relevant to developing reflective thinking among students, and all of these methods/ activities have been found to have a significant impact on the development of reflective thinking among students at different levels of education.*

***Key Words:*** *Reflective thinking, method of teaching, strategies for Reflective thinking.*

## 1. INTRODUCTION:

Dewey (1933) described reflective thinking as "active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusion to which it tends." The role of reflective thought is to turn a situation that has undergone obscurity, doubt, dispute, or some other type of disturbance into a situation that is simple, coherent, resolved, and harmonious," he explained. On this basis, reflective thinking can be viewed as an intentional and conscious activity to resolve problematic situations.

Reflective learning involves a process of producing, deconstructing, and reconstructing knowledge through the process of reflection. Each teacher/educator should look at a variety of strategies for creating a good learning environment in which students can strengthen their reflective thinking skills. In the twenty-first century, psychologists and specialists have produced several techniques, apps, and practises analyzing the above-mentioned benefits of reflective thinking in order to promote reflective thinking. Now the challenge is to find out what these tactics are and how beneficial they are before putting them to use for a good purpose. Research papers/articles are excellent resources for locating various models/applications, as well as the success of these methods as determined by researchers.

In the process of learning and accepting one's role in their learning, this progress includes reflection. The development of reflective abilities aids this process. (Brockbank and McGill, 1998; Maudsley and Strivens, 2000). Insights gained through reflection can assist learners in making informed decisions about how to pursue their educational objectives. Reflective practitioners contribute to their ability to function in their professional role and to their career objectives by improving their reflective abilities. (Schon, 1983).

Participation through reflection is an established and entrenched component of learning curricula across the range of learning options available, according to practice-based evidence. (Coulson et al. 2010). As well as being able to achieve intended learning outcomes, the power of reflection for learning through participation is its potential role in enabling practice. (Kemmis and Smith 2008). Reflection provides opportunities for higher-order thinking skills and communication, as well as the ability for transformative learning, which can help us cultivate lifelong learning skills. (Coulson et al. 2010).

The ability to teach reflective skills and develop a capacity for reflective practise is a core assumption of reflection for learning. (Coulson and Harvey 2013), However, reflections are defined in conflicting ways, and how they are taught and practiced is controversial. (Kreber and Castleden 2009).

## 2. ROLE AND IMPORTANCE OF REFLECTIVE THINKING AMONG STUDENTS

Reflective thinking is a cognitive trait that can be cultivated and learnt consciously, which is critical to acquire in the classroom setting. (Wilson & Jan, 1993, cited in Baş & Kıvılcım, 2013).

Reflective thinking encourages students to acquire higher - level thinking skills to connect new information to previous knowledge, consider both abstract and conceptual concepts, use specific tactics in new situations, and identify their distinct thinking and learning methods.

Reflective thinking helps you to:

- Develop a critical outlook and new perspectives.
- Make an assessment of what needs to be changed and improved.
- Effectively respond to new situations.
- Apply what you've learnt in one context to other situations by generalising it.

To develop the reflective thinking among students, Reflective assignments are often required as part of teacher education programs, Field observations, journal entries, lecture reactions, perspectives, portfolio management, and learning logs are just a few examples. Reflective writing provides an opportunity for educators to assess students' thought processes by documenting their ability to meet teacher standards, arrive at program dispositions, demonstrate sound instructional thinking, and make appropriate classroom decisions. (Dinkelman, 2000). Learning reflectively enables learners to act on what they know, what they need to know, and how they bridge gaps in knowledge by actively accessing what they already know and what they need to know. (Sezer, 2008).

As a result, it is essential to encourage reflective thinking of students during their school and college education which help them to develop their higher order thinking skills. When dealing with complicated and uncertain circumstances, taking a reflective attitude can be extremely beneficial.

## 3. REVIEWS OF STRATEGIES FOR REFLECTIVE LEARNING:

(Yaacob, A., & Asraf, M. (2021) This paper discusses the results that looked at how Reflective collaborative learning fosters students' reflective thinking over the course of a semester and was based on an action research project. Qualitative data was gathered from a variety of sources, including focus group interviews, student and investigator reflections, and online feedback. It explains how students built their community of practise by sharing feedback on their reflections to enhance them. recorded their emotions, reflections, and online feedback to show how they used reflective learning in a collaborative setting and how they benefited from it. The results demonstrate how the collaborative reflective learning environment aided to learn more deeply about themselves and how it benefited them. Reflective thinking through collaborative learning boosts information sharing, improves instructional methods and theories, boosts students' awareness of their own traits and help improve overall among other findings.

(Sultana et al., 2020)This study looks at how e-portfolios are used in an undergraduate course to help students improve reflective thinking skills. Data were collected and analysed qualitatively from both the teacher and students. The results show Students' development of reflective thinking is facilitated by e-portfolios, and students developed the two highest levels of refection through e-portfolios. Higher levels of reflective thinking in pupils may increase their ability to self-regulate throughout life and take part in lifelong learning.

Al Arood, Aljallad & Baioumy (2020) In this study, Cloud-based learning program method and semi experimental approach was used. This program's tools and frameworks are installed on a cloud-based platform. These programmes' instructional approaches such as written and verbal work in class, developmental projects, and homework are the three types of activities. Communication assessment method, learning process description logbook, observation method, and self-revision method were employed in the evaluation process. This programme has a considerable influence on enhancing reflective thinking skills among 10th grade pupils, according to the findings.

(Yasin & et al (2020) There are four stages in the SSCS learning model, The first stage includes activities such as generating ideas to solve the problem, known as search phase. Solving phase as collecting information to solve the problem by using thinking ability), In create phase analysing the results and organise them in a structured way to create new, and in share phase debate the issue with teachers and classmates to come up with a solution, findings revealed that the SSCS learning approach increased mathematical reflective thinking skills and resulted in a relatively high level of effectiveness.

Erdogan, F. (2019) The purpose of this study is to see the effect of cooperative learning and reflective thinking exercises on seventh-grade students' critical thinking during math class. A quasi-experimental method was used, comprising a pretest-posttest control group. According to this result, cooperative learning accompanied by reflective thinking activities help students develop their critical thinking skills.

Deringöl, Y. (2019) this study was designed to see if reflecting on one's thinking skills correlated with academic success in mat in fourth grade primary school students. According to the study, planning and implementing activities aimed at improving students' reflective thinking skills is advantageous. It is thought to be beneficial to incorporate the designed activities not just in math classes but also in other subjects.

Deneen et al. (2018) descibes that pupil-teachers' and students' attitudes toward assessment, as well as technology, are important factors in e-portfolio uptake and utilisation. Positive perceptions and attitudes toward a student's e-portfolio influences confidence, learning, and achievement. The findings revealed a positive attitude toward the usage of e-portfolios, as well as favourable opinions of e-portfolios as a tool for learning assessment.

(van Rensburg et al., 2018) In this study, A qualitative approach was used and followed a thorough literature review. four activities were identified as potential critical reflection promoters: storytelling, concept mapping, critical incident, and action learning. These activities could be used as learner support strategies that can used to engage students in critical reflection.

(Tican & Taspinar, 2015) An experimental study was conducted. Pretest and posttest control groups were used to design this study. Study shows that reflective thinking-based exercises piqued students' interest in their textbooks, motivated them to be more engaged, enabled them to express themselves in more democratic settings, and they helped create a student-centric learning environment.

Murphy, K. R. (2014). Science classrooms with reflective practice were compared to science classrooms with no reflective practice. To determine whether reflection practise has an impact on critical thinking among students, a quasi-experimental, non-randomized control-group, pretest/posttest study was used. This study tested the effect of science reflection assignments on critical thinking in students. Students will begin to understand how knowledge is integrated into their learning experiences as they begin to realize the role of reflection in learning and become familiar with the elements of reflective practice and to recognise the significance of this knowledge in helping to improve their critical thinking skills. The major finding was that the reflective treatment method was successful in enhancing reflective thinking. Results of this study demonstrate a connection between students' improved reflective thinking and reflective practise in the context of reflective diaries, exit slips, and verbal conversations.

## 4. SUMMARY:

The rapidly changing, expanding, and transforming needs, as well as today's fast - paced population expansion and advancing technology, necessitate a more inventive and multidisciplinary educational system capable of producing well-educated persons capable of meeting these needs. This current scheme should be smart enough to solve the challenges that students face on a daily basis in our century, as well as to prepare them to contribute to meeting the demands of the society in which they live. In this study, Researchers identified several methods relevant to developing reflective thinking among students, and all of these methods/ activities have been found to have a significant impact on the development of reflective thinking among students at different levels of education. Students can use reflection to think about their activities and answers in a systematic way. Thus, Critical thinking and reasoning skills can be developed through innovative and creative reflecting exercises.

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