



Teaching methods (project based, discussion and storytelling) that build critical thinking.

Sarnendu Rakshit

Ph.D. Scholar, Dept. of Teacher Education, Central University of Haryana, India

Email- sarnenduraks1990@gmail.com

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ABSTRACT

In this 21st century Education system, critical thinking plays an important and crucial role for every learner. Critical thinking is a skill to develop and nurture for the rest of life. It helps learners to apply their knowledge in practical life and to evaluate their own learning. Teachers are crucial to foster this skill of critical thinking among students and they need to include students engaging activities by using instructional strategies. This paper will shed light on three teaching methods – project-based, discussions and storytelling according to their role to develop critical thinking. Projects based learning mainly focuses on practical application of theoretical concepts. It helps to students for exploring real life solutions through enquiry, experimentation and collaboration. It also cultivates communication skills along with team work and evaluation strategies. Discussion method establishes to make active in exchange ideas among students and engaging in open ended discussions, opinions and consider alternative assumptions. This method helps to sharpen reasoning skill and analytical thinking. Here teacher plays the role of facilitator for guidance and ensure to remain focus on critical debate. Method of storytelling helps to engage students to develop their cognitive and affective domains of learning. Students can foster critical thinking by analyzing the stories told by teachers and evaluate the outcome as well. Students could connect



knowledge with their own life by stimulating imagination and empathy. Here in this paper the in-depth analysis of three teaching methods have helped to highlights their critical role for producing holistic educational outcome among students.

Introduction

Teachers in present scenario playing multiple roles from content delivering to facilitate students for fostering problem solving, critical thinking, decision making and reflection skill. As a teacher it is necessary to have the ability of evaluation, analysis and synthesis skill to create similar capacity among students and to apply in real life scenario. The focus will be on building critical thinking with realistic teaching methods. From engaging students to classroom to managing, everywhere teaching methods is crucial and must promise as well. Here in this study main focusing on three essential methods of teaching first is project-based, second is discussion and third is storytelling. All these methods have its own pathways for nurturing critical thinking. This study will shed light on a deep insight to teacher and policy-makers so that they could implement it with teacher-education context with proper design of curriculum and right instruction to develop critical thinking among students.

Concept of Critical Thinking:

Critical thinking is an ability to evaluate, examine and understand and accept information or knowledge based on evidence and logical conclusion. It is beyond the skill of retention. In school critical thinking is quite visible when learner asks some meaningful question relating to real life problem. Teaching methods plays role to create this skill among students. It also can be said that critical thinking is about evaluating with reflective judgments. The main purpose to inculcate critical thinking among students to shift the learning from teacher centered to students centered. The purpose behind inclusion of critical thinking in teacher education is about their practices and to inculcate among students for better learning environment at present and future. Few studies have reflected on the matter of critical thinking strategies awareness which helped teachers to deal with major challenges during implementation and in practice.

Critical thinking is higher order cognitive skill including evidence, open-mindedness and reflection. Let's discuss about the three methods of teaching with their features for developing critical thinking.

1. Project based learning(PBL) method for developing critical thinking:

Project based method is an instructional approach for engaging in real world problem to inquiry to investigation over an extended time. The main root of this method is in social learning theories where



students construct their own knowledge with collaboration and application and reflection. PBL is an effective method instead of fixed lessons. Learners can reflect some meaningful and collaboration process of learning atmosphere. It is align with critical thinking in many ways:

- PBL helps to develop and nurture inquiry and question based attitude among students. It also helps the learners to encourage evidence based learning along with problem solving skill and collaboration skill.
- PBL helps to enhance reflection skill among students by reviewing own feedback along with teacher feedback. This helps to develop critical thinking skill among learners.
- Project based is an open-ended nature so it invites the students for taking their own decisions along with solving problem skill.
- Inclusion of real world settings and authenticity motivate the learner to create bridge between theory and practice with the help of deeper thinking.
- With the help of collaborating and reflecting skill learners make their plan more refine.
- Role of teachers as facilitators helps to nurture higher order inquiry skill instead of just content delivery.

A quasi experiment has stated that project based method has improved students critical thinking significantly. One literature review has positively concluded that in several ways PBL develop critical thinking among students. Some of practical implementation tips mentioned below:

- Selection of projects that is related to real life or have some relevance to school or classroom problem.
- Reflection during or mid way in project is helpful. It might be peer-review and self-assessment for decision.
- Link with assessment can help to improve decision making and thinking progress along with group journals.
- PBL integration prior to classroom practice helps to teachers for better support with their teaching context.

Challenges: Everything has its own pros and cons same way PBL has some challenges like constraint of time and resource. PBL requires more coordination than traditional method of teaching. Learners' variations of readiness might differ of familiarity with different inquiry methods and self-regulations. Complexity of assessment is another problem especially giving valid rubrics score in compare to



traditional method. Basically teacher education program has fixed curricula with limited flexibility which might be a hinder for project work.

2. Discussion method to foster critical thinking:

Discussion involves structured and semi-structured conversation among students regarding a specific topic. Learners who are participants basically exchange their views, develop their ideas and reflect. This entire process is an essential part to foster critical thinking: logical reasoning and meta-cognition. In the context of teaching learning several studies have stated about the comparison of both online and offline discussions are effective enough to nurture critical thinking. In addition to these discussion allows learners to evaluate the arguments of peers, ask more questions and deepen understanding. This method includes Socratic seminars, various case based discussions, different peer group debrief. With all such discussions learners can enjoy and actively engage in curricular issues and make their reflection on practice by reasoned judgment. It can be said that this method of teaching helps to shift the learning classroom situation to directly student community inquiry. Few important tips for further implementation of this method are stating below:

- Discussion method mainly helps to construct the knowledge of students by analyzing the knowledge and information.
- It helps to develop communication skill along with deep listening skill among learners. By engaging in meaningful way students can improve their confidence level.
- Think-Pair-Share helps to reduce anxiety and also helps to improve responses of students by sharing thoughts with pairs.
- Socratic questioning can help to deepen the questioning analysis skill learners.
- Preparation of some prompts questions help to making the discussion more effective and efficient.
- Safe environment is another essential requirement for giving fearless contribution and disagreement comfortably.
- Role of teacher as a facilitator is the key for the demonstration of ongoing task for further clarifications and evaluate evidence.
- Blended learning makes discussion effective where students get enough time to study and reflect and responds for discussion. Study has shown that it is effective for critical thinking.
- Linking with practice like a discussion can be hold after a session of practicum where learners could analyze and reflect about any critical incident.



Challenges: Dominance on participants can reduce the chances of positive engagement. Lack of prior knowledge is another hindrance for fruitful discussion sessions where learners have no clarity. With superficial knowledge discussion method cannot achieve its destination. Time constraints could make negative impact for making the discussion for longer period with details. Unfocused discussions or low participation might make problem. In case of complex discussion rubrics can be useful to make the argument evaluation more accurate.

3. Storytelling method to inculcate critical thinking:

Storytelling is mainly considered as theoretical and traditional methods of studies. It is about Narration of stories related personal, cases and reflection which is a pedagogical strategy. It is the most simple but powerful way to foster critical thinking among students. When learner listen various stories from their grandfather, grandmother, parents, peers and teachers they tried to follow the plot in real life. They themselves analyze, question and make tentative assumption regarding various unlearned ideas. The characters, the actions of stories have deep reflection on the mind of learners to unfold multiple perspectives about their own sense making. Now digital storytelling with visual graphics has made the clarity of reflection upon mind of students better than ever. Some of the practical tips to utilize story telling method for fostering critical thinking are stated below:

- Use effective stories for classroom engagement and more meaningful way to connect with the life and reality of students.
- Facilitating peer sharing stories also important to develop more viewpoint.
- Digital story telling with audio, visual methods the engagement of learners will be more meaningful.
- Stories must be linked with development of moral values of learners so that they could make better decision and choices for their future and present life.
- Students can feel the gap of stories for further development of critical thinking which will encourage their interpretation skill.
- Most of the narrative revolves around different challenges. So learners could examine and then explore the problem and they make their choice more effective for evaluation.
- Stories main purpose is to develop different viewpoints among students. Character comparison to create multiple dimension of view point can be effective for critical thinking.
- Using picture based stories, moral dilemma, rewrite stories as per students choice will make the learners logical and creative.



Challenges: Limitation of students' engagement is a big hindrance because most students might be passive listeners. Sometime learners might enjoy the story telling process and enjoy it but most of the time they failed to analyze. Storytelling is a lengthy process where time is a barrier to complete it with required time. Students' language problem or vocabulary weakness might make it difficult to make this method effective enough to foster critical thinking. Group storytelling might make noise inside classroom which might be an issue for effective learning. Sometimes it is difficult to measure the assessment of students from storytelling.

Conclusion

Fostering critical thinking is necessary for the preparation of learners to deal with uncertainty and complexity of life. All three methods of PBL, discussion and storytelling are the most powerful way to nurture the skill of critical thinking among students. These methods encourage learner to be active participants, become evidenced based learning and understand multiple viewpoint instead of holding on narrow assumption. Project based study mainly develop and investigate real problems along with logical decision making choices among learners. Discussion method sharpens the skill of argument evaluations and reasoning skill among students. Storytelling method increases the imagination power with more powerful critical ability for better reflection on life.

Each teaching method is deal with its own challenges. Teachers with the help of supportive structures can mitigate them fruitfully. Together all three methods of teaching if practice properly then students can think effectively, learn faster and could become responsible individual.

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