EDUCATION FOR
CRITICAL THINKING

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NATIONAL INSTITUTE OF EDUCATIONAL PLANNING AND ADMINISTRATION

NATIONAL CENTRE FOR SCHOOL LEADERSHIP

Every Child Learns
Every School Excels

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KEY AREA
TRANSFORMING TEACHING LEARNING PROCESSES

EDUCATION FOR
CRITICAL THINKING

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Leadership Pathways for Continuous Professional Development: A Package of Self-Instructional Modules for School Leaders

Introduction

Children receive a lot of information through observations and lived experience which they need to analyse, evaluate, consider alternatives, and reason out, etc. Critical thinking is at the core of any such activity that requires children to analyse and evaluate their observations and experiences which, in turn, impact their actions and decisions in life. Critical thinking, as a life skill, enables children to become autonomous individuals who are empowered with problem solving and decision-making skills and to function as responsible citizens. As school principals and teachers, there is a need to identify the spaces within the daily classroom interactions to develop critical thinking among children. School heads and teachers need to go beyond concerns such as completion of syllabus and increasing achievement scores in students, to accommodate teaching pedagogies that inculcate critical thinking skills among students. Teachers need to be convinced that attaining critical thinking skills among students is one of the prime purposes of education as this would lead them to deal critically with social issues around them, develop activism against inequalities existing in the society, and enable them to become responsible citizens of the country.

The module on 'Education for Critical Thinking' consists of four sections. Section 1 discusses critical thinking as a purpose of education. Section 2 discusses critical thinking as a concept and its significance for social transformation. Section 3 discusses the methods of developing critical

thinking in classrooms, chief among them being Socratic questioning. Section4 discusses the role of school heads and teachers in creating spaces within classrooms for developing critical thinking skills among children, and outlines challenges to implementing critical thinking strategies in classrooms. It is hoped that the module is useful for school heads and teachers to understand the significance of developing critical thinking skills among children as a key purpose of education.
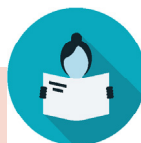
Learning Outcomes

On completion of the module, school leaders will be able to

- Understand the meaning and significance of critical thinking for school education and in social transformation
- Explore and use ways to develop critical thinking for students in classroom
- Understand significance of their role in developing critical thinking skill among children

Sections	Topic
Section 1	Critical Thinking and Purpose of Education
Section 2	Critical Thinking : The Concept and its Significance for Social Transformation
Section 3	Methods for Developing Critical Thinking Skills among Children (Including Socratic Questioning)
Section 4	Role of School Heads and Teachers in Developing Critical Thinking Skills

SECTION 1

CRITICAL THINKING AND PURPOSE OF EDUCATION

Learning Objective: At the end of this section, school leaders would reflect on critical thinking and its practice in classroom as one of the purposes of education

Key Words: NEP 2020; Learners; Fair-mindedness; Autonomous; Democratic society

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Introduction

Children are, on a daily basis, exposed to heavy expectations from teachers and parents to score marks and do well in exams. Education has become outcome oriented and teachers are forced to believe that increasing achievement, as measured through test results, is the purpose of education. Assessment of learning outcomes, mainly on the basis of marks scored in tests, leaves out measurement of certain aspects of learning that are non-measurable, such as critical thinking skills and problem-solving skills, which are equally important to be developed among children.

The National Education Policy (NEP) 2020 lays particular emphasis on development of critical thinking skills among children. It emphasises that schools must develop higher cognitive capacities, such as critical thinking, among children to ensure higher-order, logical decision making and encourage innovation among students. The policy emphasises that the curriculum needs to be reorganised to incorporate opportunities for developing critical thinking skills among students. The policy further emphasises that the assessment must also be modified to test critical thinking skills of children. The following paragraphs describe the significance of developing critical thinking among children and its position as one of the prime purposes of education, as articulated by policies such as NEP 2020.

Critical Thinking: The Key Purpose of Education

Developing critical thinking skills among children means that children are equipped with skills for gathering, analysing, synthesising and assessing information as well as for analysing (mis)information and prejudices. These skills develop genuine fair-mindedness among children by influencing them both at the cognitive and affective levels. Critical thinking manages irrational emotions and beliefs, thereby developing in them the right intellect to function effectively in the society. The country requires that its students become fair-minded citizens --- ones who, by applying critical thinking, are able to develop citizenship skills required for leading oneself and the society.

Critical thinking develops a critical mind among students and enables them to be change leaders as they may transform society through their actions and beliefs so as to fulfil the goal of education of creating a democratic society.

Critical thinking also leads to the development of autonomous individuals. Critical thinking enables students to think independently and take a particular stand or position regarding certain information. This process of reasoning, analysing, deliberating and then coming to a conclusion makes individuals independent thinkers. By doing so, individuals will understand the foundations and rationale for their thinking and will be in a better position to revise their thinking. Critical thinking leads to individuals applying a sequence of thinking skills, which in turn develops an increasingly sophisticated understanding of the process that they can apply whenever they encounter problems, unfamiliar situations and new ideas. They become more confident and autonomous problem solvers and thinkers.

Finally, critical thinking also ensures that individuals realise that learning is ongoing and that we live in a changing world and must continue to learn. Critical thinking process makes individuals believe that knowledge and understanding is not a fixed entity. Rather, one must engage in lifelong learning, in an ongoing pursuit of knowledge and understanding by willing to question ideas, reason and also revise thinking in the light of new knowledge and information.

Fostering critical thinking in classroom can lead to developing following kind of learners:

A. Learners who can judge the credibility of sources of information;

B. Learners who can raise vital questions and problems, formulating them clearly and precisely;

C. Learners who can gather and assess relevant information by using abstract ideas to interpret it effectively;

D. Learners who come to well-reasoned conclusions and solutions, testing them against relevant criteria and standards;

E. Learners who can think open-mindedly within alternative systems of thought, recognising and assessing as need be, their assumptions, implications, and practical consequences;

F. Learners who can communicate effectively with others in figuring out solutions to complex problems; and

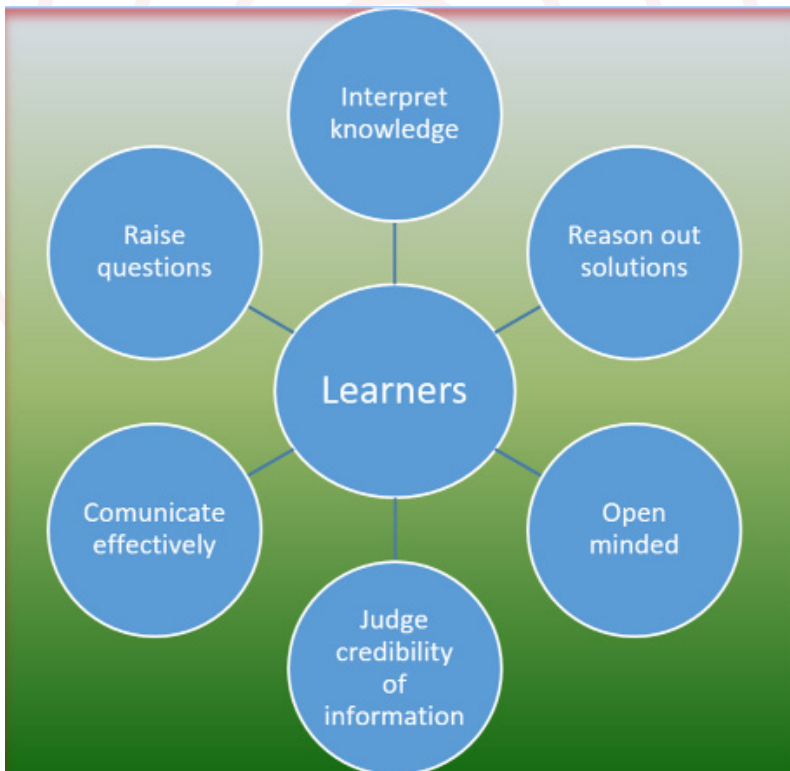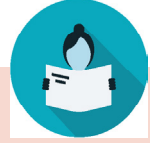G. Learners who can develop and defend a position on an issue.

Figure 1 : Illustrates the tools and skills that critical thinking can bring about in learners

Exercise 1

Having understood the need for creating spaces for generating critical thinking among children in classrooms, discuss with your teachers about the following:

a. Critical thinking as a purpose of education

b. Need for integrating critical thinking skills within their lesson plans while they transact their respective subjects

c. Reflect on the nature of outcomes that can be elicited from learners while practising critical thinking in classrooms

Let us sum up

Critical thinking as a purpose of education needs to be significantly established as a part of school culture. It is therefore a responsibility of school heads and teachers to create spaces within the school to develop this very important skill among children.

SECTION 2

CRITICAL THINKING:
THE CONCEPT AND ITS SIGNIFICANCE
FOR SOCIAL TRANSFORMATION

Learning Objective: At the end of this section, school leaders would understand the concept of critical thinking and its significance in the daily life of children and, further, for social transformation

Key Words: Problem solving; Reasoning; Independent; Social transformation

The Concept of Critical Thinking

Critical thinking refers to carefully evaluating ideas and beliefs that we gather from others through the socialisation process as well as those we develop through our own thought processes. Critical thinking involves carefully judging and weighing one's assumptions and beliefs, as well as those of others, so that we apply logical reasoning to do away with those beliefs and assumptions that do not have a rationale, are guided by prejudice and misinformation and do not have any evidence. Critical thinking therefore involves checking the sources of information and asking oneself whether the information is based on logical reasoning or not, if it is biased/ unbiased or it rests on sufficient evidence. Critical thinkers constantly question their beliefs and examine multiple sources of evidence to justify their thinking. Critical thinkers are also willing to discard their beliefs if they fail to meet the required standards of logic in thought processes. They are willing to admit the strength and weaknesses of arguments and are willing to change their positions if they feel that their arguments are not based on reason. Critical thinking therefore leads to suspended judgements ---a core skill that can protect individuals from impulsive thoughts and actions that can be counter-productive. Critical thinking is therefore at the core of most intellectual activities that involve students' learning to recognise or develop an argument, use evidence in support of that argument, draw reasoned conclusions and use information to solve problems. This process of critical thinking would ensure developing children as autonomous, independent human beings who believe in logical reasoning rather than developing individuals who passively accept information, positions and ideas.

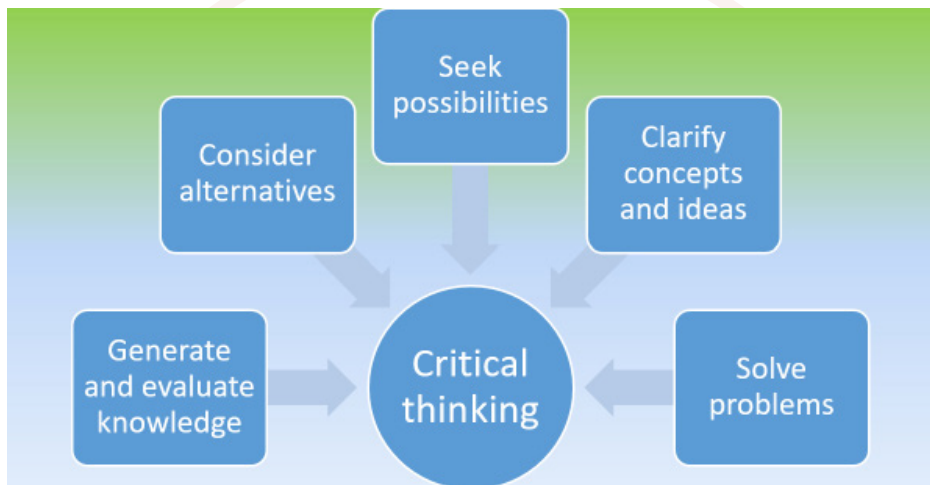The following figure provides an illustration of critical thinking skills.

Figure 2 : Critical Thinking Skills: An Illustration

Developing Critical Thinking in Schools

For some time, critical thinking has been receiving a lot of attention from educationists and policy makers as a significant and necessary goal of education. As already mentioned earlier, the National Policy on Education 2020 has also stressed the importance of critical thinking and proposed development of critical thinking skills among students as a policy imperative. But the fact is that critical thinking has not been accepted as a significant teaching goal in schools and classrooms in the country, in spite of the thrust provided by policy makers and its prominence in educational discourses. Evidence shows that rote memorisation techniques and teacher-controlled teaching continue to be the dominant teaching methods used in classrooms. Children are therefore unable to perform when they are faced with tasks that demand critical review, solving problems in a new context, integration of knowledge, etc.

Education systems need to emphasise on teaching critical thinking skills as a goal of education and one to be integrated within the subject matter and as

part of the curriculum. The following paragraphs provide suggestions on integrating critical thinking into the school curriculum.

Integrating Critical Thinking in the School Curriculum

a. Connecting critical thinking to specific content: Critical thinking skills can be incorporated into various subjects that are taught in schools. For example, in environmental studies, students maybe asked about the various ways one can reduce the pollution in the environment. The teachers through dialogue, debates, videos, role plays, etc. can elicit critical responses from children on the part they would play in reducing pollution.

b. Explain the learning goals to students so that students think about what, how and why they learn.

c. Adopting a combination of different methods of teaching by teachers enables critical thinking development among students. For example, teachers can introduce certain social issues before the students and, through the process of a dialogue with students, develop critical thinking among students. Teachers can also create groups among students and invite them to deliberate on certain challenging or debatable issues. Students can reflect, gain new knowledge, listen to different perspectives and think from various other points of view while working together as a team to find solutions to problems. The teachers can also create role play scenarios as a follow-up to the group work for students, so that students are provided opportunities to engage with real life challenges. Thus, a combination of teaching methods such as dialoguing, debating, role plays, etc. will lead to development of critical thinking skills among students.

d. Teachers to be provided adequate capacity building so that they possess knowledge and develop the belief and values to incorporate critical thinking strategies in classrooms.

e. Curriculum followed in schools should have content which is relevant and which students can relate to in their daily lived experiences. Teachers should be trained in relating learning to the social issues outside schools while following the curriculum. Teachers should develop the right attitude and values among children towards many social issues that have been reflected in the curriculum. The learning provided by teachers in classrooms should have opportunities for debate and questioning rather than perceiving knowledge as a static entity. The extent to which teachers are able to contextualise the curriculum will impact the way students are able to pose questions, to compare and contrast, to articulate ideas and offer their own insights and observations about social realities.

f. Teachers need to be encouraged to follow teaching methods such as discussion.

Role of Metacognition in Critical Thinking

Metacognition is a process that involves 'thinking about thinking.' It is a process where people control their own thinking and learning activities. When applied to classrooms, it is an important tool to ensure that children understand their own thought processes and reflect on these thought processes so as to ensure their own learning. Children can critically reflect on their own learning process and what are the changes that need to be done so as to ensure future progress. Metacognitive thinking involves awareness of one's thinking, monitoring and self-regulation of cognitive processes. With reference to critical thinking, metacognition refers to the awareness about one's own cognitive processes and the ability to control these processes through deliberate evaluation of knowledge, and by planning, choosing, monitoring and analysing their implications.

Education for Critical Thinking and Dealing with Social Issues

The aim of education is to develop empowered individuals who are committed to the society in which they live. The educational process in schools should ultimately lead to developing citizenship skills among students who, in turn, will become the change agents of society through committed action for social justice. For this to happen, students need to be made aware of the issues and contradictions inherent in the society which includes discrimination on the basis of religion, caste, gender, ethnicity, injustices and inequalities. Students, especially those who are not from mainstream society, cannot be unconcerned about these issues happening in the society and in their lived experiences. They therefore need to be provided an opportunity to analyse, interpret, evaluate these social relations and practices so that they develop the necessary tools and courage to become change agents and participate in developing a better society for all. Critical thinking skills provide students with the ability to interpret and understand the contradictions of the society, the power relationships and the inequalities inherent in the society.

Critical Thinking and Social Transformation

Education must lead to society's growth and transformation. The students have to be prepared for bringing about social, political and cultural transformation. Critical thinking when applied in classroom enables students to reflect upon and deal with societal issues that are fundamental to daily lived experiences. Social injustices and inequalities are inherent in the society. Critical thinking allows students to reflect, reason and apply logical reasoning to arrive at conclusion about power relations and its contradictions inherent in the society, while also analysing one's socio-cultural beliefs and prejudices regarding these issues and find solution to deal with the same. It is to be remembered that critical thinking is not a process merely constituting of cognitive abilities such as comparing, evaluating, analysing, synthesizing, etc. The affective and ethical

dimensions of education are also included in critical thinking. Emotions are a significant aspect of critical thinking and functions as a response to inequality and injustices existing in the society. Through the process of critical thinking, students can be made to be critically aware of the injustices and the status quo within the society, and within a particular context. Students, therefore, can be moulded to become responsible citizens, and with the aim of developing a just society, through enabling them to take proactive steps towards creating a more equitable society that follows principles of democracy, solidarity and collaboration. Critical thinking enables students, especially those from the marginalised sections of the society, to be empowered, assert their rights, develop agency and defend their freedom to action. Students therefore become the shapers of their own destiny and become leaders who are change agents of the society.
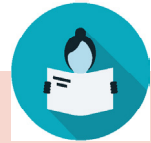
Exercise 2

Discuss with your teachers on the following:

a) Critical thinking and its impact on social transformation.

b) How and why there is the need to listen to students voice and empower them.

c) Areas in lesson plans which teachers can discuss with children regarding their unique social realities, their challenges and how they can overcome them.

Let us sum up

Critical thinking is thus not merely a set of skills; rather it involves the competence to participate in social issues within the society of which the students are a part. With the faculty of critical thinking, a student may identify oneself as a member of the community, and participate in the building of a more just society with principles of equity and democracy. School heads and teachers need to create spaces within the classrooms in order to develop critical thinking among children.

SECTION 3

METHODS OF DEVELOPING CRITICAL THINKING SKILLS AMONG CHILDREN

Learning Objectives:

- School leaders will understand and apply Socratic questioning as a method of developing critical thinking in classrooms

- School leaders will understand and apply various methods of developing critical thinking in classrooms

Key Words: Socratic questioning; brainstorming; Storytelling and analysis

Introduction

This section discusses the various methods that can be used by teachers to develop critical thinking among children. As already mentioned in the earlier sections, teachers need to remember that critical thinking is not merely a set of cognitive competences but also includes affective domains as well as ethical competencies. Teachers need to incorporate critical thinking not as an isolated entity in classrooms but need to integrate them with the social context of the school as well with the curriculum so that students are clear about the relevance of such higher order thinking strategies that are followed in classrooms.

Socratic Questioning

Critical thinking involves the conditions of deep questioning. Socratic questioning is one method to develop critical thinking among students by probing deeply into what people believe in and why they believe in. Socratic questioning is disciplined questioning that enables people to develop their critical thinking skills by pursuing thoughts in many directions, to uncover the truth, to explore problems and issues, to reason out and discover what we know and we don't.

According to Dr Richard Paul and Dr Linda Elder, the art of Socratic questioning, implies the following:

a. All thinking has a history in the lives of particular persons.

b. All thinking depends upon a substructure of reasons, evidence, and assumptions.

c. All thinking leads us in some direction or other (has implications and consequences).

d. All thinking stands in relation to other possible ways to think. (There is never just one way to think about something).

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According to Paul and Elder (2006), Socratic questioning follows the illustrated below

Opposing thoughts and objections
How would you answer someone who said …? What might these people say? How could someone else look at this? Why? Why do you think your way of looking at it is better?

The origin or source
How did you come to believe that?

The belief, statement, or conclusion

The implications and consequences
Are you implying that …? If that's true, then what else must by true? How would we put that into action? What happens when you act on that belief??

Support, reasons, evidence, and assumptions
How do you know? Are you assuming that …? Is this a good assumption? What evidence do you have? Why is that relevant? How do you know your evidence is true? How are you conceiving of, thinking about the issue? Why?
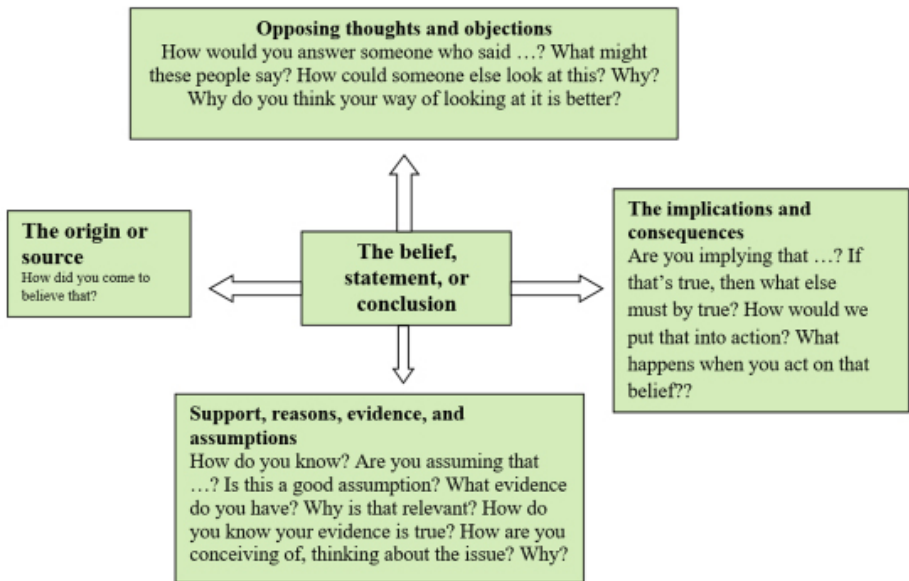
Figure 3 : Art of Socratic Questioning

Source: The Thinkers Guide to Art of Socratic Thinking., Dr. Richard Paul and Dr. Linda Elder (2006), . Retrieved from https://www.criticalthinking. org/files/SocraticQuestioning2006.pdf

Other Methods for Developing Critical Thinking in Classrooms

Teachers need to be knowledgeable about other teaching methods that can aid critical thinking among children. There are various ways to develop critical thinking skills among children

- **Brainstorm about everything they will be doing, learning or reading**

  For example, if children are reading about 'water and its importance for life' you may brainstorm them about the following: Which sources give us water? What would happen if a water source is depleted? Why is the situation of drought becoming increasingly dangerous in our country? What can we do about it as responsible citizens? And so on.

- **Classify and categorise**

  Classification plays an important role in critical thinking because it requires identification and sorting according to a rule, or set of rules, that kids must discover,

- **Compare and contrast**

  Encourage children to compare and contrast things that they observe or experience. For example, comparing photographs, paintings, story characters, etc, could be done to encourage children to reflect and analyse.

- **Work in groups**

  Encourage children to work in groups. This will encourage them to understand the thought process of other children and also

that there are multiple ways of approaching a problem. For example, you may give the group an activity where they have to sit together and create a poster for promoting healthy eating habits among children. There will be lot of ideas that children may come up with. Create thinking among children about how unhealthy eating habits. As a school head/teacher identify, how each child is involving in the group work, each child's contribution to the group, leadership roles, ideas that are being generated and how they put it all together. At the end of the activity, teacher/school head can have a debriefing session with individual child to make them reflect on how they felt about the activity and what new they have learnt.

- **Finding patterns**

  Encourage children to find patterns or connections in the environment. For example, patterns in leaves, patterns in finger prints, patterns in sky, patterns in clothes, patterns in climate, in growth, etc. Ask them how one connects to the other.

- **Open-ended questions/incomplete stories**

  Give incomplete stories to children and ask them to complete the stories. They could retell the stories in their own way. Encourage children to relate the story to one's own local settings. This is an example of synthesising where children use information in new ways.

- **Example 1:**

  Show children a movie and ask them to give a different ending to the movie

- **Example 2:**

  Take the character of Micky Mouse (or any other interesting character) and trace the origin of the character. Ask how children can modify the character. Ask children to make their own adorable cartoon character and why did they choose so?

- **Gap fill in**

  Show the children a photograph/picture (projected). On top of the paper, ask children to write: 'What is happening in this picture?' At the bottom of the page, ask children to write down what they believe is happening in the picture (one or two sentences). Then, in the middle of the page, which is where they fill in the gap, ask children to think about how they came to the conclusion. Encourage children to think about what evidence they saw in the photo to come to this conclusion. This activity would also help in understanding what prior knowledge they has to come to the said conclusion.

- **Debates**

  Give students statement suitable for debates. For example, one of the following could be the theme for a debate:

  - 'Women should get equal wages as men.'
  - 'Human workforce should be replaced by computers.'
  - Animal should be treated with kindness.
  - Climate change is a threat to mankind.

- **Storytelling and analysis**

  Narrate, for example, the story of Snow white and the seven dwarfs. Ask if being 'fair skinned' means being 'beautiful.' Discuss the fairness cream propagated in advertisements. Ask

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why there is an obsession among people to be fair-skinned. Discuss the discrimination based on colour and race at global level.

(Teachers can download more stories from storyweaver.org.in and generate questions in classes for developing critical thinking among children.)

- **Activity: Critical thinking through video viewing**

    Show a video to the children. Tell them that they have to be active viewers and reactive viewers. Taking them as active viewers, ask them to write notes on the content that they have seen in the video and develop a summary of the video. This is at the comprehension level. Taking them as reactive viewers, ask children to frame essential questions. Ask them to critique what they have just seen.

These are some of the methods that can be used by teachers to develop critical thinking among students. The following section will discuss the role of teachers in developing critical thinking among students and the challenges to implementation of critical thinking in classrooms

Exercise 3

Discuss with your teachers on implementing Socratic thinking and other methods of developing critical thinking in classrooms

Let us sum up

This section discusses the various teaching methods that school heads and teachers can implement in classrooms in order to develop critical thinking in schools.

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SECTION 4
ROLE OF SCHOOL HEADS AND TEACHERS IN DEVELOPING CRITICAL THINKING SKILLS

Learning Objective: At the end of this section, school leaders would understand the role of school heads and teachers in ensuring critical thinking skills in classrooms

Key Words: Teachers; School heads; Role

Introduction

It is the responsibility of teachers to give children the right knowledge wherewith, as responsible citizens, they can engage with community issues as well as reflect upon and apply the learning in their real life situations. The role of the teacher would be as an intellectual who would motivate the students to develop the potential to think critically. Thus this skill becomes useful for them in their future endeavours. In order to engage students in critical thinking, the educator needs to act as a facilitator, allow for discussion and encourage free thought processes and open-mindedness.

Role of School Heads in Developing Critical Thinking Skills

a. Encourage a conducive learning environment in schools where students' voice is encouraged.

b. Encourage such teaching learning process in schools in which the curriculum connects to the social realities of the children.

c. Encourage discussions, debates, students' parliament, etc, where children are provided opportunities for reflecting on their identities, agency and citizenship skills.

d. Create opportunities for teacher development so that they are empowered with teaching skills leading to higher order thinking skills among students

e. Reflect on one's own beliefs and values as school heads in order to ensure 'child is the centre' in the teaching learning process and also encourage the voice of students, especially those from the marginalised communities.

Role of Teachers in Developing Critical Thinking Skills

There are two factors that can be detrimental to the development of critical

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thinking among children. One is a teacher's obsession about finishing the syllabus and thereby resorting to textbook knowledge. Second is a teacher's lack of knowledge about teaching methods of developing critical thinking skills. Teachers need to remember that they need to connect social life to learning within classrooms because the broad purpose of education is to develop students as responsible citizens who are empowered with life skills to transform the society. For this purpose, teachers need to create spaces for critical thinking within classrooms about social issues and contradiction rather than resorting to textbook knowledge.

The following are the pointers for teachers to keep in mind while helping students develop critical thinking:

* Have a sound knowledge base regarding social issues so as to support student thinking.
* Be open to questions and controversial statements, and desist from projecting oneself as the main source of knowledge.
* Connect classroom learning to social realities outside schools and classrooms.
* Listen to others' voices, especially of those who are under-represented in the classroom, and use the personal lived experiences of students for initiating discussions.
* Encourage students to raise concerns, questions, and challenge the existing beliefs and norms.
* Avoid offering 'how to do it' approaches.
* Encourage students to listen to others point of view, be respectful of others' opinions and empathetic about issues.
* Provide sufficient time for students to think and delve on the themes that will be discussed in classroom. All discussions to be followed by debriefing activities.
* Plan lessons so that students can work in groups cooperatively and develop shared responsibility.

* Encourage students to take critical action regarding social issues. This would encourage developing the learning that can be applied outside classrooms.

Challenges to Teaching Critical Thinking Skills in Classrooms

There are a number of challenges that can arise while aiming for critical thinking skill development.

- The word 'critical' in critical thinking is misunderstood by many. It can be assumed that the word 'critical' in critical thinking means finding mistakes or weakness. This assumption needs to be clarified.

- Teaching critical thinking in classes requires teachers and students to do a lot of personal reflection and involves an exertion of intellectual capability. This, coupled with lack of time available for teaching, can prompt teachers to ignore the development of critical thinking skills in classrooms.

- Teacher's adherence to traditional methods of teaching through rote memorisation is another challenge. Lack of teacher training programmes that focusses on developing critical thinking is another disadvantage.

- Teaching students critical thinking skills may involve risk taking because teachers may have to face controversial and delicate situations which can create conflicts and tension in classrooms.
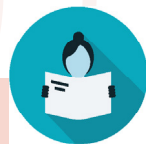
Exercise 4

Design and conduct school-based workshops where experts, school head and teachers can sit together and develop lesson plans for different classes so as to integrate critical thinking skills among children/students.

Let us sum up

The module on 'Education for Critical Thinking' attempts to signify critical thinking as a purpose of education. The NEP 2020 emphasises on critical thinking as a higher order thinking skills and highlights the need to develop critical thinking among students. Critical thinking skills is indeed very important to be developed among children as it provides them with the skills to evaluate, generalise, reason out, question, etc, on various themes of concern, especially those concerning their lived experiences. It is hoped that teachers and school principals would be convinced about the significance of critical thinking one of the purposes of education and therefore create opportunities and spaces within classrooms to forge this very important tool.

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Assessment: Multiple Choice Questions (MCQs)

Q1. Critical thinking enables a student to–

　　1. Become fair minded

　　2. Analysing (mis)information and prejudices

　　3. Think independently

　　4. Get influenced by other's opinion

　　a. 1 & 2　　　　　　b. 2 & 4　　　　c. 1, 2 & 3　　　d. 1, 2, 3 & 4

Q2. Fostering critical thinking in classroom can lead to developing which of the following kind of learners

　　1. Learners who can develop and defend a position on an issue.

　　2. Learners who can judge the credibility of sources of information

　　3. Learners who can raise vital questions and problems, formulating them clearly and precisely

　　4. Learners who come to conclusions and solutions with only partial information

　　a.　1, 2, & 3　　　　b.　1, 2, 3 & 4　　　c. Only 3　　d. Only 4

Q3. Of the following, which are some of the ways for integrating critical thinking into the school curriculum?

　　1. Explain the learning goals to students so that students think about what, how and why they learn

　　2. Connecting critical thinking to specific content Teachers to be provided adequate training so that they possess knowledge and develop the belief and values to incorporate critical thinking strategies in classrooms

3. Teachers need to be encouraged to follow teaching methods such as discussion

4. All of the above

a. Only 3   b. 1, 2, 3 & 4   c. 1 & 3   d. 5

Q4. Through educational process in schools, students are expected to become change agents of society; critical thinking is required as it

1. Will help them to analyse, interpret, evaluate these social relations and practices

2. Will provide students with the ability to interpret and understand the contradictions of the society

3. Either 1 or 2

4. Both 1 and 2

a. 1 & 2   b. 1 & 3   c. 3   d. 4

Q5. Socratic questioning is one method to develop critical thinking among students by probing deeply into what people believe in and why they believe in. Some of the methods for developing critical thinking in classrooms are

1. Brainstorming about everything they will be doing, learning or reading

2. Classifying and categorising

3. Working in groups

4. Finding patterns

5. All of the above

a. 1 & 2   b. 1 & 3   c. 4   d. 5

Ans: Q1.-c, Q2.-a, Q3.-d, Q4.-d, Q5.-d

Notes

Notes

Leadership Pathways for Continuous Professional Development: A
Package of Self-Instructional Modules for School Leaders

Modules in this Series

Series Editors: Rashmi Diwan and Charu Smita Malik
List of Contributors

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