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Innovation The Research Concept

Critical Thinking Skills

Abstract

Critical thinking is the ability to consider distinctly and reasonable about what to do or what to believe. It comprises the aptitude to engage in reflective and free thinking. Critical thinking insets the diagnosis of sources such as data, facts, perceptible phenomenon, and research findings. Distinctive skills related to critical thinking are Analyzing, Evaluation, Clarification, Explanation, Inference, Judgement, Objectivity, Problem Solving and Reasoning. Teacher can develop the critical thinking skills among students through different strategies and techniques such as classification, categorization, brainstorming, encouraging creativity etc.

Keywords: Critical Thinking, Analyzing, Creativity, Knowledge, Feedback, Problem Solving, Assessment, Reasoning, Learning

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Introduction

Critical thinking is a term used by educators to describe forms of learning, thought, and analysis that go beyond the memorization and retrace of acquaintance and facts. In common usage, critical thinking is an umbrella term that may be applied to many different forms of learning worship or to a wide variety of thought processes. Critical thinking is the ability to think clearly and rationally, sightedness and logical connections between thoughts. In its most basic manifestation, critical thinking occurs when students are analyzing, evaluating, interpreting, or synthesizing information and applying creative thought to form an argument, solve a problem, or reach a conclusion.

Aim of the Study

The aim of Critical Thinking Skills is to increase free thinking, self-sufficiency and reasoned decision in thought and action among teachers as well students. This involves two concerned dimensions:

1. The ability to reason well
2. The nature to do so.

Critical thinking skills involves logic as well as creativity of the individual. It may also involves inductive and deductive reasoning, analysis and problem-solving as well as innovative and complicated approaches for the resolving of issues and challenges.Critical thinking skills teaches different kind of skills that can be applied to any circumstances of life that calls for reflection, analysis and planning.

The term critical thinking, the word *critical*,derives from the word critic and implies a critique; it identifies the intellectual efficiency and the means "of judging", "of judgement", "for judging", and of being "able to discern."

Edward Glaser (1941) defines critical thinking as follows “The ability to think critically, as conceived in this volume, involves three things:

(1) An attitude of being inclined to consider in a contemplative route the problems and subjects that come within the spectrum of one's experiences
(2) Knowledge of the methods of logistic investigation and inference
(3) Some skill in enforcing those prescripts

Michael Scriven(1987) defines Critical thinking is the intellectually regimentation process of actively and proficient conceptualizing, applying, analyzing, synthesizing, and/or evaluating information collected from, or procreated by, examination, experience, reflection, reasoning, or infusion, as a guide to belief and action. In its imitable form, it is based on universal intellectual values that go beyond the subject matter partition: legibility, purity, precision, compatible, contingency, sound evidence, good reasons, depth, breadth, and eqiutableness.

“Critical thinking” is an umbrella term for six core skills, all of which combine to allow one to work, think, and act more effectively and more strategically:

Core Critical Thinking Skills

Critical Thinking Skills

Scheffer and Rubenfeld discussed critical thinking skills and have various activity statements under these skills-

Analyzing

1. Separating or dissolution a absolute into parts to retrace their nature, functional and relationships.
2. Studied it piece by piece"
3. "Classified things out"

Applying Standards

1. Take the plunge according to instituted particular, occupational, or social rules or criteria.

Discriminating

1. Recognizing distinction and parallelism among things or circumstances and distinguishing carefully as to category or rank.
2. "Sorted things together"

Information Seeking

1. Searching for evidence, data, facts, or knowledge by spotting incidental sources and collecting objective, subjective, mythological, and present data from those streams
2. "Searching for data."

Logical Reasoning

1. Drawing inferences or conclusions that are supported in or justified by evidence
2. "Deduced from the knowledge"
3. "Appropriateness for the conclusion"

Predicting

1. Imagination a plan and its consequences
2. "Envisioned the outcome"

Transforming Knowledge

1. Reconstruction or converting the condition, nature, form, or function of concepts among contexts
2. "Improved on the basic."

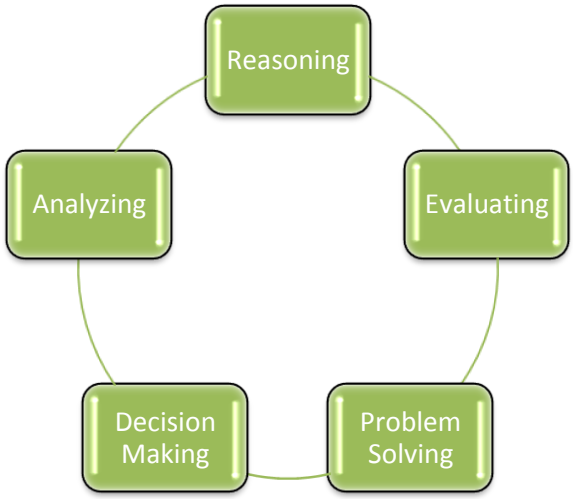
Skills Required for Development of Critical Thinking are

The skills that we need in order to be able to think critically are varied and comprise observation, analysis, interpretation, reflection, evaluation, essence, explanation, problem solving and decision making. We need to be able to:

1. Consider about a topic or issue in an objective and critical path.
2. Identify the different contentions these are in connection to a particular issue.
3. Evaluate a point of view to negotiate how strong or valid it is.
4. Diagnose any infirmity or unassertive points that there are in the evidence or argument.
5. Notice what implications there might be behind a statement or argument.
6. Provide structured or reasoning and support for an argument that we wish to make.

Critical Thinking Skills

Teaching Strategies to Promote Critical Thinking



Critical thinking has been an important issue in education, and has become quite the buzzword around schools. The Common Core State Standards specifically emphasize a *thinking* curriculum and thus postulates teachers to arouse their students' mental workflow beyond just memorization—which is a really good step onward. Critical thinking is a skill that young minds will unquestionable need and exercise well beyond their school seasons. Specialists agree that in keeping up with the ever-changing technological progresses, students will need to receive, understand, and analyze acquaintance on a much more efficient scale. It is our job as educators to fit up our students with the strategies and skills they need to think critically in order to wrath with these tech problems and obstructions they face elsewhere.Fortunately, teachers can use a number of techniques that can help students learn critical thinking, even for children enrolled in kindergarten. Here are some teaching strategies that may reassert immediately emphatic:

Encouraging Creativity

Traditionally, elementary teachers furnishes templates for art projects before they give it to their students. By doing so, it levels the creative recital region and can, in some ways, help the classroom run more smoothly if every child's snowflake looks the same.It may be a bit unnerving to forsake a bit of control, but rest ensured that *not* having everything prepped in advance is a *good* thing. Instead, give students all of the provisions needed to create a snowflake, and let them do it on their own. This will assents students to become critical thinkers because they will have to use their former knowledge to ponder what a snowflake looks like, how big it is, what color it is, etc.

No immediate Help

It's too convenient to always find a solution for a student who urge your help. Kindergarteners especially will get very upset when they can't find their crayons or scissors. Instead of always easily detection a solution for your students, offers responding with "Let's think about how we can find them." Then, you can helps the student in speculating out the best possible solution for finding their hidden item. For example- In mathematics, teacher can ask the students to solve the problems related to the content. He tries that students put efforts by themselves.

Brainstorming

Brainstorming is an important portion of critical thinking and a resource that people use to discover an thought, find a solution to a problem, or answer a question. One of the easiest and most dominant path to get young children to think critically is to shake up. Ask a lot problems, like "What we think this book will be about?" Or "Tell me three things you think you will be learning in this lesson about space?" Give students every chances to be critical thinkers. For example-In mathematics, teacher tells the students how to change the one unit into other then teacher should give some similar examples to students to solve the problems by using their skills.

Classification

Classification plays an vital role in critical thinking because it requires students to comprehend and enforce a set of rules. Give students a diversify of objects and ask them to discriminate each object, then sort it into a category. This is a great activity to help students think and self-question what object should go where, and why.

Compare and Contrast

Much like categorizing, students will need to look nearby at each topic or subject they are weighing and really think about the concernment of each one. The students can compare and contrast just about anything—try this out with the book in the class is studying presently. Compare and contrast the weather forecast for today and yesterday. Compare the shape and color of a pumpkin to another vegetable. Compare and contrast today's math lesson with last week's—the ideas are eternally.

Making Connections

Teacher would help the students to make connection through the critical thinking skills with the study and all the environmental conditions. Stimulate the students to make relations to a real-life circumstances and recognize patterns is a great route to drill their critical thinking skills. Teacher should inquire the students to always be on the look for these connections with their study habits.

Providing Group Opportunities

Group settings are the master way to get kids thinking. When children are around their classmates functioning together, they get exposed to the thought processes of their peers. They cognize how to perceive how other people think and that their way is not the only route to explore.When this precious skill is familiarize to students early on in the education process, students will be competent of having sophisticated thoughts and become superior problem solvers when produced with difficulty. It's important for students to possess a different kinds of skills, but it's just as important for them to understand the skills and how, and when to use them.

Development of Critical Thinking in Students through different techniques/methods

It is important to develop critical thinking in students. This ability set will help them deal with everyday situations with greater comfort and responsibility. There are many strategies that can be used to make pupils think critically. Some of them are:

Classroom Assessment Techniques

Classroom Assessment Techniques are simple tools for collecting data on student learning in order to improve it. It help teachers to identify what students are learning and how well they are learning it before being tested. In this technique, to let the student estimate the lessons on an constantly basis. Determining problems like 'What's the most fateful that student learnt from today's lesson' will get into thinking critically.

Case Study

Another technique is to alimentation a debate or present a case study in the classroom. A case study can endow the essential platform for students to communicate and collaborate about a situation that concerns a few group. Do not present a

inferences. Let the students deviate through the discussion or case and think their way to a conclusion.

Conference Style Learning

Another strategy to develop critical thinking in students is for the teacher to postpone "teaching" in class, but play the role of a facilitator in a conference, where the teacher guide the class along even as students are the ones who do the reading and explaining.It is important that teachers' do not misinterpret their role to be inactive but stay in control of the lesson while letting the students do the thinking.

Writing Assignments

The main objective of assessing instruction for critical thinking is renovating the teaching of discipline based thinking i.e. historical, biological, sociological, mathematical thinking etc. It is to improve students' abilities to understand their route through content, using disciplined skill in consideration. Teachers should give students broad writing assignments permit them to think through an issue. Encourage them to reason and discuss both sides of the issue.

Development of Critical Thinking Skills in the Classroom

Educational has revolutionized the classroom by improving learning capacity and efficacy. Education can help students to develop crucial critical thinking skills by changing the elemental instance of education. Here are seven exclusive routes that can help students to evolve their critical thinking faculties.

Engaged in Activities

One of the biggest benefit to integrating education in the classroom is the ability to keep students engaged in the stuff. Teachers incessantly scramble to keep students with unique learning forms all tuned in.

Education permits the same lesson to appeal to every student in the room in a slightly different way–moving graphics for visual learners, for example, or tactile riddle for kids who need to think by doing. A lesson plan making the most of education might include a video lecture, a discussion on a virtual forum, and even an educational computer game.

Organizing Knowledge

Last but not least, education offers a much more suitable and intuitive approach to organizing knowledge for easy penetration and learning. Since related concepts can be classified together and hyperlinked in groups within educational software, it's easy for students to navigate interrelated opinions.

A history student, for example, can easily jump from information about the Spanish-American War to the roots of American regalism. That kind of unification makes finding less tedious and helps students see the big portrait. Online textbooks have already started to promote this technology, making use of alloy hyperlinks and word clouds.

Class Debates

In-class, debates are excellent critical thinking exercises, but in traditional classrooms they can imbibe giant chunks of class time while involving only a few students. With education, teachers can get every student insets in the discussion by demanding them to post on message boards or even record short video or audio clips. The process is more efficient and students can respond to one another's logics while protecting their own points.

Observing Others' Work

Collaborative discussions and associative problem-solving are also cheaply facilitated with education.Science students can look over each other's write-ups, or math students can see how the class's best student solved a harsh equation. This provides inspiration to work harder and also helps the students to evolve a larger problem-solving "toolbox" with multiple outlooks to every dare.

Defending Answers

The teacher can help the students to develop their critical thinking skills by building them preserve their answers. A math teacher, for example, can poll the class on the answer to a given problem. Then the teacher can select a right answer from a peculiar student and ask that student to decode how he or she got there. This gives other students the chance to learn from their peers and stimulates the demonstrating student to apparent their intellectual process.

Multiple Perspectives of Critical Thinking Skills

A vital critical thinking ability is developing the understanding that there are multiple solutions to many problems. Some viewpoints to a given problem may make more sense to one student than others, so giving students the chance to see others work and play with alternative approaches is crucial. With virtual desktops, students working on computers halfway around the world can watch each other's screens for new ideas.

Immediate Feedback

Education can renovate conception by giving students immediate feedback. Online learning platforms like Blackboard and Moodle are great for this because they allow instant grading of tests and quizzes to the students or learners. A history exam, for example, can become a learning experience when the software amends students as they go. This makes students more suitable to recall correct answers and promotes them to study rigorous next time.

Conclusion

In the today's era, development of critical thinking is necessary for the teachers as well as students. The critical thinking requires a unique mixture of courtesy and assuredness. On one hand, the students must conquer the natural human spontaneous to preserve anything that students believe. The strength of critical thinking is that it generates a self-sufficient mind which is competent of great deeds. Instead of blindly recognizing the results of others, the students will ask for the data and come up with their own conclusion. The result is an unusual level of confidence in among students and will be empowered with right decision-making skills. This will help them in taking future day to day problems logically and they will turn out to be good and balanced citizens.

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