

Brainstorming Method and Its Impact on Innovative Thinking Development as Art Education Teaching Quality for the 5th Level of Primary School

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Abstract: *Critical thinking at the present time is a fundamental objective that must be pursued to be achieved, so as to help students deal with issues and situations they face and develop their abilities to explore and solve problems. The present research is concerning with critical thinking strategy in the teaching of art education, and try to develop the teacher's capacity experiences in the plastic art education at the level of primary school in particular in public education as intermediate stage.*

Keywords: *critical thinking. Art education. Teacher's capacity*

I. Introduction

Thinking is the finest and most complex mental processes where used in all human activates life, naturally and automatically. Because mind must develop capabilities and training, so as not to be trapped in its limited use, leading to disabling and inertia, therefore, for other graces it's required to maintain and nurture. Thinking and practice varies from person to person, depending on the mental activity, the acquired skills or even the type of learning. Thinking is skills ability for learning, like any other thinking skills to expand volitional, and be more effective in the problems confront, and creativity capable.

It could be emphasised that the importance of teaching critical thinking through different points are as follow:

- It makes us more honest with ourselves, and
- Help us to imagine ourselves in the others situation
- To understand their point of views,
- To develop our abilities to listen to them with an open mind,
- It can supply the students within the study methodology of many subjects such as logic, literature, art, and history.
- Improve our ability to use our brains instead of our emotions,
- We can identify our feelings and our emotions with logically linked to grace the mind.

It's believed that the historians events at their analysis and evaluation of historical issues disagree substantially in their views about the characters and incidents that occur in a limited time with a lot of arguments pass around. Scriven has emphasised that [1] Critical thinking is the intellectually disciplined process of actively and skillfully conceptualizing, applying, analysing, synthesising, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action.

The historian's discussion constituted an effective trend in critical thinking and skill development. In order for individuals to become a critical thinker they must be constantly vigilant. However, it is believed at students into the class, teachers can deepen that trend by offering a compelling discussion about a topic revolves around something. Consequently show the weaknesses of the debate and, in many cases the teacher used to teach students the skill identification guide and redress where highlights the importance of convincing evidence in support of consideration during discussion.

In many advanced countries in the world, the teaching of critical thinking [2,3] in this era became a general objective of educational objectives. Researchers therefore believe that teaching thinking could contribute to developing the knowledge structure for students. However contemporary education strives to teach individual how to learn and thinks, until the ability to self-learn to be gained continuously whenever the cognitive and social changes. However, if students required being a good thinker and creative, thinking skills must be taught through an adequate clear growth stage by its ability to understand.

Oliver etal[4] indicated that the development of thinking skills is an urgent need to keep up with the times. Whenever, adapt to the requirements, and the development of society, which learners can develop their intellectual abilities, reflected on academic success, improve educational attainment. Good thinking, therefore, helps the learner to success, happiness and excellence.

II. Research Aims

1. Through the fact, examination, data analysis, evaluation and assessment, the student's critical thinking will be developed. However, train students to estimate the degree of veracity given in light of the data that emerge from them.
2. Develop the student's ability to issue judgment on the validity of inference, and the opportunity to practice educational activities based on survey and problem solving and decision making, experimentation and analysis and comparison.
3. Accustom student's freedom in presenting views and accept the others opinions, whilst to put the student in the position analysis, criticism, discover similarities, differences and its relationships.

The Search Problem

The search problem concerns about the weakness of skill of discussion and debate among students, fragility, capacity and inability to communicate. As indicated by Angelo [5] it is clear that negotiation between teachers and their students is showing deficiency. As a result of ignorance in interfaith and intercultural dialogue, the issues on the world stage and the local student community has vanished at the different educational levels. On the other hand, the lacking ability to deal with these issues in a critical spirit, side by side, leading to lacking of ability to learn and understand the cultural divergence between civilisations.

III. Research Methodology

1. The research depends on tracking descriptive the problem whilst review the relevant studies research subject
2. Comprehensive review of the content of art education curriculum for fifth level of primary school education in the State of Kuwait.
3. Conclusion the results of the research subject and come up with recommendations for improving the performance of art education teachers in teaching process using critical thinking strategy in technical education classes.
4. SWOM (School Wide Optimum Model) application which is an educational system and practical programme connected with a perspective stems from our faith, principles, values and religion. Religion is origin is deep and having believed in God and the last day, unseen, and recognizes the inherent social habits and requirements of our environment whilst opens for others knowledge, wisdom and experience.

The Concept of Critical Thinking Strategy

A teaching strategy includes a range of thinking skills that can be used individually or collectively without commitment to any particular order. Hence to verify for topic, its assessment's based on certain criteria in order to make a judgment about its value, or reach a conclusion or dissemination as well as resolution.

On other words could be classified as: Examine the facts and data to be analysed, judge and evaluate where it's associated with sub skills.

For example:

- Discover inaccuracies,
- The distinction between facts and allegations,
- Distinguish between allegations and evidence or ambiguous arguments.
- Define relevant reasons and those that are not associated with.
- Determine the accuracy of the news.
- Define implicit assumptions contained in the text,
- Investigate bias or prejudice views,
- Determine the degree of strength of the proof,
- The degree of correct conclusion
- Judge the validity of inference.

1-Critical Thinking Skill

Defined as the ability to verify the reality of assumptions, thoughts as part of truth, or vague. However it may be defined as meditative thinking sensibly focuses on what an individual believes or his performance.

In different words, as comes at the top of the pyramid of bloom (figure 1), it is considered as the finest thinking as well as examining and assessing solutions offered to make a judgment about the value of critical thinking. On the other hand it's the judgment processability in accordance with specific criteria [6].

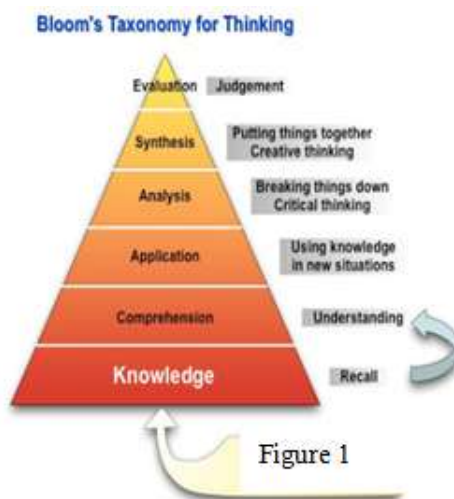


Figure 1

2-Thinking skills

First: the lower level: That level of thinking includes lots of skills including knowledge (acquiring, remember), observation, comparison and classification. Moreover the learner must master skills and proficiency to be able to transfer effectively the complex thinking levels. Second: the higher order: Known as (HOTS) higher order thinking skills, is a concept of education reform based on learning taxonomies (such as Bloom's Taxonomy) [7, 8] fig (1). The idea is that some types of learning require more cognitive processing than others, but also have more generalized benefits. In Bloom's taxonomy, for example, skills involving analysis, evaluation and synthesis (creation of new knowledge) are thought to be of a higher order, requiring different learning and teaching methods than the learning of facts and concepts.

This is what we could call the comprehensive thinking, and most of the references to having five types of thinking within the higher order thinking:

1. Critical thinking: where individual information describes, analyses, and evaluates, in order to reach a particular conclusion.
2. Creative thinking that completes critical thinking would generate new ideas with a variety of alternatives, and solving problems in innovative ways.
3. Problems solving
4. Decisions Making
5. Thinking over knowledge

3-Critical Thinking

Critical thinking in a systematic way to shape human thought and wording as it works accurately and meaningfully. It is believed that disciplined, comprehensive and standards based on mentality, so it makes sense. Critical thinking is distinguished from other kinds of thinking; where thinker is aware of the nature of high-quality system of thinking. As normal as in every system, critical thinking is not only just a random series of components and properties, but also its elements, principles, criteria, and the value of integrated network, which could be applied effectively. However, not only on academic education, but also at the level of every dimension of life.

The features of Critical thinking are the following characteristics:

1. The responder thinking guided by the intellectual standards of rationality, such as: accuracy, exactly, clarity, depth, and breadth. It couldn't achieve excellence without criteria of thinking.
2. It is believed that supports the development of mental attributes for thinker as such: humility, intellect, integrity, perseverance, empathy, and intellectual discipline by careful.
3. When thinking of any problem, it is clear that the student can identify elements of existing thinking, for example: when the student connects logically between the elements and the problem that works to be solved.

Critical thinking is considered as:

1. The spirit of innovation and development utility.
2. Transform ideas into a product or service
3. Fosters student critical thinking,
4. The ability to examine and evaluate information.

5. Judge the authenticity, questioning and interpretation of information supported by a search for evidence to support.
6. Whenever should be available in critical thinking, It's possible to any individual can be a critical thinker as long as applying basic and essential acquired skills.
7. The ability to separate the assumptions and reasoning to assess the evidence and determine the logical proof strength as well as other skills.

It was postulated [9] that if a critical thinking skill needs to be trained for development in general, as well as the thinking skills capacity, of student specially, it should be done through training. Every student can learn how to think critically, if he had an opportunity of training. However, after a positive step towards critical thinking among students skills development, the actual practice in the classroom from either rapid approval or rejection of the idea transition, the teacher must therefore provide an encouragement atmosphere away from embarrassment or threaten.

During the time of evolution [10] of art education, it was emphasised on a number of mental skills that mentioned by psychologist studies (Kranstmer, Pavlov, Wegainsh. and others), that the main patterns of mental activity are: thinking, sentiment, common sense and intuition. Reed [11] stressed that art education emphasizes all these mental activities. However, critical thinking is a kind of thinking as it professionals defined as the thinking that requires the use of high levels of Bloom's taxonomy knowledge as analysis, synthesis and evaluation. In addition to, the indiscriminate use of terms such as critical thinking, reflective thinking, and higher-level thinking has created unnecessary confusion. Smith [12] defined it in different way that is general concept goes back to the different skills required to be judged on the validity of the therein contained information and accuracy. Dewey [13] defined critical thinking as "reflective thought"-to suspend judgment, maintain a healthy skepticism, and exercise an open mind. Dewey has emphasised that these three activities called for the active, persistent, and careful consideration of any belief in light of the ground that supports it. Dewey's definition suggests that critical thinking has two categories as an intellectual and an emotional component.



4-The Addie Model

It is an acronym for Analysis, Design, Development, Implementation, and Evaluation [14] as fig (2).

This model guides you through the process of creating effective educational courses and materials for your audience. The Analysis is the most important step in the process. It helps to determine the basis for all future decisions. To Analyze Thinking We Must Identify and Question its Elemental Structures [15] Figure (2)

- The Design process is the brainstorming step. This is where you use the information obtained in the Analysis phase to create a program or course that meets the needs of your customer or audience.
- The Development phase focuses on building the outcome of the design phase. This process consumes much of the time spent in creating a sound educational program or course.
- The Implementation phase includes more processes than simply presenting the materials developed. While the concepts and materials have been tested throughout the process, the implementation phase can uncover topics that require further development or re-design work.
- The Evaluation phase plays an important role in the beginning and at the end of the process. Evaluation objectives reflect much of the discoveries found in the Analysis process. These discoveries include the objectives and expectations of the learner. When looking at the process, you must avoid the thinking that it is structured in a chronological order.

On the other hand, one that tries to make school learning more meaningful and knowledge better understood and more easily applied is the Inductive reasoning skills [16]. Inductive reasoning skill is considered a basic component of thinking, and it is one of the most broadly studied procedures of cognition. The inductive method, or teaching by examples, is one of the oldest methods of instruction.

5-Element of Thoughts

Elder& Paul had stressed on the thinker's guide to analytic thinking[17]which is contained 8parametersincluded questions as follows as table (1):

Table (1):

The parameters and its questioners	
<p>Clarity: understandable, the meaning can be grasped: • Could you elaborate further? • Could you give an example? • Could you illustrate what do you mean?</p>	<p>Fairness: Justifiable, not self-serving or one-sided • Do I have any vested interest in this issue? • Am I sympathetically representing the viewpoints of others?</p>
<p>Accuracy: free from errors or distortions, true • How could we check on that? • How could we find out if that is true? • How could we verify or test that?</p>	<p>Breadth: encompassing multiple viewpoints • Do we need to look at this from another perspective? • Do we need to consider another point of view? • Do we need to look at this in other ways?</p>
<p>Precision: Exact to the necessary level of detail • Could you be more specific? • Could you give me more details? • Could you be more exact?</p>	<p>Logic: the parts make sense together, no contradictions • Does all this make sense together? • Does your first paragraph fit in with your last? • Does what you say follow from the evidence?</p>
<p>Relevance: relating to the matter at hand • How does that relate to the problem? • How does that bear on the question? • How does that help us with the issue?</p>	<p>Significance: focusing on the important, not trivial • Is this the most important problem to consider? • Is this the central idea to focus on? • Which of these facts are most important?</p>
<p>Depth: containing complexities and multiple interrelationships • What factors make this a difficult problem? • What are some of the complexities of this question? • What are some of the difficulties we need to deal with?</p>	

To encourage the students to manipulate the mind, the instructor should encourage them to always read viewfinder, and fosters their abilities on the observation of art drawings and data, and not rushing in issue a correct or erroneous judgments as student's responses. On the other hand, as thinking participation including error attempts, the tutor at the end summarise and close the state persuasively, whilst to shows that this is the right decision.

6-SWOM model

SWOM model is a practical programme to build the mind and self-development. It was established on a wealth of research with theories and models in various scientific disciplines. This model based on a comprehensive understanding of human nature and deep awareness of surroundings atmosphere and its interaction, whilst focuses on building the mind and repairs person. The model is a Direct teaching[18,19]which depend on merging of thinking skills during the teaching curriculum units and lessons for all materials, so as to these model improves students thinking of the future, and promote the process of learning the content of the article.

The merging model provides 3 main steps are follow:

1. Skill thinking: through guiding questions for thinking with the help of the teacher (map thinking skill).
2. Skill training: through tasks and activities designed by the teacher and work in cooperative groups.
3. Thinking about thinking: restore process and think about their benefits and methods of use in the future.

IV. Application of thinking

Activities to transfer skill as training effect which helps the student to use automatically the skill in different examples. Transmission impact of training during class or similar content in the short-or-long term of training during class or in the near future on different content with minimising the teacher intervention in the thinking process which include the following:.

1. Subsequent reinforcement: application of skill during the school period in various other units while minimising intervention teacher.
2. Assessing student thinking: oral or written work as well as projects that show how to use skill or thinking process.

7.1-The impact of the teacher in the classroom or Studio:

1. Urging students to identify the important questions, and find answers using the skill of thinking, so as to asking questions leading to specific conclusions.
2. Driving activities associated with connected misalliance.
3. Ask students to think about pre-thinking that was used to describe the thinking process and assessment.

4. Give clear with specific examples and asks the students to do the same steps.

7.2-The impact of the student in the classroom or Studio:

1. Focus on skill and understand the map of thinking.
2. Thinking actively in the tasks associated with the interaction through small groups or teacher.
3. Thinking about pre-thinking with ideas evaluation and planning how to benefit in the future from this way.
4. Transfer skill thinking outside the classroom and apply it in their lives and other academic requirements.

The real function of the teacher in the classroom is to help students to build their minds and skills development processes. On the other hand, developing student's mental qualities activities they have as effective habits and skills training. At the same time, however, provided by an application form and using special strategies that they learn by educational materials. On the same time, practiced with them the educational process in the classroom. This application form provides a comprehensive programme for professional development.

To ensure this application form, the model provides a comprehensive programme for professional development training courses contains the development of human resources of various categories of efficiencies wishing to obtain certification of the accreditation, at the level of educational institutions.

V. Conclusion

Critical thinking is a thinking patterns used by the individual in the daily life, which necessary for images of the other which are thinking as scientific and innovative thinking. However, the critics are necessary for examining individual information and distinguishes between good and misconceptions ideas. For selecting the most privacy and improves other ideas .However, it is also essential for innovative thinking. Eventually, creative person needs to think with a critical eye to his ideas. Although without the ability to evaluate ideas cannot get effective innovation, but innovative thinking leads to the emergence of ideas. New thinking is necessary to examine these ideas and examine the sincerity and effectiveness. Many researchers have reported [20, 21] the need to have critical thinking by weight and attention in any educational system. That becomes an objective of educational programs, because learners require being able to analyse the views, the conclusion of the introductions, interpretation, and evaluation. By the other hand, they are capable of good compatibility with the present conditions, examine and scrutinise what they see and hear, whilst judging without being influenced by whims or opinions.

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