

Critical Thinking in the Kurdistan Region of Iraq Schools: A Case Study of Two Prominent Schools in Erbil

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Abstract

Critical thinking goes beyond memorization, promotes independent thinking and reasoned judgment. It is a crucial element in connecting ideas, solving problems, and creating knowledge. Schools are considered to be among the initial steps in developing critical thinking where pedagogical methods would guarantee the formation of it. Critical thinking in schools develops the intellectual capability instead of using it as a memory bank of information where mind does not have any role to play. This work is an attempt to demonstrate role and effect of practicing critical thinking in primary school and analyse reflection and ability of practicing critical thinking in the Kurdistan Region of Iraq. The study relies on deep interview and observation of eighth-grade students and teachers in two prominent schools in Erbil, focusing on four different subjects. Type of questions raised by teachers and students during the lectures have been examined, and a detailed analysis of the reflection and ability to practice critical thinking is presented.

Keywords: Critical Thinking, Education, Education System, School, Kurdistan Region.

1. Introduction

Human beings begin to think from an early age since childhood, and each is looking at things from their own perspective when they are exposed to certain experiences that develop their capacity to be scrutinizing and focusing on a specific point. Scholars call that ‘self-centred’, where they think of themselves as the centre of universe (Little and Little, 2016). This is a quite common way of thinking for children since it increases the ability to focus on the world around. The problem raises when later in life, lack of proper education occurs that cannot help improvement of their thinking and cognitive development to terminate the self-centred stage. At that point, the self-centred stage is strengthened to create a sense of selfishness. Nowadays challenge in the education system is about how to pass one’s own perspective and examine other perspectives to testify different angles and approaches in thinking.

In the less developed countries and particularly in the Middle East, weakness in the education system and reliance on the banking method in teaching led to individuals who have a self-centred way of thinking. That is

called psycho-education way of teaching, an approach that might become a socio-centrism culture which might create a serious issue. For instance, an individual's religious point of view is formed from his/her ideology, own country, and/or city, and they see their opinion as the only right opinion in the world. This creates problem with acceptance for example acceptance of others' perspectives and opinions.

Critical thinking plays a crucial role in accepting others and makes us open to others' perspectives and cultures. In critical thinking settings, students are centre of education process. They participate in analysing concepts through discussions and learn how to interpret various possibilities for strengthening their ability in thinking and distinguishing between 'truth' and 'personal opinion'. In environments where critical thinking is encouraged and practiced, teachers are not allowed to impose their opinion, in contrast, they are the motivator who eagerly assist students' cognitive, mental, and emotional capacities to improve. Students themselves will be thinkers who dig deep to find answers and will not be imprisoned with textbooks and what has been said in classroom. Teachers will have facilitator role instead of conveying and transferring information.

This study examines the practice of critical thinking in the Kurdistan Region of Iraq schools and is conducted on Fakhir Mergasori and Cambridge-Capital schools in Erbil by examining the questions raised by teachers and students in different class subjects including science, social sciences, religion, and Kurdish language. The work is organized in four sections. In this section a brief introduction about the topic is presented. Section two includes the theoretical framework of critical thinking in the education process. Section three contains analysis and the study findings. The last section contains conclusions and a few recommendations.

2. Critical Thinking in the Education Process

section contains a brief overview about critical thinking and the benefits of critical thinking in the educational process and teaching.

2.1. Critical Thinking Overview

Thinking is an activity of mind, within the limits of information recorded in one's memory, to reach a conclusion. It is a mental process that becomes the dynamo and source of behaviour, reaction, and movement. Human is by nature a free being with thinking quality. All people normally have this quality equally, but it is often deprived of by cultural, political, and social systems. In many societies and countries, thinking in the interests of certain people is suppressed just like many people are politically and economically deprived of political, economic, and social privileges. Therefore, it is important to emphasize in the education process that, above all, the dignity of the individual and the right to freedom of expression and thought as a thinking creature is protected so that all are defined as free people who have the ability to think without discrimination.

Critical thinking is an objective intellectual analysis of facts to reach a conclusion (Cottrell, 2011). It is an attempt to understand the facts and examine the different dimensions of each subject, through questioning, analysis, evaluation, and comparative work, based on evidence, considering opposites, reading different perspectives, and estimating all possibilities. Philosophers and sociologists agree that critical thinking is a way to ensure development of individuals, families, societies, and even official institutions (Alsaleh, 2020).

Douglass North, who is an American economist and a Nobel Prize winner in 1993 in economy, emphasizes the importance of critical thinking and states that *"If you want to know if a country is developing, do not look at its technology, factories, and buildings, because it is easy to buy, steal, and copy all of them. Oil can be sold and imported. To predict the future of a country, go to schools and primary schools and see how they educate children there. If they teach their children to be inquisitive, creative, patient, organized, fearless, ready for dialogue, public consultation, and group cooperation, they can be sure that the country is on several steps of sustainable and widespread progress"* (North, 1990). For critical thinking to develop, the education process must be systematically at an innovative level, that is what Benjamin Bloom calls 'creative expression', which is a reference of the type of learning where learners think thoughtfully and critically to link facts to real-world experience (Bloom, 1956).

In the developed countries, since the middle of the 20th century, educational and social experts indicate that the classical education system cannot produce critical thinking students as learners are repeating teacher's knowledge only. Therefore, they thought to develop another approach that can create individuals that can contribute to knowledge and innovate. In this regard, Benjamin Bloom, an American educational psychologist

who made significant contributions to the educational theory, has developed a taxonomy and stated that learners initially just remember information, and the classical education system encourages learners to stay in that stage without reaching to understanding, applying, analysing, evaluating, and creating or innovating stages (Willms, 2003).

Educators are criticizing the current educational system for not having the capability to grow the intellectual level of learner despite highlighting the theoretical importance of innovation. For instance, a university like Harvard could not contain a learner like Bill Gates as he has looked for a proper environment for invention. He started innovation outside the education system to become that giant innovator. That means even in the educational institutions of the most developed countries like the United States of America, they have failed to provide environment for innovators.

According to Bloom's taxonomy, the teacher as evaluator is the highest example of an educated person. However, according to the recent studies about the classification, innovation is above evaluation (Zheng et al., 2022). That is, teachers do not have to be role models, they can be role models for those who want to be evaluated i.e., innovator normally has a higher level of cognitive ability than evaluator. Therefore, innovator, even if s/he is a learner, is now more cognitively significant than teacher. Nowadays as there is a kind of democracy in education, which is called educational democracy in universities and educational institutions, the relationship between teachers and students is not a relationship between a higher-level person and a lower-level person. Even in the design of classroom settings, the social interaction between student and teacher is not vertical which is an indication of the balance and horizontal power between teacher and learner. That means, the relation is based on equal 'knowledge' power which encourages universities and schools to become environments for educating talented, creative, and thinking individuals. However, in the Kurdistan Region of Iraq, in addition to the classical education, we have another issue which is attention not much paid to thinking in terms of religious and cultural interpretations. The people who think and ask questions is considered to be a 'lost' person. That means, till now, we equate the act of thinking with random thinking, or excessive or over thinking.

In that framework, we conclude that in the Kurdish society, some of our problems are educational, and is related to the process of socialization of the individuals, some are cultural related to the interpretation of religion that does not encourage thinking, and some are political as our society does not encourage growth of free and thinking individuals. In politics, humans are seen as numbers as the more people are considered numbers, the easier it is to control. A thinking person is a free person, who is not easily monopolized or swallowed up in the political sphere.

2.2. Critical Pedagogy

The replacement of 'banking' with 'dialogic' teaching is fundamental to make change in the educational systems. Banking education is a characteristic of the culture of silence and a means of continuing, developing and stabilizing that culture (García-Carrión et al., 2020). Therefore, critical thinking, critical awareness, and struggle against fear of freedom, backwardness, and oppression must be directed towards banking education because without prevention of such system, educational revolution will not happen, and the society of oppression will not end. Banking teaching is the flow of information, advice, rules, and regulations from teacher to student and then retrieved through experiences. It is a teaching based on oppression which is an example of authoritarianism. It goes on a boring rhythm, and the learner's submission to the teacher constitutes the law of relationship. This kind of teaching includes the rules of silence, submission, chewing and repeating information, and takes it into the broad and various relationships of all institutions of society.

Paulo Freire, who was a Brazilian educator and philosopher, has criticized the banking teaching (Freire, 2000). He believed that this popular global teaching shows a distorted picture of human life, carves a cover of myth, prevents consciousness of workers, peasants and all the oppressed in the world from following free dialogue. It views learners as weak and worthy of 'help' and leaves them without independency, killing their critical, conscious thinking, and creativity such that the learner has a passive role in the process that does not contribute to any innovation (Freire, 2000). In addition to that, banking education leaves marks on character and mechanisms of social change process as it views humans as an abstract being, not a historical being. Therefore, it works towards adapting people to the stagnant social reality, not changing the reality and the relationships

within that reality. Furthermore, banking education considers teachers as center of education process and excludes learners from scope of the process. This form of education adapts the teacher's personality and characteristics to fulfill the banking task.

Research suggests a relationship between the ability to acquire critical learning skills and certain characteristics, including intellectual openness, flexibility, independence in decision-making, self-esteem, and self-confidence. In order to become a critic, an individual must implement previous decisions, and must have a degree of mental skepticism about assumptions, in addition to the ability to examine, tolerate, determine the authenticity of information sources, and recognize errors. Then s/he must be skilled in distinguishing between assumptions and generalizations, and between facts and claims (Cottrell, 2011).

With the increasing confrontations of the technological revolution, the world has become more complex. Overcoming such confrontations requires how to use skills and thinking abilities in full as active learning in order for students to acquire critical thinking skills that are more essential than ever. Today, in most developed countries, learning to think critically has become the main goal among the educational goals, and researchers believe that learning to think critically leads to the development of learners' cognitive infrastructure. Contemporary education attempts to teach individuals how to learn and how to think with the goal of turning him/er from passive into active learner to have the ability to continuously learn and keep up with cognitive and social changes. If we want a learner to be a critical and creative thinker, we must teach him/er thinking skills that are appropriate to his developmental stage and learning ability through clear steps. Critical thinking also improves learner achievement, innovation, decision-making, and confidence. Thinking skills require strategies to build relationships between previous and new knowledge, organize thinking, help plan, and solve problems, make wise decisions, ensure active monitoring of cognitive processes, monitor understanding, and assess progress. That is, the process of learning and acquiring information from the horizontal dimension to the secondary dimension in order to go deeper into things, phenomena, and attitudes. It helps learners to discover and analyze almost all options and provides a feel of achievement and content. Finally, critical thinking is one of the most important foundation skills that learners need to express themselves in reading and writing. The process of reproduction of reading aims at the individual's ability to reconstruct acquired ideas and new unknown products.

Critical thinking is one of the most important keys to ensuring effective cognitive development that helps in using mind to the maximum to interact positively with environment, cope with life situations in which interests are conflicting and desires are increasing, succeed, and keep up with the progress of life (Paul and Elder, 2013). Critical thinking skills are those skills that all individuals in society need. Most of the empirical studies used to develop such thinking, methods, and experiences have demonstrated these skills. It benefits learner in several ways including (Cottrell, 2011):

- deeper understanding,
- independent thinking that may prevent backwardness and stagnation in society,
- encourages inquiry, searching, and not submitting to facts without thorough examination,
- makes learning in institutions meaningful i.e., learner efforts are worthy,
- increases level of achievement,
- makes learner more positive, active, and participatory in learning process,
- strengthens the ability to find solutions to problems and make appropriate decisions,
- increases self-confidence, and
- provides opportunities for growth, progress, and innovation.

In this rapidly changing world, the development of critical thinking skills has become a necessary subject as it helps active participation in society and gives students a variety of experiences that can adapt to the needs and developments of life and ensure success in the future. If democratic learning and education aims to prepare citizens with the ability to make decisions and choose freely, then this requires educators to pay attention to the development of this kind of thinking.

Teachers are considered to be one of the main factors to successfully practice critical thinking in education as learning highly depends on the way of teaching that teachers do in the classroom and teaching environments. One of the most important characteristics that teachers should have in order to setup an appropriate environment for the success of the learning process of thinking and learning is through listening to learners, providing enough time to think, providing opportunities for them to discuss and express their views, encourage

them to engage in active learning that is based on the emergence of ideas through asking questions and dealing with higher thinking, acceptance and reinforcement of their views, respect for their differences, efforts to develop self-confidence, and provide them with appropriate information.

There are a number of studies on critical thinking in the education process including importance, benefits, practice, and reflection such as Raj et al. (2022), Uribe Enciso et al. (2017), Hamid (2021), and Radulovic & Stancic (2017). However, there is not any comprehensive academic assessment on role and effect of practicing critical thinking in the education process in the Kurdistan Region of Iraq schools. This work highlights how to practice critical thinking in various subjects especially religion, social, science, and language for developing student skills to understand the subjects in more depth and growing thinking individuals in society that can create and develop.

3. Data and Analysis

This section contains the methodology, scope, data, and analysis of the study.

3.1. Methodology

Observation and deep interview method is used for studying the case. This approach is considered to be the best for performing accurate analysis of such type of studies since practicing a skill needs in-depth observation in the real set like teaching techniques and questions asked by teachers during the lesson, and to understand the reflection on student understanding by the questions asked by each which can only be achieved through observation and in-depth interviews.

3.2. Scope

The eighth grade of two prominent schools have been selected for conducting the study which are Cambridge International School - Capital City (CISC) and Fakhir Mergasori International School (FMIS). Both are private, co-educational, English-medium, independent day schools in Erbil.

Four subjects have been examined in each school which are Science, Social Science, Religion, and Kurdish Language, each subject was managed by a single teacher, that makes observation of 8 teachers in total.

3.3. Data

A sample of questions asked by teachers and students in both schools have been taken to analyse the use of practicing critical thinking skills as demonstrated in Table 1 since questioning is the main element of critical thinking.

Table 1. Sample of questions in each subject.

Subject	FMIS		CISC	
	Example of teachers' questions	Example of students' questions	Example of teachers' questions	Example of students' questions
Science	What is the function of the body's organs?	Why the male body system is different from the female?	What do you know about the topic?	What are the benefits of eclipses?
	Why is it formed like that?	How are eggs fertilized?	What does today's topic have to do with everyday life?	Why is it wrong to watch the eclipse directly?
	General questions about the topic	How are babies born?	How can we take advantage of this?	If I become a doctor, how can I apply this in my work?
Kurdish Language	Who has heard of this poet?	This poet lived 100 years ago, why should	What do you think the character in the story will do?	Why did the character act that way?

		I know when he was born?		
	What is the abbreviated name?	Why is 'Mahmoud' called 'Khola'? and 'Ibrahim' as 'Bla' in Sulaymaniyah?	What do we mean by this new word?	Why is it important to know the details of that word?
	What is a pronoun?		Where do you think the events will lead us in the story?	Could not it have ended like this if the ...
Social Sciences	What was the year of Imam Ali's death?	What is the difference between the Hijri and Gregorian years?	What is the Hodaybiyah Agreement?	How did the Prophet manage to make an agreement with the Quraysh without fighting and peacefully?
	What is Fathi al-Jazeera, and when did it happen?	Is there a mistake in the date of this year?	What do you think is the impact of agriculture on the economy in the Kurdistan Region?	If we develop agriculture in Kurdistan and have crops, will not our food be healthier? Won't prices get cheaper?
	What year was the Battle of Safin?	How is the measurement done?	What are the relationships between population and climate?	Can populations living in a high temperature tolerate a cold environment? Or vice versa?
Religion	What is the only heavenly book that we Muslims follow?	How many prophets are there?	Why does Allah give to a non-believer the good that He has given to a believer?	Why has Allah created the Antichrist in this way, when He could have created him as a believer?
	How many of you are fasting?	Is that how many prophets there are?	When does one feel uncomfortable?	What is the difference between destiny and fate?
	Did your parents pay Zakat?		Is it possible to worship and obey Allah's commandments only by praying and fasting?	<ul style="list-style-type: none"> - Why do people do evil? - How did the human population increase when only Adam and Eve were on earth?

3.4. Analysis

By presenting several examples of teacher questions to students and student questions on various subjects as shown in Table 1, and we reached the following:

- two different methods of teaching are used in these two schools in Erbil. On the one hand, teachers try to link topic information to everyday life and practice critical thinking, and they try to encourage students to think about the facts. On the other hand, applying the banking method and using general questions by teachers makes students' ability for thinking narrowed down and limited. Even in an important subject such as the sciences, students cannot widen their horizon of thinking and relate the subject to their daily life.

- teachers can practice critical thinking techniques even in language lessons if they are properly trained and prepared. In return, if critical thinking method is not practiced, learners will remain within a boring circle of repeated questions with now added info or any motivation to think out of the box, the process continue to be transforming the information from teachers to learners.
- following critical thinking in teaching makes students ask deeper and ask more substantial questions and look at the problems and arrangements of their lives and their surroundings by linking the evidence with a critical way of thinking. On the other hand, the banking method keeps the questions repetitive which makes students' intellectual abilities relied on and attached to the teacher's answer. As result, students will accept answers and opinions which have been given to them without considering any other answers or views.
- the questions about religion and the questions asked by the students are intellectually vague and blurry, one might argue that on the one hand, there is no indicator for critical thought in students thinking, these types of questions shock students' way of thinking and drive them into a closed end. This may show that in a religious education program, arguments based on clear discussions are not structured in such a way that they can raise questions based on a rational, humanitarian, and religious basis. On the other hand, the student's questions prove that the religious education program does not meet the student's intellectual and spiritual needs and dives into an ambiguous circle. It is obvious here that, in the subject of religion, there is little difference between the practice of both forms of teaching, rather, in both cases, students are driven to a closed-ended approach which will not enable them to act as critically as possible, so they ask the least question related to religion in an ordinary and common way.

Most teachers emphasized that they use critical thinking techniques in the teaching process. However, the lack of teaching time is an obstacle to this process and prevents the completion of the teaching process to achieve its goal. Another challenge to the practice of critical thinking in schools is that the use of laboratories for scientific subjects is very limited and must be carried out under intensive teacher supervision. That is, again, the limitations of the student's expression and talent are shaped within the context of the subject s/he has studied. As a result, the learner's ability to act and think critically to direct problem solving does not reach a level where he can rely on him/erself and freely to the point of creativity.

4. Conclusion and Recommendations

As a result of the analysis and interpretation of the data obtained, the following conclusions are reached:

- Practicing critical thinking techniques will help students to improve their understanding of subjects and removes the fear of asking questions.
- Practicing critical thinking during teaching will enable students to relate the topics they learn to their daily lives.
- Using the banking method in teaching, limits and weakens students thinking ability and makes them intellectually inefficient because the only source they rely on depends on teachers understanding and answers that will be gained passively.
- Practicing the banking method in teaching makes the teacher the centre of education and thinking so that even if the student asks essential questions, the teacher does not take the question seriously, by imposing the teacher's point of view subjectively which discourages students to raise inquiries for understanding.
- Recently, the curriculum has been reformed and updated in the Kurdistan Region, but this alone is not enough to meet the needs of educated and thoughtful students. Teachers must be well trained in parallel with the reformation of any program update.
- To fill the gaps in lectures, some teachers raised this concern that their specialty varies what they perform in teaching, this would leave a wide gap as the possibility for investing in critical thinking will be very limited.

Based on the results, the followings are recommended:

- researchers to conduct wider studies on the practice of critical thinking in teaching at different stages and levels of education.
- the Ministry of Education to implement continuous trainings and workshops for teachers on how to practice critical thinking in teaching.

- providing teachers with clear instructions and clarity on how to practice critical thinking in different subjects.
- the Ministry of Education to follow up on instructions on the policies and decisions that have been made, especially those related to teaching and developing students' intellectual and cognitive abilities.
- the Ministry of Education and Ministry of Higher Education to collaborate in developing a strategy to meet the students need in education.

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