# Journal of Educational Research & Social Sciences Review (JERSSR)

#### Critical Thinking as a Twenty First Century Skill

1. **Dr. Hukam Dad** (Corresponding Author)

Associate Professor, Department of Educational Sciences, NUML,

Islamabad Email: <a href="mailto:hdad@numl.edu.pk">hdad@numl.edu.pk</a>

2. Professor Dr. Rafaqat Ali

Akbar

Director, IER, University of the Punjab, Lahore



#### Abstract

This research is aimed at focusing the importance of critical thinking as a twenty first century skill. This work also targeted at providing Quranic and Western concept of critical thinking skill i.e. one of the most important skills of twenty first century. Quranic means the concept given in Quran and Western concept means the concept and ideas given by Western writers, scholars and researchers about critical thinking skill. It serves as a pioneer work on critical thinking as a twenty first century skill in perspective of Quranic and West. Critical thinking skill possesses immense significance as a twenty first skill for human beings. It throws light on the views of Western writers and researchers and Quran on critical thinking. It deals with the capability to think rationally and its importance is enhanced as the paramount ability which substantiates that this skill to be mastered by new generation. At one end this work is conceptions of West about critical thinking and at the second end it draws attention to verses of Quran which focus on concept of critical thinking and its importance. Critical thinking is higher order thinking. Critical Thinking is self-directed, self-disciplined, self-monitored, and self-corrective thinking. Various approaches of critical thinking have been presented by researchers. The Holy Quran persuades and supports us to employ our capability to examine, assess, and evaluate. The holy Quran encourages human beings to think critically.

# **Keywords**: Critical Thinking, Western Concept of Critical Thing, Quran and Critical Thinking Critical Thinking Concept and Definitions

Critical thinking is one of the main 21<sup>st</sup> century skills. Critical thinking has been defined in many different ways by various psychologists and educators. According to Styron (2014): "critical thinking is the process rationally skilled in focus on conceptualization, translation, interpretation, analysis, synthesis and evaluation of information and for using it for further actions." Mutakinati (2018) defined "." Al-Osaimi et al., (2014) stated: "Critical thinking skill encircles the process of asking and questioning in which asking deals with why, what and how?". According to DiYanni (2015): "Critical thinking skill deals with thought provoking questions."

Bloom (1956) explained: "Critical thinking proceeds from low order to high order. From knowledge level to comprehension level, then from comprehension level to application level, from application level to analysis level, from analysis level to synthesis level and finally from synthesis level to evaluation level."

Critical thinking skill is the process of actively and objectively analysing, evaluating, and synthesizing information and ideas in order to make well-informed decisions. It involves questioning assumptions, examining evidence, and considering multiple perspectives in order to arrive at a reasoned and logical conclusion (Ruggiero, 2002).

Critical thinking involves a variety of cognitive skills, including the ability to analyse and interpret information, recognize patterns and relationships, evaluate arguments, and draw logical conclusions. It also involves a mind-set characterized by an open-minded, curious, and sceptical approach to problem-solving and decision-making.

Developing critical thinking skills is important because they allow people to make well-informed decisions, solve problems effectively, and think creatively. These skills are valuable in a wide range of settings, including academic, professional, and personal contexts (Friedel et al., 2010).

In today's fast-paced, information-rich world, it is more important than ever to be able to critically evaluate the information that is available to us. This includes being able to identify biases and assumptions, assess the credibility of sources, and consider multiple perspectives on a given issue.

Critical thinking is not just a skill, but also a mind-set. It involves approaching problems and situations with an open and curious mind, and being willing to consider alternative viewpoints and to revise one's own beliefs in light of new evidence.

In order to develop critical thinking skills, it is important to engage in activities that require analysis, synthesis, evaluation, and application of information. This can include activities such as reading and discussing complex texts, participating in debates or discussions, and solving problems or puzzles that require logical reasoning.

Being a scholar of post doctorate, according to my point of mine, Critical thinking is the logically well-organized procedure of keenly and competently theorizing, relating, scrutinizing, combining, and/or assessing evidences and information which are collected from or produced by, reflection, practice, consideration, rational, or statements, as a guide to belief and action. It is always conceived in perspective of higher order thinking. Critical thinking is a highly valuable skill in the 21st century because it allows individuals to evaluate information and arguments objectively and make logical decisions. It helps people to think creatively, solve problems effectively, and communicate ideas clearly and persuasively. Important thinking is the intellectually disciplined process of actively and elegantly conceptualizing, applying, analysing, synthesizing, and/or comparing statistics collected from, or generated by using, remark, experience, mirrored image, reasoning, or communication, as a manual to perception and movement. In its exemplary form, it's far primarily based on standard highbrow values that go beyond subject remember divisions: readability, accuracy, precision, consistency, relevance, sound proof, good reasons, intensity, breadth, and equity.

It includes the examination and assessment of those structures or elements of idea implicit in all reasoning: motive, trouble, or question-at-trouble; assumptions; ideas; empirical grounding; reasoning main to conclusions; implications and outcomes; objections from opportunity viewpoints; and frame of reference. It is a form as perceived as vital thinking in being conscious of variable problem count number, problems, and functions-is included in a own family of interwoven modes of questioning, among them: clinical thinking, mathematical thinking, anthropological thinking, economic thinking, ethical pondering, and philosophical questioning.

According to Lai (2011), critical thinkers are happier and much more content with their lives. This satisfaction stems from a deeper understanding of the self. Critical thinkers are great at selfreflection, and they understand their aspirations and motivators. In addition, critical thinkers can process information better and analyse everything that happens, allowing them to grasp the most important lessons and apply them to their life. Critical thinking varies in keeping with the incentive underlying it. When grounded in egocentric reasons, it is regularly manifested within the skilful manipulation of ideas in service of problem solving personal, or one's groups' vested interest. As such it is commonly intellectually flawed, but pragmatically a success it might be. Whilst grounded in fairmindedness and highbrow integrity, it's far commonly of a higher order intellectually, even though problem to the charge of "idealism" via the ones habituated to its egocentric use.

Giroux (2010) explains that with critical thinking, human beings are satisfied and happier with outcomes because:

- They understand themselves better
- They focus on their strengths
- They avoid negative and limiting beliefs
- They share thoughts with others
- They listen to what others say as well
- All of these elements combined amount to sound decisions that they will not live to regret.

#### **Importance**

It is pertinent to mention here that with each passing year human kind is getting to know the implications of revealed knowledge in our day-to-day existence. Human kind is trying to reach truth through research, experience and rational thinking. Surprisingly, all human effort reaches the boundaries of revealed knowledge only but with a clearer vision, understanding and by sustained and rigorous efforts of research it is possible to reach the true meaning, significance and value of revealed knowledge. The knowledge which we know today is not a new knowledge, it is only the revival and true understanding of the old knowledge contained in the book of Allah, Al-Quran.

Critical thinking skill holds much importance. According to Glaze, (2018) "when quality of a person's thoughts improves, by this improvement quality of his/her decision making also improves. When critical thinking in a person develops, it results in brining good and positive changes and movements in his/her life."

Strauss (2016) is of the view that "modern life substantiates the necessity of critical thinking in human life. Technological advancements and changing economy demand this skill because these depend on information technology. Rational thinking, analysis, evaluation is pre-requisites for this modern society."

Stanovich and Stanovich (2010) stated that "language, presentation and communication and social skills are improved by critical thinking. It is necessary for human life".

Dwyer (2017) stresses that "it is always higher order thinking and it assists human beings in all fields because higher order thinking leads towards achieving aims. It is vital in all field's education, research, organizations, society and home."

Critical thinkers compare what they have acquired: whilst presented with new or new-to-you coaching materials, it is crucial to do an in-depth evaluation of them. Examine average content material and sources with learning requirements and objectives (Paul and Linda, 2006).

The persons who have skill of critical thinking skill are the type of thinkers who decide what they'll want, and what they'll no longer: If the substances supplied introduce standards no longer blanketed inside the kingdom or district goals on your grade level, assume seriously earlier than you delete them from the time table. Perhaps they'll provide historical past know-how for an idea you'll introduce and ought to be supplied in advance than advised through the text (Fisher, 2001). Alternatively, vital principles may be absent from the materials furnished. The crucial philosopher will decide the way to fill the void correctly and economically. As an example, asking different instructors from a spread of grade stages may additionally cause an important grade-level or faculty-wide answer.

Critical thinking is a valuable skill that can help you solve problems, make better decisions, and think more creatively. It involves evaluating information and arguments objectively and systematically, considering different perspectives, and questioning assumptions.

Hasil (2012) states following points related to concept of critical thing and its significance:

It helps you make better decisions: By critically analysing information and arguments, you can make more informed and rational decisions.

It helps you solve problems more effectively: Critical thinking allows you to analyse problems and come up with creative solutions.

It helps you think more creatively: By questioning assumptions and considering different perspectives, critical thinking can help you come up with new and innovative ideas.

It helps you communicate more effectively: Being able to present and defend your ideas in a logical and coherent manner is an important part of critical thinking.

It helps you learn more effectively: By evaluating information and arguments critically, you can better understand and retain new information.

Overall, critical thinking is a valuable skill that can help you navigate the complexities of the world and make more informed and reasoned decisions.

Instructors vary widely in experience, persona and abilities. That is why curriculum have to be cautiously analysed via group of workers and educational leaders at all ranges. The lecturers who assume significantly about their own wishes as well as those of their college students will request suitable professional development where curriculum necessities exceed their strengths (Hamiloğlu and Temiz, 2012).

Selecting materials, books, sports, long-time period plans and instructor training are only some of the elements worried in curriculum development and design. As an experienced trainer, you apprehend the importance of questioning critically about every detail as it influences your students. The crucial need everywhere within the world is for schooling to prepare students to steer a success, gratifying lives. In today's world, this means imparting them with applicable educational reports that nurture their passions, hassle-fixing skills, and better level questioning competencies, inclusive of vital questioning and creativity. The quality answers involve instructors, students, faculties, and entire communities. Crucial wondering complements language and presentation abilities. Questioning in reality and systematically can improve the manner we express our thoughts. In getting to know how to investigate the logical structure of texts, vital questioning additionally improves comprehension talents. Position of crucial thinking talent in human existence is very sizable. Important questioning is popular inside the international of labour and understanding economic system and its miles an important detail of energetic and positive citizenship, main to nice and socially cohesive behaviours. It stands among those lifestyles competencies maximum frequently diagnosed in countrywide documents. Vital questioning is an ability that stops human beings from being stagnant or stuck in lifestyles. As a substitute, people can stay proactive in changing any scenario and selling non-public boom. All of those elements combined will definitely boom humans' standard satisfaction and happiness in all elements in their life. Educationists' accomplice vital wondering with desirable wondering, explanation, self-law, analysis, interpretation and evaluation. Essential thinking is the first line of defence in which knowledge cannot always be relied on, directing the individual to have beliefs constant with to be had evidence. The inspiration for critical wondering calls important questioning the "artwork of reading and comparing questioning so one can enhancing it." proper essential thinkers take measured steps while considering any crucial difficulty. They ask questions and acquire data, then form and take a look at their conclusions. They're self-disciplined, selfmonitored and self-corrective; adhere to a high preferred of excellence; and preserve an open thought. Strong teachers suppose significantly. They exercise the questioning artwork of analysing and evaluating as they recall both everyday activities and long-term coaching and mastering desires. They evaluate what they've, decide what they may need, and decide how and when to assess pupil progress (Paul and Linda, 2007).

In case you would love to decorate your coaching and crucial questioning abilities — even into a role of leadership — consider applying for the Curriculum and guidance tune of the education professional in instructional management application at Mississippi University. This post-master's program will introduce you to high-degree coaching competencies and strategies to shape faculties and school systems to satisfy the diverse desires of all students.

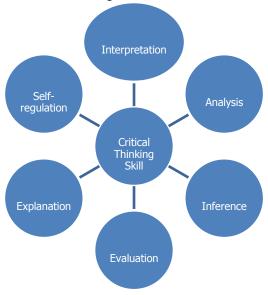
### The six steps of critical thinking:

According to Strauss (2016) following are six main steps in critical thinking:

- Identify the problem or question at hand
- Gather and evaluate relevant information
- Determine the hypotheses or best guesses about the problem
- Test the hypotheses or predictions
- Draw conclusions and revise as necessary
- Communicate the results

#### **Indicators**

According to Facione (2015): "Critical thinking skills have six indicators."



Ask question Define all possible Thinking Skill Avoid over simplificati assumption

Wade (1995) identifies eight indicators of critical thinking.

There are many indicators that can be used to assess critical thinking skills. Here are a few:

Ability to analyse and evaluate arguments: This includes being able to identify the premises and conclusions of an argument, assess the strength and validity of the reasoning, and identify any logical fallacies or weaknesses in the argument.

Ability to generate and test hypotheses: This includes the ability to come up with alternative explanations for a problem or phenomenon, and to design experiments or gather evidence to test these hypotheses.

Ability to make informed decisions: This involves being able to weigh the pros and cons of different options, considering multiple perspectives, and making decisions based on sound reasoning and evidence.

Ability to recognize and challenge assumptions: This involves being aware of one's own assumptions and biases, and being willing to consider alternative viewpoints and perspectives.

Ability to communicate effectively: This involves being able to clearly and concisely express ideas and arguments, and to listen actively and consider others' viewpoints.

Ability to think creatively: This involves being able to come up with novel ideas and solutions to problems, and to think outside of the box.

A student who becomes critical thinker, can excel in his studies. He/she is able to complete projects and assignments of difficult level easily. He/she becomes problem solver. Problem solving ability is the most vital requirement of students in modern era. The development of critical thinking makes a student creative too. Creativity is enhanced in this way. It is utmost aim of modern education to make students critical thinkers and creative.

To sum up, according to modern and Western writers and researchers critical thinking is important twenty first century skill. It helps human beings to live quality life as it deals mainly with problem solving and higher order thinking.

#### **Critical Thinking in Ouran**

Quran stresses importance of thinking and critical thinking on various occasions. Quran asks human beings to use the brain and says why do you not ponder? On some occasions Quran stresses that there are many sign for people who reason and ponder. Some of illustrations are given below:

"Do the human beings not judge and think over the holy book Quran and if this book would be from people then there had been many contradictions in them". (an-Nisā', 4:82)

(Irfan Ul Quran, Translation by Dr. Muhammad Tahir-ul-Qadri)

"And only Allah gives life and gives death to all creatures. And Allah turns alterations of days and nights. Do people not think and ponder?"

(al-Mu'minūn, 23 : 80)

(Irfan Ul Quran, Translation by Dr. Muhammad Tahir-ul-Qadri).

In Quran Allah gives manifold instances and orders human beings to think, understand and ponder. Allah advises human beings to use faculty of mind.

"There are symbols and marks for people who are wise use wisdom and use rational thinking in creation of heaven and earth."

(Āl-i-'Imrān, 3 : 190).

(Irfan Ul Quran, Translation by Dr. Muhammad Tahir-ul-Qadri)

"Certainly there are many symbols for people who use reasoning in creation of heaven and earth, in ships and boats which sail in ocean water and carry things useful for human beings, and rain which Allah gives from sky which revives the earth after having died and the earth on which Allah has sent creatures of all kinds and changing of winds' directions and the clouds which flow between earth and sky all are bound to Allah's command".

(al-Baqarah, 2 : 164)

(Irfan Ul Quran, Translation by Dr. Muhammad Tahir-ul-Qadri)

"And (of the animal world, vegetable world and minerals,) whatever He has created for you in the earth which has separate colors (genders, species, classes, characteristics and benefits, etc. all have been subdued to your service). Verily, there is a sign in it for those who take advice who are mindful and who ponder."

(an-Nahl, 16: 13).

(Irfan Ul Quran, Translation by Dr. Muhammad Tahir-ul-Qadri)

There are also symbols for intellectual (wise) and thinker people in fruits, dates, grapes you derive drink( it was before prohibition of drinks having alcohol)". (an-Nahl, 16:67).

(Irfan Ul Ouran, Translation by Dr. Muhammad Tahir-ul-Oadri)

Allah says why they do not think and ponder over themselves. Creation of heaven and earth is not done by Allah? God did not made all that which is among them? These are for specified and specific time duration. And certainly most people do not have belief to meeting of them with their God."

(ar-Rūm, 30:8).

(Irfan Ul Ouran, Translation by Dr. Muhammad Tahir-ul-Oadri)

#### **Educational Implications**

The concept of critical thinking is discussed in the Al Quran and it clearly depends on the use of intellect bestowed by Allah to all human beings. Allah says "why don't you use your reason and intellect", in order to observe, think, reflect, interpret, contemplate, and ponder". These stages of thinking bring about proper understanding of hidden secrets of life. The whole process of working of intellect can be termed as critical thinking which begins with use of senses of sight and hearing. Quran states that observation is the key step which the mind undertakes in order to understand. Look at the creations or sign of Allah and use your observations for starting other processes of mind like induction and deduction.

The system of education needs to introduce the pedagogical techniques which can Foster the critical thinking in student. Student centered techniques should be followed and less use of teacher oriented techniques be made like lectures or presentations by the teacher. Student discussion and student participation or interaction in all teaching learning situations be increased. The system of evaluation of student performance must include testing of critical thinking of students.

Teachers can inculcate critical thinking in students by using following ways:

#### **Asking questions**

Asking thought provoking questions develop critical thinking among students. Teacher may ask questions and involve students to promote their level of thinking. Teacher may go from lower order questions to higher order questions. It develops habit of questioning and answering in students. Questions which are high level that inculcate critical thinking among students.

#### **Encouraging decision-making**

Critical thinking also means applying knowledge for solution of problems. In this way a teacher can develop problem solving in students. Working in groups Groupand teamwork leads to critical thinking in students.

#### **Incorporating different points of view**

Exploring a concept from multiple perspectives can also lead to develop critical thinking among students. As a result of different point of views an opinion is formed.

## **Connecting different ideas**

Teacher can connect different ideas given by students.

#### **Inspiring creativity**

By imagination teachers can develop critical thinking in students through creativity.

#### **Brainstorming**

Brainstorming is an excellent exercise which leads students to critical thinking.

Critical thinking is a valuable skill that can be developed through practice and education. Here are some steps you can take to improve your critical thinking abilities:

Seek out new information and perspectives: Expanding your knowledge and understanding of the world can help you approach problems and issues from different angles.

Practice analytical thinking: Analysing information and breaking it down into its component parts can help you understand complex ideas and make better decisions.

Ask questions: Asking questions can help you clarify your understanding of a topic and identify any gaps in your knowledge.

Evaluate the evidence: When making decisions or forming opinions, it's important to consider the evidence and determine its reliability and relevance.

Consider multiple perspectives: It's important to consider multiple viewpoints and consider the implications of different approaches or solutions.

Practice problem-solving: Working through problems and challenges can help you develop critical thinking skills.

Reflect on your thinking: Take time to reflect on your own thought processes and identify areas where you can improve your critical thinking abilities.

Seek out opportunities for critical thinking: Look for opportunities to apply your critical thinking skills in your daily life, whether at work or in your personal life.

By actively practicing these skills and seeking out opportunities to use them, you can improve your critical thinking abilities over time.

Critical thinking is combination of information, knowledge, and then analysis and synthesis and evaluation of these information and also use of meta-cognition. In the classroom, these elements ebb and flow, become dominant and recede, depending on the agenda set by the teacher and the kind of community that develops in the students.

The following words identify when critical thinking is required.

- argue
- clarify
- contrast and compare
- assessment
- appraise
- explain
- identify
- specify
- exemplify
- understand
- categorize
- delineate
- verify
- give reason for
- narrate
- sum up
- mark out

#### Conclusion

Ouran has given the concept of critical thinking and stressed concept of critical thinking almost fourteen centuries ago. Modern science, advanced psychology and modern researchers reached to this concept in 20th century and they named this skill as twenty first century skill which is very important for human beings to be mastered.

#### References

- Bloom B. S. (1956). Taxonomy of Educational Objectives. Handbook I: The Cognitive Domain. New York: David McKay Co Inc.
- DiYanni, R., 2015. Critical and Creative Thinking: A Brief Guide for Teachers. Chichester: John Wiley and Sons.
- Dwyer, C. (2017). Critical Thinking Conceptual Perspectives and Practical Guidelines. Cambridge University Press, UK.
- Facione, P.A. (2015). Critical Thinking: What It Is and Why It Counts. Research Gate.
- Fisher, A. (2001). Critical thinking: an Introduction. Cambridge: Cambridge University Press.
- Friedel, C. R., Irani, T. A., Rhoades, E. R., Fuhrman, N. E., & Gallo, M. (2008). It's in the genes: Exploring relationships between critical thinking and problem solving in undergraduate agri science students' solutions to problems in Mendeliangenetics. Journal of Agricultural Education, 49(4), 25-37. DOI:10.5032/jae.2008.04025.
- Glaze, A. (2018). Teaching and learning science in the 21st century: Challenging critical assumptions in post-secondary science. Education Sciences, 8(1), 12.
- Hamiloglu, K., & Temiz, G. (2012). The Impact of Teacher Questions on Student Learning in EFL. Journal of Educational and Instructional Studies in the World, 2, 1-8.
- Hasil, R. (2012). Enquiry based teaching: Heart of critical thinking (Unpublished master's dissertation). Aga Khan University, Karachi, Pakistan.
- Lai, E. R. (2011). Critical Thinking. A Literature Review. Boston: Pearson.
- Paul, R., and E. Linda. (2006). Critical Thinking: Learn the Tools the Best Thinkers Use. New Jersey: Pearson Prentice Hall.
- Paul, R., and E. Linda. (2007). The miniature guide to critical thinking: concepts and tools. The Foundation for Critical Thinking.
- Ruggiero, V. R. (2002). Becoming a Critical Thinker. New York: Houghton Mifflin Company
- Strauss, D. (2016). How critical is "critical thinking"? S. Afr. J. of Phil, 35(3), 261–271.
- Stanovich, K.E., and P.J. Stanovich. (2010). A framework for critical thinking, rational thinking, and intelligence. In D. Preiss and R.J. Sternberg (eds.), Innovations in Educational Psychology: Perspectives on Learning, Teaching and Human Development. New York, NY: Springer, 195-237.
- Styron, R. (2014). Critical Thinking and Collaboration: A Strategy to Enhance Student Learning Journal on Systemics, Cybernetics and Informatics.
- Wade, C. (1995). Using writing to develop and assess critical thinking. Teaching of Psychology, 22(1), 24-28.