

# The Role of Critical Thinking in Education

Sakina Attar\*

\*M.A. 1<sup>ST</sup> Sem, Maharaja College, Ujjain (M.P.) INDIA

**Introduction** - Thinking critically will boost creativity and enhance the way you use and manage your time (Hader, 2005) and critical thinking not only describes the ability to think in accordance with the rules of logic and probability, but also the ability to apply these skills to real-life problems, which are not content-independent. Critical thinking can provide you with a more insightful understanding of yourself. It will offer you an opportunity to be objective, less emotional, and more open-minded as you appreciate others' views and opinions. By thinking ahead, you will gain the confidence to present fresh perspectives and new insights into burden some concerns.

**Thinking:** Thinking is the base of all cognitive activities or processes and is unique to human beings. It involves manipulation and analysis of information received from the environment. Such manipulation and analysis occur by means of abstracting, reasoning, imagining, problem solving, judging, and decision-making. The mind is the idea while thinking processes of the brain involved in processing information such as when we form concepts, engage in problem solving, to reason and make decisions. The history of researches on thinking depends upon the time that human beings recognized that they think. Thinking is one of the features that distinguish humans from other living beings. Thinking is the manipulation or transformation of some internal representation. She says that when we start thinking, we use our knowledge to achieve some objective. In this sense thinking ability is the basic case of our life because all of us need to achieve an objective; on the other hand humans have relations in society and whereas nobody is alone. Descartes argued that thinking is reasoning, and that reason is a chain of simple ideas linked by applying strict rules of logic (McGregor, 2007). Both learning and thinking are the concepts which support and complete one another. When considered from this point of view, whereas learning style and critical thinking concepts have different qualifications, it can be stated that they can be used jointly. Likewise, when literature is examined, it is seen that there are researches handling learning styles and critical thinking concepts jointly (Guyen & Kurum, 2004).

**Critical Thinking** : "Critical thinking is thinking about your

thinking while you're thinking in order to make your thinking better."—*Richard W. Paul*

When the term of 'Critical Thinking' is searched, it is understood that there are meanings of it which are suggested in the frame of philosophy and psychology sciences but in general sense this term has not got a definite meaning. 'Critical', derived from the Greek word *kritikos* meaning to judge, arose out of the way analysis and Socratic argument comprised thinking at that time. (McGregor, 2007) and then the word *kritikos* passed to Latin as 'Criticus' that is the type of spreading to world languages from it (Hançerlioglu, 1996). According to Critical Thinking Cooperation (2006) critical thinking is an ability which is beyond memorization. When students think critically, they are encouraged to think for themselves, to question hypotheses, to analyze and synthesize the events, to go one step further by developing new hypotheses and test them against the facts. Questioning is the cornerstone of critical thinking which in turn is the source of knowledge formation and as such should be taught as a framework for all learning. Students are frequently conditioned in their approach to learning by experiences in teacher-cantered, textbook-driven classrooms (Sharma & Elbow 2000). This situation is a disturbing case for contemporary educators, and for this reason they would rather choose the latest models and methods which are more effective in directing students to thinking. 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. The aim of Critical Thinking is to promote independent thinking, personal autonomy and reasoned judgment in thought and action. This involves two related dimensions:

1. the ability to reason well and
2. the disposition to do so.

Critical thinking involves logic as well as creativity. It may involve inductive and deductive reasoning, analysis and problem-solving as well as creative, innovative and complex approaches to the resolution of issues and challenges.

**Thinking in Education:** Education, perhaps the most basic

need for people, is the process that provides the development of human. According to Meyer (1976) the aim of education is to nurture the individual, to help, to realize the full potential that already exists inside him or her. There has always been a strand of educational thought that held that the strengthening of the child's thinking should be the chief business of the schools and not just an incidental outcome – if it happened at all (Lipman, 2003). Qualified education should show the way to students about what and how to learn. While students evaluate what they learned and their learning methods, they manifest their critical thinking abilities (Emir, 2009).

As Cotton indicates (1991): "If students are to function successfully in a highly technical society, then they must be equipped with lifelong learning and thinking skills necessary to acquire and process information in an ever changing world".

One of the aims of education should be developing students' thinking skills as well as motor skills, which is basic goal of contemporary approaches in education. According to Elder & Paul (2008) students are not passive but active while they are realizing critical thinking.

**Critical Thinking and Education:** One of the significant aims of education is to produce learners who are well informed, that is to say, learners should understand ideas that are important, useful, beautiful and powerful. Another is to create learners who have the appetite to think analytically and critically, to use what they know to enhance their own lives and also to contribute to their society, culture and civilization.

These two aims for education as a vehicle to promote critical thinking are based on certain assumptions.

1. Brains are biological. Minds are created. Curriculum is thus a mind-altering device. This raises the moral requirement to treat learners as independent centres of consciousness with the fundamental ability to determine the contours of their own minds and lives.
2. Education should seek to prepare learners for self-direction and not pre-conceived roles. It is, therefore, essential that learners be prepared for thinking their way through the maze of challenges that life will present independently.
3. Education systems usually induct the neophyte into the forms-of-representation and realms of meaning which humans have created thus far.
4. Careful analysis, clear thinking, and reasoned deliberation are fundamental to democracy and democratic life.

On the basis of these considerations the capacity for critical assessment and analysis emerges as fundamental for enjoying a good quality of life

**Teaching Critical Thinking:** Every pupil should have an effective skill of critical thinking, and they must not accept anything for granted but how can you teach thinking critically to students? There are several ways of organizing for

instruction in critical thinking: We can teach a separate course or unit, we can infuse critical thinking into all that we teach, or we can use a mixed approach. The first approach of a separate course or unit requires materials that teach specifically for critical thinking dispositions, skills, and knowledge. The downside is that there may be little transfer from what the program or materials teach to the rest of the curriculum. Infusion, the second possible approach, requires that critical thinking be taught as an integral part of all subject areas (Wright, 2002). According to Hirose (1992) employers complain about employees' lack of reasoning and critical thinking abilities. Those abilities are essential because compared with the jobs in the past the modern work environment requires more thinking and problem solving abilities. This situation can be adapted to education, too. Teachers had better be equipped with high critical thinking skills. Critical thinking is not equal with intelligence and shouldn't be misunderstood with it. Critical thinking is skill which can be developed (Walsh and Paul, 1988). As well as critical thinking can be developed, it can be searched and analyzed with its different dimensions, so this shows that many scientists or experts hypothesize about critical thinking, because the vitality of critical thinking has been realized by many people recently. Educators are aware of the fact that critical thinking can be thought.

**Studies Conducted on 'Critical Thinking':** Initial studies conducted on critical thinking began in the years of 1960s. Researchers have intended to explain critical thinking with two main disciplines through these studies. Philosophical approach has dwelled on norms of good thinking, the concept and motive of human thought and cognitive skills necessary for an objective world view; while psychological approach have dwelled on thinking and experimental studies thinking, individual differences in learning thinking and the concept of problem solving which is a piece of critical thinking. Now I will give a few examples on the studies of critical thinking. Kurum (2002) put forward a study at Anadolu University Education Faculty. The goal of Kurum's study was to identify critical thinking abilities and the levels of thinking abilities that constitute this ability and the factors which influenced critical thinking of teacher trainees studying at Anadolu University Education Faculty. The results of the study showed that teacher trainees' critical thinking abilities and all levels of thinking abilities were at mid-level and that these abilities were affected by different factors such as age, high school types graduated, score type and level in university entrance exam, program being studied, education and income level of the family, and activities held for developing themselves.

Paul (1989) conducted a study touching upon the adaptation of critical thinking dispositions in learning environment. In this study Paul suggests dispositions to be disciplined and self-directed thinking could be taught. He maintained that critical thinking was constructed from skills, such as spotting conclusions, examining premises, forming

conclusions and diagnosing fallacies. Thus he proposed that critical thinking be constructed as 'disciplined, self-directed thinking which exemplifies perfection of thinking appropriate to a particular mode or domain of thinking. Critical thinking conceptualised in this way must be taught with a focus on developing fair-minded, critical thinkers, who were willing to take into account the interests of diverse persons or groups regardless of self-interest. Paul called it the dialogical or dialectical thinking model.

Giancarlo, Blohm, and Urdan (2004) were interested in the measurement of critical thinking disposition in adolescents as illustrated with four successive studies. The results of their studies provide support for the California Measure of Mental Motivation (abbreviated as CM3). This study was based on the assumption that critical thinking is a disposition and provided not only evidence that critical thinking disposition exists in adolescents but also a valuable tool for assessing this construct. The authors concluded

that "CM3 assess the extent to which individuals perceive themselves as willing and inclined to approach challenging problems in a systematic, innovative, open-minded, and inquisitive way."

**Conclusion:** From the above discussion, Critical thinking is no doubt necessary in every field of life, but especially for professions that occupy with people. Finkelman (2001) took the attention and emphasized the importance that the people who work in the field of human health, especially the people who directly intervene to the person's life like psychologists, counsellors and educationalists have to be critical thinkers in both practice and management. In order for teachers and counsellors to be able to implement critical thinking into their classrooms they must first be committed to critical thinking and its philosophy.

**Reference:-**

1. Personal Research

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