

Investigating Role Of Critical Thinking On Decision Making: A Systematic Review Of Literature

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Background:

Decision making is integral part of the human life that includes making choice from the available options. Thinking plays an important role for evaluation and making important decisions. Critical thinking makes the decisions more logical and reason based by conscious efforts and wilful efforts (Paul & Elder, 2014). Critical Thinking is defined as “the intellectually disciplined process of actively and skilfully conceptualising, 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” (Scriven & Paul, 1987).

Critical thinking has obtained greater value in these days when education has attained larger value in society for fulfilling the aspiration of the individuals irrespective of social and economic status. For making decisions about selection of educational institutions, subjects to pursue and employment choices, critical thinking play an important role. Critical thinking is defined as “one’s ability to think about her own thinking process” (Kuhn & Jr., 2004, p. 270). Among the rising values critical thinking is considered as one of high ranked value to be developed among the students, educators, administrators and employers (world economic forum, 2022). As delivery of education has become more and more complex with the interdisciplinary and multidisciplinary approach, this paper analyses how the decision making is determined by the critical thinking process of an individual.

Conceptual framework

Critical Thinking

Critical thinking is defined by many psychologist and philosophers adding various dimensions into it. It is common agreement that John Dewey has done most of the initial works on this concept (Ennis, 2018; Hitchcock, 2017). Dewey defined critical thinking as “reflective thinking including active, persistent and careful evaluation of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusions to which it tends” (Dewey, 1910, p.6). Critical thinking skills include characteristics such as inquisitiveness, wellinformed, trustful of reason, open-minded, flexible, fair-minded in evaluation, honest in facing personal biases and willing to reconsider (Facione,1990). It can be argued that critical thinking skills cannot be treated as separate training skill. It should be integrated with the core knowledge of the subject and ways of imparting the knowledge. McPeck described critical thinking as “the ability and disposition to engage in reflective skepticism (Cited in Royalty, 1995, p.479). There is a difference between acquisition of critical thinking skills and ability to execute while making decisions. Paul and elder stated that “a well-educated thinker would be able to formulate clearly and accurately by raising important questions and problems, collect and evaluating the necessary information and use abstract ideas to interpret them effectively, reach well thought-out results and solutions by examining them according to relevant criteria and standards and communicate effectively with other people to find solutions to complex problems”(Paul & Elder, 2003, p.2).

it is important to exercise the ability to think critically at the time when it is needed the most and for that impulses, pressures, deviations and habits should be overcome. For finding new way outs for any problems or choices, creative thinking provides various new dimensions and various ideas out of personal experiences and tacit knowledge. With the help of reasoning and logics one may decide about the options and its best alternative to choose upon. It is stated that “innovative thinking is based on the evaluation aspect of critical thinking and critical thinking is based on the open-minded and flexible aspects of innovative thinking (ozgenel, 2018 as cited in Turan et al., 2019).

Decision making

Decision making is the exercise to make choices among available alternatives. “Decision making is the process of identifying problems and opportunities and then providing solutions to them” (Daft R. L., 2008, p.272). Drucker (2005) argued that the choice between right or wrong is not the decision making however, choosing that alternative which is closer to the truth and this requires critical thinking ability among individuals. Karl Wiig (2004) described simple and complex types of decision making. When the situation is understood clearly then the selection of approach to deal with becomes easier. Following seven stages were described in the decision-making process: determine that a decision is necessary, classify the problem, identify the problem, decide what is right, have others accept the decision, put the decision into practice and testing of the decision against actual results (Drucker, 2005, p. 296).

Indecisiveness prohibits to make or formulate an opinion or to provide a better feedback and construct a mechanism for the betterment in every sphere of life. “Individuals who feel compelled to go with the flow or feel pressure out of social forces for acceptance as repercussion of decision made may take decisions without rationality” (Majdandzic et al., 2012).

The inability to tolerate the difference of opinion and evaluating objectively without biases might influence the decision-making ability of an individual (Napier et al., 2014).

There are various differentiating conceptions about the decision making that differently focuses on the strategies adopted to make the choices. From general-purpose strategies to highly specialised patterns including intermediate one that is dependent on the type of the task, decision maker and the background of the situation. Intermediate strategies have obtained momentum in these days. Informal thinking strategies such as making predictions and testing them, judging own position and finding analogies for previous problems. Self-regulation or meta cognitive strategies include self-monitoring while memorising and formulation of hypotheses to test them (Metcalfe & Shimamura, 1994). The meta-cognition framework described by Cohen et al. (1996) follows strategies “as characterised in general as cycle of identifying and filling gaps, identifying and resolving conflicts and finding and evaluating assumptions in arguments, while monitoring the relative costs and benefits of continuing”.

Relationship between critical thinking and decision making

The quality-of-life experiences can be shaped by the decisions taken when an issue encounters or best possible option has to be selected. It is very important in student's decision-making process when institution choice, subject choice and area of specialisation is selected. The quality of decision depends on the approach for the process of critical thinking involving creative and innovative thinking abilities. The ability to weigh out all the possible alternatives by repeatedly exploring the available options and dimensions of the situation by using one's own experiences and evaluating with different perspectives. Kepner and Tregoe stated that “it is necessary to ask a series of questions to better define the problem and to reveal the underlying cause of the problem. What is the situation affecting us, when, where, how and urgency of the situation with the interlinking and disposition of the situation within similar circumstances.

Programmable decisions are from similar situations and does not have much scope for applying critical thinking approaches. The decisions can be evaluated to find the reasons of occurrence of the issue and the solution to overcome the problem by elimination of the factors associated with this. Unprogrammable decisions emerge from uncertain and ambiguous situation where exploration of every dimension concerning with the issue is needed and one best choice is made out of rational choice and value judgement of the present decision for the future outcomes.

Decision based on intuitions rests on to the asymmetrical information base and leads to the biased choices that may affect the future prospects of the choices made (Fisher, 2011, p.180; Paul & Elder, 2014, p.327). in order to apply critical approach rational comparisons should be made by collecting information, collating, analysing, interpreting and formulating alternatives by rational choices at conscious level without any inner feeling of belief that one knows is true (Yates, 2003, p.150). Daniel Kahneman (2011) described two types of thinking processes to decide on ant aspect. First type of thinking is spontaneous and effortless and thought as intuitive while the other one requires complex mental processing that deals with the numerous information parallelly. Second one may be called as critical thinking that involves conscious and planned efforts. It can be stated that decision-making might not involve the element of critical thinking, however, critical thinking always leads to the decision making (Kamerer & Russ, 2017).

Conclusion

Critical thinking rationalizes the thinking process, improves creativity skills, self-reflection, objectivity, scientific approach and communication. Understanding of the change pattern of one's own thought at varying situation and ability to adapt and make judgements is essential characteristic of a critical thinker. Clarity of the thought process and knowledge domains, assessment of information and building opinion, abstract thinking by judging the future value of the results and its implications by ability to collect information independently and establishing linkages to project the future utility and applicability of the available information, interpretation and value judgement in bounded rationality. Process of critical thinking involves identifying the problem and analysing it, come up with possible solutions and selecting the best option and completing by taking the action. Cost-benefit analysis is an important aspect of the decision-making process in order to understand selecting one option may give opportunities and what can be slipped out by opting other alternatives. Narrowing down the options, evaluating the significance, proper research to make well informed opinion are the steps for decision-making. Consolidation of the information, organisation, in-depth analysis and synthesising this information are the steps for critical thinking. Both the critical thinking and decision-making process involves mental faculty to give informed, conscious and rational choices. It is imperative to apply critical thinking ability to raise the utility of the choices by value addition for future operations.

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