

## Use of Critical Thinking in Decision-Making Process

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### ABSTRACT

*The use of critical thinking to decision-making is steadily growing in Nepal as democratic principles and public knowledge rise, particularly in the areas of education, government, and civil society. However, political power, established structures, and a dearth of critical thinking instruction continue to impede its broad and successful implementation. The aim of this study is to find out the application of critical thinking in decision-making process. This study is based on qualitative approach and information is analyzed in descriptive manner. Critical thinking is the power of systematic and disciplined thinking which is very important for effective decision-making in educational institutions. This article examines the roles, processes, and use of critical thinking for effective decision-making. Critical thinking is a key component of effective decision-making, allowing people to critically analyze situations, evaluate evidence, and reach rational conclusions. This cognitive process entails objectively examining information, identifying biases, and considering alternatives in order to make well-informed judgments. It is found that critical thinking reduces the risks associated with impulsive or emotional decisions by promoting clarity, accuracy, and logical reasoning. It promotes the integration of multiple views and the anticipating of future consequences, hence improving the quality of outputs. Similarly, critical thinking fosters problem-solving skills, adaptability, and ethical judgment in both professional and personal settings. It helps to manage difficult challenges and make judgments that are consistent with their aims and values.*

**Keywords:** *Critical thinking, decision-making, cognitive process, reflection, brainstorming.*

## Introduction

The capacity to examine many viewpoints, analyze information objectively, and reach well-reasoned conclusions based on facts rather than conjecture or emotion is known as critical thinking. Analysis, which breaks down complex information, evaluation, which determines the reliability and applicability of sources, interpretation, which comprehends and explains meanings, inference, which draws logical conclusions, explanation, which clearly presents reasons or arguments, and self-regulation, which involves reflecting on one's own beliefs and thought process, are some of its essential components. These elements support autonomous thought, efficient problem-solving and well-informed decision-making in a range of circumstances. The use of critical thinking to decision-making is steadily growing in Nepal particularly in the areas of education, government, and civil society. However, political power, established structures, and a lack of critical thinking instruction continue to impede its broad and successful implementation.

Although people usually face instant decision situations that do not require careful thinking when making decisions (Robbins & Coulter, 2012), it is possible to talk about a longer process of thinking and evaluation when important decisions are to be made. Facione (2020) states that critical thinking is a foundation of good decision-making, helping individuals to examine circumstances, think about evidence, and make educated choices. Halpern (2014) presents in an increasingly complicated and fast-paced world, the capacity to employ critical thinking in decision-making is crucial for success across multiple disciplines, including business, education, and healthcare. Similarly, Paul and Elder (2019) highlight that critical thinking incorporates skills such as understanding and analysis, assessment, conclusion, and regulates themselves, which collectively increase the quality of decisions.

Paul and Elder (2019) analyze that making critical judgments is a 'special managerial' responsibility. When critical thinking is used in decision-making, it raises the decision-making model to the level of cognitive and planned choice, making decisions more dependent upon reason and logic. The fact that senior managers' decisions are usually major strategic decisions (Drucker, 2005) and are critical to both the current condition and the future of the organizations emphasizes the importance of both the decision-making process and the decisions. Furthermore, Freeley and Steinberg (2009) interpret that a majority of career requires effective decision-making skills. Every effort to improve managers' decision-making quality will raise the quality of the decisions in accordance with the managers' skills and experience.

Yilmaz (2013) argues that as far as critical thinking remains a desired result of education, we will have to find ways to help students' growth and apply their critical thinking skills. Numerous studies concluded that there are many problems and issues in ethical decision-making process which are **cognitive biases, emotional influences, lack of training**, and time limitations. According to Kahneman (2011), humans frequently use biases or mental shortcuts which can result in incorrect reasoning and poor conclusions. Lerner et al. (2015) conclude that emotional circumstances can spoil judgment, prompting people to make reaction or erroneous decisions. Similarly, Tiruneh et al. (2014) contend that many people are not properly trained in critical thinking, which limits their ability to examine events objectively. Ministry of Education, Science, and Technology (2019) states that these concerns remain under the oversight of Nepali school decision-making authority. Halpern (2014) highlights decision-making under pressure frequently results in a poor use of critical thinking.

Although decision-making is becoming more and more important, decision-making skills training is frequently overlooked in practice. Existing curricula frequently lack components that promote critical thinking, focusing instead on content delivery. Ministry of Education, Science, and Technology (2019) concluded that several challenges hinder the integration of critical thinking into the decision-making process in Nepal's educational context, including a heavy dependency on rote memorization and lecture-based instruction, which limits students' opportunities to engage in critical analysis and independent thought. Many teachers do not have appropriate training in promoting critical thinking, resulting in the keeping of traditional teaching approaches. Societal standards that favor conformity and respect for authority may inhibit questioning and free debate, both of which are essential for critical thinking. Schools, particularly in rural regions, may lack access to materials and surroundings that discourage critical thinking. Students from varied language origins may find it difficult to participate critically when instructed typically in Nepali. Educational disparities, especially for marginalized groups, hinder the development of critical thinking skills among students. To overcome these challenges, systemic reforms are necessary, including improved teacher training, curriculum redesign, and a transition to more student-centered learning methods. Therefore, this study aims to investigate the integration of critical thinking into decision-making processes and implication on getting better results.

This study has major implications for individuals and organizations seeking better decision-making results. Understanding the importance of critical thinking can help stakeholders improve their capacity to assess information, reduce biases, and make sound decisions. The findings of this study can help the many educational settings. Furthermore, the findings can assist to develop education courses that

enhance critical thinking skills in students, improving workplace training for better decision-making frameworks, supporting evidence-based policy development, and contributing tools for personal growth to effectively manage daily challenges. As a result, this study seeks which approaches and practices improve decision-making quality and which decision-making procedures support in the critical thinking process. It also explores the strategies to improve organizational effectiveness by increasing critical thinking skills and decision-making quality.

## **Literature Review**

According to Sternberg and Sternberg (2017) thinking is an intellectual activity which includes cognitive manipulation of information in order to make sense of interpreting, and making decisions about the world around us. Numerous skills, including perception, memory, attention, reasoning, problem-solving, decision-making, and creativity, may be involved in decision making process. Critical thinking, according to Facione and Gittens (2016), is "the process of purposeful, self-regulatory judgment, which results in interpretation, analysis, evaluation, and conclusion, as well as explanation of the evidential, conceptual, methodological, or contextual considerations upon which decision is based." These concepts highlight the significance of several cognitive functions in thinking, such as decision-making and problem-solving.

Critical thinking is the process of actively and competently conceiving, applying, analyzing, synthesizing, and/or assessing knowledge produced by or obtained via observation, experience, reflection, reasoning, or communication as a guide to belief and action (Scriven & Paul, 1987). Our experiences, feelings, beliefs, prejudices, and cultural background are just a few of the many variables that might affect our thinking, which can happen consciously or unconsciously (Wong & Watt, 2019). Along with the people and circumstances we encounter, our surroundings can also have an impact on it (Mofield, Parker Peters, & Van Horn, 2017). High levels of interest and extraordinary academic prowess are common traits of gifted students. They frequently have a strong desire to learn and investigate new concepts, and they might succeed in academic activities. Decision-making and productive thinking are strongly related abilities, especially for talented students (Gagne, 2018). It is possible to use gifted students' critical and creative thinking skills to help them make intelligent judgments (Moon, 2016).

Reis and Renzulli (2018) investigated the connection between gifted students' decision-making and productive thinking. The researchers discovered that gifted students with greater levels of creative thinking abilities were more likely to make

wise choices about their academic and professional aspirations. Furthermore, Yang, Lai, and Chen (2016) investigated the connection between Taiwanese gifted students' creativity, decision-making, and constructive thinking. The researchers discovered that brilliant pupils were more likely to make original and intelligent selections if they demonstrated higher degrees of creative thinking abilities.

A decision-making process, according to Sheldon et al. (2024), is a set of actions one or more people do to choose the best alternative or course of action to deal with a particular issue or circumstance. Critical thinking skills and their impact on decision-making has been the subject of several investigations and research, with varying findings. According to Yaldiz and Bailey (2019), the ability to think critically is crucial for making the best decisions. Turan et al. discovered that professionals' capacity to make decisions was significantly impacted by critical thinking. In a study on the relationship between critical thinking skills and decision-making strategies, Helsdingen et al. (2010) discovered a significant impact on critical thinking skills. In a study on the relationship between critical thinking and decision-making, Swiger (2005) discovered a positive link.

## **Method and Process**

This study is based on a review of the literature, with the teaching experience choosing the topic and the theme guiding the review. The scholarly articles are filtered based on the study's predetermined criteria for quality, relevance, and reliability. In order to find trends, gaps, and theoretical frameworks in an area, a literature review-based approach methodically is examined the body of existing study. This study is used a teaching-experience-based approach and a qualitative approach, which has been supported by a literature review. The study uses secondary sources such as research reports, papers, articles, journals, and authentic book reviews. This study, which is conducted to analyze the relationship between decision-making and critical thinking, obtained and carefully examined almost every study written and accessible in relation to decision-making and critical thinking, with special attention to ensuring a comprehensive literature review. Particular attention has been paid to ensure that comprehensive literature review is performed. Organize findings thematically or chronologically and critically evaluate the contributions. Provide insights, gaps, and implications in an organized manner in this study. Through descriptive analysis of the available information, the connection between critical thinking and decision making and its implication is investigated.

## **Findings and Discussion**

The earlier literature review and an empirical paper are utilized to investigate the use of critical thinking in decision-making process in this study. The study is both descriptive and qualitative in nature. The findings and discussion are presented below:

### **Perspectives on Critical Thinking**

Many experts agree that John Dewey developed the first definitions of critical thinking. In his writings, Dewey (1910) referred to critical thinking as reflective thinking and defined it as an active, constant, and careful review of any belief or supposed form of knowledge in light of the grounds that continue it and the conclusions that follow to which it leads. Scriven and Paul (1987) concluded that critical thinking is the systematic method of proactively and skillfully imagining, applying, synthesizing, analyzing, and/or evaluating information obtained through observation, experience, reflection, reasoning, or communication in order to direct beliefs and behavior. Critical thinking is also known as 'metacognition' (Tempelaar, 2006), which refers to one's ability to reflect on one's own thought processes (Kuhn & Jr., 2004). Similarly, educators, administrators, legislatures, and business executives recognize critical thinking as one of the desirable outcomes of higher education and adult autonomous learning.

Facione (2020) defines "critical thinking is the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and evaluating information". Critical thinking, on the other hand, refers to people carefully evaluating a situation and coming at feasible solutions that are not necessarily motivated by intelligence. A critical thinker may not have data immediately available and will have to properly study the situation and think of a solution for a while (Alkhatib, 2019). For example, when faced with comparable challenges, a creative individual may consider for a few minutes before coming in with a solution. A critical thinker, on the other hand, may have already encountered a comparable difficulty and will quickly implement a predetermined solution (Ennis, 2018). When a critical thinker evaluates a problem and discovers that present solutions are inadequate, he or she must search for novel strategies. Innovative thinking can provide a variety of ideas based on the individual's prior experience and knowledge. As a result, it is possible to conclude that creative thinking is based on the assessment component of critical thinking, whereas critical thinking is based on the open-minded and flexible characteristics of innovative thinking (Ozgenel, 2018).

According to Paul and Elder (2003), a well-educated critical thinker will be able to formulate clearly and precisely by bringing important issues and queries, collect and evaluate the necessary information and use abstract concepts to interpret them effectively, reach well-thought-out results and solutions by examining them according to relevant criteria and guidelines, and communicate effectively with others to find solutions for challenging problems. Pithers & Soden, (2000) concluded that there are several characteristics that distinguish critical thinkers from non-critical thinkers, including a strong desire for clarity, precision, accuracy, carefulness, discipline, sensitivity, logical belief, honesty, intellectual humbleness, being open-minded, intellectual courage, love of truth, intellectual dedication, and control over one's mental activities.

### **Concept of Decision-Making**

According to management scientist Daft (2008), the decision-making is a choice between current options. Decision-making is the process of identifying challenges and opportunities and then addressing them. Drucker (2005), widely considered as the godfather of management science, argued that a decision is a judgment and that in very rare situations, a decision is a choice between right and wrong. He argued that the decision is made by determining which of the two possibilities is closest to the truth, rather than between right and wrong. The manager's capacity to distinguish right and wrong options will be determined by his or her critical thinking skills. According to Robbins (2009), decision-making is defined as "choosing between two or more alternatives." Thus, decision-making is the process of choosing from among multiple choices.

According to Drucker (2005), in order to make successful decisions and reduce risk, the decision-making process must include the following seven stages: i) Determine that a choice is required, ii) classify the problem, iii) identify the problem, iv) decide what is correct, v) have others accept the decision, vi) put the decision into action, and vii) test the decision versus real outcomes. In reality, decision making is a difficult rational activity. To make an effective decision, we must first understand the root causes. Decision-making involves the past, present, and future. The term "past" refers to the time when the problem first arose, information was gathered, and the necessity for a decision became apparent. In the present, alternatives are recognized, and a decision is made. The decision will be implemented and examined in the future (Pandya 2011). According to Harrison (1999), the rational decision-making model consists of six steps: Define the problem, identify choice criteria, assign weights to the criteria, propose alternatives, evaluate the alternatives, and select the best alternative.

## Dimensions of Critical Thinking

According to Paul and Elder (2019), critical thinking involves several dimensions, each of which is discussed below.

**Arguments.** The most important aspect of critical thinking is creating viable arguments, which are essentially premises and conclusions. While this is often seen as the final step, it is also one of the most important. Critical thinkers must establish arguments and draw logical conclusions from them.

**Analyzing Arguments.** Once the numerous arguments have been finalized, the person must identify the ambiguous and inconsistent ones. To do so, the thinker must examine the argument through a doubtful lens and identify the most ambiguous solutions.

**Protecting the Facts.** The next stage for a critical thinker is to identify all of the facts and ensure that nothing has been overlooked. It will be critical to preserve the facts in order to avoid losing any critical information and to prevent them from becoming mixed up with illogical arguments.

**Evaluation.** Critical thinkers must determine whether the existing premises point toward conclusions. That is, if the premises are true, the conclusions should be as well. They must be interdependent and, for the most part, very similar. If they are overly ambiguous, it may create complications while implementing the solution.

**Implementation.** Once all of the answers have been developed through critical review, evidence collection, argumentation, fact difference, and so on, they must be put into practice. This is one of the most important processes, as no problem can be solved without the real implementation of viable solutions.

## Guidelines for Critical Thinking

The critical thinking is evaluated on the basis of certain criteria that have proved effectiveness in evaluating reasoning and knowledge. According to Moore (1967) and Tittle (2011) some tested guidelines for critical thinking are as follows:

**Clarity.** Before evaluating someone's argument, we need to understand what he or she is saying. This lack of clarity can be attributed to a variety of things, including a lack of skill, laziness, and carelessness. Critical thinkers not only attempt for clarity of language but also need maximal clarity of ideas.

**Precision.** Critical thinkers recognize the need of exact thinking in their daily lives. For example, what exactly is the issue we are facing? What are the



alternatives to these problems? When we consistently follow such accuracy, we are truly critical thinkers.

**Accuracy.** Critical thinkers are more than just truth seekers; they are also passionate about accurate and timely information.

**Relevance.** The discussion should be related to the topic matter. Relevant consideration should be required for making decisions.

**Consistency.** Consistency is a crucial component of critical thinking. Logic determines that if a person has conflicting beliefs, at least one of them must be erroneous. Critical thinkers consider value truth and dislike false beliefs.

**Completeness.** In decision-making process, we properly favor deep and systematic thinking to short and casual thinking.

**Fairness.** Critical thinking requires that our reasoning be fair. Thinking should be open-minded, unbiased, and free of biases and preconceptions. Therefore, it is crucial quality of a critical thinker.

### **Process of Critical Thinking**

Lohani (2009) summarize that a critical thinker uses these processes and approaches to make good decisions as: i) Creating a topic or issue for critical observation ii) collecting inputs for critical analysis iii) digesting information for critical analysis; and iv) communicating and arguing for decision-making. Therefore, a critical thinker typically uses the above-mentioned critical thinking method to identify the problem, collect information or data for critical analysis, process and analyze the collected information, develop and produce decision alternatives, select the best alternative and communicate it to others using grounded arguments, and put it into action. Thus, critical thinking helps in good decision-making.

### **Role of Critical Thinking in Decision-Making**

Critical thinking is very important in decision-making because it allows people to analyze information objectively, evaluate options, and make well-thought-out decisions. Recent talks emphasize several crucial roles of critical thinking in this process:

**Improving Problem-Solving Capabilities.** Critical thinking gives people the ability to evaluate problems in-depth, recognize viable solutions, and predict future consequences, all of which contribute to more efficient problem-solving.

**Improving Decision Quality.** Critical thinking helps make better conclusions that are reasonable and justified by encouraging logical reasoning and reducing biases.

**Reducing Biases.** Critical thinking enables a person to identify and lessen their own prejudices, which promotes more impartial and equitable decision-making.

**Promoting Independent Thought.** Critical thinking helps people to believe in their own judgment and think for themselves, which is essential for making decisions that are not unreasonably impacted by other influences.

**Handling Complicated Situations.** Critical thinking is essential for successfully resolving complicated challenges in professional contexts including public policy and regulatory observance.

Tittle (2011) concluded that the ability to think critically is essential for making judgments. Much information as possible should be gathered during this decision-making process and crucial factors for a successful choice should be identified. Reasoned thought is the foundation of critical thinking, and conclusions based on reason are more trustworthy than those based on emotion, intuition, or belief. Making decisions based on as much information as feasible is one of the objectives of critical thinking (Ennis, 2015). The goal of decision-making strategies is to assist decision-makers in making decisions by presenting them with various viewpoints and arranging the information in a particular sequence.

Originally introduced by Alex Osborn, the brainstorming process is a helpful approach that may be applied both individually and in groups to solve problems (Halpern, 2014). According to Osborn, brainstorming is a systematic method of allowing the mind to generate ideas without attempting to assess their merit (Ghabanchi & Behrooznia, 2014). In contrast to applying purposeful and planned thought processes, intuitive decision-making processes function independently and naturally without conscious control. Correct thinking is frequently linked to area knowledge and expertise when system thinking is used (Halpern, 2014).

### **Application of Critical Thinking in Decision-Making Process**

The ability to think critically is crucial for improving the caliber of decisions made in organizational, professional, and personal settings. In order to reach well-informed judgments, it entails the methodical assessment of data, the appraisal of many viewpoints, and logical reasoning. With the help of current citations and references, this essay investigates the use of critical thinking in the decision-making process. Making decisions is a methodical process that usually entails determining the issue, obtaining data, coming up with potential solutions,

assessing those possibilities, and putting those ideas into action. Achieving the best results requires incorporating critical thinking in each of these phases. Choosing a course of action is only the beginning of critical thinking. It continues during implementation by keeping an eye on developments and modifying plans in response to input. Reflective thinking guarantees that future procedures are informed by the lessons discovered from past choices. According to Smith et al. (2023) there are a number of advantages to using critical thinking while making decisions.

**Increased Accuracy.** Decision-makers can increase the accuracy of their decisions by methodically evaluating data and reducing biases.

**Improved Problem-Solving.** Innovative methods are fostered by critical thinking, which results in better solutions.

**Greater Accountability.** Reasoned decisions are simpler to defend and explain which promotes openness and confidence.

**Adaptability.** People who use critical thinking are better able to handle complicated and dynamic contexts and react appropriately to shifting conditions.

The ability to think critically is essential for enabling students to make wise and sensible judgments. Because critical thinking improves problem-solving, creativity, and decision-making skills, it has become more and more important in Nepali classrooms. In the framework of Nepali education, this study investigates the ways in which critical thinking might impact the decision-making process.

## Conclusion

These days, having strong communication skills typically calls for a variety of factors, including education, experience, and intuition. A person's ability to think critically, analyze information, and solve problems is what determines their level of success. Many scholars believe that critical thinking and problem-solving abilities are particularly important for people to develop in the twenty-first century. Critical thinking ability is needed to crucial anywhere and at any moment. In order to facilitate critical thinking and problem-solving, we can now find, access, analyze, store, manage, generate, and communicate information using modern technology. Critical thinking is crucial for good decision-making. By promoting logical reasoning, unbiased evaluation, and innovative problem-solving, it promotes the quality of decisions across multiple disciplines. For both individuals and organizations to successfully traverse the complexity of today's circumstances, critical thinking skills development must be given top priority. As

the decision-making process changes, critical thinking is still essential to getting results that are long-lasting and significant. In Nepali schools, incorporating critical thinking into decision-making procedures can help students get ready for difficult situations in both their personal and professional lives. A coordinated effort from stakeholders, legislators, and educators is needed to remove current obstacles. Students in Nepali schools can build a foundation for making responsible and informed decisions by cultivating a culture of inquiry and reflection.

Implementing critical thinking processes can help with a variety of management tasks, including planning, organizing, directing, controlling, crisis management, developing customer relations and satisfaction. A variety of decision-making strategies will enhance critical thinking skills so that one may make a well-informed, rational, and right alternative. The decision-making method that fosters critical thinking a skill is brainstorming, which at first look may be more closely linked to creative thinking than critical thinking. It has been demonstrated that brainstorming exercises combined with critical thinking instruction enhance critical thinking skills. Better decision-making is facilitated by a number of critical thinking tools, procedures, techniques, and standards. Furthermore, the critical thinking process is essential to making effective decisions. To make critical thinking a more important part of decision-making, the decision making authority, head teacher, and local government should emphasis on teacher training, curriculum reform and innovations in assessment. Traditional rote learning methods have frequently dominated classrooms in Nepal, restricting students' capacity to interact critically with the contents and quality. But as education moves toward more contemporary pedagogies, the need of developing critical thinking skills is becoming more widely acknowledged. Policy should be change in collaborative learning, problem-solving, inquiry-based and student-centered learning. For instance, the inclusion of subjects like social studies and moral education provides opportunities to address societal challenges where the ability to think critically is essential to forming well-rounded opinions.

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