

A STUDY OF CREATIVE PROBLEM SOLVING: CHALLENGES & ISSUES

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ABSTRACT

The capacity to analyze information and come up with something fresh and out of the ordinary is what we mean when we talk about creativity, which is a process that never ends. Individuals who are capable of analyzing information and reshaping it into a novel concept are said to have the capacity to engage in creative thinking. One of the factors that contributes to the development of creative thinking that eventually leads to a solution to a problem and, as a result, pushes the person to a higher level is the ability to respond to external stimuli. When people strive to find novel solutions to the challenges they face on a daily basis, they develop their creative potential. There are four fundamental components that underpin creativity: 1) uniqueness, 2) appropriateness, 3) a focus on the future, and 4) the capacity to find solutions to challenges. In the context of this discussion, creative thinking not only examines the capacity to discover solutions to difficulties, but it also recognizes the ways in which students come up with alternate solutions to challenges. The students' capacity to find a solution to a problem may be improved by the discovery of new concepts and specifics of knowledge, which are required by these alternatives.

KEYWORDS: Creative Problem Solving, Challenges, creative thinking, students' capacity.

INTRODUCTION

As a result of the debate that was provided earlier, it is possible to draw the conclusion that creativity has an effect on one's capacity to make choices, that it continuously improves one's capability of ideas and oneself, and that it also boosts productivity when it comes to responding to difficulties. On the other hand, the question that really needs to be asked is, "Do students' knowledge and understanding of problem-solving skills use creative strategies that include creative thinking processes?" The quest for the correct way of thinking has been hampered by a lack of understanding and information, which has been done with caution and

determination. This is the point at which the function of knowledge and understanding in relation to creative talents may be tailored to a challenge. Therefore, creative thinking has the ability to produce an infinite number of ideas, and it is also flexible enough to develop a variety of alternative and novel concepts.

The national education system is now facing a number of issues and deficiencies, which need attention, awareness, and joint effort in order to be addressed further. A reasonable amount of attention need to be devoted to creative problem solving skills (CPS) and creativity in the educational setting. In addition to this, pupils are required to have first-rate thinking skills since the demands of living in the 21st century are more complicated than in previous centuries. One way to observe the execution and application of Creative Problem Solving Skills (CPS) is via the enforcement of these skills, particularly in the educational setting. In point of fact, Malaysia's educational curriculum and teachers' instruction place less of a focus on thinking processes, particularly on the ability to solve problems creatively. According to the author, the comprehension of creative thinking abilities in the context of problem solving is not widely known and is difficult to acquire via instruction. The reason for this is that the use of creative thinking skills in the classroom necessitates a profound level of comprehension among the students.

In the context of higher education, lecturers have a significant role in encouraging students to engage in creative thinking, particularly throughout the teaching and learning process that is taking place. The teaching pedagogy not only focuses on the transmission of information, but it also has the potential to develop better pupils in the learning process and increase their accomplishment. The pupils will be able to comprehend the information, become proficient in it, and be able to think creatively when it comes to finding a solution to a problem with the assistance of this procedure. Nevertheless, the development of students' brains to be more creative may be accomplished via the use of a pedagogical method that is connected with the teaching of creative problem-solving abilities.

When addressing Creative Problem Solving (CPS), it is important to keep in mind that contextual factors are one of the aspects that must be recognized. Without taking into consideration the many aspects of the surrounding environment, the author believes that it is impossible to determine the extent to which people are creative in their approach to problem solving. With the help of the press components that make reference to the surroundings, one

can see the integration that exists between the process of problem-solving and the creative process. It is possible to get insight into the environment or the press by observing the interaction between the instructors and the pupils. Studies that were carried out on kids in schools revealed that environmental elements were factors that had an impact on the creative problem-solving abilities of the pupils. In addition, research has shown that the active participation of students in the interaction process, both within and outside of the college setting, may result in more critical and creative thinking when it comes to the resolution of problems. The problem, however, is that a significant number of the pupils are either ashamed or hesitant to engage in conversation with the instructor. It was claimed by the author that students in schools are more likely to listen to and remark on what their lecturers have presented; nevertheless, this does not support the process of developing creative problem-solving abilities. Students will be educated and made acquainted with the culture of freedom to express their views and opinions via the interaction of lecturers and professors. This will allow the students to become more knowledgeable about the culture. It is a truth that this engagement method has the potential to cultivate a culture of problem-solving that is more creative and to expand the students' existing knowledge.

CREATIVE PROBLEM SOLVING SKILLS: THEORETICAL PERSPECTIVE

CPS, which stands for creative problem solving, is not a new ability; nonetheless, it does take into consideration the role that creativity plays in the process of finding a solution to a problem. This has been shown to be accurate due to the fact that there is a connection between human thought and the environment of life, which allows for the development and channeling of information and abilities in the process of problem solving via the application of everyday life. Within this framework, every single person have their unique set of abilities, whether they are obvious or not. Nevertheless, students will have the opportunity to learn new information and abilities or to enhance the knowledge they already possess if they are able to demonstrate mastery of these talents. The theory will be offered in order to provide a clear understanding of the function that creative thinking plays in the process of issue solving. This is because the idea of Creative issue Solving (CPS) is an abstract one.

Osborn introduced seven phases in creativity in 1963, which are as follows: 1) issue orientation, 2) preparation, 3) hypothesis, 4) incubation, 5) synthesis, and 6) confirmation. These stages are the origin of the concepts that led to the development of creative problem

solving (CPS). After then, many possibilities for academics to explore the function that creative abilities play in the process of issue resolution were made available as a result of shifting times and the environment. In 1995, Osborn included this creative skills method into the process of issue solving, which consisted of five stages: 1) identifying facts, 2) finding difficulties, 3) creating ideals, 4) finding solutions, and 5) finding acceptance. The creative problem-solving process consists of five steps, each of which is an effort to link two different types of concepts, specific to divergent and convergent thinking. Individuals who want to improve their ability to think covertly should focus on developing their capacity for divergent thought. In order to comprehend the phrase, it is most beneficial to first comprehend the definition of the word. While convergent thinking focuses on assessment, identification, and the aim of producing ideas to give next steps, divergent thinking is a mindset that helps to develop a diversity of ideas to solve issues. Divergent thinking emphasizes the importance of generating ideas.

The two ideas that were presented by the author are taken into consideration in this research, which is based on this conversation. This is due to the fact that these concepts have put a direct focus on the process of problem-solving and have effectively incorporated the principles of creativity in the process of problem-solving. Furthermore, the majority of researchers included the ideas of Creative Problem Solving (CPS) from Osborn (1963) and Isaksen et al. (1993) into their investigations into the significance of a problem or an issue.

According to the author, the Creative Problem Solving Skills (CPS) approach places an emphasis on the premise that every person have a creative ability that is inherited and may be manifested by every student on various levels of thinking and at different ages. In addition, artistic expression may be seen in areas such as interest, thought, and individual preference. In addition, the ability to be creative may be improved at each and every stage of an individual's growth. According to Adam et al. (2009), creative problem-solving thinking has an effect on the capacity to make judgments, which in turn causes ideas and self-efficacy to continuously improve, resulting in an increase in productivity. When it comes to generating graduates of high quality who are competitive and have a great potential for creativity, placing an emphasis on these talents is one of the most important factors.

Creative problem-solving abilities, when seen from a theoretical viewpoint, involve a multifaceted framework that relies on a variety of cognitive, emotional, and social elements.

In order to understand and cultivate these talents, it is necessary to investigate the cognitive processes, psychological mechanisms, and social dynamics that contribute to efficient problem-solving. This is the theoretical basis. There is a significant theoretical framework known as the Creative Problem Solving (CPS) model. This paradigm offers an organized way to understanding creative thinking and improving it. Furthermore, ideas derived from cognitive psychology, neurology, and organizational behavior give insight on the inner workings of the mind as well as the complex interaction of elements that drive creative problem-solving methods.

FACTORS INFLUENCING CREATIVE PROBLEM SOLVING SKILLS

It is a cognitive process that involves discovering ideas and alternative ways to overcome any shortcoming or impediment. Creative Problem Solving (CPS) is an acronym for this process. Problem solving is strongly tied to the abilities, cognition, and information that are already present in order to solve difficulties in a variety of various settings. The process of developing creative problem-solving abilities is driven by a number of different elements. It is becoming more important for students to come up with creative solutions in both formal and informal learning environments. When it comes to creating people who are capable of finding solutions to problems, there are a number of considerations that need to be taken into account in order to effectively fulfill the notion of creativity itself.

The National Education Blueprint for Higher Education in 2015 placed an emphasis on the significance of information in the process of cultivating healthy lifestyles. Creative persons may be developed by the accumulation of broad knowledge in any discipline. As a result of the many studies that place an emphasis on knowledge in creative problem solving, students are encouraged to comprehend and make use of information in order to recognize appropriate methods and procedures that are used in the process of developing creative problem solving abilities. In light of this, it has been shown that having an understanding of creative problem solving is an essential component that may provide students with an opportunity to express their creative thinking.

In addition to that, the sharing of information via collaborative efforts with other persons who are capable of producing high-impact alternatives. To put it another way, creative problem-solving abilities that include people working together as a group provide a stimulation that

may unleash those ideas and allow for more creative thinking. According to the author, the term "knowledge sharing" refers to the process of passing on information from one person to another person. Moreover, it will push people to develop their creative potential. Taking into consideration the environment of learning and teaching in a lecture, it is undeniable that group discussion, also known as cooperative learning, has the potential to increase the number of different approaches or possibilities to solving an issue. To put it another way, instructors urge students to participate in group problem-solving activities in order to stimulate more creative thinking among the student body. Cooperative learning, which encourages interaction and, as a result, boosts students' abilities to be more creative, was the subject of research that was carried out on high school students. As a result of these conversations, it is abundantly obvious that the act of sharing one's expertise may inspire pupils to engage in the process of developing solutions to a problem.

Providing students with encouragement via two-way contact is one method that lecturers may have an influence on students. Creative problem solving also incorporates the teaching style of lecturers in the lecture. It was claimed by Shallcross (1981) that instructors are not restricted to a specific technique and manner of problem-solving. The reason for this is that students may be encouraged to learn and their desire to be more creative in their approach to problem solving can be stimulated when they are exposed to a range of ways. For this reason, instructional methods must to include a line of reasoning that inspires students to engage in critical thinking by means of tasks and questions that are pertinent to the subject matter.

It was said by Weisberg (2006) that the most effective method for encouraging pupils to think creatively is to begin the teaching and learning process with questions that are based on the intended curriculum. Additionally, engaging materials and tools that are relevant to teaching and learning in the classroom have the potential to stimulate creative thinking among pupils. To put it another way, these materials ought to inspire students to think creatively about how to approach a problem and should also help them improve their level of thinking. It was mentioned by Marke et al. (2008) that in order to foster creative thinking, it is important to provide students with sufficient time to acquire a deeper comprehension of the educational materials that are offered to them. In the process of coming up with additional ideas and discovering new things, a creative person is able to increase their level of curiosity. Individuals are motivated to gain knowledge using a range of approaches and tactics to

produce creative thinking because they have a desire to gather information about a certain subject. As a result, students' thinking may be stimulated to be more creative when they are introduced to effective instructional tools and when the moment is just right. In a nutshell, the students have been motivated to improve their creative problem-solving abilities in the context of their learning as a result of engaging instructional methods and exchanges that go in both directions between the lecturers and the students.

The relationship between creative issue solving and problem solving abilities is referred to as creative problem solving (CPS). Because of the relationship between creativity and the ability to solve problems, it is necessary to have an atmosphere that is encouraging and helpful. It is possible for bad circumstances to result in undesirable views. Several studies have shown that there is a considerable connection between the environment and creative output.

The result of this is that students not only get experience in their own school but also participate in activities at other education institutions. Because of this, students' information is given a meaningful meaning, which helps them better prepare themselves for their cognitive requirements. It is possible to produce something that is more inventive and dynamic via the process of attachment and networking across schools. This is due to the fact that providing kids with exposure to different institutions gives them the space and chances to compare and contrast the information and knowledge that they have received, which in turn enables them to think more creatively.

Moreover, the focus placed on non-formal education is another factor that makes a substantial contribution to the process of creative crisis resolution. In the context of school students' informal education, their participation in activities such as volunteering and community development programs, among other things, is taken into consideration. The mixture of these surroundings is beneficial to the cognitive process since it enables it to work more efficiently in regards to creative problem solving abilities. Therefore, in order to foster creative thoughts, it is necessary to place pupils in an atmosphere that encourages them to think creatively and promotes their critical thinking.

There are a multitude of variables that may have an effect on creative problem-solving abilities. These aspects include individual attributes, environmental situations, and contextual components. There are a number of complicated interactions that take place between these

components, which affect the capacity of people and organizations to come up with creative solutions to problems. The development of techniques to foster and improve creative problem-solving abilities requires an understanding of these factors, which is vital for the process. In addition to the interaction between intrinsic and extrinsic incentives, important elements include individual characteristics, cognitive processes, organizational culture, educational experiences, environmental stimuli, and individual experiences.

Personal qualities are a significant factor in determining the degree to which creative problem-solving abilities are influenced. The ability to think creatively has been connected to a number of personality attributes, including openness to experience, curiosity, and a willingness to take chances. People who are open to new ideas, experiences, and points of view are more likely to be responsive to these things, which helps them cultivate a mentality that is suitable to investigating unorthodox solutions. Curiosity, which is defined by a need for knowledge and novelty, motivates people to seek out different information and opposing ideas, which in turn enhances their capacity to link disparate aspects in situations that require problem-solving. In a similar vein, those who are prepared to take risks are able to venture outside of their comfort zones, experiment with new techniques, and endure ambiguity, all of which are critical components of creative problem-solving.

Cognitive processes are essential to the creative problem-solving process, and the capacity to produce inventive solutions is greatly impacted by a number of aspects that fall under this area. The capacity to develop a range of thoughts in response to a stimuli is a critical cognitive talent that is related with creativity. Divergent thinking is a term that describes this ability accurately. As a result of their ability to investigate numerous viewpoints and potential solutions, individuals who possess excellent divergent thinking abilities are able to enhance the process of problem-solving. An other cognitive element that contributes to the enhancement of creative problem-solving is the capability to create distant connections, which involves linking thoughts or ideas that seem to be unconnected to one another. Individuals acquire the ability to approach issues from a variety of perspectives and to switch between divergent and convergent modes of thinking when they possess cognitive flexibility, which is defined as the capacity to alter thinking processes in response to changing demands.

In addition, the ability to temporarily store and manipulate information is a necessary component of working memory, which is critical for using innovative problem-solving

strategies. Having this ability helps people to maintain a mental workspace for the purpose of exploring complicated issue spaces, explore a variety of options, and juggle many thoughts at the same time. One of the factors that contributes to the fluidity and flexibility that is necessary for good creative problem-solving is the interaction between various cognitive processes.

The culture of an organization is a significant environmental component that has a significant impact on the creative problem-solving abilities of employees in the workplace. Providing a rich foundation for creative thought is a culture that places a high value on invention, supports experimentation, and is willing to accept failure. On the other hand, businesses that have a culture that is risk-averse, inflexible structures, and a fear of failure may be able to hinder innovative problem-solving capabilities. The Competing Values Framework, which outlines four main kinds of organizational cultures—clan, adhocracy, hierarchy, and market—highlights the ways in which various cultural orientations influence the manner in which people and teams handle difficulties. Support from leadership, transparent communication of corporate principles, and the construction of mechanisms that facilitate cooperation and idea-sharing are all necessary components in the process of cultivating a culture that encourages creative endeavours.

At a young age, the development of creative problem-solving abilities is influenced by the experiences that are gained via education. By placing an emphasis on compliance rather than inquiry, traditional educational systems that place a priority on rote memorization and standardized testing may unwittingly stifle an individual's creative potential. On the other hand, educational strategies that promote critical thinking, learning across disciplines, and problem-solving in the actual world are shown to be beneficial to the development of creative problem-solving abilities. Students are given the opportunity to use creative thinking in practical situations via the use of experiential learning, activities centered on projects, and exposure to a wide range of disciplines of study.

CONCLUSION

It is vital to do research on the creative capacities and problem-solving skills of school pupils in order to have a better knowledge of the cognitive development of the younger generation and to improve it. The realm of creative capacities encompasses a wide variety of skills,

including Skills like as critical thinking, inventiveness, and invention are essential for students to possess in order to successfully navigate a world that is becoming more complicated and dynamic. Insights into the manner in which students tackle difficulties, produce ideas, and think beyond the box may be gained via the investigation of these talents.

Additionally, the ability to solve problems is essential for accomplishing success in academics as well as in life outside of the classroom. In order to discover areas for growth and successful teaching tactics, it is helpful to conduct an analysis of the problem-solving skills of pupils. The results of this research have the potential to give information on the aspects that impact problem-solving, such as individual cognitive processes, teamwork, and exposure to a variety of learning situations. When educational methods and curriculum creation are informed by an understanding of the link between creative talents and problem-solving skills, the results may be beneficial. One way for educators to better prepare students for the challenges of the 21st century is to identify successful strategies for encouraging creativity and problem-solving in students. This allows educators to adjust their approaches to better meet the needs of students. Furthermore, the research has the potential to provide significant insights to policymakers, parents, and other stakeholders in the education sector, which will facilitate the construction of educational settings that foster and promote these critical abilities in kids who are enrolled in an educational institution. In the end, it is essential to investigate creative talents and problem-solving skills in order to guarantee that the educational system provides students with the tools they need in order to succeed in a world that is always changing.

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