

# Divergent Thinking Abilities: A Way to the Next Level of Teaching

Darpan Sharma<sup>1</sup>, Dr. Jaswinder Kaur<sup>2</sup>

<sup>1</sup>Research Scholar, Guru Kashi University, Talwandi Sabo (Bathinda)

<sup>2</sup>Former Assistant Professor, Guru Kashi University, Talwandi Sabo (Bathinda)

**Correspondence Author:** Darpan Sharma, Research Scholar, Guru Kashi University, Talwandi Sabo (Bathinda) (dsharma355@gmail.com)

---

## ABSTRACT

The teacher is the central figure in the educational system and is regarded as a natural role model, especially for the younger generation. Education is the backbone of national development and teachers are the mentors of the education system. In today's world, the teacher must be more skillful and professionally equipped for a result-oriented education. The current education system encourages the students to be skillful, which is only possible if the teachers also engage in the teaching-learning process while demonstrating divergent thinking abilities. The present paper is an attempt to provide the knowledge to readers with a rationale that the effective ways of divergent thinking abilities for teachers to teach in classrooms and increase students' active participation in the learning process.

*Keywords: Thinking skills, Divergent thinking abilities, Teacher skills.*

---

## INTRODUCTION

Thinking skills are mental, cognitive, and strategic processes we utilize when solving problems and making decisions. Activities like using information, making connections, decision-making, and coming up with new ideas, are known as thinking skills. The most common thinking skills are 1) Analytical Thinking Skills (methodical and structure-focused, analytical thinkers tend to examine individual parts of a problem before tackling the whole); 2) Creative Thinking Skills (approaching a problem from a different angle, creative thinkers tend to follow an unconventional process that involves asking a lot of questions); and 3) Critical Thinking Skills (critical thinkers favour a careful, detailed, and open-minded evaluation of a whole problem). A combination of all these skills reflects divergent thinking abilities.

### Divergent Thinking

It is a way of thinking or generating ideas that involves looking at several potential answers. Divergent thinking refers to diverging from the known or accepted to access new ideas. Indeed, it is a valuable tool in solving problems as well as a method of thinking that aims to generate a lot of ideas about a single topic in a relatively short time. It involves breaking a topic down into its various parts to gain insight into the various aspects of the topic. It is the ability to produce unusual and original ideas and to take an idea and spin out elaborate variants of the idea. Not all ideas generated by divergent thinking need to be necessarily correct or even workable; the ideas may be imaginary, outlandish, impractical, and sometimes wrong.

Divergent thought begins with a common point and extends in several ways to include a range of viewpoints. Divergent thinking is the process of coming up with many, original ideas to address issues that have never been addressed before and that have a wide range of potential answers or results. Many psychological factors, cognitive and emotional, can influence divergent thinking (Megalakakiet *al.*, 2012). The literature widely highlighted the factors to assess divergent thinking likewise, flexibility and fluency (Guilford, 1967); associative and executive processes i.e., updating, inhibition of information in new ways (Beaty *et al.*, 2014; Kenett *et al.*, 2014; Forthmann *et al.*, 2016). The associative processes have strong connections with memory to help create processes to elaborate and emerge (Jung & Vartanian, 2018). Divergent Thinking abilities are a measure of an individual's innovativeness and creativity. Razumnikova and Olga (2012) are stated that Guilford characterized divergent thinking as a mental process having the following four aspects in The Encyclopaedia of the Sciences of Learning (1028):

1. **Flexibility** is the capacity to come up with and classify a range of thoughts into other categories in order to examine things from many perspectives. It is also seen as the capacity to flip between different notions while thinking about them all at once.
2. **Fluency** is the capacity to quickly produce a wide range of distinct thoughts, concepts, or replies that purposefully provide alternatives, even when a person is content with his previous beliefs.
3. **Originality** is the measure of originality is the rarity of answers. It is the capacity to think beyond the box and produce creative solutions.
4. **Elaboration** is the capacity to elaborate on ideas and adorn them with specifics. It is also the capacity to design complex plans. An individual with this ability tends to associate the previous information in eloquent, expressive, and persuasive ways.

#### Importance of Divergent Thinking for Teachers

- Opens possibilities of innovative ways to solve more complex problems, overcoming the tendency of learners
- Fosters empathic understanding of difference and appreciation of varying perspectives
- Develops curiosity, encouraging experimentation, risk-taking, perseverance through failure, and self-expression among learners
- Develops creativity, which is often cited as one of the most in-demand skills
- Promote cooperation to share ideas and collaborate on a same objective to raise morale.

#### Development of Divergent Thinking abilities

Divergent thinking abilities help the teachers in the effective practice of teaching. The literature shows that divergent thinking abilities improve the students' performance in which teachers play a significant role (Outage, 2014; Sharma, 2017; Pratomo, 2018) via using various methods such as:

- ❖ Examine ideas and consider what elements of a problem can be eliminated
- ❖ Think about how to substitute materials that are already being used and consider how to substitute for methods that are already being employed to solve problems
- ❖ Associate the ideas that seemingly have no connection
- ❖ Use materials in a different way than they are currently being used
- ❖ Use of technology to generate ideas
- ❖ Find a new way to solve the same problem with various possible solutions

#### Ways for Effective Use of Divergent Thinking Abilities in Teaching

- **Solve the problem:** When students are solving a difficult problem, urge them to start with the most basic phrasing of a question. Help the students to find a faster way to solve the problems, recover, and try again.
- **Respond to students' questions:** Develop the habit among students to ask questions, if their question is not appropriate never discourage them because questions arise when divergent thinking has the highest chance of being cultivated.
- **Positive attitude towards projects:** Teachers should encourage the learners to explore different perspectives through assignments, minor classroom projects, and research activities. All these classroom activities help the students engage in practical work associated with different ideas, that use waste material to create new models by modifications, diversification, and rearranging problems by reframing the ideas.
- **Group discussion** is the oldest method to develop the habit to ask questions that require learners to think about a topic(s) differently, which also improves communication skills.
- **Brainstorming** is a large or small group activity and a strategy that can be used by teachers to encourage students to focus on a topic and contribute to the free flow of ideas.
- **Use technology:** Technology changing the teaching-learning process day by day. Distinctive features of technological advances develop divergent thinking that opens up new perspectives in education, as knowledge of practical applications for new approaches.
- **Freewriting** is a useful approach to developing and recognizing concepts by writing for a predetermined amount of time. It allows both the teachers and students to accept, think, analyze, and understand the actual ideas through open-ended questions. The opportunity to freewriting is also helpful to boost self-confidence among the learners.
- **Mind Mapping:** Mind Maps or subject mapping help the students to express their ideas about a subject matter in a Mind Map before and after a class. Students will retain the information in a better way that assures teachers that students remember and understand the knowledge.
- **Transfer of learning** is applying the acquired knowledge, information, strategies, and skills to a new situation or context which is making students comprehend the concepts with critical thinking instead of rote memorization.

- **Simulated Teaching** is helpful to provide an accurate representation of a realistic situation, and enables the learners to obtain skills, competencies, and knowledge by involving them in situations that are similar to those in real by teaching through role-play, case studies, or gaming methods.
- **Provide feedback:** Effective feedback helps the learner to improve their learning and learning strategies so they can adjust make better progress in their learning.

### CONCLUSION

In short, the capacity for diverse thought to generate novel ideas or create something new. Divergent thinking may inspire creativity and result in the development of more original solutions to issues. Teachers can encourage students to focus more on the learning process via divergent thinking in daily classroom activities. The development of divergent thinking generates creative products through the use and applications in the teaching-learning process.

### REFERENCES

- [1]. Beaty, R. E., Silvia, P. J., Nusbaum, E. C., Jauk, E., & Benedek, M. (2014). The roles of associative and executive processes in creative cognition. *Memory & Cognition*, 42(7), 1186-1197. doi: 10.3758/s13421-014-0428-r8
- [2]. Forthmann, B., Gerwig, A., Holling, H., Çelik, P., Storme, M., & Lubart, T. (2016). The be-creative effect in divergent thinking: The interplay of instruction and object frequency. *Intelligence*, 57, 25–32. doi: 10.1016/j.intell.2016.03.005
- [3]. Guilford, J. P. (1967). *The Nature of Human Intelligence*. New York, NY: McGraw Hill.
- [4]. Jung, R. E., & Vartanian, O. (2018). *The Cambridge Handbook of the Neuroscience of Creativity*. eds. Cambridge: Cambridge University Press, doi: 10.1017/9781316556238
- [5]. Kenett, Y. N., Anaki, D., & Faust, M. (2014). Investigating the structure of semantic networks in low and high creative persons. *Frontiers in Human Neuroscience*, 8, 407. doi: 10.3389/fnhum.2014.00407
- [6]. Megalakaki, O., Craft, A., & Cremin, T. (2012). The nature of creativity: Cognitive and confluence perspectives. *Electronic Journal of Research in Educational Psychology*, 10(28), 1035-1056. doi: 10.25115/ejrep.v10i28.1548
- [7]. Pratomo, S., Hendawati, Y., Putri, S. U., Sumiati, T., & Widodo, S. (2018). Divergent thinking of students and teachers through problem-based learning in environmental science. *Journal of Physics: Conference Series*, 1318(1), 1-5. doi:10.1088/1742-6596/1318/1/012116
- [8]. Sharma, D. N., & Dhingra, D. R. (2017). Divergent Thinking Skill among Primary Students in Jammu. *International Journal of Current Research*, 9(09), 57751-57755.