**ENHANCING MULTIPLE INTELLIGENCE IN THE CLASSROOM**

Reference ID : **IIPER1679804725**

**Dr. P. VEL MURUGAN**

Assistant Professor in History

Sri Ramakrishna Mission Vidyalaya College of Education

(Autonomous)

Coimbatore, Tamil Nadu, India - 641020

**Introduction**

It is an undeniable truth that all individuals possess a set of intelligence which make them unique. All individuals are not alike. Each of them has their own strengths as well as their weaknesses. The intelligence of an individual is denoted by his power or capacity. Intelligence differs from one individual to another. Before many decades, Howard Gardner’s Theory of Multiple Intelligence became popular with teachers as well as parents by serving as a tool for exploring the gifts and talents of children. Gardner describes different areas of intelligence such as verbal linguistic intelligence, mathematical logical intelligence, spatial intelligence, musical intelligence, kinesthetic intelligence, interpersonal intelligence, intrapersonal intelligence, naturalistic intelligence and existential intelligence.

**Theory of multiple intelligence**

The study of intelligence involves multi-disciplinary, scientific and systematic act where inferences are drawn from various disciplines such as Psychology, Sociology, Anthropology, Biology, Neurology and also Humanities. It has led to the development of the Multiple Intelligence idea, which is discussed in Gardner's book *"Frames of mind."* According to Gardner (1983), intelligence is much more than Intelligent Quotient (IQ) because a high IQ does not necessarily translate into intelligence in the absence of productivity. Intelligence is stated by Gardner in a much broader way than psychometricians who considered intelligence as a simple entity described psychometrically with an IQ score.

The theory of multiple intelligence is changing the way some teachers teach. Gardner characterizes intelligence as the capacity to produce goods or find solutions to issues that are valued in a variety of cultural contexts. According to Gardner, there is no general intelligence as such and rather multiple intelligence. He says that all human beings have multiple intelligence that can be nurtured and strengthened. The categories of intelligence are mentioned below.

According to the theory of Multiple Intelligence, all these areas of intelligence are necessary to create effective functioning of society. Teachers need to transmit a wide range of knowledge and abilities to students and should value each of these categories of intelligence. In the classroom, all students differ in the sense that they have different sets of developed intelligence. Teachers have the ability to help students understand a subject by teaching them how to use their higher order cognitive abilities instead of just their lower order skills. Since all students have different learning styles, they can be evaluated by creating and applying an “intelligence file” that can help the teachers to evaluate and correctly choose the most suitable and efficient teaching methods in the classroom for the benefit of students.

**AREAS OF MULTIPLE INTELLIGENCE**

Verbal Linguistic Intelligence

 Verbal Linguistic Intelligence is the area of intelligence which is responsible for all kinds of linguistic competencies. If a student has this type of intelligence, he probably likes to play word games, make up poetry and stories, get involved in discussions with other people and also involve in debating, formal speaking, creative writing and telling jokes. Students possessing this type of intelligence are also adept at manipulating language in speaking, writing, and reading. They have a strong vocabulary and employ auditory skills in addition to speaking well. They also think in terms of words, write clearly, and spell with ease. Authors, journalists, poets, orators, politicians, salespeople, translators, comedians and lawyers are mostly found to exhibit this type of intelligence.

The methods and tools that can be used in teaching-learning to improve students’ verbal communication skills are listening to talking books and cassettes, involving in speeches and debates, extemporaneous speaking, large and small group discussions, brainstorming activities, choral and individualized reading, reading aloud in class, use of worksheets and manuals, writing activities, word games, utilizing word processors, recording one's speech, etc.

Logical Mathematical Intelligence

 The branch of intelligence known as logical mathematical intelligence is in kind of all aptitudes, skills, and capacities pertaining to logic and mathematics in all of its manifestations. When faced with a difficulty, learners who are logical and mathematical in nature tend to be proactive. Students possessing this kind of intelligence are able to comprehend numerical correlations and patterns. A student is logically and mathematically smart when he thinks in terms of numbers, patterns and algorithms. These students often work on mathematical problems, patterns, strategy games and also involve in experiments. It is typically observed that mathematicians, physicists, and philosophers possess this kind of intelligence.

Students can improve their logical mathematical intelligence through a variety of methods and resources, such as Socratic questioning, Piagetian cognitive stretching exercises, logical puzzles and games, logical-sequential subject matter presentation, scientific thinking, scientific demonstrations, coding, classifications and categorizations, quantifications and calculations, computer programming languages, and so forth.

Visual Spatial Intelligence

The branch of intelligence known as visual spatial intelligence is focused on the aptitudes, skills, and abilities related to the representation and manipulation of spatial arrangement and relationship. Students that exhibit visual spatial intelligence are also artistically inclined, with a keen sense of colour and detail, spatial awareness, and a passion for drawing and painting. This type of intelligence is often applied in the workplace. When students think in terms of visuals and images, it is claimed that they have visual/spatial intelligence. These students learn best through visual aids, enjoy drawing and creating, have an excellent eye for colour and detail, and are proficient in spatial relations. Extremely intelligent students may be observed solving puzzles and mazes, or simply thinking and doodling. This kind of intellect is typically found among land surveyors, architects, engineers, mechanics, navigators, sculptors, and chess players.

Some of the tools and techniques that can be used in teaching and learning to help students develop their visual spatial intelligence are charts, diagrams, graphs, maps, photography, movies, videos, visual puzzles and mazes, slides, 3D construction kits, creative daydreaming, imaginative storytelling, picture metaphors, painting, collage, visual arts, idea sketching, visual thinking exercises, graphic symbols, using mind-maps and other visual organizers, computer graphics software, visual awareness activities, optical illusions, colour cues, and telescopic lenses.

**Bodily Kinesthetic Intelligence**

The ability to use one's entire body, including the hands, fingers, and arms, to solve problems, create things, or generate something is known as bodily kinesthetic intelligence. It is the ability to perform skillful and purposeful movements. Individuals that possess this kind of intelligence are often highly conscious of their bodies. They can often perform a task much better than others. They most likely enjoy playing all types of physical games and giving instructions. These folks could have trouble staying motionless for extended periods of time and get bored rapidly. When students are well-coordinated, use gestures and body language, disassemble and reassemble objects, learn through practical experiences, enjoy acting and role-playing, and love dancing and sports are considered body smart. Athletics, physical education instructors, physicians, gymnasts, actresses, and firefighters are among the potential professions. People in the performing arts, especially dance and acting, athletes, and doctors are the ones who typically display this kind of intelligence.

To improve bodily kinesthetic intelligence among students, teaching-learning strategies and resources such as creative movement, mime, hands-on thinking, field trips, cooperative and competitive games, physical awareness and relaxation exercises, crafts, body maps, cooking, gardening, manipulatives, virtual reality software, physical education activities, communicating with body language, tactile materials and experiences, body answers, etc. can be employed.

Musical Rhythmic Intelligence

The kind of intelligence that encompasses the aptitudes, skills, and abilities related to the musical arts is known as musical rhythmic intelligence. Pitch discrimination, sensitivity to rhythm, texture, and timbre, the ability to identify themes in music, and the creation of music through composition or performance are all excellent ways to illustrate it. This intelligence makes its holders sensitive to sound. Students who like writing and reading music, enjoy making music, have a strong sense of rhythm and melody, and enjoy singing, humming, chanting, and rapping are considered music smart. It is seen in a sizable percentage of professionals, including conductors, vocalists, composers, and musicians.

Singing, humming, whistling, playing recorded music, performing live on the piano, guitar, and other instruments, group singing, music appreciation, playing percussion instruments, rhythms, songs, and chants, using background music, connecting classic songs with concepts, discographies, creating new melodies for concepts, listening to inner musical imagery, super memory music, etc. are some of the teaching and learning strategies and resources that can be used to increase students' musical rhythmic intelligence.

Interpersonal Intelligence

Interpersonal intelligence is the capacity each person needs to comprehend and collaborate with others. Social interactions in day-to-day life are qualitatively maintained with it. Some examples are teachers, sales persons, politicians and religious leaders. Interpersonal skills are essential for anyone working with others. This is how people learn from one another. It is the understanding that arises from interacting and working with others, frequently in a group setting. These people most likely have a large social circle, are very empathetic toward others, and have a keen awareness of other people’s perspectives. They most likely enjoy working in teams of all sizes and are excellent teammates. These individuals are perceptive to the thoughts and emotions of others. Additionally, they probably know how to get people to participate in a conversation. They are also adepts at mediating disputes, resolving conflicts, and reaching a middle ground when parties are diametrically opposed to each other. In the educational setup this intelligence thrives on active learning within the social context of the classroom.

In order to improve students’ interpersonal intelligence, teaching-learning programmes can bring out various tactics and resources, such as cooperative groups, interpersonal interaction, conflict mediation, peer teaching, board games, cross-age tutoring, group brainstorming sessions, peer sharing, community involvement, apprenticeships, simulations, academic clubs, interactive software, social gatherings as learning contexts, people sculpting, etc.

Intrapersonal Intelligence

The capacity to understand oneself, one’s cognitive strengths, styles, and mental processes is known as intrapersonal intelligence. It speaks about one's capabilities, desires, responses to situations, and things to avoid. They frequently recognize their limitations. They are also aware of where to go for assistance. Thus, it offers insight into a person's overall behaviour. It involves being conscious of our emotions, values, beliefs, and spirituality as well as our inner selves. Saints, yogis, and philosophers are examples of it. Students with high intellect frequently possess strong opinions, self-assurance, and a strong determination on practically any topic. If a student's intelligence is one of their strong characteristics, they could prefer working alone and occasionally avoid social situations. Their insights are very intuitive, and they possess creative wisdom.

By employing the strategies and materials namely, independent study, feeling-toned moments, self-paced instruction, individualized projects and games, private spaces for study, one-minute reflection periods, personal connections, options for homework, choice time, self-learning programmed material, self-esteem activities, journal keeping, goal setting sessions, etc. in teaching-learning enhance students’ intrapersonal intelligence.

Naturalistic Intelligence

Gardner's intelligence was expanded in 1997 to include naturalistic intelligence. It describes the capacity to identify and categorize all types of flora and fauna, as well as minerals, rocks, grass, and animals. The naturalistic intelligence may also be a factor in the recognition of cultural artifacts. Students possessing this intelligence level may be able to distinguish between natural objects such as fish, animals, insects, birds, rocks, minerals, and plants, and non-natural objects like cars. Additionally, they learn best when the material is connected to the natural world. It entails being fully aware of everything that takes place in and around our natural surroundings. The weather, the sound of the wind, the changing leaves in the fall, the warm sun, or a bug in the room most likely captivate or have an impact on students. Those who work in agriculture, conservation, biology, and the environment are more likely to possess this kind of intelligence.

The following techniques and resources can be used in teaching and learning to improve students' naturalistic intelligence such as nature observation, conservation methods, environment feedback, habitat creation, sensory stimulation exercises, taking care of plants and animals, gathering and categorizing natural objects and organisms, etc.

**Existential Intelligence**

A person with existential intelligence is one who asks probing inquiries about ultimate realities, life and death. They are interested in existential or cosmic matters. They look for encounters with religious myths and a predisposition to life and death. They have the capacity to relate to the infinite or the cosmos. The ultimate realities pique their curiosity. Individuals possessing existential intelligence tend to be highly self-aware and introspective. They are fully aware of their own inclinations, convictions, and personal views. Activities at school that give kids a range of experiences are enjoyable to them. Rather than committing facts and information to memory, they would rather express themselves and their thoughts. They are adepts at assessing their own work and regularly exhibit motivation. This type of intelligence is possessed by philosophers such as Aristotle, Einstein, Plato, Socrates, and all Indian yogis and saints including Vivekananda, Yogananda, Ramathirtha, and Rishi Aurobindo. In the learning environment, this kind of intelligence flourishes if the students are provided opportunities to ask ‘why’ and ‘what’ kind of questions.

The strategies and materials like charity work, puzzle games, critical thinking questions, questions and answers game, read books in different languages, read about other cultures, draw or paint a scene from a story, write an opinion essay on a certain topic, guess, imaginative play, group discussion, etc. can be employed in teaching-learning to enhance existential intelligence of students.

**APPROACHES TO DEVELOP MULTIPLE INTELLIGENCE**

The following approaches can be used to develop multiple intelligence in the classroom.

1. **Lesson design:** The teaching and learning process follows lesson design, which includes asking students about their ideas on the best ways to teach and learn specific topics, or having team teachers use all or some of the intelligence in their lessons.
2. **Interdisciplinary approach:** Using an interdisciplinary approach is possible for some areas.
3. **Student projects:** Projects allow students to learn and develop their skills.
4. **Assessments:** Through assessments, students can demonstrate their learning. This can occasionally take the form of giving each student the freedom to design the method by which they will be evaluated as long as they fulfil the teacher's quality standards.
5. **Internships:** Students can learn a skill through internships and eventually become proficient at it if they work hard and practise discipline.

**IMPLICATIONS OF MULTIPLE INTELLIGENCE**

 The teacher while teaching in classroom can focus on multiple intelligence by making students realise their potentialities by enabling them to experience different outlets of learning. Using Gardner's idea, it might be required to devote more time to preparation and planning. Students with multiple intelligences learn better because they can use combinations of all nine intelligence during learning, rather than just one or two of them.

The Multiple Intelligence approach allows students to meet the demands of the classes while acknowledging individual diversity. As a result, students are able to complete their work and participate fully in class activities. Additionally, the intellect, cognitive processes, hobbies, and capabilities of the individual are stimulated, highlighting areas for future development. Teachers themselves might take pleasure in creating lessons that fit the skills and interests of their students. It also makes it easier for teachers to meet the various demands of their students. Teachers can enhance their students’ learning by utilizing everyday occurrences and real-world scenarios. The method enhances students' abilities to sing, draw, think, and express in addition to helping them to improve their speaking, listening, writing, and reading skills. To put it in another way, it aids in developing each student's potential. Thus, the nine intelligence can enhance and synthesize the learner as a whole.

**CONCLUSION**

Teachers have a great role to play in enhancing the multiple intelligences of students in the classroom. Multiple intelligences encourage the development of creativity, problem-solving skills and social skills. Opportunities can be provided to students to express themselves artistically, involve them in open-ended projects, and make them tackle real-world problems using their unique intelligence. The knowledge of theory of multiple intelligence enables teachers in exploring deeply on curriculum transaction, assessment and pedagogical practices. It helps them to actively engage in developing new approaches. It also helps them to cater to the needs of different types of students in the classroom. Teachers have the ability to support all forms of intelligence in their students and provide them with a personalized learning experience that will ultimately help the student to make use of their special skills and improve the learning process. Teachers should use different teaching strategies, diverse materials and variety of resources in the classroom that address multiple intelligence to accomplish the needs of all students effectively. They should also take action to employ a variety of evaluation techniques, provide a supportive learning environment, and provide students chance to explore their skills, abilities, talents and interests. By implementing multiple intelligence theory, teachers can create an inclusive classroom meeting the diverse needs of all learners which in turn makes teaching-learning process more effective.

**REFERENCES**

Andrea L. Heming (2008). Multiple intelligences in the classroom. Fall: Western Kentucky University.

Armstrong, T. (2000). Multiple Intelligences in the Classroom (2 ed.). Alexandria, Virginia, USA: Association for Supervision and Curriculum Development.

Brualdi Timmins, A. C. (1996). *Multiple intelligences: Gardner's theory*. Practical Assessment, Research, and Evaluation, *5*(1),10.

Charles Peeler Jefferson, W. (2007). The implementation of multiple intelligences in the classroom to enhance student learning. Menomonei: University of Wisconsin-Stout.

Gardner, H. (1991). *The unschooled mind: How children think and how schools should teach*. New York: Basic Books.

Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*.  New York: Basic Books.

Gardner, H. (1993). *Multiple intelligences: The theory in practice*. New York: Basic Books.

Gardner, H. (1999). *Intelligence reframed.* New York: Basic Books.

Gardner, H. (2000). *The disciplined mind: Beyond facts and standardised tests, the K-12 education that every child deserves*. New York: Penguin Putnam.

Gardner, H. (2010). *Multiple intelligences.* Retrieved from http://www.Howard gardner.com/ MI/ mi.html

Howard Gardner’s Theory of Multiple Intelligences, Northern Illinois University, Faculty Development and Instructional Design Centre, Retrieved from https://www.academia. edu/28068080/Howard\_Gardners\_Theory\_of\_Multiple\_Intelligences

Lazear, David (1992). *Teaching for Multiple Intelligences*. Fastback 342 Bloomington, IN: PhiDelta Kappan Educational Foundation. (ED 356 227)Scientists, *1*(2), 1-12.

[Linda C. Campbell](https://www.amazon.com/s/ref%3Ddp_byline_sr_book_1?ie=UTF8&field-author=Linda+C.+Campbell&text=Linda+C.+Campbell&sort=relevancerank&search-alias=books), [Bruce Campbell](https://www.amazon.com/s/ref%3Ddp_byline_sr_book_2?ie=UTF8&field-author=Bruce+Campbell&text=Bruce+Campbell&sort=relevancerank&search-alias=books) & [Dee Dickinson](https://www.amazon.com/s/ref%3Ddp_byline_sr_book_3?ie=UTF8&field-author=Dee+Dickinson&text=Dee+Dickinson&sort=relevancerank&search-alias=books) (2003). *Teaching and learning through multiple intelligences*. Boston: Allyn and Bacon.

Mangal, S. K. (2007). *Advanced educational psychology*, New Delhi: Prentice-Hall of India Private Limited.

Mahmoud Mohammad Sayed Abdullah (2008). *Multiple ways to be smart: Gardner’s theory of multiple intelligences and its educational implications in English teaching and oral communication*, Egypt: Assiut University.

Reena V. Nair (2010). Multiple intelligence a broad vision of education, *Edutracks. 9*(6).

Vishal Jain (2008). Retrieved July 31, 2023 from [*http://schoolofeducators.com/2008/07/ multiple-intelligences-strategies-in-the-classroom/*](http://schoolofeducators.com/2008/07/%20multiple-intelligences-strategies-in-the-classroom/)