

## **The Educational and Practical Importance of the Theory of Multiple Intelligences for Athletes**

Prof. Tarek Mohamed Badreldin

Neuropsychology is considered one of the modern neuropsychological sciences in the Arab world, as it is concerned with studying the relationship between brain functions and behavior and relies on many objective technological devices and means to identify the different areas of the brain that show different levels of mental activity and to know the functions performed by each of the different areas of the brain.

The human nervous system is the one that controls the performance of all the various body systems with their specialized and common functions. The nervous system consists of more than 100 billion cells spread between the human brain, the spinal cord, and the nerves spread throughout the human body. All nerve cells are connected to the nerve network, which works as a one unit

The brain is the source of behavior, as each brain region has a specific function. Despite the multiplicity of brain regions, there is overlap, communication, harmony and integration between their different functions. The regions do not work as separate and isolated units. Also, any change, development, injury or disturbance in any region can negatively or positively affect the performance of a specific function of another region, because of the injured region, for example, sending signals and commands to the region responsible for performing this function to perform its function efficiently and consistently.

The first attempt to measure intelligence was made by the intelligence test designed by the French scientist "Alfred Binet" in 1904 AD. The aim of this test was to classify learners according to their ability to achieve academic achievement

During the historical development of intelligence scales, we find that intelligence scales only consider some of the learner's abilities, such as linguistic, logical and mathematical abilities, while neglecting other abilities despite their value to the learner when interacting in society. This is what led to the emergence of the theory of multiple intelligences, which was not a coincidence, but rather had scientific foundations and bases, and came as the culmination of a long and complex journey of scientific studies that were interested in the concept of intelligence.

The theory rejected the idea of a single intelligence that remains constant throughout an individual's life and focused on the various and multiple aspects of creativity in individuals and emphasized the existence of many relatively independent mental abilities in everyone, which it called "human intelligences", each with its own characteristics and features. It also acknowledged that each of these intelligences can be developed if it is provided with appropriate training and encouragement, and thus it considered the aspects that the traditional view of intelligence had overlooked. Thus, it brought about a radical change in relation to intelligence and its effects on the educational and training process.

Given the multiple and different intelligences among beginners, it is necessary to follow diverse educational and training approaches to achieve communication with all young people and beginners during their practice of various sports activities in which the level of their multiple intelligences appears.

The theory presents a pluralistic conception of intelligence, considering the various forms of human activities. It is a concept that recognizes our mental differences and the contradictory methods that exist in the behavior of the human mind when solving problems and making decisions. Gardner, the author of the theory, explained that everyone possesses eight main independent mental abilities, which are represented by linguistic intelligence, logical-arithmetical intelligence, visual-spatial intelligence, musical intelligence, bodily-kinesthetic intelligence, personal intelligence, social intelligence, and naturalistic intelligence.

***The theory of multiple intelligences as the most important educational applications derived from neuropsychology in sports activities*** *The importance of linguistic intelligence during sports activities appears in the player's follow-up of the coach's instructions and the way he gives instructions to team members, and the comprehension and learning of motor skills and understanding of game plans during tactical learning. In addition to the player's ability to express his thoughts, opinions and feelings, and his social and motor communication during learning situations, training and sports competitions. The importance of linguistic intelligence appears during the practice of sports activities that require this type of intelligence in the ability to think well to implement game plans and anticipate the competitor's behavior, the ability to innovate and create and solve problems that may be encountered during competitions*

*Most sports activities also require a great deal of visual-spatial intelligence, as the player needs to be aware of the parts of his body in space to be able to perform the required movement without relying entirely on the use of the senses, as well as to estimate dimensions and directions, and determine the distance he travels during the performance, as well as to estimate his place in space and the correct control of the body during the motor performance.*

*Bodily-kinesthetic intelligence is a basic requirement for performing all tasks and motor skills in all sports activities, in addition to its contribution to the success and speed of learning and performing manual, mechanical and electronic skills. Performing such activities skillfully is considered a type of bodily-kinesthetic intelligence. Excellence in the speed of changing the direction of movement and the direction of the body, and the sudden change in its movements during sports motor performance are among the most important characteristics and components of an individual's kinetic intelligence. Also, his ability to use his hands to produce or transform things, such as a sculptor, mechanic and surgeon. This intelligence includes specific qualitative skills such as coordination, balance, skill, strength, flexibility, speed, sense of body movement and position, and superior bodily-kinesthetic ability.*

*There are many sports activities that require musical intelligence to a large extent to use it in developing the individual's rhythm in performance, as each player has his own rhythm in performance, and the fast rhythm of movement raises the level of performance as it helps the player move parts of his body in the correct path of movement, and in determining the parts of the movement that require a higher rate of strength. Also, the high rate of musical intelligence of the player is an important indicator and requirement for excellence in these activities that are practiced in connection with music, such as rhythmic gymnastics, movement expression, synchronized swimming, and sports shows.*

*Sports activities, especially group sports, require a great deal of social intelligence as an aspect and a requirement at the same time, in cooperation between team members and belonging to the same team, and interaction and cohesion between team members in order to achieve a unified goal, as well as when the educational leadership of the sports team deals with its*

members, and to accept criticism and other opinions and respect the right of others to express their opinion, and self-reliance, and understanding the feelings and emotions of others and interpreting the behavior of others from team members and competitors in the other team, and controlling emotions and enduring pressures and difficulties. In addition to social communication with colleagues, which contributes to increasing the motor and social cohesion among them

Practicing sports activities and excelling in them requires a great deal of personal intelligence, which helps the athlete retrieve previous experiences that he has previously acquired in various learning, training and sports competition situations, as well as quickly assessing his situation and trying to respond correctly and what he needs, in addition to the ability to make the right decision and distinguish between similar situations to make the appropriate decision at the appropriate time.

**A proposal for youth and activity centers in schools, educational, sports and social bodies based on the theory of multiple intelligences:** This proposal allows for the establishment of eight basic centers that develop the types of multiple intelligences included in the theory. These centers are intended to provide players with different abilities from these intelligences. The player is mobile, and the teacher is stationary (circular training). The player moves from one center to another within the center or educational organization according to the type of intelligence required to be acquired or developed, and the coach remains stationary in his center. These centers are established considering the previous presentation of multiple intelligences. These centers are as follows:

*Mathematics Center:* This center contains educational resources suitable for developing logical-mathematical intelligence such as mathematics games, puzzles, resources for solving arithmetic problems and numerical abilities. And activities for disassembling and assembling devices and models, and other activities that develop logical-mathematical-arithmetical intelligence.

*Language Center:* This center contains educational training resources and activities related to developing pronunciation, letter articulation, and listening such as reading the Holy Quran and intonation in it and the hadiths of the Prophet, writing, reading, poetry, prose, and writing essays, whether in Arabic or a foreign language. And other activities that develop linguistic intelligence.

*Music Center:* This center contains educational and training resources and activities for models and paragraphs of hymns and songs related to information and historical and situational events related to the curriculum, and for learners to train on them. It also includes training on one of the musical instruments and singing to its tunes. Listening to musical pieces and distinguishing between them, and other activities that develop musical intelligence.

*Sports Activity Center:* This center provides appropriate opportunities and training and competitive situations to practice sports motor activities and acquire motor skills according to the inclinations, abilities and readiness of young people, and other activities that develop bodily-motor intelligence and social intelligence, if this is done under the supervision of trainers specialized in sports activities at the center.

*Science Center:* This center provides educational and training activities for models of scientific models, conducting simple scientific experiments, raising plants and some domesticated birds, as well as studying and interpreting some natural phenomena. And other activities that develop natural intelligence and visual spatial intelligence.

*Cooperative Communication Center: This center provides opportunities and appropriate manners for the learner to learn and acquire moral values and personal traits such as cooperation, bearing responsibility, friendship, self-denial, honesty and trustworthiness, in addition to social communication skills such as the etiquette of dialogue, respecting opinions and other opinions, accepting others and respecting their opinions and feelings. Expressing opinions in a calm educational manner, and other activities that develop personal intelligence and social intelligence.*

*Arts Center: This center provides appropriate opportunities to practice various artistic activities, acquire skills and implement artistic works such as drawing and sculpting that require a high ability to design, a high aesthetic sense, and practice creative drama and acting activities, and other activities that develop natural intelligence and visual spatial intelligence.*

*Summary of the importance of the theory of multiple intelligences for athletes It is a cognitive model that describes how players use their multiple intelligences to solve a problem and focuses on the processes that the mind takes in addressing and analyzing the situation to reach the appropriate solution. This theory helps the trainer expand the scope of his interests and training strategy to reach the largest number of beginners with different intelligences and learning styles, and thus players can respond to the training process in a way that is consistent with the amount of each of their multiple intelligences. It is compatible with modern trends and technology in education and training and makes the trainee the focus of the training process. It also helps the trainer consider individual differences, abilities, readiness, differences and distinctions among young people, thus helping to develop abilities, especially those that other intelligence theories have overlooked. The theory also emphasizes a new and different applied concept for educational and teaching practice in educational institutions and curricula.*

*The most important thing that distinguishes Gardner's theory from a practical point of view is that it is not limited to specific types of intelligence, but rather leaves the door open to discovering other types of intelligence. The theory helps in developing new systems for measurement and evaluation through tests that measure aspects of the content to include a variety of materials, sports activities and cognitive processes in a way that is consistent with and compatible with the variety of mental abilities corresponding to the multiple intelligences of the theory and the higher cognitive process, as well as mental aspects and information, so that the evaluation is comprehensive of the different types of intelligence.*

*Finally, young researchers must change their methods of thinking and approach in measuring variables, phenomena and psychological skills with modern techniques that give objective results that express the true psychological state of the player during performance and know his ability to apply the theory of multiple intelligences to how to reach modern methods in training according to situations and individual differences to improve the educational and training process.*