

Mental Imagery

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Introduction:

It is scientifically granted after detailed studies of human behavior in various life fields that any motor performance coming from human body parts individually or collectively is not a result of physical motion only but also as a result of mental and emotional processes which we don't observe directly but through nature and goals of these resulting physical motions . So, procedures of athlete sport preparation are restricted on developing his skilful, tactical and physical abilities only, hence it dealt with his physical organization and part of his cognitive organization and neglected an important part of his cognitive organization as well as athlete emotional organization as a whole, despite that sport motor performance is not resulting but through interaction of these sub – systems for sport personality (physically – mentally – emotionally).

From this point athlete psychological preparation occupied an important place in his preparation which qualifies him completely to achieve the desired sport results according to his aptitude and maximum of his personal abilities. Athlete psychological preparation is represented in a set of previously determined educational and scientific procedures by sport psychological specialist according to the requirements for sport practice in general , performing specialized sport activity on one hand and athlete aptitude and his profile on the other hand , in purpose of developing his motives , mental skills and emotional characteristics to tolerate physical and psychological burdens of training and adapt with competition conditions so that he can achieve the best possible level of sport achievement (162 – 1)

If physical preparation (physical energy) is trained through controlling training loads of the extent of external effort and appropriate rest , recognizing the effect of this on various body systems through helping athlete to control his thoughts e.g. concentration of attention and emotions , control , meaning not to be tension or excessive fear of competition .

Hence we see that athlete optimal sport performance (sport form) as a direct result of both physical preparation or organizing physical energy through developing physical abilities (power – speed – endurance – flexibility - agility – balance and sport abilities that are special sport skills of each sport , athlete optimal performance as result of psychological preparation which organize psychological energy achieving through developing psychological skills such as attention concentration , self confidence , coping stress and mental imagination . (23:24 – 2)

Sport mastery and arriving at worldly distinctive levels need searching of what is creative of scientific methods by recruiting scientists in all specializations to mix between sciences and use them to achieve precedence in sport field. Mastery in sport field is not fulfilled but with integrated work between mind and body.

Interested in athletes mental preparation is increased for its importance in raising skills learning quickly, whatever athlete fitness is full and his body composition is good, there must be a director and a leader of these physical potentials and physical fitness. Mind is one which performs this role, using it properly to achieve the required achievement which is dependent upon the extent of athlete's benefit of their mental abilities no less important than their

physical abilities and energies to achieve the best sport performance.

Ability of mental imagination in sport field is considered one of the important variables which reflect the effect of mental training on performance where mental imagination is used to embody performance through checking the skill mentally. This includes getting rid of errors by perceiving proper method of technical performance, so we find that most that have a clear idea of basic aspects to execute the skill can by mental imagination compare their responses with optimal performance and hence correcting improper responses.

Mental imagination is important in helping athlete performing proper responses through provoking skills mental image, expected to perform, preventing his thought distraction so he will concentrate better, as well as increasing his self confidence and motivation to construct new types fulfilling the required goals.

Using mental imagination in performing sport activities will help athlete on proper performance as a result of imagining weakness and strengths, consequently developing his play method, acquiring motor skills and attention concentration through a sense of optimal performance.

Although there are different definitions of scientists and specialists for mental imagination but most of them state that it is related with brain senses. Infer (1996) defined it as "re – forming, recalling experience in the brain ". But Wageeh Mahgoub (2000) states that it is the image in which the teacher holds through looking, explanation, clarifying motion and imprinting them in brain to be the basis to perform the movement. Richardson – quoted from Al Araby – argued that all semi sensory experiences by which we feel in conscious mind in the case of conditional stimuli requiring occurrence of true sensory and perception peers related with the nature of mental imagination without a need to pre – Informed stimuli. Mental imagination is not stopped on performance only but also on it's result. So athlete should invoke details of skilful performance and concentrate on knowing deficits and attempting to correct them through sensing and feeling of performance errors and imagining proper performance and repeating it

until performing actual performance of the skill and concentrating on success experiences for being strengthens the relationship between stimuli and response, hence performance level and it's speed is raised which is in the same speed of actual imagination.

Training on mental imagination must be a source of enjoyment and success so it is preferred to perform some relaxation exercises to get rid of tension and help nervous system to do his part with better efficiency through practice and repetition regularly so that the athlete can practice imagination in any place or time, keeping calm and not distracting his attention. In order that mental imagination achieves the required benefit the athlete should use the great amount of senses and recognize the most performance related sense. It is useful to analyze performance into stages and specific goals and invoke the actual image which answers questions running in his mind, his position, and emotion, the required power of performance, his opponent and others.

Mental imagination process is done through:

1) External mental imagination: depends upon invoking the mental image of a distinctive athlete performance or a hero, consequently all performance related aspects are recalled to find out the correlations and their functions in an appropriate method. Sight sense performs the basic role during using external mental imagination.

2) Internal mental imagination: invoking a mental image to perform certain skills or events previously acquired or viewed or learned coming from the athlete not from his view of external but from his selection of what he wants to execute the skill, so we notice that motor sense contributes effectively than other senses.

There is a relation between mental imagination and the extent of skill learning, so you find that the external works better than the beginning of the skill learning, the more performance level develops external imagination starts when the athlete sees himself performing the skill either during the skill proficiency and feeling it only, muscular sense not the visual one which occurs, so we find that thinking is used many times, each has it's benefit. Before exercise athlete imagines the skills and situations which he

expects to happen either after the exercise, so he checks them to compare his performance with optimal performance and avoids his errors.

But before the competition, mental imagination can also be used in purpose of re – arranging what he wants to work in his mind contributing in invoking sense of the optimal performance and concentrate attention on the skill before competition. Athlete can imagine after competition in purpose of reviewing skills and successful performance .There are sport effectiveness requiring mental imagination during peripheral periods during performance as in diving, gymnastics, jumping competitions and others. (1)

From previously mentioned , mental imagination plays an important part in developing athletes abilities and levels and it is a basic factor in developing their motor skills and their performance for being use nervous passages which are used during performance beside that mental imagination helps athlete to achieve more understanding the nature of skills performance , acquisition and development when effort and persistence is exerted in training and insist to fulfill the required achievement .

Some think that in order to acquire power it is necessary to perform physical exercise without offering any role for psychological aspect , for example we see that in weighting lifting before the athlete perform weightlifting , coaches provokes him extremely . It is shown that this stimulates all body muscles, makes the body alert state, enormous impulsiveness and energy. The study was conducted in one European nation where two groups of students were presented. For six weeks the first group was subjected to an intense training program of mental imagination where it is subjected first for a relaxed atmosphere, then slow breathing rhythm till the brain reaches Alpha wave which is called creativity wave, spreads conformity and concord with self as well as internal harmony, so everyone sees himself performs this training work. The results were that the first group who was subjected to an intense training program the power of grip increased at level of 38% and it is an excellent percentage where as the group who doesn't practice any training program or is not exposed to any type of

fatigue power of grip their power increased with 22 29 % .This is attributed that mental training and imagination lead to raise efficiency of nervous system and improve it's paths.

Europeans know the important of this, so we seldom see any team in any game hasn't a psychological physician, not mention great teams which have a specialist in these concerns. Mental imagination is very important especially for those who are keen acquiring strength of various juniors' class from 13- 18 years old. , where technicality is absent in most times , it helps to make him acquiring technicality as well as power and those who are injured or in summer holidays enables them practicing mental exercises , to maintain body power and remember exercises . There is also an importance residing in helping athlete in memorizing exercises which he should practice , they are invoked before exercise , which save much time and finally plays a role in raising brain and human mind efficiency , improving concentration and the ability of imagination and enables athlete to acquire a very distinctive memory . (4)

Importance of mental imagination:

It helps athlete to reach his best in training or competition through daily use of mental imagination, mental imagination starts with thinking in goals and strategies of the required performance in competition. It helps the athlete to imagine good performance directly before entering competitions , , contributes invoking sense of optimal performance , attention concentration on the skill before the last minute to take off achieving the goals , so mental imagination becomes of great benefit after successful performance especially when competition permits , such as trials sequence in jumping or throwing competition , finally removing negative thinking and giving further support of self confidence , increased motivation and constructing positive performance types and achieving goals .

Often we have the following questions: is mental imagination useful in sport field? This question is similar entirely the question: is breathing useful for the human? Imagination is a cognitive function for human beings, and it is an essential factor in developing motor skills and performance. Reports of researchers and

practical experience experts state that most athletes especially in high sport levels use mental imagination regularly. Allaway points out that motor imagination plays an important part in developing abilities and sport individual level and has a compound characteristic including visual and motor components .It is necessary to relate between visual imagination and thought aspect resulting from verbal explanation of motor skill . It is important to raise the level of mental imagination to reach sport mastery and that training should include sufficient time to use specific methods to develop mental imagination. Most high sport levels athletes don't confront new situations because these situations are repetitions of the same ones in several previous sport situations. There is a difference between skill mental imagination of the skill and its verbal description, athlete in a state of imagining a series of events hasn't sufficient time for imagination and description because this happens in the same limited time of performance. For this reason it is important to practice mental imagination than verbal description with words, where controlling the mental images became one of the important skills in developing performance and it includes practicing total experience and all dimensions in the situation with cooperation of all senses in performance with the executed skill and not attend to the unrelated stimuli and avoiding negative thoughts, so performance will done best. (4)

Although there are creative methods to use imagination and this is not a new method of imagination, psychological fields and personality development for several decades and was discussed by the philosophers for several centuries. For example:

“If you wish to reach a goal in your mind you really reach your goal”

“Using mental imagination is one of the most strong and effective strategies to make something happen to you”

“Creative imagination is a method of using your imagination to find what you wish in your life”

“Perhaps the successful method to make unconscious practical procedures is through the process of making mental images through imagination”

"There is a law in psychology states that if you are an image what would you like to be , to remain and think to what extent this image is long enough you will be sooner as you would like to be "

Here what was recently written by Dr. Richard who wrote (12) books of human brain:

"Imagine yourself a complicated process whether musically or sport, activating brain regions which improve your performance and this means that it can be of the mental image”

Although imagination is used today widely , even people who are acknowledgeable of it but sometimes they don't realize many of it's applications , it can be said that the most common one is using imagination on part of athletes and others of musicians and performers as a form of " mental training " . Researchers showed that “mind practice” may be an effective influence “as a body training practice.

Mental images can be used and called " imagination process “, as soon as you set your goals it is easy to make a list of daily habits, work behavior and the necessary steps to reach your goals, write steps and procedures which describe training process for you, go by yourself to shopping food, fruits, vegetables and proteins and ask for healthy food from the restaurant and go to hell consciously, there are some people develop an entire imagination of " an optimal day”

Technicalities of mental imagination are called “imagination physiology” describing process of fat burning in your body or view of increased muscular fibers more and more , by using this method unconscious may give instructions to the brain and body cells and it's tissues.

By using imagination physiology " you can - even in work - imagine the process of burning inside you imagine releasing stored fats inside your abdomen tissues or any place else, you would see your acidity and entering blood path. Work is done in muscles and burn to release energy in muscular cells. Muscles development physiology can also be imagined.

Imagination characteristics:

It is identified by Valley and Walter (1993):

- 1) Using past experiences and designing an experience in a good form, it has the ability to re- display past experience.
- 2) Imagination is a sensory experience; hence using more than one sense develops ability on imagination.
- 3) Imagination needs not an external stimulus. It is a sensory experience necessary in the brain, for all needs are internal stimuli without return to the origin environment.
- 4) Imagination has a physiological sense occurring in sensory parts in the brain, parts of peripheral sense don't play a part in imagination process, so imagination is considered a recall function.
- 5) Imagination is characterized by instability and less clear than perception because it depends on pre- perceived images. So training on imagination starts with parts then wholes to increase the ability on memorizing and understanding.(2)

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