Effect of Mental Imagery on Athletic Performance

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Abstract

Mental imagery is a psychological technique in which the individual uses imagination for creating a performance in mind. Mental imagery can improve various skills related to sports in actual field of contests. Sports are 90% mental and only 10% physical. This paper represents the performance of athletes of 100 meters race after conducting the specially designed mental imagery training program for them. Twenty male athletes were selected for the current study. The results showed great improvement after providing the mental imagery training to the male inter-collegiate athletes of Government Degree College Anantnag, Kashmir, India participating in individual 100 meter race competition.

Keywords: Kashmir, mental imagery, performance, physical skills and psychological.

Introduction

Mental imagery is an intervention, which may bring about favorable outcomes including better self-confidence and improved performance (Hall, 2001). It is a particular mental training that includes the use of all senses to produce a comprehensive experience in the mind of the athlete (Ungerleider, 1996). Mental imagery and self-talk strategies are implemented by athletes in order to regulate arousal, reduce maladaptive behaviors, reconstruct negative thoughts, and to increase one’s concentration and focus. There are many names for mental imagery including visualization, mental rehearsal, mental practice, and cognitive enactment (Short et al., 2006). Imagery may be divided into two categories: visual and sensorimotor. Visual imagery includes internal and external imagery. In internal mental imagery, the individual visualizes themselves as doing the task while, in external mental imagery, the individual visualizes themselves from a third-person perspective (Hall et al., 1998; Hall et al., 1997; Hall, 2001).

Mental imagery is a psychological technique in which the individual uses imagination for creating a performance in mind. Physical factors such as strength and speed and motor factors such as power, agility, and balance are essential characteristics for acquiring specific motor skills. Many of the research studies carried out during recent decades have offered greater scientific insight into mental imagery. Orlick and Partington (1989), identified elements of success as quality training, simulation training, quality imagery, daily goal setting, precompetition planning, competition focus planning, competition evaluation procedures, and distraction control. Imagery can incorporate all five physical sensations (i.e. vision, audition, olfaction, gustation, and kinesthetic) (Vines, 1988). Imagery has been demonstrated to be an effective means of enhancing performance in the performing arts and sport. Watt et al., (2002) defined imagery use as the manner in which people imagine themselves in ways that can lead to learning and developing skills and can facilitate performance of those skills. Imagery is a part of sport psychology skill (mental skill), where it effect to athletes to success in their tournament or game. In addition, many athletes and coaches today recognize the power of imagery in sport performance. In fact, athletes from most sport attribute at least part of their success to their use of imagery.

The concept of imagery is used in many different contexts (Khaled, 2004). Sport imagery can be defined as using all sense to re-create or create a sport experience in the mind with the goal of enhancing sport performance during training and competition (Morriss et al., 2005; Taylor and Wilson, 2005; Weinberg and Gould, 2007). It was explained clearly where your brain recalls and reconstructs pieces of information stored in your
memory to build a meaningful image. Over the past thirty years, there has been a surge in the interest of mental imagery and rehearsal in a variety of fields. In the late 1970’s and 1980’s, sports psychologists began to actively research and analyze the use of mental rehearsal and imagery in the learning and performing of motor skills.

The objective of the study was to improve the performance of athletes of 100 meters race after conducting the specially designed mental imagery training program for them.

**Materials and Methods**

The population of the research consists of all the male inter-collegiate athletes of Government Degree College Anantnag, Kashmir, India participating in individual 100 meter race competition held on 2012. 20 male athletes were selected as sample with the help of simple random sampling method. The performance of the athletes of 100 meter race of Govt. degree college Anantnag Kashmir has been taken into consideration. To collect the data and to meet the specified objectives, the timing has been taken with the help of stop watch and recorded on the specially prepared sheets.

The athletes have been asked to undergo specially designed training programme, based on the theory given by the author, the method which is popularly known as "Quick Set" routine method. All the athletes were placed on the same atmospheric temperature and pressure; then the same food and medical facilities were provided them during the specially designed training session for twenty one days.

**Results and Discussion**

According to T value calculated t is less than at 0.05 level of significance therefore there is no significant difference, but according to mean the athletes had improved their performance after providing them the mental imagery training. Exceptionally two students has shown to some extent negative effect, but out of 20 athletes almost 90% athletes had shown the positive effect of the training, but one thing is very important to mention here that the athletes already possess high performance need long term training for developing their least performance because they have already achieved the top level. On the other hand, the athletes who showed poor/average performance have shown great improvement after providing the mental imagery training.

![](image1)

**Table 1 A thletic performance after application of the specially designing training programme**

<table>
<thead>
<tr>
<th></th>
<th>Pre-test</th>
<th>Post-test</th>
<th>Cul t</th>
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</thead>
<tbody>
<tr>
<td>Mean</td>
<td>15.42</td>
<td>14.69</td>
<td>T=0.87</td>
<td>2.021</td>
</tr>
<tr>
<td>SD</td>
<td>2.75</td>
<td>2.43</td>
<td></td>
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</table>

We also come to know that by providing the mental imagery training the athletes who had performed 100 m. race in 18 sec. After training responded positively and completed the same race in 16.60 seconds. It means he has shown the improvement of 1.40 seconds. The athlete who had performed the same race in 13 seconds after training he completed the same in 12.3 seconds; it indicates that athlete had enhanced the performance by 0.97 second.

**Figure 1 A thletic performance of Inter - Collegiate Athelets**

Feltz and Green (1989) showed that mental techniques are the most common ones in improving the performance of athletes in competitive situations. Hans et al., (1987) reported that high-level athletes have higher self-confidence, less anxiety, higher mental imagery ability, and greater commitment. Further, Jackson et al., (2004) showed that mental practice, when combined with physical practice, can improve the performance of a sequential motor skill in people who had a stroke. Murphy and Martin believe that mental imagery is an effective tool for increasing the process of learning sport skills and improving the performance of the learner.
Gregg and Hall 2005 also came to the conclusion that mental practice improves motor performance.

Conclusion

Many sports such as golf, tennis and skating, not only require physical skills, but a strong mental game as well. Most coaches preach the line that sports are 90% mental and only 10% physical. Especially in sports where hundreds of a second or tenths of an inch separate the champions from the mediocre athletes, an extra edge can be extremely crucial. Hence, numerous athletes are turning towards mental imagery to take their game to the next level. Different uses of imagery in sports include: mental practice of specific performance skills, improving confidence and positive thinking, problem solving, controlling arousal and anxiety, performance review and analysis, preparation for performance, and maintaining mental freshness during injury. Mental imagery can also be used.

After the experimentation we come to the conclusion that mental imagery can improve various skills related to sports in actual field of contests. Visual imagery seems to be beneficial to anyone who wants to improve at their sports. Whether you are recreational or a professional do not matter. The benefits of mental imagery have proved successful at any level. Mental imagery not only improves motor skills but also seems to enhance motivation, mental toughness and confidence all which will help to elevate athletic level of play. However even though, most of the studies demonstrate that mental imagery results same significant sports improvement. In short we can say that mental imagery affects the athletic performance in a positive manner.

References