

**INVESTIGATION OF PSYCHOLOGICAL DETERMINANTS IN ELITE
ATHLETES FOR TALENT IDENTIFICATION AMONG
NON ELITE ATHLETES**

A dissertation Submitted to the
Lovely Professional University
In partial fulfillment of the requirements for the

Award of degree of
MASTER OF PHILOSOPHY

By

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Abstract

Psychological factors are associated with participation and performance of sports person. But development of psychological factors in sports persons is still neglected. "Recent research has shown that many athletes, coaches, and sporting administrators are still quite reluctant to seek out the services of a qualified sport psychologist, even if they believe it could help" Gee(2010). The aim of the present study is to Investigation the psychological factors in elite athlete for talent identifications among non-elite athletes. To obtain data, the investigators had selected forty (N = 40) players in which twenty were elite (10 athlete and 10 archers female) and twenty were non elite (10 athlete and 10 archers female) players of 19 to 35 years of age .Elite samples were taken from SAI Kolkata and non-elite were taken fromGuru Nanak DaveUniversity. Purposive sampling technique was used to select the samples. All the subjects, were informed about the objective and protocol of the study. Firstly semi structured interview was conducted with elite coaches, to determine the psychological component among athletes. To measure the level of selected psychological variables will to win, meta Cognition, Emotional intelligence, Goal setting and Meta cognition inventory were used. t-test were employed to compare the difference between elite and non-elite archers and athletes. For testing the hypothesis the level of significant was set at 0.05 level of confidence. The result reveled significant difference between psychological variables excluding will to win variable on elite and non-elite archers.

Keywords: - Non- elite, Elite, Psychological determinants.

Certificate

This is to certify that Miss. Kreepa Sharma has completed her dissertation *titled “Investigation of Psychological Determinants in Elite Athletes for Talent Identification among Non-Elite Athletes”* under my guidance and supervision. To the best of my knowledge, the present work is result of her original investigation and study. Not any part of the dissertation has even been submitted for any other degree or diploma.

Advisor

Dr. Neelam K. Sharma

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Business and Arts

Lovely Professional University

Phagwara

Date: _____

Declaration

I hereby declare that the dissertation titled "*Investigation of Psychological Determinants in Elite Athletes for Talent Identification among Non-Elite Athletes*" Submitted for M.Phil. Degree is my original work and all ideas and references have been duly acknowledged. It does not contain any work for the award of any other degree or diploma from any education institution or University.

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I wish to express my gratitude thanks to my parents for their constant inspiration to get things done and their pride in my accomplishments which has always been a source of inspiration and motivation for me. I also much thankful to Satyarai and friends for unconditional help in data collection and computation. Abundant thanks are to library staff of the institute for their assistance and co-operation in the conducting of this study

Last but not the least, heartfelt thanks are expressed to all subjects without whom data of this study would not be complete.

“Everything cannot be mention but nothing is forgotten”

(Research Scholar)

Kreepa Sharma

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CHAPTER -I

INTRODUCTION

CHAPTER I

INTRODUCTION OF PROBLEM

Nowadays, game and sport is becoming essential part of our life. It is not only important for success but also important in every walk of life. It includes indoor outdoor and fun activities and builds sense of cooperation, spirit of discipline and teamwork among individual. It also teaches to use energy in a right way and in right time. People who involves in various sports and games have a lot of advantages in comparison with those who don't like and never participated in games and sport. Study completed by Basir et al.(2013) reveals that "there is significant positive effect of cardiovascular among sports person and non-sportsperson". Sport helps an individual to maintain fitness. It also positively affects the psychological health of people and keeps emotionally and socially fit. The Performance of Indian sports and athletes of the international competition had been of great concern especially to the great personality of physical education and sports scientist. Much effort has been made to improve the standard of our sportsman's since long years and still trying for the development in future. However little success had been achieved in their respective field. "There various factors which are responsible for the performance of sports. It is now becoming more and more competitive and has also become a career with an emphasis on monetary gains and the desire to win at any cost" (Basir et.al 2013). Now a days sports is becoming very important part of education. The importance of sports benefits not only for the body but also to the mind and soul. Almost every game requires a certain degree of skill to play in an effective manner. Sports develop and encourage the spirit of healthy competition and environment. Competition is a natural nature of human being. Sports have extensive scope for the competitive atmosphere. The healthy spirit of rivalry and competition constantly leads to improvement in the performance and previous records and made new records and break the old records and constantly excelled or surpassed. There are several other factors which cause sports to an important place in life. It is generally by involving and taking part in different games and sports so that we cultivate what is called the spirit of showmanship and also teach us to cope with each other. This spirit of sportsmanship is

an excellent quality in a man and consists of fair play and sense of discipline quality for team work, cooperation, confidence and team management in oneself that enabled one to accept a defeat optimistically.

Role of Sports psychology

Psychology refers to the study of human behavior and sports psychology deals with the behavior of athletes and engaged in competitive sports. Sports psychology is a branch of psychology which intimately connects human behavior on the play field both under practice and competitive situation. Therefore the main aim of the sports psychology is to undermaster over the behavior of athletes and to modify according to the situation were as physiological responses potential reaches the dead end, the psychology process seems to make the athlete boost the energy to achieve the goal which physiologically seems impossible that is why psychological training and conditioning are now days a part and parcel of sports training. It is still dominated by those who cannot see behind their nose because harder and harder physical effort of which over educated and under educated on mental factors. Many athletes and coaches still try to develop the human capacity for sports performance only by physical conditioning but each and every athlete is unique upon each other. Apart from physiological differences such as height, weight etc. there are certain psychological differences as well. Some athlete are outgoing and extrovert where other may be shy, introvert and withdrawn, and they may also differ in their levels of perceptions. Some athlete are born with strong psychologically where as other are weak disposition. Athlete with weak disposition fail to accomplish their task. Thus individual differences in sports performance are an inevitable phenomena and coaches has to modify this approach according to the nature of each individual athlete. Sports psychology involves the connection between mind and the body and the utilization of things for connection and enhancement of athletic performance. Psychological (skill) training, on the whole is neither an appendage to sports training nor a supreme position on athletes activity regime. It is an essential condition for an athlete to develop into a star performance. All top athletes over the world publicly acknowledge the outstanding role mental practice. "Psychology training plays significant role to enhance the performance" (Gubelmann 1993). Emphasis is placed on understanding the psychological parameters

which the athlete can utilize to enhance their skill in the field of knowledge that enables athletes to dream, believe, and achieve the target in existing set of circumstances. In today's competitive sports world, it seems that very often the mental function is not trained well enough and the performance level decreases because of that deficit the whole system adjusts to the lower level "The athlete feels psyched-out and perform badly. If an athlete can adjust the system so they can reach at the higher level of feels psyched-up and reach at the peak performance" (Schilling 1993). When preparing for competition every single variable should be kept in mind such as physical, physiological and psychological which comes under the same umbrella of sports science. The principal of sports science when applied to the procedure of training technique refinement, workout, and development of athlete on different occasion as well as different setting and psychological preparation of athlete diminishes "As performance standards increase, and difficulty of top athletes to achieve significant amount of success and performance enhancement are due to the application of principal of sport sciences such as physiology, biomechanics and sport psychology utilizing in particular situation" (Rushall 1989). Whether the performance improvement occurs it's difficult to determine because the changes of fitness level, altered skill level or improvement of behavioral/ appraisal factors (psychological factors).

Presently the sports psychologist over the world are busy in developing exotic techniques of investigating the relationship between psychology and performance in variety of sports setting and also refining those already exist. Sports psychology is working in the field performance enhancement through systematic ways such as identification, manipulation and training of every critical psychological variables. The scholar from the field of physical activity, exercise and sports psychology are seriously engaged in research with the view to single out the threats which have strong relationship with elite athlete performance. Therefore the indication of superior psychological skills status of elite athlete, focus on the study of "psychological skill used by athlete to prepare for athletic competition verily showed that successful athlete experienced few psychological problems than less successful athlete" (Morgen 1966). The infinity psychological variable's which might result from every simple adjustment to environment to athlete environment not only confirms the extraordinary complexity of

the coaches but also a dire need for another person because it helps to grip with complex dynamic of athletic behavior under most unpredictable and stressful condition of competitions.

Talent Identification

Talent identification refers to the process of recognizing current participant with potential to become a successful players in a designated sports. “Sports personologists are left in doubt that for a unique personality is not enough for a person to be simply genetically gifted or possess certain inborn traits alone, but also to develop in himself an ability to struggle not just for servable for supremacy” (kamlesh 2007). Sports performance, are difficult to define in operational terms epically in sporting context through they, nevertheless, are inductive of the seeds of outstanding performance. (Fleishman 1964) refers to the ability “as a capacity of the individual that is related to performance of variety of task” It also serve as a trait measure. An individual is not blessed with a single ability only, but several; they are generally defined as a capacity and constitution the bedrock of performance potential. Talent identification program is conducted with a global approach to the athletic performance because raw talent will be a very little use if it cannot be actualizes within the typical environment of top level competition. To raise at top level performance ,better athlete stuff for coaches ,gather chance for greater number of athletes in a given number of athletes to reach the international level “higher homogametic of athletes in a given sport and greater confidence in athlete(Bompá 1985). “Many sports scientist found scientifically valid method to recognizing current participants with the potential to become an elite players by measuring physical, physiological and psychological and sociological attributes” (Renier et.al 1993). Talent identification and its development has become an important area of research in sports performance, due to rapidly increasing participation and performance density, only person who have talent stand a chance if winning a medal in a international competition. Sports talent is sum of total of pre-request and possibilities of their development possessed by person which will enable to achieve higher performance in sports in future. The pre requisites include motor abilities, tactical efficiency, and physical, personality traits, motivation, interest etc.

Significance of the study

Sport psychology deals with the mental aspects of sport and in various fields. It aim to improve both the sports performance and general well-being of the athlete through the application of psychological and physical techniques. One could argue this point however, as dealing effectively with athletes in an applied setting, still probably remains more of an art than a science. The past few decades has seen the steady gathering of quite a significant body of scientific research documenting the positive effects of many sport psychology interventions. Areas covered by sport psychology, range from confidence, motivation to performing under pressure, and everything in between. The important of psychological variables in talent identification can play significant role to identify the player's status and capability for winning the game. The research had made an effort to identify the responsible psychological variables for talent identification of athlete and archer it will also be helpful to the coaches for giving psychological training program for different level players of different games. It will also be helpful to increase the level of performance among non-elite athletes. It will explore the areas of sports psychology and will give new dimensions to research and talent identification. It will also explore the areas of sports psychology in physical education.

Statement of the problem

The present study was entitled as investigation of psychological determinants in elite athletes for talent identification among non-elite athletes. The investigator has identified the psychological factors responsible for good performance in elite athlete with the help of international coaches. On the basis of that variables comparison has been done between elite and non-elite athlete.

Objectives of the study

1. To identify psychological determinants responsible for performance among elite athletes.
2. To examine the level psychological determinants among elite and non-elite athletes.

Hypotheses

1. There exist significant difference between elite and non-elite archers on the variable will to win.
2. There exist significant different between elite and non-elite athletes on the variable will to win.
3. There exist significant different between elite and non-elite archers on the variable goal setting.
4. There exist significant different between elite and non-elite athletes on the variable goal setting.
5. There exist significant different between elite and non-elitearchers on the variable Emotional intelligence.
6. There exist significant different between elite and non-elite athletes on the variable Emotional intelligence.
7. There exist significant different between elite and non-elite archers on the variableMeta cognition.
8. There exist significant different between elite and non-elite athlete on the variableMeta cognitive.
9. There exist significant different between elite and non-elite archers on the variable Mental imagery.
10. There exist significant different between elite and non-elite athletes on the variable Mental imagery.

Delimitations

1. The present study was delimited to indentified psychological components of elite and non-elite female archers and athletes.
2. Elite archers and athletes were taken from SAI, Kolkata only.
3. Non elite players will be taken for Guru Nanak Dev University Amritsar (Punjab).

4. As very less sample of elite players were available, so the results were finalized on sample size of 40 players only.

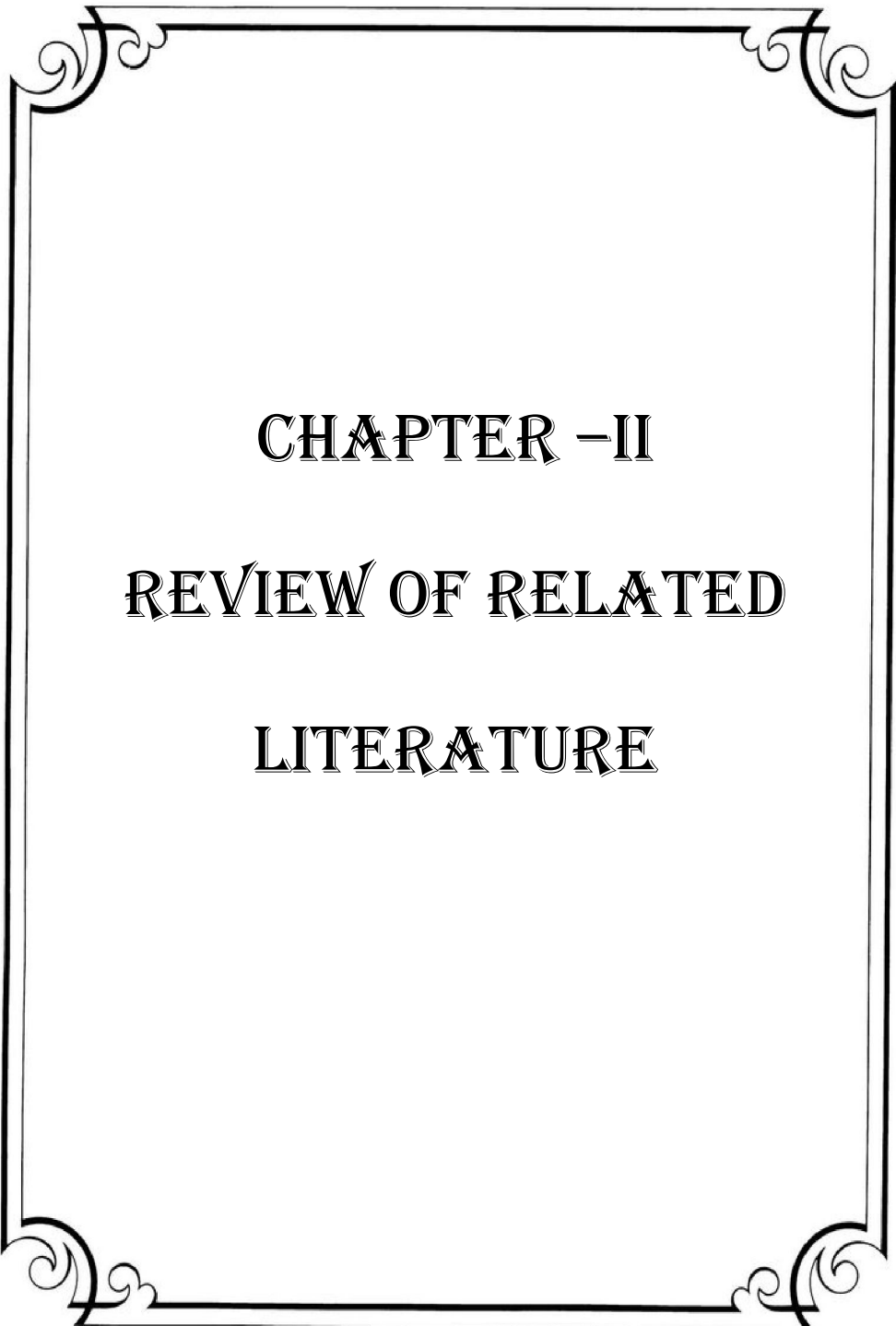
Limitations

The present study was limited to the factors below:

1. Inherent potentialities of the player were not known to investigator.
2. Health, life style, socio-economic and cultural background of the player were not know to the scholar.
3. The coaching and physical background of the players was unknown.

Operational Definitions of Selected Variables

- Elite athlete: - Elite athletes are those who have participated one or more than one time in international level competition.
- Non Elite: - Non Elite athletes are those players who have participated in inter college level competition and could not be selected for higher level competition.
- Psychological Determinants: - Psychological determinants are the responsible psychological performance indicators of an athlete.
- Athlete: - In the study sometime the terms athlete had been used for both Athletes and Archers.



CHAPTER -II

REVIEW OF RELATED

LITERATURE

CHAPTER II

REVIEW OF RELATED LITERATURE

Practically all the human knowledge can be found in book and library like other that must start a new generation. Main built upon the accumulated and recorded knowledge of the past. Constant adding to the vast store of knowledge makes possible progress in all area of human endeavor. The research scholar made an effort to locate the literature related to the study. The relevant studies are cited below:

Justin et.al (2003) conducted a study on evaluation of anthropometric physiological and skill related test for talent identification in female by using anthropometric physiological and skill related. Results indicate that, sprinting speed, agility, dribbling control, aerobic and muscular power, and shooting accuracy can distinguish between female field hockey players of varying standards.

Karin (2004) conducted a model on talent development programmer on selected physical variables and skills in adolescent girls. Result showed that four components of skill development improved significantly changes were found in four of the physical variables associated with netball performance. The squad-based model appeared to have been significantly more effective than the school-based model in the development of the physical variables of flexibility, speed, throwing velocity and aerobic fitness.

Lidor et.al (2005) explored to identify motor, physical, and skill variables that could provide coaches with relevant information in the selection process of young team handball players. The battery included physical measurements (height and weight), a 4 x 10-m running test, explosive power tests (medicine ball throw and standing long jump), speed tests (a 20-m sprint from a standing position and a 20-m sprint with a flying start), and a slalom dribbling test. Comparisons between those players eventually selected to the Junior National Team 2-3 years later with those not selected demonstrated that only the skill test served as a good indicator. In all other measurements, a wide overlap was seen between the results of the selected and non-selected players.

Anthony and Spaner (2006) conducted a study on talented identification in youth rugby players of South African and English youth rugby players. Results indicated that there were no big differences between anthropometric variables concerned and English players, however, significantly showed the worst results in all the physical and motor abilities while the South African players performed the best in game-specific skills test.

N.L et.al (2006) conducted a study on talent development in English professional soccer and examined on adolescent youth soccer players who were on the verge of being released by a third division professional soccer club in England. The findings suggested that players lacked volitional behavior, delaying gratification, determination to succeed, strategic career planning, coping strategies, and tangible support.

Tim and Georgieff et.al (2006) studied the effect on skill-based training program on measurements of skill and physical fitness in talent-identified of volleyball players. There were no significant differences between pre-training and post-training for body mass, skin fold thickness, lower-body muscular power, upper-body muscular power, and maximal aerobic power.

Marije et.al (2007) studied to measure the anthropometric, physiological, technical, tactical, and psychological characteristics of 30 elite and 35 sub-elite youth players at the end of three consecutive seasons. Repeated-measures analyses of covariance, with standard of performance and measurement occasion as factors and age as a covariant, showed that the elite players fared better than the sub-elite players on technical and tactical variables. Female elite youth players also scored better in interval endurance capacity, motivation, and confidence. Future elite players appear to have excellent tactical skills at the age of 14. They also have good specific technical skills and develop these together with interval endurance capacity better than sub-elite youth players.

Falk B et.al (2007) conducted a study on talent identification and early development of elite water-polo players to identify variables of swimming, ball handling and physical ability, as well as game intelligence. A comparison of those players eventually selected to the team and those not selected demonstrated that, 2 years

before selection, selected players were already superior on most of the swim task and in dribbling and game intelligence.

Bullock and Jason et.al. (2009) examined a study on talent identification and deliberate programming in skeleton: Ice novice to Winter Olympian. Thus findings provide a guide to the minimum exposure required for a novice skeleton athlete to reach Olympic representative standard following intensified sport-specific training.

Mohamed et.al (2009) conducted a study on anthropometric and performance measures for the development of a talent detection and identification model in youth handball players. The results showed that Under-16 handball players were significantly taller than the reference group; this was not the case in the Under-14 age group. Physical fitness in handball players was significantly better than in the reference groups. Multivariate analysis of covariance (maturation and chronological age as covariant) showed that the Under-16 elite players were heavier and had greater muscle circumferences than their non-elite peers. Elite players scored significantly better on strength, speed and agility, and cardiorespiratory endurance but not on balance, upper limb speed, and flexibility or upper body muscular endurance. Maturation was a significant covariant in anthropometric measures but not in physical performance. Discriminate analysis between elite and non-elite players revealed that height, running speed, and agility are important parameters for talent identification.

Sapmer and Emanuel (2009) examined on talent identification and development program. Objective of this study was to compile the profile of a potential talented and elite youth rugby player. 100 of elite youth rugby players, within the age range 10 to 19 years old, were tested on several anthropometric, physical and motor abilities, game specific skills, and injury epidemiology. Research review is to provide scientific evidence concerning the profile of an elite youth rugby player, thereby providing variables, assessment tools, and recommendations to coaches, selectors, administrators, and scouts, which may be helpful in the identification, selection, and development of future elite rugby players.

Schorer and Baker et.al (2009) conducted a study on relative age effects (RAEs) of difference individuals age-based on cohorts. In these two studies examined whether

relatively younger athletes who were able to survive in a system that advantages their relatively older counterparts would develop superior technical skills. Participants aged 13-15 years ($n=140$) drawn from a regional handball talent selection camp in Germany demonstrated a general relative age effect but there was no differences between relatively older and relatively younger athletes in physical and body size or technical skills. Similar tests were considered with a larger sample and revealed similar results. Furthermore, there were no differences between those selected for the national youth team and those not selected. Differences in RAEs do not seem to be due to technical skills or body size variables.

Vaeyens et.al (2009) investigated olympic most countries attempt to develop systematic structures to identify gifted athletes and to promote their development in a certain sport. However, forecasting years in advance the next generation of sporting experts and stimulating their development remains problematic. Provide that field-based data suggesting that an earlier onset and a higher volume of discipline-specific training and competition, and an extended involvement in institutional talent promotion programmer, during adolescence need not necessarily be associated with greater success in senior international elite sport. Next, consider some of the promising methods that have been (recently) presented in the literature and applied in the field.

Adegbesan and Mokgwathi et.al (2010) investigated on Nigeria with the view to develop an ideal sport talent identification and development model. Results on the indicators of sport talent identification and development revealed that majority of the participants, of coaches place emphases more on both the performance of basic motor skills and the combination of the anthropometrical, physical and physiological profiles of the young talented athletes.

Carolina et.al (2010) studied to identify anthropometric, motor-physical and psychological variables and specific field hockey skills that influence field hockey performance. Results indicated meaningful differences in some variables. A prediction function was therefore developed consisting of eight variables that successfully distinguished between successful and less successful 14- to 15-year-old female field hockey players.

Gould et.al (2010) examined the psychological characteristics on Ten U.S. Olympic. Results also revealed that a number of individuals and institutions influenced the athletes' psychological development including the community, family, the individual himself or herself, non-sport personnel, sport environment personnel, and the sport process. Coach and family influences were particularly important. Ways in which these sources influenced the athletes were both direct, like teaching or emphasizing certain psychological lessons, and indirect, involving modeling or unintentionally creating certain psychological environments. Psychological characteristic findings verified current sport psychological research on psychological characteristics associated with peak performance.

Jonker et.al (2010) examined the self-regulatory skills of 222 male and female talented athletes aged 12–16 years as a function of competitive sport level. Reflection facilitates the development of sport-specific characteristics, which may vary by type of sport. This means that an advanced sense of reflection may help talented athletes to acquire desirable characteristics during their “talent” years to ultimately reach adult elite levels of competition.

Morris (2010) examined role of psychological variables in talent identification among soccer player using psychological variables in the talent identification and development process. Cross-sectional studies of psychological characteristics and performance in all football over the last 30 years have revealed no clear patterns, studies of both general inventories and specific variables are still being conducted. Talent identification in all codes have increased in recent years, but most are descriptive in nature and its summarizing the research on psychological characteristics and talent identification, conclude that cross-sectional research on adults cannot be extrapolated for use in talent identification with adolescents propose that resources would be more effectively used in the provision of psychological skills training for adolescent soccer players, pending more sophisticated research on a wider range of psychological variables.

Meylan (2010) conducted a studied on talent identification in soccer using physiological and technical testing procedures and investigating the physiological (e.g.,

power) and technical (e.g., dribbling) characteristics of players of different maturity status, early matures had the tendency to perform better in these tests and therefore were likely to be more influential on the game and be recognized as more talented. Were as considering that successful elite youth and future professional players scored better in physiological and technical testing than recreational youth and future non-professional of maturity status. However, these testing procedures were not sensitive enough to youth elite from sub-elite or future national team from professional club players.

Mark and Paul (2010) conducted a study on differences in the Game Specific Skills of Elite and Sub-Elite Youth Football Players: Implications for Talent identification by used closed skill testing to assess 'open' skills in youth football players, to measures discriminate between elite and sub-elite groups

- 1 Identify differences in performance indicators between pre-determined groups of elite and sub-elite performers during an open match environment;
- group 2 Identify differences in performance indicators between positional groups of elite and sub-elite performers at separate levels of competition;
- group 3 Individually identify sub-elite players compared to a normative profile of elite positional counterparts.

Results suggested that elite players are significantly higher ($p < 0.0028$) performers within 9 of 18 performance indicators. Comparisons refined by position and round of competition found only one indicator to distinguish between elite and sub-elite players.

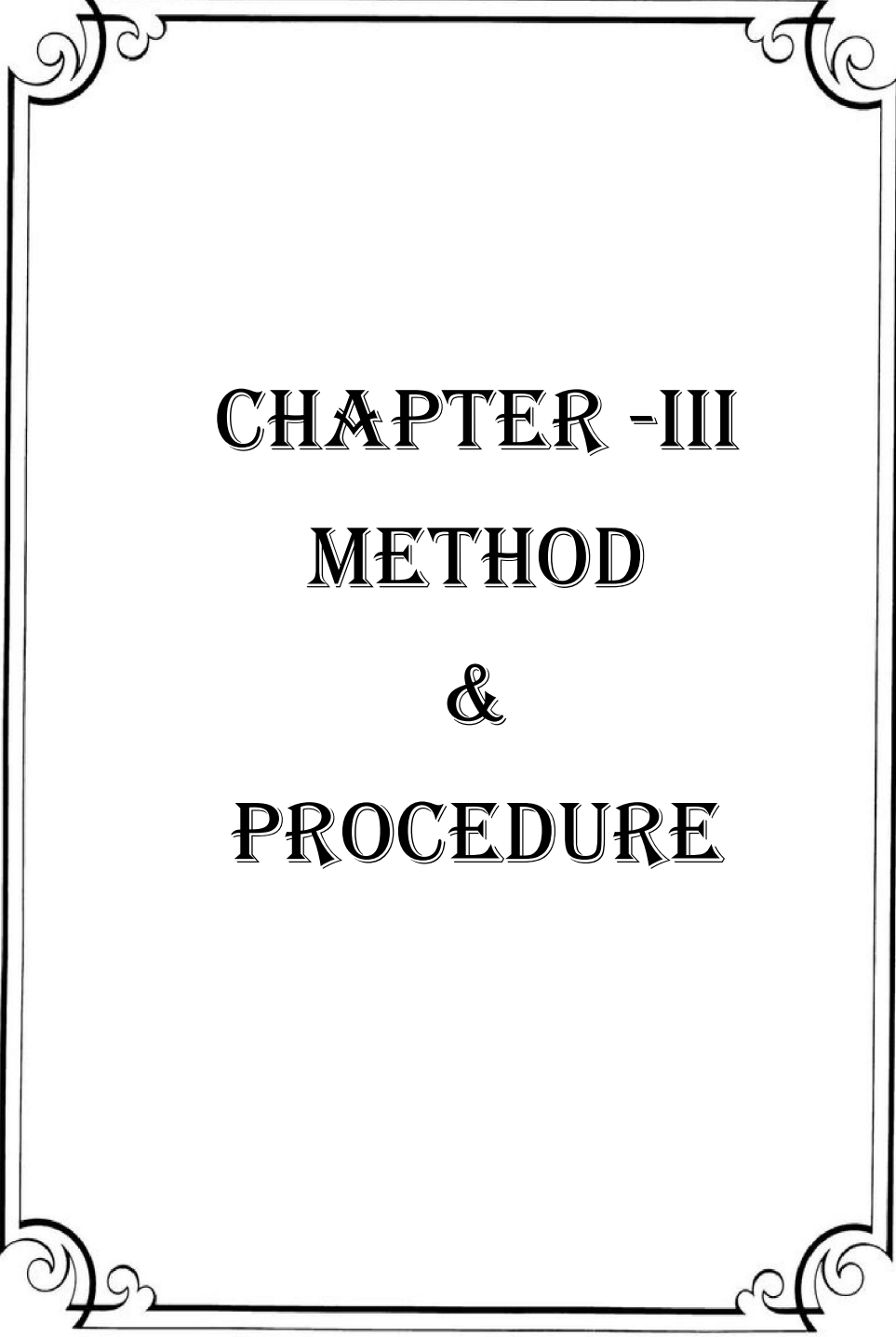
Relly et.al (2010) evaluated to apply a comprehensive test battery to young players with a view to distinguishing between elite and sub-elite groups of performance on test battery. The result indicated that elite players were also significantly leaner, possessed more aerobic power ($9.0 - 1.7$ vs. $55.5 - 3.8$ ml·kg⁻¹·min⁻¹) and were more tolerant of fatigue ($P \ll 0.05$). They were also better at dribbling the ball, but not shooting..

Stijn and Roelet et.al (2011) conducted a study on talent identification in team sports and examined differences between elite and non-elite handball players in three age group: u14 (n=186), u 16(n=150), and U18 (n=92). The elite and non-elite players did not differ in task- and ego-orientation. These results show that elite and non-elite young handball players possess different physical performance characteristics and that the

specific tests that discriminate elite from non-elite handball players vary among age groups.

Zakizadeh (2011) focused on the effective factors on talent identification of badminton of badminton national team players of Iran (n = 19, age mean = 19.6) surveyed by a questionnaire. Freedman test was used to rank effective factors on talent identification. The results revealed that from the player's view, anthropometric index was the most important factor of talent identification of badminton. Furthermore motor ability index was in the next level of the importance.

Krige et.al (2012) compared the talented runner with less talented distance runners, in order to identify the psychological characteristics exhibited by talented distance runners the result revealed that the talented group obtained significantly better results in 6 of the 8 variables which included adversity, pressure, goal-setting, concentration, coach ability and the average coping ability. Moderate practical significance was found in 7 of the 8 variables which included adversity, pressure, goal-setting, concentration, confidence, coach ability and coping ability, and a small practical significance was indicated for worry.



CHAPTER -III
METHOD
&
PROCEDURE

CHAPTER III

METHOD AND PROCEDURE

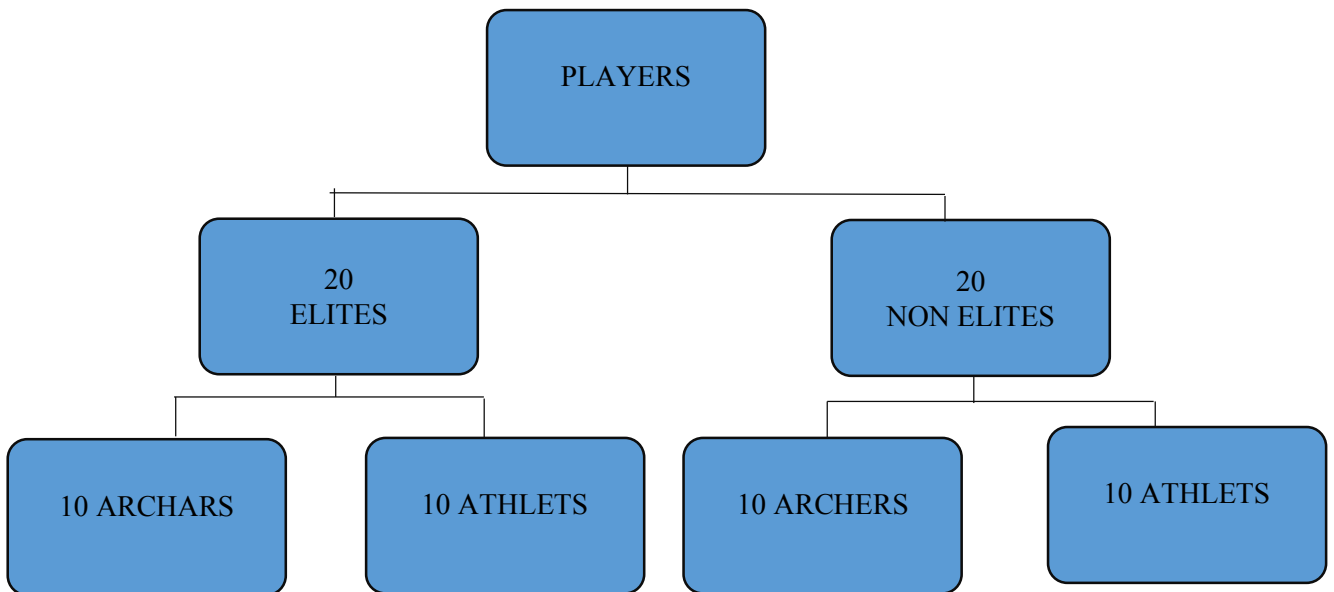
Research Method

Present study was descriptive in nature. It was field survey where the researcher had collected information from the target population by the means of questioners and semi- structural interview.

Sampling Design

The present study was conducted on forty (40) athletes. The samples were selected from individual events i.e athletic and archery. Forty samples were divided into two groups, elite (n=20) and non elite (n=20). Further these twenty (20) samples were divided into two sub-groups consisting 10 archers and 10 athletes. Elite players were those players who had participated in international level competitions for one or more than one time and still in practice. All the elite samples were taken from SAI Kolkata and non-elite form Guru Nanak Dev University Amritsar (Punjab) who had participated in inter college level but not selected for higher competitions.

Distribution of sample are as follows-



Procedure for Data Collection

The present study was based on elite and non-elite athletes. The samples were taken from SAI Kolkata. Permission was taken from the official of SAI Kolkata to conduct the study. The purpose of the study was clearly discussed with the officials. Semi structural interview was prepared and face validity of the interview schedule was done by Dr. Susil Sharma(A.P.), Dr. Harman Kaur(A.P.) Dr. Praveen Kumar(A.P.) and Dr. Ramandeep Kaur (A.P.) Semi structural interview schedule was sent to archery and Athletic coaches for their valuable suggestions to identify psychological variables which were essential for talent identification. So after the suggestions from elite coaches, data was collected from elite athletes as well as non-elite athletes. Help of reviews literature also been taken to verify the identify variables. The investigator used purposive random sampling for data collection.

Tools for Data Collection

- 1. Semi Structural Interview**
- 2. Will to Win Questionnaire:** - Developed by Pezer and Brown in (1978).
- 3. Emotional Intelligence:-**Developed by Mr. Rajitha.A and Jayashree Acharya (1988).
- 4. Goal Setting Questionnaire (GSISQ):-** Developed by Weingberg in (1997).
- 5. Meta Cognitive Inventory:-**Developed by Dr. PuniteGovil (1985).
- 6. Mental Imagery:-** Developed by M.Rajamanikam (1991)

A research tool plays a major role in any research, as it is the sale factor in determining the sound data it's arriving the sound at accurately helps in providing suitable remedial measure to the problem concerned. The following tools was uses to test the hypothesis, the following Questionnaires and Criterion measurement were adopted while collecting data pertaining to the study.

Will to Win Questionnaire:-Developed by Pezer and Brown in (1978).

Purpose- To measure the will to win abilities of elite and non-elite players.

Scoring- Will to win questioner consist of 14 items in which 7 items are keyed true and rest of 7 false. For each items 1 score should be given if its matches with the subjects responses.

Emotional Intelligence- Developed by Mr. Rajitha.A and Jayashree Acharya (1988).

Purpose- To measure emotional intelligence of elite and non-elite players.

Scoring- It contains 30 items where 12 items are negative and rest are positive. So negative and positive items are scored separately for each dimensions. Items measured particular dimensions positively and responses as strongly agree, agree, undecided, disagreed and disagreed are given the score in 5,4,3,2 and 1 respectively and the items measured of particular dimensions and responded as “strongly agree, agree, undecided, disagreed and strongly disagreed” are given score at 1,2,3,4, and 5 respectively.

Goal Setting Questionnaire (GSISQ) was developed by Weingberg in (1997)

Purpose – To assess the Goal Setting of elite and non-elite players.

Scoring- The goal setting in sports questionnaire (GSISQ) is of 52 items. 52 of questioner are answered on 9-point Likert scale (1=not often at all, 9=very often). So according to that score are given.

Meta Cognitive Inventory- Developed by Dr. PuniteGovil(1985).

Purpose- To assess the Meta Cognitive Inventor among elite and non-elite players.

Scoring – It contains 30 items each items being a statement by a four point scale ‘not at all’, ‘somewhat’, to a considerable extent and very much so’,. If a response marks ‘not at all’ he is given weightage of 1 point similarly 2,3, and 4 point are given for marking on ‘somewhat’, ‘to a considerable extent’, ‘and very much so’ respectively.

Mental Imagery- Developed by M.Rajamanikam(1991).

Purpose- To measure the Mental Imagery level of elite and non-elite players.

Scoring- Mental imagery contains of 6 items and 1 items contains 15 questions. The weightage of the mental imagery questionnaire responses are six, ranging from 5 to 0, i.e 5, 4,3,2,1 and 0. If the image is very clear and vivid the person rates it with a point of 5,

and for fairly vivid gives 4 and so on. When the image is dim/she rates with 1 and for no image he/she gives 0. After that 6 items scored should be summed up and the mean score should be obtained for each area. The mean score is the degree of mental imagery of the individual.

Statistical Technique

The raw data was arranged in tabulated form for the further statistical treatment. Collection data was analyzed with the help of t-test because the sample size was less than thirty (30) and two groups were there. The results were tested at 0.05 level of confidence. On the bases of findings results will be made.



CHAPTER -IV

RESULT

&

DISCUSSION

CHAPTER IV

RESULT AND DISCUSSION

The main aim of the investigator is to find out the result of the study, with the help of t-test. The main aim and objective are achieved and tested hypothesis were formulated.

Table 4.1

Significance Difference between Mean Score of Elite and Non-Elite Archers on the Variable Meta-Cognition

Group	N	Mean	SD	Df	t-value
Elite	10	103	6.28	18	4.17*
Non Elite	10	80.2	16.09		

Table value 2.10

*Significant at 0.05 Level

Table 4.1 prevails that mean score of elite archers was found to be 103 and score of non-elite archers is 80.2 and standard deviation of Elite Archers was 6.2 and Non-Elite Archers were 16.09. The t-value was 4.17 which was found statistically at 0.05 level of confidence. Results of the study indicate that elite archer is superior as compared to Non-Elite Archers.

Figure 4.1

Shows the Comparison of Meta-Cognition between Elite and Non-Elite Archers

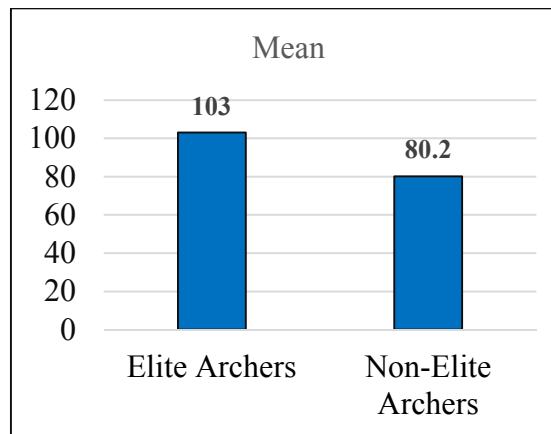


Table 4.2

Significance Difference between Mean Score of Elite and Non Elite Athletes on the Variable Meta Cognition

Group	N	Mean	SD	Df	t-value
Elite	10	102.5	4.3	18	8.36*
Non Elite	10	76.6	8.7		

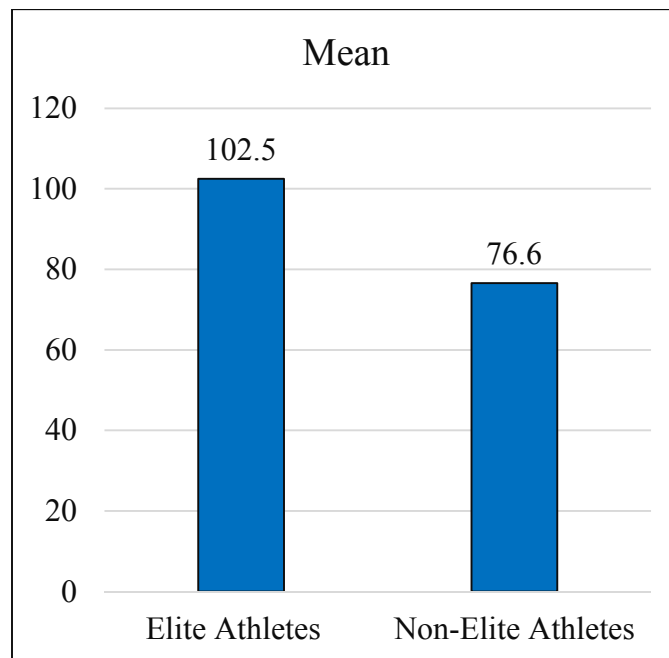
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nificant at 0.05 Level

Table 4.2 reveals that the mean score of elite archers and non- elite archers were found 102.5and 76.6 standard deviation was 4.3 and 8.7. The t-value was found 8.36 which is statistically significant at 0.05 level of confidence. The results of the study indicates that elite athlete have better meat cognition in comparison to non-elite.

Figure 4.2

Shows the Comparison of Meta-Cognition between Elite and Non Elite Athletes



Discussion of table 4.1 and 4.2

The above tables shows that there are significant difference between elite and non-elite archers and athlete on the verbal meta cognition. Elite players have significantly higher mean score as compared to non-elite athletes on the above said variable. “An elite athlete is a rare combination of hard work, talent and the right psychological profile” (Young 2008). Meta cognitive is related to control of cognition. “Metacognition has been defined as an individual’s insight control over their own mental processes” (Flavell, 1979). According to (Tarricone 2011) indicated that the main interaction between metacognition and self-regulation is to monitor, controlling and regulate strategies to meet the demands of goals. It has been observed throughout the study due the prolonged experience in the particular sports field elite athletes and archers are very disciplined, focused, better control over emotions and better mental skill in comparison to non-elite. Results of the present investigation are also supported by (Tadhg et.al 2014) which is done on other sports area. According to him elite athletes are experts in movement execution but conceivably they are also experts in planning, metacognition, and refection. “Often the difference between the good and the elite is the mental qualities of the athletes” (Young 2008) as it was hypothesized that meta cognition is a strong determinant of performance among sports person. Although previous studies in physical education and sports setting was not done on archers and athletes but only one study was done on chess in relation to meta cognition.

Table 4.3

Significance Difference between Mean Score of Elite and Non-Elite Archers on the Variable Emotional Intelligence

Group	N	Mean	SD	Df	t-value
Elite	10	97.5	5.77	18	3.13*
Non Elite	10	84.5	9.75		

Table value 2.10

*Significant at 0.05 Level

Table 4.3 reveals that mean score of elite archers is 97.5 where as non-elite archers is 84.5 where as standard deviation was 5.77 and 9.75 respectively the t-value was found 3.13 statistically at 0.05 level of confidence. The result indicates that elite archers have higher emotional Intelligence as comparison to non-elite Archers.

Figure 4.3

Shows the Comparison of Emotional Intelligence between Elite and Non-Elite Archers

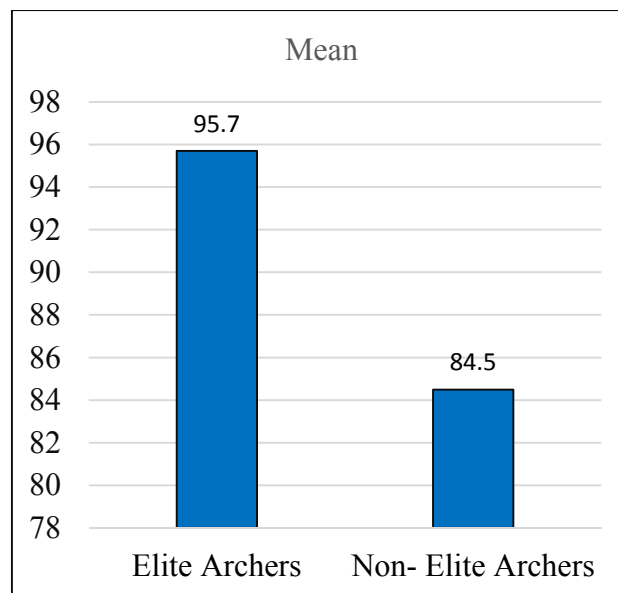


Table 4.4

Significance Difference between Mean Score of Elite and Non-Elite Athletes on the Variable Emotional Intelligence

Group	N	Mean	SD	Df	t-value
Elite	10	97.7	4.46	18	2.48*
Non-Elite	10	89.9	9.19		

Table value 2.10

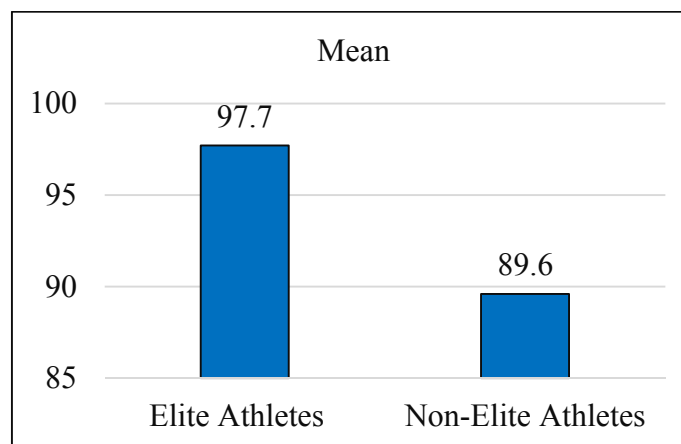
*Significant at 0.05

Level

Table 4.4 indicate that the mean score of elite athletes and non-elite athletes were found to be 97.7 and 89.9 respectively where as standard deviation was 4.46 and 9.19. The t-value was 2.48 found to be significant at 0.05 level of confidence. The result of the study shows that elite athletes have higher emotional intelligence as compared to non-elite athletes.

Figure 4.4

Shows the Comparison on Emotional Intelligence between Elite and Non-Elite Athletes



Discussion of Table 4.3 and 4.4

The above table shows that there are significant difference between elite and non-elite archer and athlete on the variable emotional intelligence. Elite player have significantly higher mean score as compared to non-elite players on the above variables. In the field of sport emotional intelligence is one type of cognitive behavior of a player to understand and manage their emotions in a positive way which facilitate the interpersonal behavior during the game. All learning has an emotional base. (Plato)" "Some researchers suggest that emotional intelligence can be learned and strengthened, while others claim it is an inborn characteristic" (Cherry) The role of emotional intelligence in sports is the ability of controlling one emotions and create peak performance in sports. Performance during the game often determined by the dependability of emotional intelligence. By facing prolonged competitive environment elite athlete get mastery over their emotional intelligence and this power facilitate them to perform best in their events. According to (Zamanie et.al 2011) stated on several games like handball and basketball that athlete has higher emotional intelligence in comparison to non-elite athlete because they have to constantly control and manage their emotions under the different conditions. (Goleman 1998) stated in a article that level of social emotional intelligence of participates always increase as a result of successful performance and a warm described social environment with the higher degree of cooperation. According his study (Vassiliki 2009) on genius Taekwondo and Judo players, he reported that emotional intelligence has a relationship with excellent physical image and optimum performance of the athletes who have higher emotional intelligence, have higher performance by accepting the responsibility and mistakes of their teammates. Current research findings showed that elite athlete scored significantly better values with regards to emotional intelligence in comparison with their less talented athlete. Researcher believes that component of performance in sports is the control over your emotional intelligence and non-elite players have very less control over the emotional intelligence because of the lack of experience. That why elite players performed better on the variable emotional intelligence in comparison to non-elite.

Table 4.5

Significance Difference between mean score of Elite and Non-Elite Archers on the Variable Mental Imagery

Group	N	Mean	SD	Df	t-value
Elite	10	53.37	2.20	18	11.01*
Non Elite	10	44.01	1.52		

Table Value 2.10

*Significant at 0.05 Level

Table 4.5 indicate that the mean score of elite archers and non-elite archers were found to be 53.37 and 44.01 respectively where as standard deviation was 2.20 and 1.52. The t-value was found 11.01. Significant at 0.05 level of confidence. The result of the study shows that elite archers are better in variables mental imagery as compared to non-elite archers.

Figure 4.5

Shows the Comparison of Mental Imagery between Elite and Non-Elite Archer

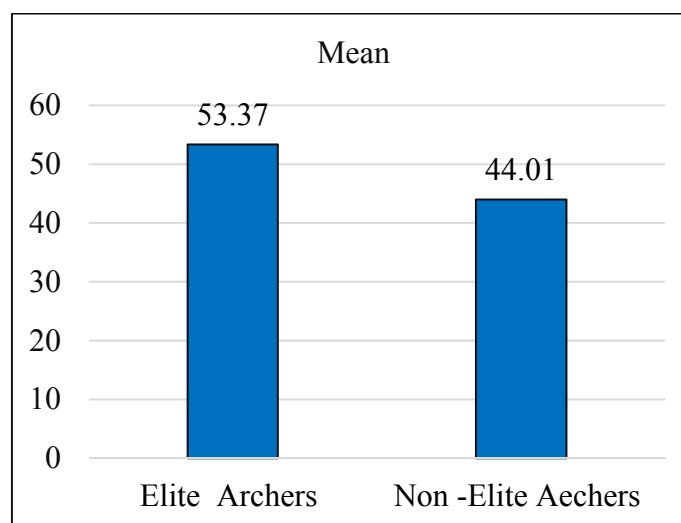


Table 4.6

Significance Difference Between mean score of Elite and Non- Elite Athletes on the Variable Mental Imagery

Group	N	Mean	SD	Df	t-value
Elite	10	48.25	2.24	18	3.39*
Non -Elite	10	43.11	3.46		

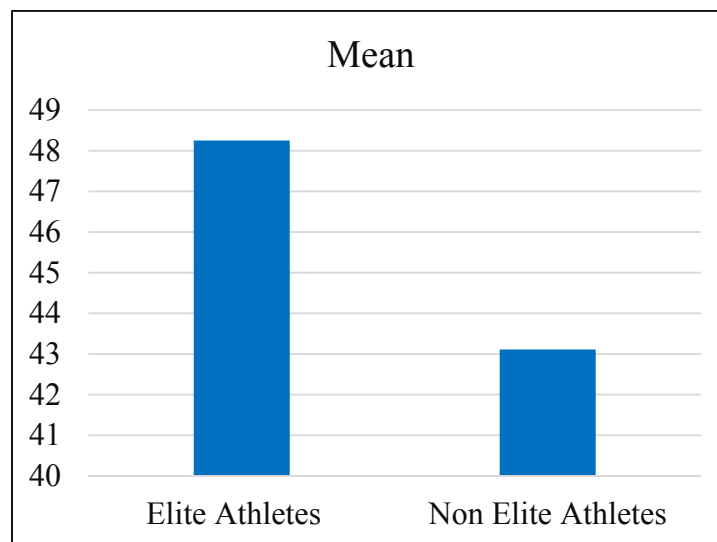
Table value 2.10

*Significant at 0.05 Level

Table 4.6 reveals that mean score of elite athletes is 48.25 where as non-elite athletes is 43.11 where as standard deviation is 2.24 and 3.46 respectively the t-value was found 3.39 statistically at 0.05 level of confidence. The result indicates that elite athletes have higher mental imagery as comparison to non-elite Athletes.

Figure 4.6

Shows the Comparison of Mental Imagery between Elite and Non- Elite Athletes



Discussion on table 4.5 and 4.6

The above table shows that elite archers and athletes performed better on the variable mental imagery in comparison to non-elite athlete. Mental imagery is a simply a mental technique that venture the mind and the body to respond optimally. Furthermore (Fisher1986) clarifies that imagery is the language of the brain in a real sense, the brain really cannot tell the difference between an actual physical event and the vivid visualization of the same event. For this reason imagery can be used by the brain to provide repetition, elaboration, intensification and preservation of important athletic sequences and skills. (Gould et.al 2002) stated in an article that elite athlete have higher self-confidence, goal setting and mental imagery. (Thomas et.al 1999) also stated in a article that elite athlete use more mental imagery than non-elite athlete. (Calmels et .al 2003) also stated that overall successful elite athlete use imagery more extensively and more systematically because due to this reason elite athlete has better imagery ability as compared to non-elite athlete .(Mahammadzahen et.al 20014) studied on elite and non-elite volleyball players and reported that higher level of mental imagery in elite athlete as compared to non-elite athlete. Findings confirm talented athletes had comprised significantly better mental imagery skills compared to the less talented athletes.

Table 4.7

Significance Difference between Mean Score of Elite and Non-Elite Archers on Variables Goal Setting

Group	N	Mean	SD	Df	t-value
Elite	10	318.3	24	18	9.1*
Non -Elite	10	211.6	28.19		

Table value 2 .10

*Significant at 0.05

Level

Table 4.7 reveals that the mean score of elite archers and non- elite archers were found 318.3 and 211.6 respectively whereas standard deviation was 24 and 28.19. The t-value was found 9.1 which is statistically significant at 0.05 level of confidence. The results of the study indicates that elite athlete have better goal setting in comparison to non-elite.

Figure 4.7

Shows the Comparison of Goal Setting between Elite and Non -Elite Archers

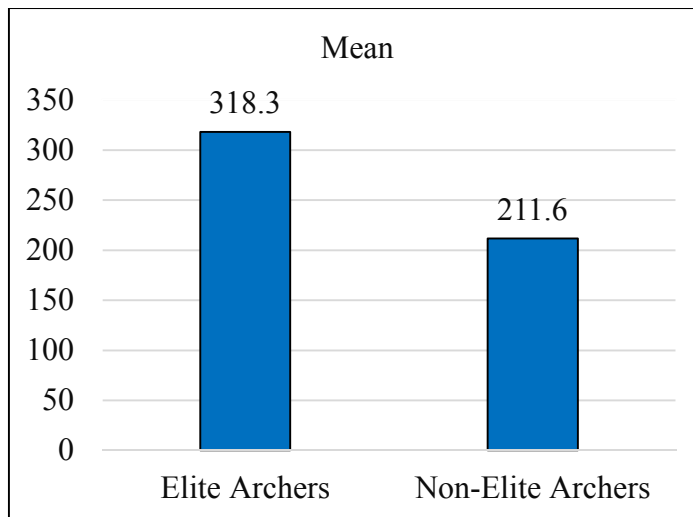


Table 4.8

Significance Difference between mean score of Elite and Non-Elite Athletes on the Variable Goal Setting

Group	N	Mean	SD	Df	t-value
Elite	10	307.6	16.28	18	6.96*
Non -Elite	10	217.9	37.30		

Table value 2.10

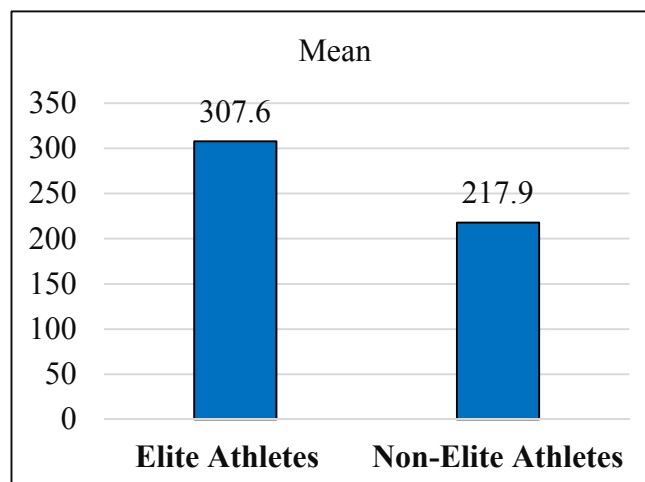
*Significant at 0.05

Level

Table 4.8 shows that mean score of elite athletes was found to be 307.6 were as score of non-elite athletes is 217 and standard deviation of elite athletes was 16.28 and non-elite athletes were 37.30. The t-value was 6.96 which was found statistically at 0.05 level of confidence. Results of the study indicates that elite athletes is superior as comparison to Non-Elite Athletes.

Figure 4.8

Shows the Comparison of Goal Setting between Elite and Non-Elite Athletes



Discussion of table 4.7 and 4.8

The above table shows that there are significant difference between elite and non-elite archers and athlete on the variable goal setting. Elite player have significantly higher mean score as compared to non-elite players on the above variables. Goal setting is a most important skill taught to athlete in order to help athlete to achieve optimal performance. The goal setting helps athlete understand where they are currently and also where they want to go. According to (Mccarthy et.al 2010) stated that goal setting is a way to set a specific standards goal and it refers to reach the level of achievement. It's a way to establish positive performance and achievement. (Thelwell and Greenlees 2003) used different technique of goal setting forenhance feelings of control and improve of athlete performance. According to (Satooden et.al 2012) Studied on elite and non-elite male and female taekwondo athlete and result shows a significant different between elite and non-elite taekwondo players. According to (Kurug et.al 2012) studied a psychological characteristic between talented and less talented long distance runners and result indicate significant difference in the variable goal setting. Results of this study are substantiates the findings, given that the talented athletes scored significantly better in goal setting than the less talented athletes.

Table 4.9

Significance Difference between in mean score on Elite and Non-Elite Archers on the Variable Will to Win

Group	N	Mean	SD	Df	t-value
Elite	10	9.3	2.21	18	1.35*
Non Elite	10	8.2	1.31		

Table value 2.10

*Significant at 0.05

Level

Table 4.9 reveals that the mean score of elite and non-elite archers were found 9.3 and 8.2 respectively where as standard deviation of elite archers was 2.21 and 1.31 of non-elite archers. The t-value was 1.35 found to be statistically at 0.05 level of confidence. The result indicated that there is insignificant difference between elite and non-elite on the variable will to win.

Figure 4.9

Shows the Comparison of Will to Win between Elite and Non- Elite archers

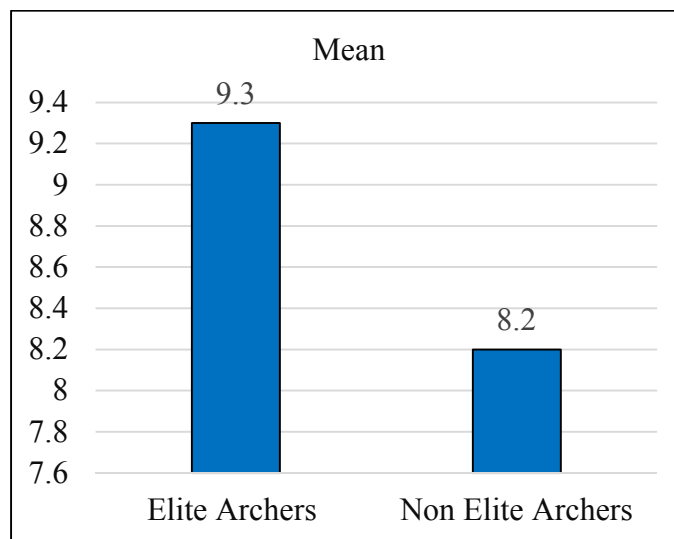


Table 5.0

Significance Difference between Mean Score of Elite and Non Elite Athletes on the Variable Will To Win

Group	N	Mean	SD	Df	t-value
Elite	10	9.6	1.57	18	3.27*
Non Elite	10	7.5	1.26		

Table value 2.10

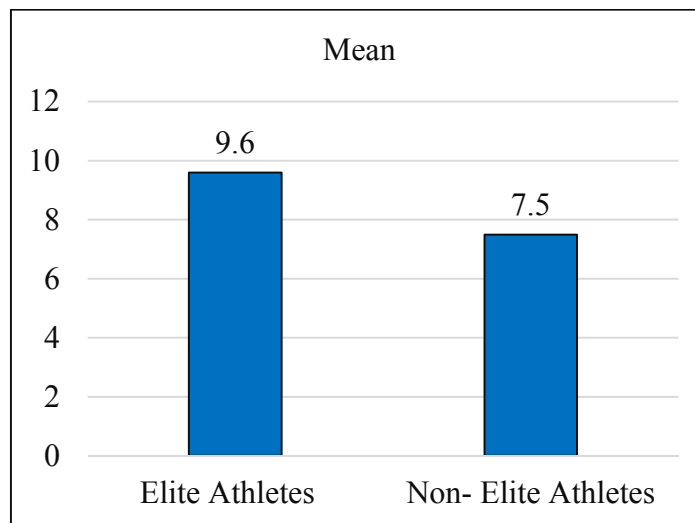
*Significant at 0.05

Level

Table 5.0 prevails that mean score of elite athletes was found to be 9.6 were as score of non-elite athletes is 7.5 and standard deviation of elite athletes was 1.57 and non-elite athletes were 1.26. The t-value was 3.27 which was found statistically at 0.05 level of confidence. Results of the study indicates that elite archer is superior as comparison to non-elite archers in win to will variables.

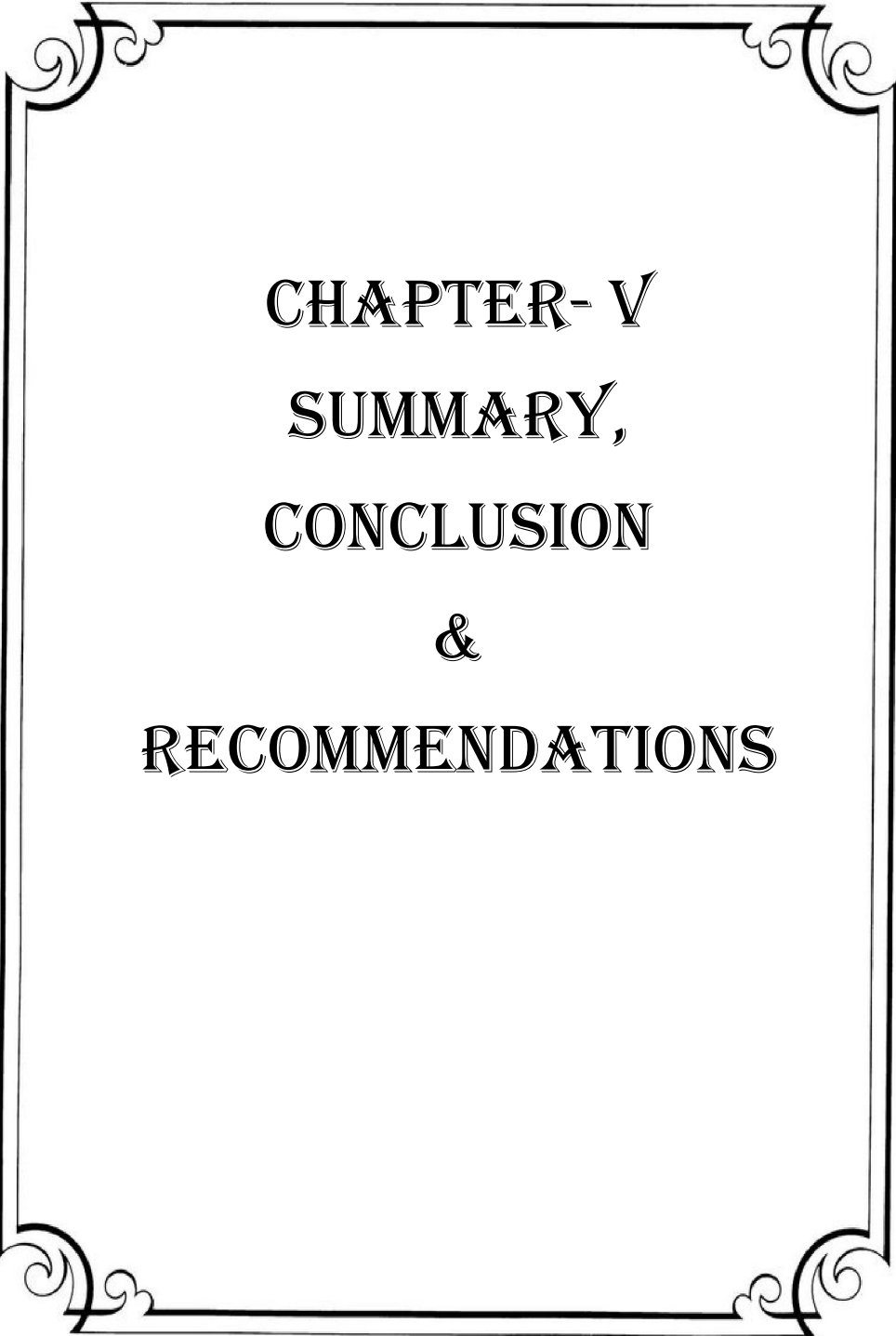
Figure 5.0

Shows the Comparison of Will to Win between Elite and Non Elite Athletes



Discussion on table 4.9 and 5.0

Sports psychology is the scientific study of a player's mind, its emotions and behavior, and will to win is one branch of sports psychology. Will to win is the desire of a sports person to achieve the target. It's a mental demand of a player to win in all the way in rigorous competition and because of it he or she feels satisfied and gets motivated to continue in the field of sports. In the present study, no significant difference was observed between elite and non-elite archers on the component will to win. But when we observe the mean score only, will to win is slightly higher among elite as compared to non-elite. "Elite players (athletes and archers) performed better on the variable will to win in comparison to non-elite. The athletes scored high in will to win mainly to compete for the first position and may have something of a win at all cost attitude" (White 1959) found that will to win is also related with competitiveness and by acknowledging this, an athlete is able to put in his best and complete the activity successfully. After analyzing all the literature, it is concluded for the present study that the desire of will to win is similar among elite and non-elite players. Results of the present study are not similar with (Dainoff 1985) who found that tennis players had significantly higher mean scores in will to win than a non-sports group. (Kang et al., 1990 and Sindhu and Singh 2006) found similar results among high achievers and low achievers on will to win.



CHAPTER- V
SUMMARY,
CONCLUSION

&

RECOMMENDATIONS

CHAPTER V

SUMMARY, CONCLUSION AND RECOMMENDATION

Introduction

Nowadays game and sport plays an important role in our life, but sports and games are not only important for success but are also important for every walks of life. Games and sports include all those activates such as indoors and outdoors games and popular among all ages of people because it helps them to keep fit and strong. Sports and games have come to stay in civilization world and its essential features of human activate and symbolize the youth of nation because the intellectual growth and development of nation depends upon the health of nation. Games and sports not only merely include health and fun but its built and instill a sense of cooperation, spirit of disciple and teamwork

Significance of Study

Sport psychology deals with the mental aspects of sport and in various fields. It aims to improve both the sports performance and general well-being of the athlete through the application of psychological and physical techniques. One could argue this point however, as dealing effectively with athletes in an applied setting, still probably remains more of an art than a science. The past few decades has seen the steady gathering of quite a significant body of scientific research documenting the positive effects of many sport psychology interventions. Areas covered by sport psychology, range from confidence, motivation to performing under pressure, and everything in between. The important of psychological variables in talent identification can play significant role to identify the player's status and capability for winning the game. The research had made an effort to identify the responsible psychological variables for talent identification of athlete and archer it will also be helpful to the coaches for giving psychological training program for different level players of different games. It will also be helpful to increase the level of performance among non-elite athletes. It will explore the areas of sports psychology and will give new dimensions to research and talent identification. It will also explore the areas of sports psychology in physical education.

Statement of the problem

The present study is entitled as investigation of psychological determinants in elite athletes for talent identification among non-elite athletes. The investigator has identify the psychological factor for good performance in elite athlete with the help of international coaches. On the basis of that variables comparison has been done between elite and non-elite athlete and a frame work of talent identification had be prepared.

Objectives of the study

1. To identify psychological determinants responsible for performance among elite athletes.
2. To examine the level psychological determinants among elite and non-elite athletes.

Operational Definitions of selected Variables

- Elite athlete: - Elite athlete are those who has participated one or more than one time in international level competition.
- Non Elite: - Non Elite athlete are those player who has participated in inter college level competition and could not be selected for higher level competition.
- Psychological Determinants: - Psychological Determinants are the responsible psychological performance indicators of an athlete.
- Athlete – In the study sometime the terms athlete had been used for both Athletes and Archers.

Hypotheses

1. There exist significant difference between elite and non-elite archers on the variable will to win.
2. There exist significant different between elites and non-elites athletes on the variable will to win.

3. There exist significant different between elites and non-elites archers on the variable goal setting.
4. There exist significant different between elites and non-elites athletes on the variable goal setting.
5. There exist significant different between elites and non-elites archers on the variable Emotional intelligence.
6. There exist significant different between elites and non-elites athletes on the variable Emotional intelligence.
7. There exist significant different between elites and non-elites archers on the variables Meta cognition.
8. There exist significant different between elites and non-elites athlete on the variableMeta cognitive.
9. There exist significant different between elites and non-elites archers on the variable Mental imagery.
10. There exist significant different between elites and non-elites athletes on the variable Mental imagery

Delimitations

1. The present study was delimited to elite and non-elite archers and athletes.
2. Elite archers and athletes were taken from SAI, Kolkata only.
3. Non elite players were taken for Guru Nanak DevUniversity Amritsar Punjab.
4. As very less sample of elite players are available, so the result werefinalized on sample size of 40 players only.

Limitations

The present study was limited to the factors below:

- 1) Inherent potentialities of the player were not known.

- 2) Health, life style, socio-economic and cultural background of the player were not know to the scholar.
- 3) The coaching and physical background of the players was unknown.

Sampling Design

The present study was conducted on fourth (40) athletes. The sample were from individual events i.e athletic and archery, whereas twenty (20) elitefemale players form archery and athletic and twenty (20) non-elite female players from athletic and archery players was the part of the study. Elite player was those players who has participated in international level competition one or more than one time in international level and still in practice. All the elite samples are taken from SAI Kolkata and non-elite form Guru Nanak Dave University (Punjab) who has participated in inter college level but not selected for higher competition

Tools for data collection

7. **Will to Win Questionnaire:** - Developed by Pezer and Brown in (1978).
8. **Emotional intelligence:-**Developed by Mr. Rajitha.A and Jayashree Acharya (1988).
9. **Goal setting questionnaire (GSISQ):-** Developed by Weingberg in (1997).
10. **Meta cognitive inventory:-**Developed by Dr. PuniteGovil (1985).
11. **Mental imagery:-** Developed by M.Rajamanikam (1991).

Conclusion

The aim of the study was to compare the psychological characteristics of elite and non-elite (archers and athlete) for talent identification. Within the limitation of the study following conclusion was appeared

The psychological variable namely Will to Win, Meta Cognition, Emotionally Intelligence, Goal Setting and Mental Imagery were significantly different in elite players (athlete and archers) as compared to non-elite archer and athlete. Whereas no significant difference was observed between elite and non-elite archers on the component will to win.

Recommendations

Research is never ending process every. Investigator after completing her piece of research investigator become aware of area in which further research is needed and naturally feel motivated to indicate area which may be taken up for research by other investigator. The investigator purpose following suggestion for further research. The present study carried out with the 40 sample size of elite and non-elite archer and athlete. It is further recommended that further research can be conducted on larger sample size for more appropriate generalization of finding.

- 1) The result of the study can be used by the coaches for talent identification of players of different level.
- 2) It is recommended that similar study might be repeated by selecting subject belonging to different age, sex of different category and level.
- 3) It is recommended that similar study can be conducted in other sports for talent identification among elite and non-elite athlete.
- 4) A similar study can also be undertaken using different variables such as psychology, physiological, Sociological etc.
- 5) It is also further recommended that the sample size can also be extend in a large number of group.

Result of the Study

1. Insignificant difference was observed between elite and non-elite archers on the variable will to win.
2. Significant different was observed between elite and non-elite athletes on the variable will to win.
3. There was significant different between elite and non-elite archers on the variable goal setting.
4. Significant different was observed between elite and non-elite athletes on the variable goal setting.

5. There was significant different between elite and non-elite archers on the variable Emotional intelligence.
6. There was significant different between elite and non-elite athletes on the variable Emotional intelligence.
7. Significant different was observed between elite and non-elite archers on the variable Meta cognition.
8. There was significant different between elite and non-elite athletes on the variable Meta cognitive.
9. There was significant different between elite and non-elite archers on the variable Mental imagery.
10. Significant different was observed between elite and non-elite athletes on the variable mental imagery.



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APPENDICES

SEMI STRUCTURAL INTERVIEW FOR COACHES

Study had been undertaken

Investigation of Psychological Determinants in Elite Athletes for Talent Identification among Non-Elite Athletes

- 1) Whether psychological variables are helpful for talent identification?
- 2) In India we have very less elite archer players can predict talent identification can be done on the behalf of the selected sample?
- 3) Following psychological variables has been identified by the investigator. Do you think these variables are responsible for talent identification?
 - Will to Win
 - Goal setting
 - Emotional intelligence
 - Meta cognitive inventory
 - Mental imagery

Rate in any ascending order by given in numbers

- 4) Is there more variables which are responsible for talent identification?
- 5) Kindly give in rough percentage of psychological, physiological and physical fitness variables responsible in a talent identification
- 6) Beside that which are other approaches which are required for talent identification?
Any other suggestion kindly suggest

Thank you

Manta Imagery (M.I.Q)

Prof. M. Rajamanikam

Please fill the following information

Age

Gender.....

Qualification.....

Religion

Married or Single.....

Occupation

Number of member in your family.....

State whether your home town in an Agricultural or industrial

Or metropolitan area.....

Are you interested in Sports and Games.....

General information

Please find in the next pages certain statement relating to various sensing experiences, like seeing hearing, testing, smelling, touching and bodily movement. There are 6 sub-tests, each one having 15 Statement relating to a particular sensing experiences .you might have experienced all the senses. Now try to get the image of the particular sensing experiences mentioned in the statement .you may have different level of image of the experience in your mind. Whatever level of the image of the experience you could form please express it according to the instructions given in the sub-test. This is not an intelligence test nor a personality test. This is only to assess the level of the mental imagery of your past experience. The information test .this is only to assess the level of the mental imagery of your past experience. The information provide by you are used only for the academic and research purpose and will be treated strictly confidential .therefore you can be quite free and frank in answering this questionnaire for a moment close your eyes and go into your past experiences of the particular senses experiences you had in your life

(SUB-TEST I INSTRUCTION) This is with regard to visual sensation, seeing. There are 15 statements. Read each statement carefully. Try to recollect your experience with the objective. Indicate the degree of the image of the event. Against each item. There are six response alternatives for any event of objective and you have to express your experience by tick mark (√) in any of the six cells below the response alternatives.

Sc no	Items relating to Visual Sensation	Very Clear or Vivid Image	Fairly Clear Image	Just clear Image	Some what clear Image	Dim Image	No Image
1	The first day you the classroom in your College/University after getting admission.						
2	Your college or university Tower Building.						
3	The Republic Day Parade.						
4	The first time you saw the sea.						
5	A Tiger you saw for the first time in a zoo or circus						
6	A beautiful painting you saw in an exhibition of Museum						
7	A long express train moving fast at a distance.						
8	A hue and unprecedented public meeting you witnessed.						
9	A steep Mountain Valley you saw.						
10	Your final year school teacher's face.						
11	A famous dance performance you witnessed.						
12	The face of your favorite film Hero						
13	The face of your favorite film Heroine						
14	A Temple or church Tower that excited you.						
15	A big dam on a river you saw						

Total raw Score						
Time taken In minutes						

SUB-TEST(II) There are 15 statements you are findings below. These are with regard to the sensation of hearing. Read each statement carefully and try to recollect your past experience of hearing of the specific voice. Indicate the level of the image of the voice. Against each statement, there are six response alternatives for any event of voice and you to express you experiences by tick mark(√) in any of the six cells below the response alternative.

Sc. no	Items relating to Auditory Sensation	Very Clear or Vivid Image	Fairly Clear Image	Just clear Image	Some what clear Image	Dim Image	No Image
1	The voice of your father.						
2	The voice of your favorite musician.						
3	The sound of a roaring lion.						
4	The mill siren near to your house/loudly						
5	Your favorite Television News readers' voice.						
6	The noise of a takeoff aero plane.						
7	The voice of a roaming street fruit seller.						
8	The barking of street stay dogs.						
9	The noise of the steam engine.						
10	The thunder sound during rainy season						
11	The sound of your College/ university bell						
12	The voice of your favorite teacher.						
13	The clattering noise of the typewriter						
14	The sound a temple/Church bell						
15	The speech sound of your favorite political leader.						

Total raw Score							
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Time taken In minutes						
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SUB-TEST(II) There are 15 statements you are findings below. These are with regard to the sensation of hearing. Read each statement carefully and try to recollect your past experience of hearing of the specific voice. Indicate the level of the image of the voice. Against each statement, there are six response alternatives for any event of voice and you to express you experiences by tick mark(√) in any of the six cells below the response alternative.

Sc no	Items relating to Visual Sensation	Very Clear or Vivid Image	Fairly Clear Imag e	Just clear Image	Some what clear Image	Dim Image	No Image
1	The voice of your father.						
2	The voice of your favorite musician.						
3	The sound of a roaring lion.						
4	The mill siren near to your house/loudly						
5	Your favorite Television News readers' voice.						
6	The noise of a takeoff aero plane.						
7	The voice of a roaming street fruit seller.						
8	The barking of street stay dogs.						
9	The noise of the steam engine.						
10	The thunder sound during rainy season						
11	The sound of your College/ university bell						
12	The voice of your favorite teacher.						
13	The clattering noise of the typewriter						
14	The sound a temple/Church bell						
15	The speech sound of your favorite political leader.						

Total raw Score						
Time taken In minutes						

SUB-TEST(III) The gustatory area is with regard to the experiences of taste. Reading the following 15 statement carefully. Try to recollect your experience in tasting of the particular item. Indicate the level of the image of the , whatever it was. Against each Statement, there are six response alternative for any event or objective and you have to express your experience by tick mark (✓) in any of the six cells below the response alternatives.

Sc. no	Items relating to the sensation of taste	Very Clear or Vivid Image	Fairly Clear Image	Just clear Image	Some what clear Image	Dim Image	No Image
1	The taste of mango fruit.						
2	The taste of Jankery (sweet meat)						
3	The taste of coffee.						
4	The taste of honey.						
5	The taste of buttermilk.						
6	The taste of orange fruit.						
7	The taste of pepper.						
8	The taste of onion.						
9	The taste of see water.						
10	The taste of tooth paste(Colgate)						
11	The taste of lime juice						
12	The taste of soda water.						
13	The taste of plantain fruit						
14	The taste of ghee						
15	The taste of ice cream.						

Total raw Score						
Time taken In minutes						

SUB-TEST(IV) The olfactory is referring to the sensation or smell of an object. Reading the following 15 statement carefully and Try to recollect your experience of smell of the object and get the image of it was. Against each Statement, there are six response alternative for any event or objective and you have to express your experience by tick mark (√) in any of the six cells below the response alternatives.

Sc. no	Items relating to the Sensation of Smell	Very Clear or Vivid Image	Fairly Clear Image	Just clear Image	Some what clear Image	Dim Image	No Image
1	The smell of jasmine.						
2	The smell of camphor.						
3	The smell of petrol.						
4	The smell of burning rubber.						
5	The smell of roasting onion.						
6	The taste of orange fruit.						
7	The taste of pepper.						
8	The taste of onion.						
9	The taste of see water.						
10	The taste of tooth paste(Colgate)						
11	The taste of lime juice						
12	The taste of soda water.						
13	The taste of plantain fruit						
14	The taste of ghee						
15	The taste of ice cream.						

Total raw Score							
Time taken In minutes							

(SUB-TEST V)this tactual are is referring to the sensation of touch. Read the following statements carefully and recollect your experiences of touch in similar indication. For the image of whatever level it is. Incited it in number. Against each statement, the are six responses alternative for any events of objects and you have to experience your by marking (√) in any of the six cells below the response alternatives.

Sc no	Items relating to Visual Sensation	Very Clear or Vivid Image	Fairly Clear Image	Just clear Image	Some what clear Image	Dim Image	No Image
1	A touch of a hot iron piece						
2	A touch of an ice bar						
3	Hitting your toes against a stone						
4	A blow on your back by someone when you were not aware of it						
5	Shaking hand with a V.I.P						
6	A pinprick in your fingers tip						
7	The gentle breeze on your body you were sweating due to heard physical work.						
8	Some cut injury you had in some part of your body						
9	The feeling of a strong scratche in your knee.						
10	An electric shock received while dealing with a switch.						
11	The touch of a rough stone surface						
12	A touch of boiling milk						
13	Bath in chill water						
14	Touching of a highly polishes marble stone						
15	Touching of boiling water						

Total raw Score							
Time taken In minutes							

(SUB-TEST VI) this is with regarding to the bodily experiences in movements. Read the 15 statement carefully and get the image of the particulate experience and indicate the level of it against each statement there are six response alternative for any event of objet and you have to express your experiences by making(√) in any of the six cells below the response alternatives.

Sc no	Items relating to Visual Sensation	Very Clear or Vivid Image	Fairly Clear Image	Just clear Image	Some what clear Image	Dim Image	No Image
1	Sitting in a rotating chair and moving fastly						
2	While fastly going over the steps to upstairs						
3	Pulling forcibly a jammed drawer						
4	Riding fast in a motor bicycle						
5	Making a long jump and falling forward						
6	After a long time desk work the way you are yawning your body						
7	Diving in a swimming pool of similar incidence						
8	Jumping high to catch a cricket ball or something						
9	Lifting a heavy weight						
10	Muscling your arm and clenching your fist						
11	Going on in a winch from one end to another end						
12	Muscling your mouth vigorously or something						
13	Running fast and suddenly halting						
14	Your very hungry feeling						
15	Your very thirsty feeling						

Total raw Score						
Time taken In minutes						

	contemplate if the adaptation of some other strategy would have led to better result.				
7.	I know I have my style of studying and dislike any kind of interference.				
8.	I don't like any type of disturbance during study hour.				
9.	I know the things which I need during the period of studying.				
10.	While studying, I do not involve myself in any other work				
11.	I know where my attention diverts while studying.				
12.	I know how much I try to know more about certain concepts				
13.	Once I memorize anything, I remember it forever.				
14.	While studying I do not involve myself in any other work.				
15.	I am satisfied, with my style of studying and feel that is no need of change.				
16.	I know the type of atmosphere needed to me to study with concentration.				
17.	I know why I forget certain events while remembering certain other well.				
18.	I try my best to make arrangement of certain things, so as to study in better way				
19.	I want to create a suitable atmosphere for studying but I do not bother to do so.				

20.	If I fail in my attempts , I do not get disappointed				
21.	I know the goal of my life and try my best to achieve it.				
22.	I know how I can understand a difficulty concept.				
23.	I usually check myself to see whatever my attempts and concentration on study				
24.	I know how to control my attention and concentrate on study.				
25.	I know that if I had adopted the particular strategy, I would have remember those concept which I had forgotten.				
26.	I am so conscious about my goal that I can resist any temptation and continue my studies.				
27.	I know what I should do to memorize a concept.				
28.	I know how sharp my memorize a concept.				
29.	If I do not get suitable atmosphere to study I get perplexed				
30.	I know the method of knowing more about a given concept				

WILL TO WIN QUESTIONNER

NAME

AGE

CLASS

SEX

ACTIVITY

Each statement has yes and no against it to know your response. The response which you feel is appropriate should be marked (√) .please, keep in mind that all the statement

1	I have defeat	yes	No
2	When I play bad feel frustrated	Yes	No
3	In the situation of losing I am determined to play better than Than when I am winning.	Yes	No
4	I take into account the various strategies of the game, no matter I lose.	Yes	No
5	I participated in the game thinking that I will win	Yes	No
6	I feel bad when the opponent is loosing	Yes	No
7	I don't mind when I play bad game.	Yes	No
8	A looser can also be called as successful player.	Yes	No
9	Victory is the main aim of tournament.	Yes	No
10	Instead of winning I believe in self-satisfaction.	Yes	No
11	A well-played game is satisfying in spite of winning it.	Yes	No
12	Main aim of practice is to win.	Yes	No
13	I don't feel bad when my coach des not co-operate fully.	Yes	No
14	It is painful to loos when the game could be easily won.	Yes	No

should be responded and check the same before submitting the questions.