REVIEW OF LITERATURE

Franks and Goodman (1986) have discussed a systematic approach to the analysis of sporting events. The basic tenet is that objective quantification of critical events is required for complete analysis. This approach encompasses diverse areas of methodology and research, such as quantification, bio-mechanics and physiology. The theoretical underpinnings are behavioral, in so far as athletes produce observable behavior that can be quantified and ultimately changed.

Chapman (1986) investigated on the prediction of success in women’s field hockey. The subject were 106 players who participated in the international selection and training camps sponsored by the United States Field Hockey Association during the summer of 1978. The specific areas of investigation were anxiety, visual perception, manual dexterity, ball control and dynamic balance. Five test were selected to assess the predictor variables.

Franks (1987) developed a computerized sports analysis for field hockey with digital and graphical data of team performance, and the programmers to control edit, the video tape of game, action. The interactive video computer programmed accessed the stored data base, the times of all specified events such as goals, shots, set plays etc. This system was tested initially by the Canadian National women’s hockey team.

Starke (1987) assessed the relative importance of attributes determined largely by the efficiency of the central nervous system versus cognitive attributes in the determination of expertise in field hockey. Three groups were assessed on a battery of field hockey related perceptual and cognitive tasks.

Harson (1989) conducted a test to determine the relationship of selected physical fitness variables (speed, power, cardiovascular endurance and agility) to performance in basketball. The test was conducted on twenty five basketball players from the professional college of physical education as subjects and administered the AAPHER
physical fitness test to collect the data pertaining to the selected physical fitness variables.

**Bhangu et.al. (1995)** analyzed the defending abilities of different International teams namely. South Korea, Australia, Khazakistan, Malaysia, England, South Africa, Poland and India in Indira Gandhi Invitational Hockey tournament. The purpose of the study was to investigate the ability of the team to save goals and their weakness to concede goals from different angles. The teams were divided into two pools.

**Ali and Farrally (1995)** studied on the time spent by players of different position during walking, jogging, cruising, sprinting and standing still during match play activities. University level of players of age group 19-21 years were filmed in several matches and the video recordings were analyzed using a microcomputer. The ratio of the time spent for the players were 56 percent walking, 30 percent jogging, 4 percent cruising, 3 percent sprinting and 7 percent standing still.

**Bhangu(1997)** analyzed the performance of Indian hockey team Atlanta Olympic 1996, In the performance of team as a whole, the data showed that the Indian team had the opportunity to take 42 field tries on the opponent goal in its 7 matches played out of which only nine goals were scored. Tactical analysis showed the Indians were unable to overcome the defensive tactics of theisms like Argentina, Germany, Pakistan, South Korea and Great Britain.

**Khanna, and Ahuja (2003)** Conducted a study to determine the level of physical fitness of trained university athletes from body composition, static strength and cardiovascular efficiency and come to the conclusion that Indian sportsman of university /state / national level had optimum body fat which is lower than the normal sedentary persons.

**Cook et. al (2004)** as per Patellar tendinopathy has been reported to be associated with many intrinsic risk factors. Few have been fully investigated. This cross-sectional study examined the anthropometric and physical performance results of elite junior basketball
players with normal or abnormal patellar tendons to see if any measures were associated with changes in tendon morphology.

**Duffield R and Portus M (2007)** conducted a study to compare the effects of three types of full-body compression garments (Skins, Adidas and Under Armour) on repeat-sprint and throwing performance in cricket players. Following familiarization, 10 male cricket players performed four randomized exercise sessions (three garments and a control).

**Berger and paradise (2009)** conducted the AAHPERD physical fitness tests on 15 boys of junior high school, to compare the physical fitness scores of white and black seventh grade boys of similar socioeconomic level. The two racial groups were matched. It was concluded that black male students in the seventh grade have higher level of physical fitness than whites.

**Duffield R, et.al., (2009)** conducted a study to investigate the relationship between physiological and performance responses during repeated six over fast-bowling spells. Six, first-class, medium-fast bowlers performed six over spells separated by 45 min of light activity.

**Silawat, N et al., (2009)** The purpose of the present study was to find out the impact of age on the physiological variables, body composition and blood cholesterol in selected physical education professionals. The study was conducted on 45 physical education professionals who came to attend a National level Workshop on Research Methodology and Statistical Techniques (Funded by Special Assistance Program of UGC) and organized by Mahadev Desai Sharirik Shikshan Mahavidyalay, Gujarat Vidyapeeth, Gujarat. The age of the subjects ranged between 21 to 50 years. The subjects were selected randomly and divided into three ten yearly age groups. Measured physiological variables included pulse rate (PR), diastolic blood pressure (DBP) and systolic blood pressure (SBP).
Erum Shahzadi and Zahoor Ahmad (2011) In this paper we want to develop a model for academic performance of students of university of Gujrat, Gujrat, Pakistan. To develop this model we consider the independent factors like home environment, study habits, hardworking, learning skills, and academic interaction. For the development of model using Structure equation modeling, first of all we use Confirmatory factor analysis to confirm the considered factors.

Lalit Mohan Tiwari (2012) The purpose of the study was to compare the physical & physiological variables among the Inter District & Inter State Levels of Basketball players. Sixty (60) Male basketball players (30 inter district and 30 interstate) were randomly selected from Uttar Pradesh as a subject. The age of the subjects were ranged from 17-28 years. It was hypothesized that there would be a significant difference in the physical fitness variables and physiological variables among the Indian basketball players of different levels of competitions.

PRADEEP.C.S et al.(2012) The purpose of the study was to evaluate the effectiveness of the selected minor games programme on physiological factors among school children. The intervention was designed as a sample consisted of 230 participants, the program lasted eight weeks. The study examined the reduction of physiological factors; BMI, BMI percentile, percent body fat, waist circumference, and heart rate.

Mehraj Ahmad Bhat and Punita Govil (2014) the present study was designed to investigate the preferred learning style of secondary level students and its role in academic performance. The study also explored the differences in learning styles in relation to gender, residential background and type of institution. The sample of the study consisted of 510 secondary school students.

Dalia Antinienė and Rosita Lekavičienė (2015) The level of personality’s empathy largely determines altruistic behaviour and the quality of interpersonal relationships rendering the relevance of research indubitable. In psychology, empathy is classified into emotional/affective, cognitive and predictive. This study analyses affective empathy
and aims to find out which personality traits related to self-perception, effectiveness in interpersonal relationships and sociodemographics are linked to empathy.

**Irena Dravniece (2015)** Practice game contributes to the development of coordinated motor skills needed for later game playing or sport. When coaches know and use movement games corresponding to the specific sport to increase athlete’s interest and pleasure about sport and sport pedagogue’s knowledge about the scientifically based movement games, they promote the acquisition of skills at higher levels. Research aim was to ascertain the knowledge of coaches about movement games in sport classes, in order to research the use of movement games in the training process in different sports and to investigate how games are applied in the training process in Latvia.

**Vello Hein (2015)** It is well known that parents influence physical activity of their children. Determining the factors related to parents’ perception of the importance of physical activity and physical fitness enables enhancing the promotion of physical activity among children in the future.

**Romualdas Malinauskas and Artūras Akelaitis (2015)** The paper strives to answer the question what is optimism expression for middle school age students in physical education classes. The following hypothesis was tested: optimism expression of boys would be higher than those of girls. The aim of our study was to examine the optimism expression for middle school age students in physical education classes.

**Rebeka Prosoli et al. (2015)** Aging represents period of life when human body undergoes great changes affecting people’s condition and overall health. The aim of the research was to determine differences of motor and functional abilities along with satisfaction and quality of life between active and non-active female older adults.

**Olga Aftimichuk (2015)** The coordination development level influences the execution of any human activity, which is very important for the general perception of this activity and behavior in general. It is especially relevant for to coaches in wellness and sports
gymnastics. The aim of the present study was the identification of the coordination skills of coaches of different types of gymnastics, which would improve the process of their professional training.

**Ondimu Enoch Aming’a (2016)** This study investigated the influence of physiological needs on academic performance in public primary schools of the Eastern Zone of Nakuru Municipality. The study used survey research design to establish the influence of adequate nutrition, adequate water, adequate sleep, and family well-being on academic performance of class 8 pupils in the area of study. The study target population was 800. 370 respondents were chosen for the study through systematic random sampling. Response rate to the questionnaire administered stood at 72%.

**Mohammed Abou Elmagd (2016)** Sport psychology help professional and amateur athletes to deal with their problems, improve their performance and achieve their goals. Sports psychology can even help people outside the playground. Sports psychology important for successful performance in most sports, it can help all athletes to Enhance performance, Cope with the pressures of competition, Recover from injuries, Keep up an exercise program and enjoying their sports.

**Arundhathi et al., (2016)** It is a fact that apart from other factors, the performance of an individual in any game and sports is mainly dependent upon physical, physiological and psychological factors. Every sports person should be physically, physiologically and psychologically fit to carry out daily tasks. Physical fitness is the result of regular physical activity, proper diet and nutrition and proper rest for physical recovery within the parameters allowed by the genome.

**Nripendra Mani Sharma and Dr. PK Dasnd (2017)** The main purpose of the study was to compare the motor skill performance on selected playing surfaces among field hockey players. Twenty male students, studying in bachelors and masters of physical education at Lakshmibai National Institute of Physical Education were selected as subjects for this study. The age groups of the subjects were ranged from 18 to 25 years.
**R.K. Kavitha and W. Jaisingh (2018)** In recent times, teaching and learning methods have a direct impact on students’ learning experiences. Blended learning is a combination of face-to-face and online delivery methods which influences students’ perceptions on the learning environments to a great extent. Learning analytics is a growing trend at all levels of education.

**Alberto Rábano-Muñoz et al., (2019)** Small-sided games (SSGs) represent modified football games played on reduced pitch areas, often using adapted rules and involving a smaller number of players than full-size soccer matches.