



**JIMMA UNIVERSITY**

**SPORT ACADEMY**

**DEPARTMENT OF SPORT SCIENCE**

**LONG TERM FOOTBALL ATHLETES DEVELOPMENT AND  
TRAINING METHODS AMONG MALE AND FEMALE  
FOOTBALL PROJECTS IN SHASHEMENE TOWN**

**BY:**

**OUMER ALIYE**

**A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE  
STUDIES OF JIMMA UNIVERSITY SPORT ACADEMY  
DEPARTMENT OF SPORT SCIENCE IN PARTIAL  
FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD  
OF THE DEGREE OF MASTER OF SCIENCE IN FOOTBALL  
COACHING**

**JUNE 2024**

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**ADVISOR: DR. MELKAMU DUGASSA (PHD)**

**CO-ADVISOR: Ms. BAHILUWA ZELEKE (MSc)**

**JUNE 2024**

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**SPORT ACADEMY**  
**DEPARTMENT OF SPORT SCIENCE**

**APPROVAL SHEET**

As members of the examining board of the final msc open defense, we certify that we have read and evaluated the thesis prepared by: Oumer Aliye entitled: “Long term football athletes development and training methods among male and female football projects in shashemene town”. We recommend that it could be accepted as full filled the thesis requirement for the degree of Master of Science in coaching Football specialization.

**Oumer Aliye Turbe**

Name of Student

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**Melkamu Dugassa (PhD)**

Name of Advisor

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**Bahiluwa Zeleke (MSc)**

Name of Co-advisor

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

As member of the Examining Board of the final MSc. Open Defense, we certify that we have read and evaluated the thesis prepared by Oumer Aliye and examine the candidate. We recommend that the thesis be accepted as fulfilling the thesis requirement for the Degree of Master of Science in coaching Football specialization.

**Wondimagegn Demisie (PhD)**

Name of Internal Examiner

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**Girma Tilahun (PhD)**

Name of External Examiner

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

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|                              |           |       |
|------------------------------|-----------|-------|
| Name of the Graduate Student | Signature | Date  |
| <b>Oumer Aliye Turbe</b>     | _____     | _____ |

### Name (s) of the Research Supervisor (s)

|                              |       |       |
|------------------------------|-------|-------|
| <b>Melkamu Dugassa (PhD)</b> | _____ | _____ |
|------------------------------|-------|-------|

|                      |           |      |
|----------------------|-----------|------|
| Name of Main Advisor | Signature | Date |
|----------------------|-----------|------|

|                                  |       |       |
|----------------------------------|-------|-------|
| <b>Wondimagegn Demisie (PHD)</b> | _____ | _____ |
|----------------------------------|-------|-------|

|                              |           |      |
|------------------------------|-----------|------|
| Name of of Internal Examiner | Signature | Date |
|------------------------------|-----------|------|

|                            |       |       |
|----------------------------|-------|-------|
| <b>Girma Tilahun (PhD)</b> | _____ | _____ |
|----------------------------|-------|-------|

|                           |           |      |
|---------------------------|-----------|------|
| Name of External Examiner | Signature | Date |
|---------------------------|-----------|------|

### Title of the Thesis

“Long term football Athletes development and training methods among male and female football projects in shashemene town”

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## **BIBLIOGRAPHY OF THE RESEARCHER**

The author was born in July 1972 E.C. in Oromia regional state, West Arsi Zone, and Hassasa woreda. He attended his elementary education grade (1-6 Ela kebale, 7-8 Ardeyita state farmer) and 9-12 Hassasa secondary school from 1989-1994 E.C. He did his first degree at Kotobe College of Teacher Education (BSc in Sport Science) by regular program from 1995-1998 E.C. and served as a teacher for 3 consecutive years and he has been working on sport office for the past 13 years, totally he has 16 years of work experience. In 2015 E.C., he joined Jimma University to pursue his MSc degree in Football Coaching.

## **Abstract**

*The main objective of this study was to assess long-term football athlete's development and training methods among male and female football projects in Shashemene town. Employing a mixed research approach with triangulation research design, descriptive statistics and one way anova were utilized for quantitative data analysis, while thematic analysis was employed for qualitative data. The research was conducted on 120 sample respondents by using a questionnaire, interview, and observation as data collection tool. The key findings reveal that the majority of respondents were male (71.7%) and female (28.3%), with a significant portion falling within the 21-25 age groups (68.3%), indicative of a youthful demographic. Notably, there was a significant disagreement (37.5%) regarding the effectiveness of periodization training programs in improving long-term athlete development, highlighting potential deficiencies in training methodologies. Furthermore, respondents expressed dissatisfaction with the lack of a dedicated training center (57.5%) and the suitability of training supplies provided by the club (55.9%). Concerns also arose regarding the utilization of gym training by coaches (54.2%) and the balance between training load and recovery time (67.5%). While there was a moderate level of agreement regarding the sufficiency of monitoring and feedback during training (45.0%), a significant proportion disagreed (60.0%) that training was based on coach collaboration with sports scientists and professional experts. The study identifies various barriers, including inadequate resources such as training fields, equipment, and budget constraints. Additionally, coaches' limited uses of supportive materials like LCD screens and videos due to lack of awareness and accessibility results challenges to long-term athlete development. A critical observation was the absence of written short- and long-term plans, essential for guiding athlete development and setting clear goals. In conclusion, the study underscores the need for concerted efforts to address these challenges and deficiencies, emphasizing the enhancement of resources, improvement of coaching practices, fostering interdisciplinary collaboration, and implementing structured planning and monitoring mechanisms. By addressing these issues, stakeholders can work towards optimizing athlete development and maximizing players' potential in football.*

**Key Words:** Coaching practices, Long term athlete development, structured planning, and training Methods.

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## **ACRONYMS**

**DMSP:** Developmental Model of Sports Participation

**FA:** Football Association

**FIFA:** Federation of International Football Associations

**LTAD:** Long term athlete developments

**NSCA:** National Strength and Conditioning Association

**PHV:** Peak Height Velocity

**PWV:** Peak Weight Velocity

**SSG:** Small sided game

**TI:** Talent Identification

**YPD:** Youth Physical Developmen

# **CHAPTER 1**

## **1. INTRODUCTION**

### **1.1 Background of the study**

Football is one of the most popular sports in the world, engaging people worldwide as players, spectators and TV viewers (Haugaasen & Jordet, 2012). 265 million people regularly play football, making football one of the most highly participated sports in the world (Nyikana et al., 2014). The world cup tournament of 2006 had 27 billion accumulated viewers and the final alone attracted an audience of more than 700 million (Kaplanski & Levy, 2010).

In recent years, there has been a growing interest in long-term athletic development (LTAD), with a need to properly prepare youth for both sport and a physically active life. Over the last two decades, academics have proposed a number of LTAD models, with early general models structuring athletic development into stages based on participation, chronological age, or maturation. These general LTAD models provided frameworks for subsequent athletic development models specific to different types of physical training and fitness, including aerobic fitness, muscular power, speed, and agility. Identifying links between common themes of various models may provide coaches and practitioners valuable insight into components of a successful LTAD program (Pichardo et al., 2018).

Long term athlete development is human development from birth to adulthood is a continuous process. to understand the process better, experts divide human development into distinct stages with specific characteristics; these are called stages of development. In Canadian sport, experts have identified seven stages of development, each with its own physical, mental, emotional, and cognitive characteristics. This is our Long-Term Athlete Development (LTAD) model, and it's the basis for the optimal training and competition kids need to enjoy sport the most and perform their best (Bennett & Dyck, 2023).

Long-term athletic development is important to prepare youth for sport and an active lifestyle. Several models have provided general frameworks for long-term athletic development from different perspectives that consider factors such as when to sample and specialize and what physical qualities to train and when (Sarmiento et al., 2018).

In the sport performance context, the search for better results demands excellence in athletes' preparation and, consequently, highly qualified coaches to conduct the training and competition

processes. The competitive sports environment requires high dedication from coaches, who need to be constantly learning, reassessing practices, making decisions, and reflecting to maintain and achieve their results and goals. However, the formal coach education programs, with pre-defined content to be followed in classes do not seem to meet all demands that each coach has in this competitive context. Cassidy, Jones, and Potrac and Mesquita, Ribeiro, Santos, Morgan, suggest that a negative aspect of the formal courses of instruction would be the distance between theory and practice in which coaches find difficulties in transferring the content taught in class to their daily environments (Tozetto et al., 2019).

Youth football program is a founding stage at which future elite players will be equipped with the basic and advanced technical, tactical, physical, and psychological demands of modern football. With this in mind, a well-structured youth football development program is primarily mandatory. For a nation to be successful and competent in sport at a continental and international level, it is mandatory to train and cultivate youth football team with such a continual and consecutive program. The areas that this program needs to be planned and run (implemented) are clubs. The trends and result of other nations is a convincing fact for the necessity and significance of this program in clubs (BEZABIH, 2017).

Therefore, developing all the traits that modern football demands is necessary to produce players who are capable and competent to play the game. Sport professionals are aware that this can be accomplished by incorporating a well-organized program for the development of young football players, offering quality instruction, and providing all the facilities and equipment needed to organize and carry out effective coaching and training.

Ethiopia has created a youth football development policy, strategy, and program in line with other nations that have greatly profited from such programs, realizing the significance of such initiatives for a nation to be successful and proficient in football at a continental and international level. In Ethiopia, this initiative has been implemented throughout all areas and zones.

Shashemene Town is one of the towns where a youth football development program is being implemented. One of the multifaceted problems that these youth football projects encountered is the coaching problem, which has a negative impact on the projects' success and needs to be alleviated in order for the projects to achieve their goals. The project should play a key role in the development of the new successor player for the main club or for the country at large. The

primary task and basis for research should be scrutinizing the main problems and identifying their nature, which can be the basis for alleviating the problems.

Thus, this study aimed to find out the problems and challenges of long-term athlete development and training methods for coaching youth football male and female projects by taking Shashemene town, Oromia region, as a study site.

## **1.2. Statement of the problem**

According to (Tafere & Camfield, 2009) training of football requires developing the physical fitness of the players and the technical skills in the game and understanding the principles of the play and training. Performance is an observable behavior of players in a playground; an observable behavior comprises the fundamental skills of the game and the physical qualities of performing the skills appropriately. The skills of football could be developed through systematic methods of preparation and applying the scientific methods of training. The scientific method of training refers to the knowledge of the frequency, intensity, and duration of training and considering the developmental stages of players.

Several Youth Football Projects are institutionalized in various countries with the support of Federation of International Football Association for the development of football sport across the globe. In African countries, the implementation of Youth Football Projects is often ignored by the participative agencies and led to lack of very low attention, overall support and follow-up. The active participation of community, coach, administrative body, and trainees determines the development of football sport. In many countries, collaborative working and active participation of all stakeholders made the football as successful sport. It is witnessed in Ethiopia that very less initiation is given to improve the efficiency of youth football. Due to this Ethiopian projects are not developed well (Bayissa & Kumar, 2021).

Even if football is gaining popularity among young men in Shashemene Town, there are still a lot of challenges and unanswered questions in the process of producing athletes. The absence of research on long-term football athlete development and training techniques among football male and female projects in the study area is the reason the researcher chose this title. These concerns could involve taking part in long-term athlete development, spotting talent, using scientific training techniques, offering excellent coaching and psychological support, handling injuries, and interacting with the community.

Furthermore, not enough is known about how these factors impact the long-term success and career prospects of male and female football players. The disparities in opportunities between male and female athletes need to be taken into consideration.

Moreover, the impact of the surrounding community and cultural factors on the development of male and female football players has not been thoroughly studied. Finally, it's unclear if Shashemene has access to the availability of football equipment, which could hinder the growth of players. Therefore, extensive research is desperately needed to solve these problems, pinpoint information gaps, and offer perspectives to improve the growth and training regimens for male and female football players in Shashemene municipality. In the end, this research assisted the development and prosperity of male and female football players in the area by optimizing programs, resources, and support networks.

### **1.3. Research questions**

1. What is the impact of football development program on long-term athlete development among young male and female football players in Shashemene?
2. How the training method employed by coach's impact the development of young male and female football players in Shashemene?
3. What factors influence the long-term athlete development and training methods among male and female football players in Shashemene?

### **1.4. Objectives of the study**

#### **1.4.1. General objective**

The main objective of this study was to assess long-term football athlete's development and training methods among male and female football projects in Shashemene town.

#### **1.4.2. Specific objectives**

1. To investigate the impact of football development program on long-term athlete development among young male and female football players in Shashemene.
2. To assess the training method of coaches and their effect on players' development among young male and female football players in Shashemene Town.
3. To assess factors affecting long-term athlete development and training methods among male and female football players in Shashemene Town.

### **1.5. Significance of the study**

The Shashemene Town project were serve as a barometer for raising awareness of the issues and difficulties associated with teaching male and female football. Furthermore, the study's findings can shed light on the issue of football coaching in youth football initiatives. It might offer a welcoming training atmosphere where suitable instruction can be used. The current study's findings may compel additional research on related topics with larger sample sizes to offer precise information for improved youth football coaching projects, to support football coaches providing training in various divisions, to support the football federation and other affiliated organizations, and to raise awareness among football players. Even Shashemene city administration, sport office, society, and all sports families indirectly get some advantages from the study.

The methodical and progressive training of athletes over a prolonged period of time is referred to as long-term athlete development. It acknowledges that the growth of athletes is an ongoing process that calls for meticulous preparation and periodization. Determining the significance of long-term athlete development is essential to creating training plans that work and helping football players reach their full potential.

### **1.6 Limitation of the Study**

Here are some possible limitations of the study on the assessment of long-term football athlete's development and training methods among male and female football projects in Shashemene town.

**Small size of study population:** The data collected from a small sample may have an impact on the result and comprehensiveness of the study.

**Budget Constraint:** The researcher was faced some problems with budget constraints to collect data, for transportation, writing documents, printing, and data analysis.

**Lack of interest behind the respondent to fill the questionnaire:** Coaches, administrators and players are not so interested to fill the questionnaire or even to respond to interview.

**Lack of time for players and coaches to fill out the questionnaire:** Since there was a competition and training load, they have not enough time at that time.

## **1.6. Delimitations of the study**

The study's scope was limited to the assessment of football players' long-term development and training methods in Shashemene Town's male and female football projects. Many development programs were involved in long-term football athlete development and training methods; however, for this study, the researcher concentrated on organized planning, strategies for the progressive development of athletes, technical training, physical conditioning, facilities, and equipment used for athlete development. This study involves three projects out of five that are members of the Shashemene Football Federation. The researcher was compelled to restrict the study to male and female football projects that fell under the jurisdiction of the Shashemene municipal government due to limitations in time, resources, and money, and the remaining two projects are not legally registered at the Shashemene town sports office.

## **1.7. Definitions of terms**

**Coach:** The coach is the team's professional leader who oversees the performance of each individual athlete or the squad as a whole (TAFESSE, 2017).

**Football:** Football is a well-liked team sport that is played on a rectangular field between two teams, each with eleven players. Football is a ball game in which the idea is to kick the ball into the opponent's net while defending your own goal. It is also referred to as soccer in some other nations. The game's fast-paced style, deft ball control, calculated strategy, and toughness define it (Mason, 2017).

**Long- term athlete development:** In football, long-term athlete development (LTAD) is the name for a methodical, all-encompassing strategy to fostering football players' long-term physical, technical, tactical, and psychological growth. It entails a planned program designed to optimize athletes' long-term potential while taking into account their unique requirements, developmental stages, and maturation goals (Pichardo et al., 2018).

**Project:** An organized program or initiative aimed at developing football in a particular setting, like a community, organization, or institution, is called a football project (Friedrich & Mason, 2017).

**Training methods** Football players utilize a variety of tactics, strategies, and approaches to enhance their physical prowess, tactical awareness, and overall performance during training sessions. These are referred to as football training methods (Rago et al., 2020).

### **1.8. Organizations of the study**

There are five chapters in this thesis. The first chapter covers the following topics: introduction, problem statements, research questions, study objective, significance of the study, Limitation of the study, delimitation of the study, and definition of terms. The review of related literature is the subject of the second chapter. The third chapter of the study covers the research design, sampling strategies, data collection tools (questionnaires, interviews, and observation), as well as the methodology and design of the study. Chapter four; presents data results, analysis and discussion. Chapter Five; presents a summary, conclusions of the findings and recommendations of a thesis.

## **CHAPTER 2**

### **2. REVIEW OF RELATED LITERATURE**

#### **2.1 Introduction**

To develop the study, the researcher intended to use various reference materials, especially reviews of literatures that are designed based on the aims of the study areas therefore, as a source of basic details on problems and challenges of long-term athletes' development and training methods of football projects.

#### **2.2 Historical background of football**

Football as a sport was first recorded in Great Britain, although it is not known exactly where the sport was invented. There are records of earlier forms in China, at least two thousand years ago, and in ancient Greece and Rome. But it was in England that football began to take the shape recognized today (Bergh & Ohlander, 2020).

The contemporary history of football began in Great Britain in 1863 when 12 clubs and schools attended a meeting where they decided to form an association called —The Football Association. This association drafted the first common set of rules of football, which were accepted on 8th December that year. Among other things, the original set of rules included limiting the field size to 200 by 100 meters, allowing players to catch the ball with their hands and teams changing ends after each goal. Eight years later, the first football competition in the world started – the English Football Association (FA) Cup – and in 1872 the first international match was contested by England and Scotland (MADORO, 2017).

The spread of football outside of Great Britain, mainly due to the British influence abroad, started slowly but soon gathered momentum and spread rapidly to all parts of the world. When the Federation of International Football Associations (FIFA) was founded in Paris in May 1904, it had, seven founder members: France, Belgium Denmark, the Netherlands, Spain, Sweden and Switzerland. By 1930, the year of the first World Cup, there were 41 members.

There were 51 members in 1938, and in 1950, after the interval caused by the Second World War, the number had reached 73. In 2009, there were 208 affiliated member associations from every corner of the globe, and the Football World Cup is the second largest global sporting event after the Olympics (MESFIN, 2011).

### **2.3 History of football in Africa**

The first football match played in African soil according to records was as far back as the late 19th century (1862), before football became a popular sport in 1882. The spread-out of football in Africa was fueled by the military, missionaries, and others.

The first set of African football clubs were founded in 1882; they include- the Gezira Soccer Club, which originated from Egypt, and the Savages Football Club from South Africa. The two were the giant football clubs in Africa as far back as 1882.

Alexandria Football Club of Egypt followed in 1890, and the CAL Oran of Algeria followed in 1897. The movement progressed to the 20th century (1930), when football was played in Central Africa. Exploitation was high, which happened to be the major flaw in the African football game. This led to the invention of the Confederation of African Football. The Confederation of African Football is the administrative body of the African football associations. It was founded in February 1957 and consisted of over 54 football associations. The primary aim of CAF when it was founded was to work towards increasing the rate of participants in the African football game. Interestingly, this aim give birth to the first Nation's Cup that happened at the launching of CAF in Khartoum, Sudan, the same year it was created (Simiyu, 2022).

### **2.4 History of football in Ethiopia**

Football is the most popular sport in Ethiopia. Although not one of the leading footballing nation in Africa, Ethiopia has produced some outstanding teams at both club and international level as well as some talented individual players.

Football in Ethiopia came under the control of the Ethiopian Football Federation (EFF) When that organization was founded in 1943. The EFF affiliated to FIFA in 1953 and to the Confederation of African Football in 1957. League football was in existence before the formation of the EFF with regional leagues contested during the 1938/39 and 1939/40 seasons in the provinces of Eritrea, Harar, Amhara, Scioa and Sidamo as part of the Italian occupation.

The first recognized version of the Ethiopian Premier League was contested in 1944 when five teams representing the various communities of Addis Ababa competed for a title won by the British Military Mission-BMME. The Ethiopian Cup was added the following year and has been contested regularly since (albeit with some gaps, notably in the 1960s (Gebremariam & Gaudin, 2019)).

## **2.5 Long-term athlete development**

The original driving force for Balyi and Way's LTAD model was to improve the quality of sport programmes. The idea was to enable all participants to reach their full potential. It is the planned, systematic and progressive development of individual athletes. It's also referred to as long-term participant development or long-term player development (LTPD). LTAD is the answer to one fundamental question:

What needs to be done at each stage of human development to give every child the best chance of engaging in lifelong, health-enhancing physical activity? And for those with drive and talent, the best chance of athletic success? Effective long-term athlete development focuses on what's best for the participant throughout their life rather than short-term gains and early success.

The aim of the model is to address any shortcomings and resulting consequences that hinder the current system. As well as providing positive experiences for all participants (Carlsson, 2021).

The Long-Term Athlete Development (LTAD) model is a framework that strategizes training, competition, and recovery depending on the participant's stage in their athletic development. The LTAD model was created to help athletes understand their full potential and improve the quality of sport programmes. Through planned and progressive steps, participants of all ages can expand their minds to improve their physical performance (Carlsson, 2021).

One of the most important outcomes of the LTAD model is the focus on gradual improvement to develop long-term success. Rather than prioritize short-term gains, athletes who focus on development overtime are more likely to reach their full potential. Through a seven-stage framework, the needs of the athlete are divided to match their stage of development. This helps individuals of all ages improve their quality of learning and optimize their performance. It also provides a step-by-step for coaches to develop programs suited to the individual, rather than a blanket method for everyone. Coaches who embrace the LTAD model are more likely to train athletes who reach their full potential. Through embracing the Long-Term Athlete Development model, athletes have increased levels of participation and higher rates of performance. All stages of athleticism are encouraged and recognized to ensure equal opportunity to every participant (Balyi et al., 2013).

## **2.6 Long term athlete development model explained**

The LTAD model is a seven-stage framework. It guides the participation, training, competition and recovery pathways in sport and physical activity. This is used from infancy through all stages of adulthood. The seven stages are: Active starts, fundamentals, learn to train, train to train, train to compete, train to win, and Active for Life (Carlsson, 2021).

LTAD focuses on the needs of participants and their individual stages of development. It also provides a point of reference for coaches, administrators, parents and sport scientists. The model recognises both participation and performance-orientated pathways in sport and physical activity. It also comes after the fun-based development of physical literacy in the early years. The framework also provides guidance to improve the quality of sport and physical activity by helping children become physically literate (Carlsson, 2021).

Athletes under the LTAD model experience developmentally appropriate training and competition programmes at all ages. This increases their participation and optimizes performance. People also develop physical literacy during the first three stages of LTAD. This allows them to move on to the later stages. The model also recognizes that people go through stages of growth and development from birth to death. At any stage, a range of physical, psychological, social and environmental factors can affect the ability to participate, train and compete in physical activity (Balyi et al., 2013).

## **2.7 Key factors of long-term athlete development**

This seven-stage model is built on the following 10 factors:

1. Physical Literacy- It focuses on mastering basic human movements, fundamental movement skills and foundational sport skills. It supports long-term participation and performance to the best of an individual's ability. Physical literacy is the cornerstone of both participation and excellence in sport and physical activity.
2. Specialization- Sports can be divided into early and late specialization. In early specialization sports (mostly acrobatic and artistic sports such as gymnastics, diving and figure skating) early training (by ages 5 to 7) is necessary for future excellence. However most sports are late specialization and some even very late specialization. Although, it's important to remember that the time to specialize for each sport is unique. Late specialization sports include football, hockey

and basketball. Elite levels can still be mastered as long as specialization begins between ages 12 and 15. It's also essential that these athletes have already acquired physical literacy.

3. Age- Children develop at different rates. When considering training, competition and recovery programmes for athletes, regardless of the LTAD stage, coaches need to consider the age of the athlete. However, this can't just be done by checking the date of birth. A number of age categories must be considered. These include: Chronological age (the number of years and days since birth), Relative age (the differences in age among children born in the same calendar year), Developmental age (physical, mental, cognitive and emotional maturity), Skeletal age (the maturity of the skeleton based on bone development), General training age (the number of years in training and sampling of sports), Sport-specific training age (the number of years since the athlete specialized)

4. Trainability- To create optimal training and competition programmes, coaches and teachers need to be aware of the sensitive periods in which training for different body systems have optimal effects. These different body systems include stamina, strength, speed, skill and flexibility.

5. Intellectual, emotional and moral development- Children develop intellectually, emotionally and morally at different rates. For every child, one or more of these factors could be advanced or still developing. This variation in the rate of development affects a child's capacity to make decisions and deal with the strong emotions that are part of the sport experience. It's common for children to be at different stages of their development.

6. Excellence takes time- Research has suggested a minimum of ten years of practice is needed for experts in any field to reach elite levels of performance (Ericsson et al., 1993; Ericsson et al., 2007). However, others believe that talent is based on genetics and can be nurtured at an accelerated rate. Regardless of whether a young athlete is talented, many years of training and practice are required to help them become the best in a sport.

7. Periodization- is time management in sport. It ensures that the right kind of training is done at the right time. It sequences the training components into weeks, days and sessions. It's also situation specific. This depends on the time available to bring about the required training and competition improvements.

8. Competition- is drives actions in sport. Coaches instruct based on competitions and generally, we determine the success of things based on the outcome of competitions. Therefore, designing developmentally appropriate competition is key to LTAD.

9. System alignment- System alignment from an individual's perspective provides a guide for parents and athletes to consider as they progress through the LTAD pathway. The alignment of systems from an organizational perspective is how the four key sectors of health, education, recreation and sport interact with. LTAD is athlete centered, coach driven and administration, sport science and sponsor supported.

10. Continuous improvement- The concept of continuous improvement, something which is key to long-term athlete development, is drawn from the Japanese philosophy known as kaizen. Kaizen can be translated as 'improvement' or 'change for the better'. The world of sport and athleticism is changing all the time and for it to keep up, continuous change needs to be made. Change can be difficult, however taking no action to improve sport can result in declining participation, increased obesity and other issues (Balyi et al., 2013).

## **2.8 Successful football academies/projects**

The common task of a football academy is to create an appropriate environment for the development of elite players (Firildak & Akin, 2020). Academies aspire to develop players for the first team or, at the very least, generate income through the sale of marketable assets (Richardson et al., 2004). Amsterdamsche Football Club Ajax, also called AFC Ajax or Ajax FC, is internationally known and recognized for training and developing young talent. Ajax invests heavily in the training of youngsters and is very successful in doing so. Many professionals in Dutch and international football have spent their youth development years at Ajax Football Club Youth Academy (Tiemessen et al., 2009)

A successful football academy makes a positive impact on the clubs financial performance and the clubs success on the field (Bilton, 1999).

This is achievable through the success of the academy producing marketable assets of young professionals that improve the first team and realize income from the transfer fees of those academy-produced players that do not establish themselves within the first team squad. Maximizing the return on investment through the production of talented youth footballers should be a directive outlined by a football club. A high quality academy increases the number of own

players in the first team which would consequently decrease the costs of recruiting players. The quality of your academy is therefore not only important for the sporting results, but also for the financial results (Akyeampong, 2015).

## **2.9 Participation in youth football development affect long term success**

In recent years, there has been a growing interest in long-term athletic development (LTAD), with a need to properly prepare youth for both sport and a physically active life. Over the last two decades, academics have proposed a number of LTAD models, with early general models structuring athletic development into stages based on participation, chronological age, or maturation. These general LTAD models provided frameworks for subsequent athletic development models specific to different types of physical training and fitness, including aerobic fitness, muscular power, speed, and agility. Identifying links between common themes of various models may provide coaches and practitioners valuable insight into components of a successful LTAD program (Granacher et al., 2016).

Sport participation and athletic development models originated from basic models of talent development, such as the Differentiated Model of Giftedness and Talent. The key concept that gifts are essentially innate and youth can develop talent through practice remains integral in subsequent models of athletic development. Three models that have arguably had the largest influence on how youth athletes are physically developed are the Developmental Model of Sports Participation (DMSP) of Côté the LTAD model popularized by Balyi and Hamilton, and the Youth Physical Development (YPD) model proposed by Lloyd and Oliver. While each of those models provides a unique perspective, they each provide a pathway for the development of athleticism based on either chronological age and/or maturation. According to the NSCA's position statement on LTAD, athleticism refers to the ability to repeatedly perform a range of movements which require competent levels of motor skills, strength, power, speed, agility, balance, coordination, and endurance (Pichardo et al., 2018).

The Long-Term Athlete Development Model (LTAD) has been developed to allow children the best chance of engaging in lifelong sport and physical activity. The LTAD focuses on long-term development, not short-term success, which allows for the best opportunity of sport participation and optimal sport potential throughout life.

Research surrounding the LTAD model has stated that there is a lack of empirical evidence of the model being utilized within sport, as some researchers believe that it is more theoretical than practical. However, even with this criticism of the LTAD model, Canadian sport policy makers have trusted the scientific research and training methods to implement the LTAD across Canadian sports. With this in mind, the general purpose of the present study was to add much needed empirical evidence for the LTAD model, providing insight into the experiences people have had with the model, as well as evaluating if the guiding principles of the model are being implemented in Canada's most participated team sport, soccer. This occurred through multiple perspectives (e.g., athletes, parents, and coaches) (Till et al., 2022).

## **2.10 The evolution of ltad theory**

Early attempts at objectifying the process of LTAD were based on research that highlighted distinct phases of learning that characterized the development of elite performers: the early years, the middle years, and the later years (Bloom, 1985). This early work was extended by (Côté, 1999) who, after interviewing elite junior athletes, identified 3 distinct sport-specific stages of development: the sampling years (ages 6–12), the specializing years (ages 13–15), and the investment years (ages 16+). A common problem with these models is that they are classified in accordance with chronologic age, an approach that has previously been deemed flawed (Ford et al., 2011), owing to differential rates of development of chronologic age and biologic maturity (Katzmarzyk et al., 1997).

Consequently, a more comprehensive LTAD model was introduced that attempted to address the interaction between growth, maturation, and training (Balyi & Hamilton, 2004). The model suggests that measures of height and weight are routinely collected to be able to identify peak height velocity (PHV) and peak weight velocity (PWV), which reflect individual maturation rates (Malina et al., 2004). PHV refers to the maximum velocity of growth in stature and has been used to characterize developments in performance relative to the adolescent growth spurt (Malina et al., 2004). PWV is a phase of development characterized by rapid increases in muscle mass as a result of increasing sex hormone concentrations (Ford et al., 2011). By objectively measuring the rates of change in height and body mass, it is suggested that children can be trained according to biologic status as opposed to chronologic age (Balyi & Hamilton, 2004).

## **2.11 Windows of opportunity**

A review article by (Viru et al., 1999) examined developmental literature and identified the existence of naturally occurring periods of accelerated adaptation for a range of biomotor qualities. A preadolescent spurt was highlighted for strength, speed, explosive strength, and endurance, in both boys and girls (Viru et al., 1999). It was suggested that age-related developments in neural properties were responsible for the prepubertal window, characterized by increased intramuscular and intramuscular coordination and improvements in motor control programs. An adolescent spurt was also identified in the review, but this differentiated between biomotor qualities (Viru et al., 1999).

Maturity-related adaptations are typically the result of increased androgen concentrations, fiber-type differentiation, resting adenosine triphosphate, and creatine phosphate levels and further architectural development of muscular tendon units (Myer et al., 2011).

(Viru et al., 1999) identified that spurts in speed and endurance occurred before and around PHV, respectively, whereas accelerated gains in strength qualities occurred after PHV (Viru et al., 1999). Using PHV as a key reference marker of maturation, the LTAD model proposes that these periods of accelerated adaptation offer windows of opportunity where training responses will be maximized (Balyi & Hamilton, 2004). In the LTAD model, it is assumed that these periods of rapid natural development represent a time of increased sensitivity to training, although empirical evidence supporting this suggestion is lacking (Ford et al., 2011). Furthermore, according to the LTAD model, should a child not engage in the appropriate training during the specific window, then their ceiling potential may never be reached. This concept would appear to be too simplistic and has recently been questioned by researchers (Ford et al., 2011). Conversely, research would suggest that most fitness components are trainable throughout childhood and should not be restricted to specific “windows” at various stages of development (Ford et al., 2011). Another weakness of the current LTAD model (Balyi & Hamilton, 2004) is that its inclusion of stamina, suppleness, speed, strength, and skill presents a somewhat limited approach to the holistic development of young athletes. Despite the importance of power, agility, and hypertrophy to human performance (Jeffreys, 2006), no guidance is offered as to when and why these qualities should be trained throughout childhood and adolescence.

## **2.12 Qualifications and coaching methods of football coaches and their influence on players development**

Coaches have the capacity to influence players' performance through their behaviors. A significant shortcoming in current understanding of coaching behavior relates to the lack of investigations conducted during matches. Moreover, very few researchers have sought to investigate what independent variables may influence coaching behaviors. One variable that could impact behavior is the coach's exposure to coaching qualifications. Effective coaches tend to provide high levels of instructions, questions, and feedback. Theoretically, highly qualified coaches should display effective behaviors more frequently than less qualified coaches; however, this is yet to be confirmed empirically (Clements & Meyler, 2017).

It is important for a coach to have great knowledge in order to ensure they can cope with any challenges that come either from the clubs management, players or fans (Abd Karim & Nadzalan, 2017). Previous researchers have suggested that current formal coach education programs do not fully meet the learning needs of coaches (Mesquita et al., 2014). Researchers over the last decade have demonstrated that it is experience and the observation of other coaches that remain the primary sources of knowledge for coaches (Cope et al., 2017).

Becoming a football coach can be a fulfilling and rewarding vocation. Despite of that, many challenges and stressors need to be faced by them. Football coaches have to face the demanding hopes from the club managements and fans, excessive workloads that need to be settled especially those involved with the players, conflicting roles and the pressure to win and cope with defeat thus also brought to huge schedules and time commitments (Surujlal & Nguyen, 2011).

For a team to be success, several factors do play major roles. One of it is the coach. In 2013, Malaysia has 11 "Professional Diploma" coaches, approximately 700 "B" license coaches, 318 "Advanced" coaches (equivalent to "B" license), approximately 4,000 "C" license coaches, approximately 1,000 "Preliminary" coaches (equivalent to "C" license) (Abd Karim & Nadzalan, 2017).

## **2.13 The concepts of coaching football**

Coach: is a person who takes care of the coaching and training of the team and who prepares them for developing performances. Those to achieve results, the coaches are a specialist in

technical and tactical training and psychological and physical developments. His tasks also may be extended, depending on his particular skill (ABRHA, 2018). As you can see a coach wears many different and wide-ranging hats. When you take on a coaching role you have a series of responsibilities that the players expect of you. As a coach you are a leader not merely a person with authority. Next to their parents' youngsters spend more time with, and are more likely to be influenced by their teachers than anyone else. As the coach you are the teacher who will provide by far the most influence in their sporting lives. The powerful influence should be a sacred trust for all those who are in the position to help mould the character of young people in their growing years.

Define Coach is Teacher, Organizer, Selector, Philosopher, Psychologist, Student Mentor, Trainer, Mum/Dad Planner, Motivator, Manager, Instructor, Public relations person. IFNA basic coaching manual (2008) Recommends coach's tasks are those of observation, analysis and correction. There are two distinct roles played by the coach and the player. The coach sees a movement and is responsible for the correct technical implementation of the skill. The players believe when the movement is correct. It is when a movement both looks and feels good that there is a successful partnership between coach and player. Coaching technique is largely an individual and personal skill that is acquired, enhanced and modified in the light of experience and experiment.

Coaching: The term covers everything involved in the work of the coach: training and developing, directing, advising and correcting players and helping them to progress. Good coaching relies on an in-depth knowledge of psychology and pedagogy. In relation to these concepts (Neufeld & Roper, 2002) suggests Coaching is a short-term interactive process between a coach and a manager to improve leadership effectiveness by enhancing self-awareness and the practice of new behaviors. The coaching process facilitates the acquisition of new skills, perspectives, tools and knowledge through support, encouragement, and feedback in the organizational context. The term coaching includes activities related to developing the organizational capacity of whole schools (such as increasing leadership for instructional reform) It includes helping principals and teachers modify their resources and improve their use of data in the service of improving instruction And it includes activities directly related to improving

instruction (such as one on one observation and feedback of teachers' instructional strategies and small group learning of new content and pedagogy (Neufeld & Roper, 2002).

## **2.14 Factors which influence for the development of youth football projects**

The football coaching style a coach adopts will very much be based upon the coach's own personality, the age and ability of the players being coached, the number of players in the group, health and safety considerations, and the kind of session, technique, or skill being coached. Coaches' motives and styles are influenced by various factors. The reasons why you take up coaching will undoubtedly affect how you coach. For example, if you wish to see young people develop socially and learn new skills, you will adopt a supportive, educational approach to coaching and place an emphasis on personal development rather than competitive success (TAFESSE, 2017).

When adopting an athlete-centered approach, as recommended, you should adapt your coaching style to meet the specific needs of your athletes. The situation also plays a significant role; in certain contexts, such as where safety is a major concern, it might be more appropriate to adopt a directive approach to maintain control, ensure that accidents do not happen, and ensure athletes behave appropriately (TAFESSE, 2017).

Coaches are human beings and therefore have individual personalities. Some may be extroverted, outgoing, and lively, while others may coach in a quiet, calm manner. In truth, personality does not matter as long as appropriate actions and behaviors are maintained in relation to the situation. Furthermore, the more knowledgeable you are as a coach, the more options you will have available to plan and deliver effective sessions. Knowledge helps you feel confident and create a positive environment for your athletes. Conversely, a coach lacking in knowledge may come across as low in confidence and be perceived as lacking skills or the ability to deal with certain situations (TAFESSE, 2017).

### **2.14.1 Coaching philosophy**

Philosophy is a Greek word which is derived from the word philosophy, which means love of wisdom. Philosophy can be defined as the study of truth, through the systematic investigation of reality, knowledge, means and values. It is also defined as the study of nature of reality and

values of movement for all participants, debates critical issues believes of reality and values released to football coaching, it influences through, actions and decisions in coaching professional endeavors. Philosophy provides direction; it enables the use of knowledge and skills in the most effective manner. A well formulated philosophy promotes the development and classification of belief and values. Which serve as a foundation of behavior? Philosophy aids in decision making: morals and values that guide our conduct not only in our professional capacity but also in our daily living (Cushion & Partington, 2016). According to (Collins, 2021), philosophy as the study of problems which are ultimate abstract and general. These problems are concerned with the nature of existence knowledge, morality, reason and human purpose. Sir Alex Ferguson: playing wining backs, while using three central defenders, represents a Fairless aggressive attacking philosophy than operation with wingers. Roy Hodgson: The modern coach needs a philosophy, an expert eye and intuition.

### **2.14.2 Football training**

Sport training is a long-term, dynamic and comprehensive pedagogic process and players as a part of it learn, acquire and systematically master the techniques and tactics of a given sports discipline, develop their physical fitness as well as volitional and personal traits. The impact on physical constitution and harmonious development of players is aimed at increasing their physical ability, which divides into general, directed and special. High dynamic force of the lower limbs muscles (Grabara, 2008).

Numerous modern studies confirm the need for planned physical training in young people with any sports. This need is caused by the need for a wide rehabilitation of a young generation, to reduce its pathological burdensity, increase its overall viability and ability to capacity due to the maximum development of motorcycles of the entire muscle system. To achieve this goal, it is justified to apply a differentiated approach to the involvement of young people in the training process, taking into account personal preferences and health status.

The latter seems very important, since the physical status is a very important feature reflecting the individual biological features of young people, closely related to motor capabilities and ability to adapt to muscle loads. Physical status is largely determined by the available somatic dimensions and proportions of all parts of the body (Makhov & Medvedev, 2019).

For young athletes in different sports, certain features of the physique, form and sizes of the body are characterized, as well as functional characteristics. There is a mass of morph functional connections that are the basis of the individuality of each person, its physical possibilities, meaningful to individualization of physical training. Football is among the very popular and effective options for extension of physical training. These classes, apparently, should be kept taking into account the registration of the dynamics of the physique of adolescents using a number of methods (Zavalishina et al., 2021).

Football players are subject to different types and amounts of load during training sessions, with the aim of optimizing their performance in competition and reducing, as far as possible, the risk of injury. For this reason, monitoring the training load in a systematic way is a key aspect in being able to plan and intervene on the quantity, quality, and appropriate order of the training process, with the aim of maximizing its efficiency. The evaluation of the training load in general, and specifically that of the underlying training tasks, is indispensable both in terms of optimizing the players 'conditional performances (avoiding under- or over-training through conditions that are very different from those of matches) and in preventing overtraining and injuries (Zurutuza et al., 2020).

## **2.15 Principles of training**

For the athlete to excel in athletics with measurable and predictable results, it is important to subject the athlete to a systematic training process, which will prepare the athlete for the chosen event in athletics. The duration of systematic conditioning may take years and this had pointed out to the athlete on a regular basis. The process of conditioning should consist of training programs which specific objectives to achieve. A successful training program had based on the following specific principals (Kumsa, 2023).

### **2.15.1 Overload**

In order to progress and improve our fitness we have to put our bodies under additional stress. Doing this had cause long-term adaptations, enabling our bodies to work more efficiently to cope with this higher level of performance. Overloading has achieved by following the acronym FITT. (Kumsa, 2023) suggested that Frequency: Increasing the number of times you train per week Intensity: Increasing the difficulty of the exercise you do. For example, running at 12 km/h instead of 10 or increasing the weight you are squatting.

Time: Increase the length of time that you are training for each session. For example, sprint for 45 minutes instead of 30. Type: Increase the difficulty of the training you are doing. For example, progress from walking to running.

### **2.15.2 Reversibility**

Use it or lose it! If you stop training then the improvements, you have made reversed. Therefore, if you are ill or have a holiday and do not train for a period of time (even as little as a week) you may not be able to resume training at the point where you left off (Kumsa, 2023).

De training occurs rapidly when a person stops exercising or training. Fitness can decline rather rapidly, at about a 1/2 ratio. Because of the reversibility principle, it is important to maintain some sort of fitness through cross training or active rest activities.

### **2.15.3 Specificity**

The type of training that you do should be specific to you and your sport. You should train the energy system which you use predominantly (i.e. do not run 5,000 meters in training if you are a sprinter!) and the fitness and skill components most important to your sport, for example agility, balance or muscular endurance. You should also test the components, which are important in your sport to see your strengths and weaknesses. With this information, you can focus on improving your weak points (Kumsa, 2023).

### **2.15.4 Adaptation**

Physiological responses to training are very predictable if the body is carefully, progressively, challenged, adaptations will occur, and the body will become stronger. This is the concept of progressive overload. When the body has, experiences will adapt to that stress. For example, adaptation may include muscle growth (hypertrophy) following repeated bouts of resistance training or improved cardio respiratory efficiency following aerobic exercise. As the fitness level increases, so does your capacity to work harder and longer. To achieve an optimal level of physical stress, keep in mind the progressive over load principles. As your fitness level improves, you should gradually increase the intensity of the physical stress you are imposing on your body. The three major variables in determining appropriate stress are intensity, frequency, and duration. When you manipulate these variables intelligently, you can produce the fitness and performance outcomes you are after (Kumsa, 2023).

#### **2.15.5 Progression**

Because you will be experiencing fitness gains, you will need to adjust your training frequently to insure further improvement. Remember the concept of progressive overload. Determining the appropriate intensity of training is a constant challenge to any coach or athlete. First, you must start at a work level that you can handle easily. This will ensure a degree of success and help develop confidence in your training. The intensity has gradually increased progressively raise your fitness level (Kumsa, 2023).

#### **2.15.6 Variety**

Try to vary your training, to keep you interested and to give your body a different challenge. Remember a change is as good as a rest. Many professional athletes will play a completely different sport in between their main season, to keep their fitness up whilst still having a rest (Kumsa, 2023).

### **2.16 Training plan in football**

(ABRHA, 2018) defines that; Periodization as the whole training and competition year is divided into periods in to establish and improve performance towards a specific aim whereby means of training, loading and contents must be taken into consideration. Similarly, (TAFESSE, 2017) defines Periodization as a technique of planning the process of training and competition so that the annual training plan is a succession of “periods”, each of which has a different style of activity.

As described in the (TAFESSE, 2017) the development of a football player and the preparation of a team are comparable to building a house. So in order to achieve the objectives that have been set, the coaching staff have to follow a series of steps that have been scheduled as part of an overall plan. In line with this idea the (ABRHA, 2018) has states that; football training is a complex serious of action aimed at influencing the development of performance in a systematic and goal oriented way. In addition to the above (DeWitt, 2001) recommends of all duties and roles that one fulfills when coaching, the task that he/she will do more than any other will be planning and running training sessions. It is in these training sessions that the coach will do practically all of his/her teaching, because he/she can completely control the environment of the sessions. The coach can control the success rate of his/her players. He/she can stop the players at practice when they make mistakes to provide them with the vital feedback that is necessary to

learning. However, as (Sugden, 2006) states that; planning of training depends to a large extent on the age of players, their level of development, the category of competition in which they are playing and the fixture lists for the competitions in which they are involved.

### **2.17 Style of football coaching**

Coaching style is the manner in which the coach works with the players and his/her team. There are a lot of coaches who are successful by using different coaching styles. (GEBRIE, 2017) also states that coaching philosophy is the set of beliefs that guide the coach as he/she coach and administer his/her team. Many of the coaches philosophies will come from his/her own personal experience. When looking the coaching style and its effect on the degree of success, it is difficult to identify effective coaching style. In relation to this idea (TAFESSE, 2017) comments: as follows.

### **2.18 An authoritarian coach**

An authoritarian coach makes all the decisions for the team. There are little or no rooms for questioning, and players must complete every task the coach assigns. The coach is the boss, and it is his/her role to tell athletes what to do. Therefore, it is the athlete's role to listen, absorb, and perform. There are times when an authoritarian is necessary and desirable, such as when a new skill is being introduced. The authoritarian coach has firm beliefs on how things should be done and expects players to conform. Many authoritarian coaches have enjoyed success using a particular method or approach and believe that there is no need to try other methods or playing styles (Li & Li, 2021).

### **2.19 Democratic coaching style**

The goals you want athletes to achieve are expressed through your coaching style and behaviors. Most coaches will indicate the following goals in the priorities order given: a) to assist athletes to develop physically, psychologically, and socially b) to have fun, and c) to win the match (Shehu et al., 2019). A democratic coaching style is most appropriate in achieving these goals. Coaches who use this style understand their responsibilities in providing leadership and direction to their athletes while allowing the athletes the opportunity to share in the decision making and responsibilities. Using democratic coaching style does not mean that the athletes have input on all the decision made. It is necessary for you to provide an appropriate amount of structure and rules to allow for the optimal total development of your athletes. In so doing, you give direction

and make decision when it is necessary, but you also realize when it is more beneficial to let the athletes make the decisions and make the responsibilities. Using democratic coaching style will enhance your player's abilities to make decisions and become responsible, independent adults. A democratic coach places more trust in the abilities of the players, which has a very positive effect on their self-images. As well, this coaching style improves communications between the players and the coach and improves the motivation of the athletes to achieve and feel more personally satisfied with their participation, in a democratic coaching style act as a teacher, an organizer, as a friend and as leader (Shehu et al., 2019)

## **2.20 Facilities and equipments of football training**

Different pieces of equipment's are needed during football training. Regardless of your situation, basic sources equipment will make teaching and coaching easier." Therefore, to make the training session effective through the application of different technical-tactical skills it is mandatory to consider the basic training equipment's. A field or gym to a vast array of goals, cones, training bibs, coaching sticks, hurdles, speed ladders. Most male football coaches have for training what they can keep in their car. So a string of cones and bag of training bibs is the extent of it for many coaches. Use at least two colors of cones to distinguish goals from boundary lines and at least two different colors of the training bibs. As a result, the following lists of materials are the most important parts for successful training. If you are fortunate to be at a club with a variety of training equipment available then put it to good use. No matter what your situation is, be sure that every player has a ball (MADORO, 2017).

## **2.21 Variables of the study**

To make use of descriptive analysis and address some of the objectives of the study the research utilizes dependent and independent variables to show the relationship between dependent and independent variables' epigrammatic definitions.

### **2.21.1 Dependent variable**

In the study of long-term football athletes' development and training methods among football male and female projects in Shashemene Town, the outcome variable is long-term football athletes' development.

### 2.21.2 Independent variable

In this study, the researcher was focused on training method, coaching quality, and facility and equipment independent variables. In fact, it is possible to mention so many independent variables that are found in the study but, this study is a spotlight on the most important variables.

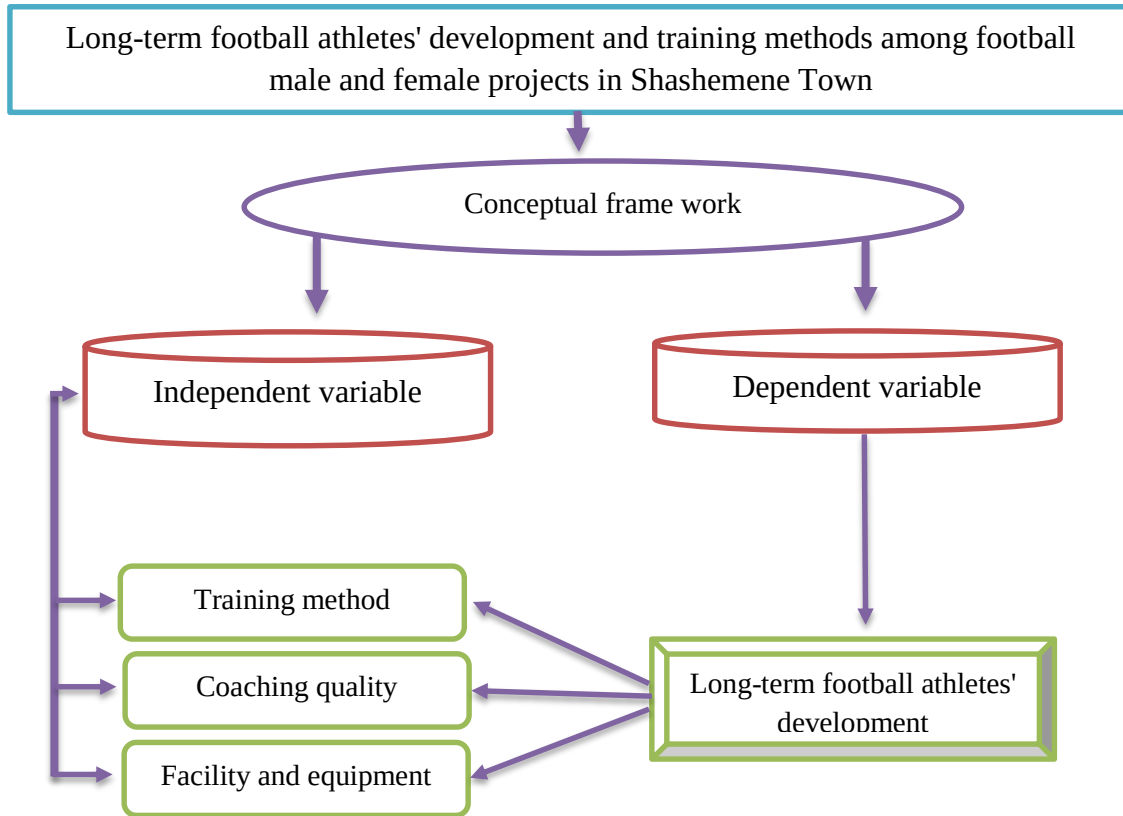


Figure 2. 1 Conceptual frame work

## CHAPTER 3

### 3. MATERIALS AND METHODS

#### 3.1 Study design

The main objective of this study is to assess long-term football athletes' development and training methods for football male and female projects in Shashemene town. A mixed research approach with triangulation research design was employed since. The triangulation design in mixed research aims to improve the validity and dependability of the conclusions. This method was selected because it is helpful to identify the root problems of the youth projects, present conditions and points to present needs, the immediate status of a phenomenon, and facts-finding (Kothari et al., 2009).

#### 3.2 Study area

The study was conducted in Shashemene town, which is one of the oldest and established in 1910 G.C. Shashemene town is found in the Oromia regional state, west Arsi zone. Shashemene urban local government, administration of self-rule by the town, was incorporated among the 20 selected towns in Oromia Regional state and reformed in 2005 in accordance with proclamation No. 65/2003. The town is located 250 km south of Addis Ababa along the Trans-African Highway. Geographically, it is located at an approximate coordinate of 7° 08' 51''N to 7° 18' 19''N latitude and 38° 32' 43''E to 38° 41' 07''E longitude (Balcha et al., 2022).

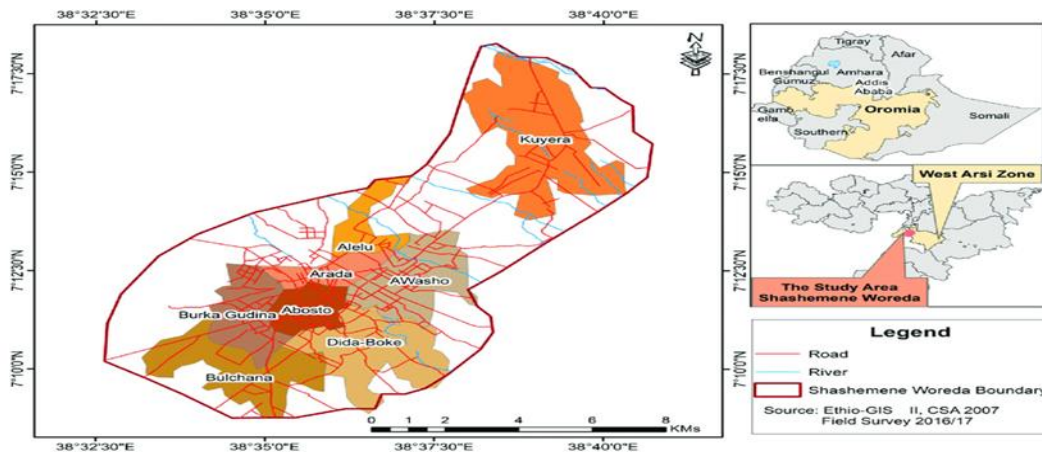


Figure 3. 1 map of study area

### 3.3 Population of the study

The population of this study consists of five male and female football projects located in Shashemene town. Those projects, namely, Shashe Tesfa has 44 players, Pilot has 37, Tokuma has 30, Netsanat has 27, and Kanenus has 27 players and 1 main and 1 assistant coach. Also, the study included three Shashemene town sports administrations. In general, the study includes a total population of 178. The selection of these projects as the population of the study allows for a comprehensive investigation into the various approaches, strategies, and training methods utilized in Shashemene Town to foster the growth and progression of youth football players over an extended period.

| No.   | Respondent     | Quantity | Remark                     |
|-------|----------------|----------|----------------------------|
| 1     | Players        | 165      | 5 teams                    |
| 2     | Coaches        | 10       | 5 team each have 2 coaches |
| 3     | Administrators | 3        |                            |
| Total |                | 178      |                            |

*Table 3. 1 population of the study*

### 3.4 Sample size and sampling technique

The study's target population consisted of three football teams out of five in Shashemene town. The left two teams are purposefully excluded from the study because they are not legally registered at the Shashemene Sports Office. That team consists of Shashe Tesfa, who has 44, Pilot, who has 37 male players, and Tokuma, who has 30 female players, and each team has two coaches (one main coach and one assistant coach). In addition to this, there are three Shashemene town sports administrations included in the study. Generally, the study includes a total sample size of 120 respondents. The researcher selects the study target population by census sampling technique.

| No    | Respondent     | Quantity | Remark                     |
|-------|----------------|----------|----------------------------|
|       | Players        | 111      | 3 teams                    |
|       | Coaches        | 6        | 3 team each have 2 coaches |
|       | Administrators | 3        |                            |
| Total |                | 120      |                            |

*Table 3. 2 target population of the study*

### **3.5 Source of data**

The study used primary data from surveys, questionnaires, interviews, and observations of male and female football projects in Shashemene Town to analyze long-term development and training methods. It was also gathered first-hand information from training sessions, matches, and competitions.

### **3.6 Data collection instrument**

The researcher used a self-made questionnaire, observation, and interview to collect data from study populations.

#### **3.6.1 Questionnaires**

To gather information from people or groups, researchers created surveys or questionnaires with a set of formats. These can be carried out through in-person interviews, phone conversations, letters, or online resources. The researcher used the questionnaire, which consists of 4 closed-ended, 1 open-ended, and 36 Likert scale question items. Players, coaches, and administrators of the sports office in Shashemene Town were covered by this.

#### **3.6.2 Interviews**

Interviews involve direct interaction between the researcher and the respondent. They can be conducted in person. Interviews can be structured (with predefined questions), semi-structured (allowing flexibility), or unstructured (more conversational). Six (6) structured interviews were conducted with the coaches of each football project and sport administrators in Shashemene town. The interview schedule was determined after consulting the respondents and allocating their own time so as not to overlap with their regular working hours.

#### **3.6.3 Observation**

Researchers observe and record behaviors, actions, or events in their natural setting. This method is useful for gathering data on human behavior, interactions, or phenomena without direct intervention. It entails gathering data through vision as its main source, a method by which information is sought by investigators on observation without asking from the respondent. The purpose of the observation of this study is to obtain information on the status of the method of

training, facilities, and equipment that the project is using. Based on the twenty-one (21) prepared check list, the researcher was observed for seven successive days.

### **3.7 Pilot test**

The data collection instruments were developed under the close guidance of the advisor, and a pilot study was carried out to pre-test the instruments. In addition, to avoid ambiguity and unclear statements, the draft questionnaire was first tested in one football club, which was not included in the sample group for the research main data gathering. In this way, a pilot test was conducted on 5% of the 120 sample size of 6 players. Based on the respondents' responses, some improvements were made to the questionnaires to make them clear and relevant to the basic questions so as to get more valuable information. The clarity of the items for the respondents and the adequacy of time to respond were evaluated. Based on the pilot results, items that had problems were removed, and others were amended. Finally, an internal consistency and reliability estimate was calculated using Cronbach's alpha coefficient. Based on the result, the reliability coefficient of the instrument was found to be greater than 0.7. Therefore, the instruments were reliable because a reliability coefficient of 0.70 and above is considered acceptable in most research situations (Amirrudin & Nasution, 2021).

### **3.8 Procedure of data collection**

The researcher prepared the questionnaires and interviews in English; then it was translated to the language that is preferable for the respondents. After making the necessary edition, the questionnaires designed for the respondent were administered to them in their locations. With the above-mentioned data collection tools, the researcher was building the bases of review literature and the required data to be collected. Before handing over and utilization of the tools to collect data, they are approved accordingly; corrections and reconstructions were done. The researcher makes the study's objectives clear to all sample respondents through the questionnaires and interviews for coaches, players, and sport administrators. Then the questionnaires were distributed to the projects' players, coaches, and administrators. Finally, data collected from genuine respondents were interpreted and recommended based on the study's findings.

### **3.9 Method of data analysis**

The data analysis process involved both quantitative and qualitative techniques. For quantitative analysis, descriptive statistics such as frequency, percentage, mean, and standard deviation were calculated to find out the central tendency of the responses, and one-way ANOVA analyses were performed using SPSS V.26. Qualitative data were analyzed using thematic analysis. This involved coding the responses into categories and subcategories based on the content. The frequency and distribution of the codes were examined to identify common themes and patterns in the data. Patterns and connections between the quantitative and qualitative results were explored to draw meaningful recommendations and conclusions.

### **3.10 Ethical consideration**

According to the research team, all volunteers were providing their informed consent only after being fully educated about the study's goals, methods, risks, and advantages. It was made clear to participants that participation is entirely optional. It was made clear that there is no bearing on their grades or any benefits from participating or not.

The appropriate security measures, such as password-protected electronic files and locked storage for hard copy documents, shall be used to store the gathered data. Only authorized personnel were having access to the securely stored data. If video recordings are to be made, participants' consent is obtained before any recordings are created, stored, or used for research purposes. Among other things, participant confidentiality was upheld.

## **CHAPTER 4**

### **4 RESULT AND DISCUSSION**

#### **4.1 Introduction**

This chapter presents an analysis of the data, its interpretation, and the results of the study. It is mainly classified into three subsections: preliminary analysis, descriptive statistical analysis, and discussion of the results. Each section developed logically and led consequently to the findings of the study.

#### **4.2 Preliminary analysis**

This part is mainly concerned with preparing the data for analysis. It specifically includes an examination of the data, response rate, reliability test, and description of the respondent's demographic information. The study deals with the analysis of the data gathered through questionnaires, interviews, and observations from different sources. The researcher distributed survey questionnaires to a sample of 120 participants. From the total of 120 distributed questionnaires, all the respondents (86 (71.7%) male and 34 (28.3%) female) returned the questionnaires, which indicate a 100% response rate. Which included sports administrators, football players, and football coaches. So, the analysis was made based on 120 successfully answered questionnaires and done in line with the research questions and objectives set in the proposal. Then the data was coded and entered into data management software (SPSS) for analysis. Before analysis, the data was also inspected visually as well as via pilot and graphs to check normality, missing values, outliers, and out-of-range values. Finally, the cleaned data was analyzed descriptively to address basic research questions.

#### **4.3 Reliability of the questionnaires**

Table 4.1 shows that the Cronbach's alpha coefficients are higher than the generally recognized minimum point of 0.7. However, this value is higher than 0.7, indicating strong internal consistency and reliability for every construct. This suggests that the items measure the desired underlying constructs consistently and are highly interrelated.

| No | Item of questionnaires                                                                                                    | Number of items | Cronbach's Alpha |
|----|---------------------------------------------------------------------------------------------------------------------------|-----------------|------------------|
| 1. | The impact of football development programs on long-term athlete development among young male and female football players | 9               | .821             |
| 2. | The impact of training method employed by coach's on the development of young male and female football players            | 10              | .759             |
| 3. | Factors influence the long-term athlete development and training methods for young male and female football players       | 10              | .720             |

Table 4. 1 Reliability of the questionnaires

#### 4.4 Demographic characteristics of respondents

Chart 4.1 reveals that the majority of respondents, 71.7%, were male and 28.3% were female; this means the majority of respondents are dominated by males. In terms of age distribution, the majority (68.3%) fall within the 21-25 age groups, with 10% aged between 19-20 and 21.7% above 25 years old. Educational levels vary, with 40.0% having completed more than 12 years of education, 34.2% achieving 11-12 years, 16.7% having 9-10 years, and 9.20% having 5-8 years. A significant portion (66.7%) has been affiliated with the football club for over 4 years, indicating a strong sense of loyalty and long-standing commitment among the majority of respondents.

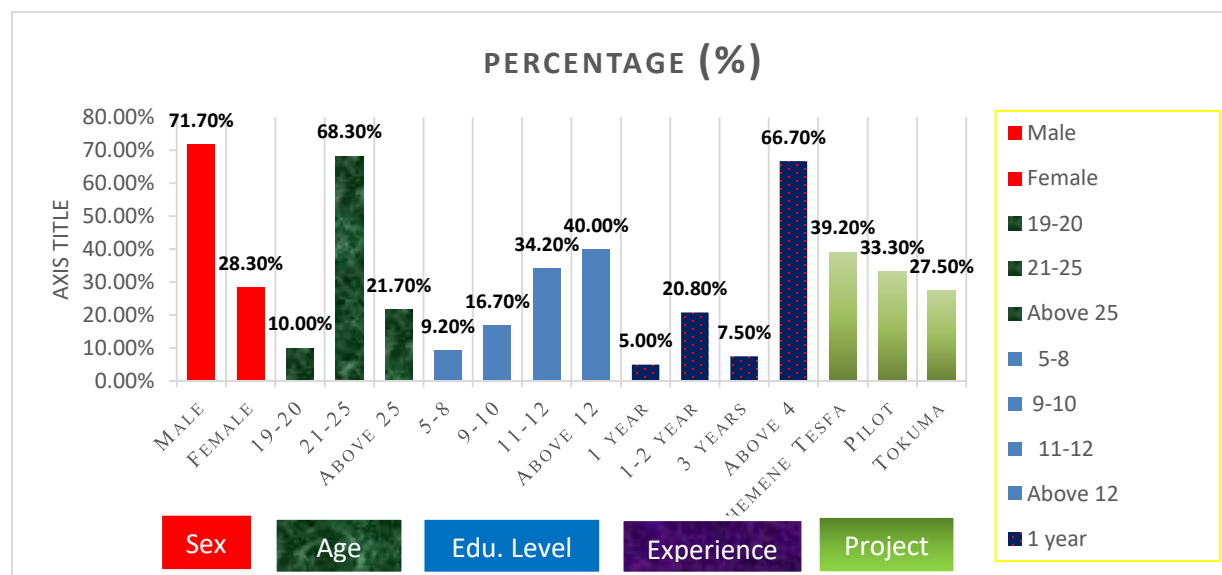


Chart 4. 1 demographic characteristics of responden

#### 4.5 Assessment of long-term athlete development strategies

Table 4.2 provides data analysis of long-term athlete development. While there's significant disagreement on the effectiveness of periodization training programs in improving long-term athlete development with 37.5%, with a mean of 2.86, this indicates that it was ineffective. On the other hand, for the contribution of progressive overload training methods, the majority of them (30%) strongly disagreed, whereas 28% of them strongly agreed with a mean of 2.78. This tells us the respondents may not agree about it, so their idea falls in the neutral level of agreement. While there's significant agreement on the importance of tailored training programs (37.5%) with a mean of 2.84, it indicates individualized training programs tailored to an athlete's specific needs in long-term athlete development and incorporating strength and conditioning exercises into training routines (27.5%) for long-term development with a mean of 3.06. Additionally, respondents generally agree on the significance of adequate recovery and rest periods (40.0%) with a mean of 3.48 and the appropriateness of training programs for athletes' age levels (30.0%) with a mean of 2.9. However, there are mixed views on the effectiveness of certain training approaches, such as interval training (47.5%) with a mean of 2.9 and the incorporation of strength training exercises (30.8%) with a mean of 3.45, in long-term athlete development. Furthermore, opinions vary regarding the coach's consideration of multidisciplinary support (32.5%) with a mean of 2.96 and the fundamental stage in developing basic skills and physical mastery (34.2%) with a mean of 3. Overall, the data suggests a nuanced understanding of the complexities involved in optimizing long-term athlete development strategies.

| Items                                                                                          | Strongly disagree | Disagree | Neutral | Agree | Strongly agree | Mean | S.D  |
|------------------------------------------------------------------------------------------------|-------------------|----------|---------|-------|----------------|------|------|
| Periodization training programs have been effective in improving long-term athlete development | 12                | 45       | 27      | 20    | 16             | 2.86 | 1.21 |
|                                                                                                | 10.0%             | 37.5%    | 22.5%   | 16.7% | 13.3%          |      |      |
| Progressive overload training methods have contributed to significant improvements             | 36                | 33       | 7       | 10    | 34             | 2.78 | 1.63 |
|                                                                                                | 30.0%             | 27.5%    | 5.8%    | 8.3%  | 28.3%          |      |      |
| Individualized training programs tailored to an athlete's specific needs in                    | 13                | 45       | 20      | 32    | 10             | 2.84 | 1.18 |
|                                                                                                | 10.8%             | 37.5%    | 16.7%   | 26.7% | 8.3%           |      |      |

|                                                                                                                                                           |       |       |       |       |       |      |        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|-------|-------|------|--------|
| long-term athletes development                                                                                                                            |       |       |       |       |       |      |        |
| Incorporating strength and conditioning exercises into training routines have positively impacted for long-term athletes development                      | 20    | 34    | 18    | 15    | 33    | 3.06 | 1.47   |
|                                                                                                                                                           | 16.7% | 28.3% | 15.0% | 12.5% | 27.5% |      |        |
| Adequate recovery and rest periods are crucial for long-term development in football                                                                      | 7     | 11    | 48    | 26    | 28    | 3.48 | 1.466  |
|                                                                                                                                                           | 5.8%  | 9.2%  | 40.0% | 21.7% | 23.3% |      |        |
| The training program is appropriate for the age level of the athletes.                                                                                    | 20    | 36    | 17    | 28    | 19    | 2.9  | .82    |
|                                                                                                                                                           | 16.7% | 30.0% | 14.2% | 23.3% | 15.8% |      |        |
| The use of interval training enhances the performance in long-term athletes.                                                                              | 12    | 57    | 13    | 9     | 29    | 2.9  | 0.9346 |
|                                                                                                                                                           | 10.0% | 47.5% | 10.8% | 7.5%  | 24.2% |      |        |
| Incorporating strength training exercises into training program has positively impacted in long-term athlete development.                                 | 20    | 13    | 18    | 32    | 37    | 3.45 | 1.19   |
|                                                                                                                                                           | 16.7% | 10.8% | 15.0% | 26.7% | 30.8% |      |        |
| The coach consider the athlete benefits from multidisciplinary support include nutrition guidance, psychological support and injury prevention            | 14    | 39    | 24    | 24    | 19    | 2.96 | 0.98   |
|                                                                                                                                                           | 11.7% | 32.5% | 20.0% | 20.0% | 15.8% |      |        |
| The coach consider the fundamental stage to develop basic skill of movements and physical literacy from the grass root for long-term athlete development. | 13    | 41    | 17    | 31    | 18    | 3    | 1.45   |
|                                                                                                                                                           | 10.8% | 34.2% | 14.2% | 25.8% | 15.0% |      |        |
| A high-volume of endurance training regimen has applied for long-term athlete's development.                                                              | 11    | 57    | 17    | 15    | 20    | 2.8  | 1.3    |
|                                                                                                                                                           | 9.2%  | 47.5% | 14.2% | 12.5% | 16.7% |      |        |
| The long term athlete development approach ensures the athlete ample time to develop their skill, endurance and mental resilience                         | 21    | 31    | 14    | 29    | 25    | 3.05 | 1.11   |
|                                                                                                                                                           | 17.5% | 25.8% | 11.7% | 24.2% | 20.8% |      |        |

Table 4. 2 assessment of long-term athlete development strategies

#### 4.6 Training method for long-term athlete development

Table 4.3 shows that the survey data indicates varying perceptions regarding different training methods for long-term athlete development. While there is considerable agreement on the effectiveness of perfecting passing techniques (50.8%) with a mean of 3.56, this indicates perfect passing is executed, and mastering ball control (48.3%) with a mean of 3.76 implies the way of mastering ball control is good. There are mixed opinions on the application of high-intensity interval training (HIIT) (45.8%) with a mean of 2.85; it implies HIIT is not being applied well, and strength training (42.5%) with a mean of 3.75; this refers to strength trainings being given to players in very well. Smaller-sided games also receive mixed responses (34.2%) with a mean of 3.57; this tells us the team uses smaller-sided games. Overall, the results highlight the complexity of selecting appropriate training methods tailored to long-term athlete development, with certain approaches garnering stronger support than others.

| Items                                                                                 | Strongly disagree | Disagree | Neutral | Agree | Strongly agree | Mean | S.D  |
|---------------------------------------------------------------------------------------|-------------------|----------|---------|-------|----------------|------|------|
| High-intensity interval training (HIIT) is applied for long-term athletes development | 10                | 55       | 20      | 13    | 22             | 2.85 | 1.17 |
|                                                                                       | 8.3%              | 45.8%    | 16.7%   | 10.8% | 18.3%          |      |      |
| Strength Training for Better Performance for long-term athletes development           | 9                 | 17       | 20      | 23    | 51             | 3.75 | 1.7  |
|                                                                                       | 7.5%              | 14.2%    | 16.7%   | 19.2% | 42.5%          |      |      |
| Small sided games is applied for long-term athletes development                       | 8                 | 21       | 18      | 41    | 32             | 3.57 | 1.52 |
|                                                                                       | 6.7%              | 17.5%    | 15.0%   | 34.2% | 26.7%          |      |      |
| Mastering Ball Control for long-term athletes development                             | 5                 | 19       | 7       | 58    | 31             | 3.76 | 1.45 |
|                                                                                       | 4.2%              | 15.8%    | 5.8%    | 48.3% | 25.8%          |      |      |
| Perfecting Passing Techniques for long-term athlete's development.                    | 9                 | 10       | 35      | 61    | 5              | 3.56 | 1.08 |
|                                                                                       | 7.5%              | 8.3%     | 29.2%   | 50.8% | 4.2%           |      |      |

Table 4. 3 training techniques for long-term athlete development

#### 4.7 Key components of long-term athlete development in football

Table 4.4 presents diverse perspectives on key aspects of long-term athlete development in football. While there's significant agreement on the importance of understanding player positions

and roles (31.7%) with a mean of 3.25 this underscores players agreed in understanding player position importance for LTAD and tactical decision-making on the field supported by (23.3%) with a mean of 2.6 this tells us tactical decision-making is not important as much for LTAD, opinions vary regarding the significance of shooting accuracy not supported by (48.3%) with a mean of 2.6 indicates shooting accuracy is not play role in LTAD and agility and speed drills strongly neglected by (33.3%) with a mean of 2.3 implies agility and speed drills do not determine LTAD. Stamina-building exercises get (30.8%) strong disagreement with a mean of 2.36; this tells us stamina-building exercises cannot be a factor for LTAD and also generates mixed responses, suggesting differing views on their effectiveness. Furthermore, there's a balanced perspective on the application of teamwork (27.5%) with a mean of 2.78, indicating its perceived importance but also room for debate. Overall, the data underscores the multifaceted nature of athlete development, with varying emphasis placed on different skills and training methods.

| Items                                                                         | Strongly disagree | Disagree | Neutral | Agree | Strongly agree | Mean | S.D  |
|-------------------------------------------------------------------------------|-------------------|----------|---------|-------|----------------|------|------|
| Importance of shooting accuracy for long-term athletes development            | 11                | 58       | 23      | 19    | 9              | 2.6  | 1.19 |
|                                                                               | 9.2%              | 48.3%    | 19.2%   | 15.8% | 7.5%           |      |      |
| Understanding player positions and roles for long term-athlete development    | 17                | 29       | 19      | 17    | 38             | 3.25 | 0.96 |
|                                                                               | 14.2%             | 24.2%    | 15.8%   | 14.2% | 31.7%          |      |      |
| Tactical decision-making on the field for long-term athletes development      | 19                | 44       | 28      | 21    | 8              | 2.6  | 1.09 |
|                                                                               | 15.8%             | 36.7%    | 23.3%   | 17.5% | 6.7%           |      |      |
| Agility and speed drills for long term athletes development                   | 40                | 42       | 9       | 16    | 13             | 2.3  | 1    |
|                                                                               | 33.3%             | 35.0%    | 7.5%    | 13.3% | 10.8%          |      |      |
| Stamina building exercises for footballers for long-term athletes development | 37                | 35       | 23      | 18    | 7              | 2.36 | 0.95 |
|                                                                               | 30.8%             | 29.2%    | 19.2%   | 15.0% | 5.8%           |      |      |
| Team work is applied for long-term athletes development                       | 30                | 21       | 33      | 18    | 18             | 2.78 | 0.88 |
|                                                                               | 25.0%             | 17.5%    | 27.5%   | 15.0% | 15.0%          |      |      |

*Table 4. 4 key components of long-term athlete development in football*

## 4.8 Evaluation of training environment and methods for long-term athlete development

From table 4.5, the data shows varying opinions on aspects related to training facilities, coaching methods, and athlete support systems within the football club. While there's a significant proportion of a respondent who strongly disagree or disagree that the club has its own training center (40.0%) with a mean of 2.34, this indicates there's less consensus regarding the comfort of training supplies provided by the club for long-term athlete development. Additionally, there's substantial disagreement on whether the coach utilizes gym training to facilitate long-term athlete development (42.5%) with a mean of 2.6; this shows us the coach does not use the gym for training. This significantly affects LTAD. The respondents disagreed on the existence of a balance between training load and recovery time (41.7%) with a mean of 2.8 and the practice of individualization in athlete development supported by (26%) agreement (22%) strong agreement with a mean of 2.98, indicating low practice of individualization on athlete development. And also, there's a higher level of disagreement regarding the sufficiency of monitoring and feedback during training (35.8%), with a mean of 3.03, which implies there is not much sufficiency of monitoring and feedback during training. Finally, while there's a significant proportion who disagree that training is based on coach collaboration with sport scientists and professional experts (51.7%) with a mean of 2.9, indicating poor working with sport professionals, a notable percentage agree with this statement. These findings suggest a need for further examination and potential improvement in various aspects of athlete development within the club, particularly in terms of training facilities, coaching methodologies, and athlete support systems.

| Items                                                                                               | Strongly disagree | Disagree | Neutral | Agree | Strongly agree | Mean | S.D   |
|-----------------------------------------------------------------------------------------------------|-------------------|----------|---------|-------|----------------|------|-------|
| The club has his own training center.                                                               | 48                | 21       | 22      | 20    | 9              | 2.34 | 1.04  |
|                                                                                                     | 40.0%             | 17.5%    | 18.3%   | 16.7% | 7.5%           |      |       |
| The training supplies that the club gives to you are comfortable for long term athlete development. | 32                | 35       | 23      | 10    | 20             | 2.6  | 1.035 |
|                                                                                                     | 26.7%             | 29.2%    | 19.2%   | 8.3%  | 16.7%          |      |       |
| The coach uses gym training to facilitate long-term athletes development                            | 51                | 14       | 13      | 15    | 27             | 2.6  | 1.16  |
|                                                                                                     | 42.5%             | 11.7%    | 10.8%   | 12.5% | 22.5%          |      |       |
| There is balance between                                                                            | 8                 | 50       | 23      | 31    | 8              | 2.8  | 1.08  |

|                                                                                        |       |       |       |       |       |      |     |
|----------------------------------------------------------------------------------------|-------|-------|-------|-------|-------|------|-----|
| training load and recovery time                                                        | 6.7%  | 41.7% | 19.2% | 25.8% | 6.7%  |      |     |
| There is a high practice of individualization on athlete development                   | 18    | 37    | 17    | 26    | 22    | 2.98 | 0.9 |
|                                                                                        | 15.0% | 30.8% | 14.2% | 21.7% | 18.3% |      |     |
| There is sufficient monitoring and feedback during training                            | 19    | 43    | 4     | 23    | 31    | 3.03 | 1.5 |
|                                                                                        | 15.8% | 35.8% | 3.3%  | 19.2% | 25.8% |      |     |
| Training is based on Coach collaboration with sport scientist and professional experts | 10    | 62    | 3     | 16    | 29    | 2.9  | 1.4 |
|                                                                                        | 8.3%  | 51.7% | 2.5%  | 13.3% | 24.2% |      |     |

*Table 4. 5 evaluation of training environment and methods for long-term athlete development*

#### **4.9 Assessment of coaching methods and performance improvement strategies for long-term athlete development**

Table 4.6: The survey data reflects varying perspectives on several aspects of coaching and training methods in the context of long-term athlete development. While there's considerable strong disagreement regarding the necessity of technical training in each session (33.3%) with a mean of 2.6, this tells us the importance of technical training and whether coaches consistently apply athlete-centered coaching methods. (31.7%) disagreement with a mean of 2.8 indicates the coach applies the athlete-centered method rarely; again, the respondent strongly disagreed on balanced feedback regarding the regular analysis of performance progress by 29.2% with a mean of 2.38; this implies there is no balanced feedback regarding the regular analysis of performance progress. The majority of respondents strongly disagreed on whether coaches have different plans to improve athletes' performance and address current issues over long distances (60.0%) with a mean of 2.5, indicating a lack of consensus on this aspect of coaching strategy. Similarly, there's a mixed response to the use of methods to sustain performance leading up to competition days (30%) with a mean of 2.5; this implies coaches do not boost the performance of players for competition day. However, there's a notable level of agreement regarding the positive impact of incorporating strength and conditioning exercises into training routines for long-term athlete development (31.4%) with a mean of 3.08. These findings suggest a range of perspectives within the club regarding coaching methods and training strategies, highlighting potential areas for further discussion and refinement to optimize athlete development.

| Items                                                                                                                           | Strongly disagree | Disagree | Neutral | Agree | Strongly agree | Mean | S.D   |
|---------------------------------------------------------------------------------------------------------------------------------|-------------------|----------|---------|-------|----------------|------|-------|
| Technical training is necessary in each training session                                                                        | 40                | 31       | 9       | 21    | 19             | 2.6  | 0.921 |
|                                                                                                                                 | 33.3%             | 25.8%    | 7.5%    | 17.5% | 15.8%          |      |       |
| A coach, apply most of the time Athlete centered coaching methods in a training sessions.                                       | 21                | 38       | 23      | 18    | 20             | 2.8  | 0.94  |
|                                                                                                                                 | 17.5%             | 31.7%    | 19.2%   | 15.0% | 16.7%          |      |       |
| The coach, analyze the progress of performance regularly.                                                                       | 35                | 34       | 31      | 11    | 9              | 2.38 | 0.93  |
|                                                                                                                                 | 29.2%             | 28.3%    | 25.8%   | 9.2%  | 7.5%           |      |       |
| Coach has different plan to improve athletes' performance and find solution for current issues on long distance.                | 13                | 72       | 11      | 10    | 14             | 2.5  | 1.09  |
|                                                                                                                                 | 10.8%             | 60.0%    | 9.2%    | 8.3%  | 11.7%          |      |       |
| Coaches use a method to sustain your performance when the competition day reaches.                                              | 36                | 29       | 31      | 8     | 16             | 2.5  | 0.89  |
|                                                                                                                                 | 30.0%             | 24.2%    | 25.8%   | 6.7%  | 13.3%          |      |       |
| Incorporating strength and conditioning exercises into training routines have positively impacted long term athlete development | 27                | 29       | 13      | 14    | 38             | 3.08 | 1.22  |
|                                                                                                                                 | 22.3%             | 24.0%    | 10.7%   | 11.6% | 31.4%          |      |       |

*Table 4. 6 assessment of coaching methods and performance improvement strategies for long-term athlete development*

#### **4.10 One way ANOVA analysis**

The table below is about interpretation of project means and variance: For Shashemene Tesfa, with a sample size of 47 players, the mean score is 3.750. The standard deviation is 0.6493, and the standard error is 0.1452, the 95% confidence interval for the mean ranges from 3.446 to 4.054. The minimum and maximum scores are 2.4 and 4.6, respectively. In the Pilot project, consisting of 40 players, the mean score is 4.380. This project has a standard deviation of 0.3238 and a standard error of 0.0724. The 95% confidence interval for the mean is between 4.228 and 4.532. The minimum score recorded is 3.5, and the maximum is 4.8. the Tokuma project, with 33 players, has a mean score of 2.580. The standard deviation is 0.2966, and the standard error is 0.0663. The 95% confidence interval for the mean is from 2.441 to 2.719. The scores in this project range from a minimum of 2.0 to a maximum of 3.2. Overall, the analysis includes a total

sample size of 120 players. The overall mean score is 3.570, with a standard deviation of 0.8738 and a standard error of 0.1128; the 95% confidence interval for the overall mean ranges from 3.344 to 3.796. The minimum and maximum scores across all projects are 2.0 and 4.8, respectively.

| Descriptive      |     |       |       |            |                                  |             |         |         |
|------------------|-----|-------|-------|------------|----------------------------------|-------------|---------|---------|
| Taining method   |     |       |       |            |                                  |             |         |         |
|                  | N   | Mean  | St.D  | Std. Error | 95% Confidence Interval for Mean |             | Minimum | Maximum |
|                  |     |       |       |            | Lower Bound                      | Upper Bound |         |         |
| Shashemene Tesfa | 47  | 3.750 | .6493 | .1452      | 3.446                            | 4.054       | 2.4     | 4.6     |
| Pilot project    | 40  | 4.380 | .3238 | .0724      | 4.228                            | 4.532       | 3.5     | 4.8     |
| Tokuma project   | 33  | 2.580 | .2966 | .0663      | 2.441                            | 2.719       | 2.0     | 3.2     |
| Total            | 120 | 3.570 | .8738 | .1128      | 3.344                            | 3.796       | 2.0     | 4.8     |

Table 4. 7 Interpretation of ANOVA Descriptive Statistics

#### 4.11 Test of homogeneity subset

The table presents the results of a Tukey Honestly Significant Difference (HSD) test, which is used to assess whether there are significant differences in mean scores among three projects in Shashamene town; these are Shashemene Tesfa, Pilot Project, and Tokuma Project. Each project's mean score and sample size are explained: Shashemene Tesfa has a mean score of 3.750 from 47 participants, Pilot Project has a mean score of 4.380 from 40 participants, and Tokuma Project has a mean score of 2.580 from 33 participants. The table also displays subsets (labeled Tokuma project, Shashemene Tesfa project, and Pilot project) indicating projects whose mean scores do not significantly differ from each other. In this case, all pairwise comparisons show a sig. value of 1.000, signifying no statistically significant differences in mean scores between any projects. The error term used in the Tukey HSD test is Mean Square (error) = 0.205 and the test were conducted with a Harmonic Mean Sample Size of 120 and a significance level (Alpha) of 0.05.

In conclusion, based on the Tukey HSD test results and observed means:

- There is no evidence to suggest significant differences in mean scores between Shashemene Tesfa, the Pilot Project, and the Tokuma project.

- The findings suggest that all three projects have similar mean scores, supporting the conclusion that there are no statistically significant differences among them.

| <b>Training method</b>                                   |    |        |       |       |
|----------------------------------------------------------|----|--------|-------|-------|
| Tukey HSD                                                |    |        |       |       |
| Project                                                  | N  | Subset |       |       |
|                                                          |    | 1      | 2     | 3     |
| Tokuma project                                           | 33 | 2.580  |       |       |
| Shashemene Tesfa                                         | 47 |        | 3.750 |       |
| Pilot project                                            | 40 |        |       | 4.380 |
| Sig.                                                     |    | 1.000  | 1.000 | 1.000 |
| Means for Projects in homogeneous subsets are displayed. |    |        |       |       |
| The error term is mean square (error) = .205.            |    |        |       |       |
| A. Uses harmonic mean sample size = 120                  |    |        |       |       |
| B. Alpha = .05.                                          |    |        |       |       |

*Table 4. 8 Test of homogeneity subset*

#### **4.12 Interpretation of ANOVA table**

The ANOVA table for "Training method" provides a comprehensive statistical analysis of the differences between Projects based on their mean scores.

Firstly, the table divides the variance into two main components: between Projects and within Projects. Between Projects, the analysis indicates significant variability with a sum of squares of 33.372 and a corresponding F-value of 81.472, both yielding a highly significant p-value ( $p < 0.001$ ). This suggests that there are substantial differences in mean scores among the Projects.

Moreover, the table includes a linear term contrast and a deviation, each contributing additional insights. The linear term contrast, with a sum of squares of 13.689 and an F-value of 66.839, confirms a significant linear relationship among the Project means. This implies a consistent trend in mean scores across the Projects, either increasing or decreasing. The deviation, with a sum of squares of 19.683 and an F-value of 96.105, indicates a significant deviation from this linear trend, highlighting non-linear influences or additional factors impacting Project differences.

Within Projects, the sum of squares is 11.674, reflecting the variability of individual scores within each Project. The overall ANOVA underscores the strength of the findings, confirming that the differences observed in mean scores among the Projects are not due to random chance.

In conclusion, the ANOVA results strongly suggest that there are statistically significant differences in mean scores among the Projects for the variable "mean score". This analysis provides a clear framework for understanding the variations in training methodologies or other factors impacting performance across the Projects studied.

| ANOVA            |             |           |                |    |             |           |      |
|------------------|-------------|-----------|----------------|----|-------------|-----------|------|
| Training method  |             |           |                |    |             |           |      |
|                  |             |           | Sum of squares | Df | Mean square | Frequency | Sig. |
| Between Projects | (combined)  |           | 33.372         | 2  | 16.686      | 81.472    | .000 |
|                  | Linear term | Contrast  | 13.689         | 1  | 13.689      | 66.839    | .000 |
|                  |             | Deviation | 19.683         | 1  | 19.683      | 96.105    | .000 |
| Within Projects  |             |           | 11.674         | 57 | .205        |           |      |
| Total            |             |           | 45.046         | 59 |             |           |      |

*Table 4. 9 Interpretation of ANOVA table*

### **4.13 Interpretation of Post Hoc Tests**

The post-hoc tests using Tukey's Honestly Significant Difference (HSD) method were conducted to compare mean scores across three Projects (Shashemene Tesfa, Pilot project and Tokuma project) for the variable "training method."

- Firstly, between the Pilot project and the Tokuma project, a significant difference was observed (mean difference = 1.8000,  $p < 0.001$ ). The Pilot project demonstrated a notably higher mean score compared to the Tokuma project, with the 95% confidence interval for the mean difference ranging from 1.456 to 2.144. This means that the training methodology used in the Pilot project is the most effective among the three projects, while the one used in the Tokuma project is the least effective.
- Secondly, comparing the Shashemene Tesfa project and the Tokuma project also revealed a significant difference (mean difference = 1.1700,  $p < 0.001$ ). Shashemene Tesfa had a significantly higher mean score than the Tokuma project, with the 95% confidence interval for the mean difference spanning from 0.826 to 1.514. This suggests that the training methodology used in the Shashemene Tesfa project is more effective than the one used in the Tokuma project.
- Thirdly, between Shashemene Tesfa and Pilot Project, a statistically significant difference was found (mean difference = -0.6300,  $p < 0.001$ ). The Pilot project exhibited a significantly higher mean score compared to Shashemene Tesfa, with the 95% confidence interval for the

mean difference ranging from -0.974 to -0.286. This indicates that the training methodology used in the Pilot project is more effective than the one used in the Shashemene Tesfa, and Tokuma projects.

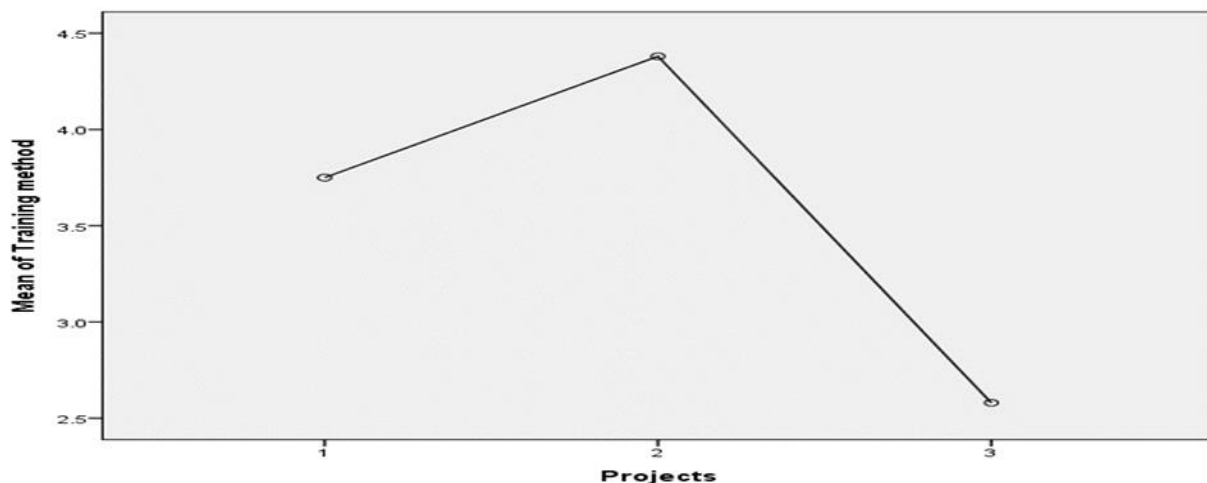
| <b>Multiple Comparisons</b>                        |                  |                       |            |      |                         |             |
|----------------------------------------------------|------------------|-----------------------|------------|------|-------------------------|-------------|
| Independent Variable: Training method<br>Tukey HSD |                  |                       |            |      |                         |             |
| (I) Project                                        | (J) Project      | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval |             |
|                                                    |                  |                       |            |      | Lower Bound             | Upper Bound |
| Shashemene Tesfa                                   | Pilot project    | -.6300*               | .1431      | .000 | -.974                   | -.286       |
|                                                    | Tokuma project   | 1.1700*               | .1431      | .000 | .826                    | 1.514       |
| Pilot project                                      | Shashemene Tesfa | .6300*                | .1431      | .000 | .286                    | .974        |
|                                                    | Tokuma project   | 1.8000*               | .1431      | .000 | 1.456                   | 2.144       |
| Tokuma project                                     | Shashemene Tesfa | -1.1700*              | .1431      | .000 | -1.514                  | -.826       |
|                                                    | Pilot project    | -1.8000*              | .1431      | .000 | -2.144                  | -1.456      |

\*. The mean difference is significant at the 0.05 level.

Table 4. 10 Interpretation of Post Hoc Tests Tukey HSD (Honestly Significant Difference) post hoc test results

#### 4.14 Means plot graph

- The graph below indicates the mean value for variable training method variance among Shashemene Tesfa, Pilot Project, and Tokuma Project. According to this, a mean value for Shashemene Tesfa falls between the range of 3.5-4, Pilot Project 4-4.5, and Tokuma Project 2.5-3.0.



Graph 4. 2 Means plot graph

To sum up, Pilot project is the most effective training methodology. The players in the Pilot project have the highest mean scores, indicating that the training methodology used in this project leads to the best performance outcomes. This could involve specific techniques, drills, coaching styles, or other factors that enhance player development and performance.

Shashemene Tesfa: moderately effective training methodology. The mean score for Shashemene Tesfa is lower than that of the Pilot project but higher than that of the Tokuma project. This suggests that while the training methodology in Shashemene Tesfa is effective, it is not as beneficial as the one used in the Pilot project. Shashemene Tesfa's project methodology may need some improvements or adjustments to reach the level of effectiveness seen in the pilot project.

Tokuma project: least effective training methodology. The players in the Tokuma project have the lowest mean scores, indicating that the training methodology used in this project is the least effective. This suggests that the practices, techniques, or strategies employed in the Tokuma project are less successful in improving player performance compared to those used in the Shashemene Tesfa and Pilot projects. This may also be because the players in the Tokuma project are female, which is why the team becomes less effective partially.

#### **4.15 Analysis of interview**

The interviewee was asked how they measure and evaluate the effectiveness of football development programs in Shashemene in fostering the long-term athlete development of young male and female football players.

Regarding the above question, the majority of respondents said existing projects were recently started, and the majority of them were established by the effort of individuals. Although the results are not coming as much as expected, few players are developing skills, rather than players not starting training on time or at an early age, which caused the desired results not to be achieved. For the reason the expected result is not achieved, the following points are raised:

*“Lack of training field and equipment for training, practice of waiting coaches players dropout, lack of female and female trainee, few players have been selected at home and*

*abroad, but due to budget and equipment problems, they have not been able to go as far as required and weak attention to women's football and attrition of girls players."*

Again, the respondents asked ways they collaborate with coaches, parents, and community members to ensure that football development programs in Shashemene are tailored to meet the individual needs and long-term goals of young male and female football players.

"They said sometimes there is an exchange of ideas with other coaches but there is no continuity, the community lacks understanding of the project, and the focus is to support only the older and male and female players. The families of the children are sometimes contacted by family and community via phone call. The matter is the trainers have weak motivation to exchange ideas and lack of organization."

For the question of how they support and provide professional development opportunities for coaches in Shashemene to enhance their training methods and positively impact the development of young male and female football players, the majority of them gave their idea by saying:

*"There are attempts to get coaching training in collaboration with the youth and sports office, but we often miss the training due to lack of funds, space, and times."*

Additionally, they asked how they ensure that the coaching methods used by coaches in Shashemene align with best practices in athlete development and contribute to the overall growth and success of young male and female football players in the long term, and the majority of them said that:

"There is not much experience to take, but they try to exchange ideas with other coaches from time to time, to some extent watching videos to train the players. We provide according to the training given to us and our own experience, and there is no other experience we use and have them play or compete with other projects from time to time."

The interviewee asked how they prioritize and allocate resources to support the long-term athlete development of male and female football players in Shashemene. They shared their idea by saying

*“There is no money allocated for training, and we do not have adequate equipment for training, and there is frustration as coaches are not being paid. This is an extremely challenge for long- term athlete development.”*

Lastly, they asked how they collaborate with coaches and other stakeholders to ensure that training methods are aligned with the long-term development goals of male and female football players in Shashemene. They said

*“There is no involvement of various stakeholders, and the relevant office does not provide enough support and lacks a competitive environment to engage the wider community; this will negatively affect long- term athlete development.”*

#### **4.16 Analysis of observation checklist**

Table 4.8 provided us with the data through direct observation by the researcher about the coach's activity during training. As the researcher observed, the coach gave attention to the training and was well prepared to provide organized training for the player. During training, there is a condition in which sometimes the coach becomes aggressive, but we can't conclude that the coach is aggressive. The coach never misses training rather than difficult social problems; this indicates the coach gives full concentration to training rather than individual problems. Again, the coach motivates players by different means, like reward and punishment, and treats all the players equally rather than using them as models for demonstration. Also, in terms of time management, they use their time properly. The other is about the status of the sport equipment here. Even though there is a known lack of facilities in the practical context of our country, we observed the status of sport equipment as somewhat good. On the other hand, the playing field status is not very suitable for training, and computation needs maintenance.

The researcher saw coaches use supportive materials like LCD, video, etc. as poor; most of them do not use them because of a lack of material, awareness, and accessibility. This will affect long-term athlete development by lacking role models and modern and updated training. Even though there are some materials, the coaches do not use them properly. The coach may have a plan for the year or a weak plan, but in the application of that plan, there is a huge gap.

Here, using a short- and long-term plan is the mirror in which the players see their future, which supports their long-term development, but they haven't written a short- and long-term plan. In some projects and clubs, we can see a little bit of medical equipment for formality, but we can't conclude that it exists. In terms of player-ball ratio, there is a big gap because the coaches are not allowed to use available material because of a lack of facilities and equipment, as well as to save for the next day of training or tournament. In terms of training with player age and skill, no gap was seen because they were categorized according to their age, but the skills differed. Sometimes the coach directly dives into training without introducing the daily plan, and this activity is adopted in many projects and clubs in Shashemene town, but warming up and cooling down are performed well even though there is a little gap. The coaches show or demonstrate the training by whole or part method using themselves or role models from players, while fun training is applied. This technique plays a major role in long-term athlete development.

| No. | Coach                                                 | Yes | No |
|-----|-------------------------------------------------------|-----|----|
| 1   | Give attention for the training                       | ✓   |    |
| 2   | Come well prepared                                    | ✓   |    |
| 3   | Is aggressive                                         | ✓   |    |
| 4   | Miss training                                         |     | ✓  |
| 5   | Motive players'                                       | ✓   |    |
| 6   | See all players equal                                 | ✓   |    |
| 7   | Use his time properly                                 | ✓   |    |
| 8   | Sport equipment status                                | ✓   |    |
| 9   | Playing field status                                  |     | ✓  |
| 10  | Supportive materials LCD, video etc.                  |     | ✓  |
| 11  | Different goals                                       |     | ✓  |
| 12  | Coach use all materials                               |     | ✓  |
| 13  | Medical equipment's                                   |     | ✓  |
| 14  | Ratio of training ball                                |     | ✓  |
| 15  | Match training with players age                       | ✓   |    |
| 16  | Match training with players skill                     | ✓   |    |
| 17  | Explain the aim of training                           |     | ✓  |
| 18  | Training starts with worming up end with cooling down | ✓   |    |
| 19  | Show practical trainings                              | ✓   |    |
| 20  | Use variety training drills                           | ✓   |    |
| 21  | Train fun training                                    | ✓   |    |

*Table 4. 11 analysis of observation checklist*

#### **4.17 Discussions**

This study aimed to assess the long-term development and training methods of male and female football athletes in Shashemene town. Employing a mixed research approach with a triangulation design allowed for a comprehensive analysis of both quantitative and qualitative data, shedding light on the various facets influencing athlete development. Based on the key findings of the study, the following discussion was drawn.

**Participant Demographics:** The majority of the respondents (71.7%) were male, and the age distribution showed that 68.3% were between 21 and 25 years old. This indicates that the study primarily engaged a youthful participant base, which is significant as this age group represents a critical period for athletic development.

**Effectiveness of periodization training programs:** A significant portion of respondents disagreed with the effectiveness of periodization training programs in Shashemene town improving long-term athlete development. This perception suggests that the current implementation of these programs may not be aligned with the athletes' needs or best practices, highlighting an area for potential improvement in training methodologies. Preparing short- and long-term plans not only helps in organizing training activities but also fosters accountability among coaches and athletes. According to Lyle (2002), prepared plans serve as a professional practice standard, ensuring that training programs are systematic and evidence-based. This structured approach minimizes the risk of inconsistent training practices that could impede athlete development.

**Training Facilities and Supplies:** More than half of the respondents (57.5%) strongly disagreed that their club has its own training center, and 55.9% were dissatisfied with the suitability of training supplies provided by the club. These infrastructural deficiencies likely impede effective training and development. Access to quality training facilities, including fields, tracks, and gymnasiums, is essential for athlete development. Research by Toohey et al. (2016) emphasizes the importance of adequate training infrastructure for providing athletes with safe and conducive environments for training and competition. The lack of training fields hampers athletes' ability to practice and refine their skills, hindering their overall development.

**Utilization of Gym Training:** A substantial 54.2% of respondents felt that gym training was underutilized by coaches. Strength and conditioning are integral to an athlete's development, and the underutilization of gym facilities may lead to suboptimal physical preparation. This gap suggests a need for coaches to incorporate more comprehensive strength training programs into their regimens. Strength and conditioning programs are designed to improve an athlete's overall physical capabilities, including strength, power, speed, and endurance. According to Suchomel et al. (2016), these programs are fundamental for enhancing athletic performance across various sports disciplines.

**Balance between Training Load and Recovery:** An overwhelming 67.5% of respondents disagreed on the adequacy of the balance between training load and recovery time. This imbalance can lead to overtraining, fatigue, and increased injury risk, which ultimately hampers long-term athlete development. Training adaptations occur during recovery periods when the body repairs and strengthens itself in response to the stress of training. As highlighted by Bompa and Haff (2009), without sufficient recovery, these adaptations cannot occur optimally, leading to stagnation or regression in performance. Recovery allows for the replenishment of glycogen stores, muscle repair, and the normalization of hormonal and metabolic functions.

**Monitoring and Feedback during Training:** There was a relatively higher level of agreement (45.0%) regarding the sufficiency of monitoring and feedback during training. Effective monitoring and feedback are essential for tracking progress and making necessary adjustments. According to Impellizzeri et al. (2009), regular monitoring of performance metrics, such as speed, strength, and endurance, enables coaches to assess training effectiveness and adjust programs accordingly. Feedback based on these assessments provides athletes with valuable insights into their development and areas for improvement.

**Collaboration with Sports Scientists and Experts:** A significant proportion of respondents (60.0%) disagreed that training is based on coach collaboration with sports scientists and professional experts. This lack of interdisciplinary collaboration may limit the effectiveness of training programs, as incorporating scientific insights and professional expertise can enhance training quality and athlete development. According to Reilly et al. (2008), integrating scientific knowledge into training programs can enhance training effectiveness, injury prevention

strategies, and performance outcomes. Collaboration with sports scientists allows coaches to access the latest research findings and evidence-based practices, ensuring training methods are grounded in scientific principles.

**Challenges and Barriers:** The study identified several challenges, including the lack of training fields, equipment, and budget constraints. Coaches also lacked supportive materials like LCDs and videos due to resource limitations, awareness, and accessibility issues. These barriers can significantly affect long-term athlete development by preventing the use of modern and effective training techniques. Research by Toohey et al. (2016) emphasizes the importance of adequate training infrastructure for providing athletes with safe and conducive environments for training and competition.

**Planning and Development Strategies:** The absence of written short and long-term plans for player development was another critical finding. Having structured plans is vital for setting clear goals and tracking progress, and their absence suggests a need for more strategic planning in athlete development programs. Written short and long-term plans provide athletes and coaches with clear goals and objectives to work towards. Locke and Latham (2002) emphasize the importance of goal setting for enhancing motivation and performance outcomes. Structured plans outline specific targets for skill development, physical conditioning, competition performance, and personal growth, guiding athletes' efforts and fostering a sense of purpose and direction.

The implications of this study for coaches and sports administrators are that there is a clear need to enhance training infrastructure and resources. Investment in dedicated training centers, appropriate equipment, and comprehensive training supplies is essential. Furthermore, coaches should be encouraged to adopt evidence-based training practices, including periodization and gym training, while ensuring a balanced approach to training load and recovery.

This study has limitations that should be acknowledged. The reliance on self-reported data may introduce bias, and the sample is limited to male and female athletes in Shashemene town, which may affect the generalizability of the findings. Future research should consider broader samples and objective measures of training effectiveness.

Future research should explore the development and implementation of training programs that incorporate modern techniques and technologies. Additionally, fostering collaborations between coaches, sports experts, and other professionals can lead to more holistic development strategies. Investigating the impact of structured short- and long-term plans on athlete development would also provide valuable insights.

## CHAPTER 5

### 5 SUMMERY, CONCLUSION AND RECOMMENDATION

#### 5.1 Summery

For the sec of rehearsing, the purpose of this study was to assess long-term football athletes' development and training methods among male and female football projects in Shashemene town. To address the objectives of the study, a mixed research approach with triangulation research design was employed. The descriptive statistics data analysis technique was employed for quantitative data, and thematic analysis was used for the analysis of interviews. The key findings of the study are listed as below:

- The majority of respondents, 71.7%, were male; in terms of age distribution, the majority, 68.3%, fall within the 21-25 age group, which implies the majority of respondents were youth.
- The majority disagreement on the effectiveness of periodization training programs has been in improving long-term athlete development, with 37.5%; this indicates that it was ineffective. This has a significant effect on long term athlete development.
- The significant part of respondents strongly disagree that the club has its own training center (57.5%). On the suitability of training supplies provided by the club for long-term athlete development, 55.9% of respondents disagreed.
- There's substantial disagreement on whether the coach utilizes gym training to facilitate long-term athlete development by 54.2% of respondents.
- The respondents disagreed on the existence of a balance between training load and recovery time by 67.5 percent.
- Higher level of agreement regarding the sufficiency of monitoring and feedback during training by 45.0% of respondents.
- There's a significant proportion who disagree that training is based on coach collaboration with sport scientists and professional experts (60.0%).
- For reasons like lack of training field, equipment for training, and budget, they have not been able to go as far as required.

- The researcher identified coaches don't use supportive materials like LCD, video, etc. because of a lack of material, awareness, and accessibility. This will affect long-term athlete development by lacking role models and modern and updated training.
- The findings reveals majority of coach do not have short and long-term plan. It is the mirror in which the players see their future, which supports their long-term development, but they haven't written a short- and long-term plan.
- Between the Shashemene Tesfa and the Pilot Project, a statistically significant difference was found (mean difference = -0.6300,  $p < 0.001$ ). the Pilot project exhibited a significantly higher mean score compared to Shashemene Tesfa, with the 95% confidence interval for the mean difference ranging from -0.974 to -0.286. This indicates that the training methodology used in the Pilot project is more effective than the one used in the Shashemene Tesfa and Tokuma projects.
- Between the Shashemene Tesfa project and the Tokuma project also revealed a significant difference (mean difference = 1.1700,  $p < 0.001$ ). Shashemene Tesfa had a significantly higher mean score than the Tokuma project, with the 95% confidence interval for the mean difference spanning from 0.826 to 1.514. This suggests that the training methodology used in the Shashemene Tesfa project is more effective than the one used in the Tokuma project.
- Between the Pilot project and the Tokuma project, a significant difference was observed (mean difference = 1.8000,  $p < 0.001$ ). The Pilot project demonstrated a notably higher mean score compared to the Tokuma project, with the 95% confidence interval for the mean difference ranging from 1.456 to 2.144. This means that the training methodology used in the Pilot project is the most effective among the three projects, while the one used in the Tokuma project is the least effective.

In conclusion, the study underscores various challenges and deficiencies in the long-term development and training methods among male and female football players in Shashemene town. Addressing these issues requires concerted efforts to enhance resources, improve coaching practices, foster interdisciplinary collaboration, and implement structured planning and monitoring mechanisms. By doing so, stakeholders can work towards optimizing athlete development and maximizing players' potential in football.

## **5.2 Conclusion**

One of the prominent findings is the discrepancy between perceived and actual effectiveness of periodization training programs, indicating a potential need for reassessment and refinement of training methodologies to better align with athletes' developmental needs. Additionally, concerns regarding the availability and suitability of training facilities and supplies underscore the importance of investing in infrastructure and resources to support athlete development effectively. Furthermore, shortcomings in coaching practices related to physical conditioning, workload management, and utilization of supportive materials highlight areas for improvement in coach education and training. Collaborating with sport experts can provide valuable insights to enhance training programs and optimize athlete performance. Moreover, addressing systemic challenges such as the lack of training fields, equipment, and budget constraints is essential to creating an environment conducive to athlete development. By investing in infrastructure and resources, stakeholders can provide athletes with the support they need to succeed and reach their full potential. Moving forward, it is imperative for stakeholders in the local football community to collaborate and implement targeted interventions aimed at addressing the identified challenges. This may involve developing structured planning processes, enhancing coaching practices, fostering interdisciplinary collaboration, and advocating for increased investment in athlete development. Ultimately, by addressing these challenges and implementing evidence-based strategies, stakeholders can work towards optimizing athlete development and maximizing the potential of male and female football players in Shashemene town. This study serves as a foundation for future research and intervention efforts aimed at enhancing athlete development practices in the local football community.

## **5.3. Recommendation**

Based on key findings the following recommendation are drawn for stake holders and concerning body.

- The findings reveals majority of coach do not have short- and long-term plan. So coaches should draft and share clear, written short- and long-term development plans with athletes.

- The majority respondents disagreed on the effectiveness of periodization training programs has been in improving long-term athlete development, with 37.5%; coaches should consider alternative training methodologies or revise current periodization plans to better suit athletes' long-term development needs.
- There's substantial disagreement on whether the coach utilizes gym training to facilitate long-term athlete development by 54.2% of respondents. So coaches should integrate structured gym sessions that focus on strength and conditioning specific to the sport.
- The respondents disagreed on the existence of a balance between training load and recovery time by (67.5%). Ensure a well-balanced schedule that allows adequate recovery time.
- The researcher identified coaches don't use supportive materials like LCD, video, etc. because of a lack of material, awareness, and accessibility. Coaches should utilize available technology, such as LCDs, videos, and other digital tools, to enhance training sessions.
- The significant part of respondents strongly disagree that the club has its own training center (57.5%). So sport administers and governing body should establish a dedicated training center.
- Finding indicates for reasons like lack of training field, equipment for training, and budget, they have not been able to go as far as required. So sport administers and governing body should provide suitable and sufficient training supplies to meet the needs of athletes and support their long-term development.

By addressing these recommendations, coaches, players, and sport administrators can collaboratively enhance the effectiveness of training programs and support the long-term development of athletes.

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## Section II

Please rate each statement below based on your level of agreement or disagreement using a 5-point Likert scale by using “√” sign under (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree).

### Assessment of Long-Term Athlete Development Strategies

| Items                                                                                                                                                     | Strongly disagree | Disagree | Neutral | Agree | Strongly agree |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------|---------|-------|----------------|
| Periodization training programs have been effective in improving long-term athlete development                                                            |                   |          |         |       |                |
| Progressive overload training methods have contributed to significant improvements                                                                        |                   |          |         |       |                |
| Individualized training programs tailored to an athlete's specific needs in long-term athlete development                                                 |                   |          |         |       |                |
| Incorporating strength and conditioning exercises into training routines have positively impacted for long-term athlete development                       |                   |          |         |       |                |
| Adequate recovery and rest periods are crucial for long-term development in football                                                                      |                   |          |         |       |                |
| The training program is appropriate for the age level of the athletes.                                                                                    |                   |          |         |       |                |
| The use of interval training enhances the performance in long-term athletes.                                                                              |                   |          |         |       |                |
| Incorporating strength training exercises into training program has positively impacted in long-term athlete development.                                 |                   |          |         |       |                |
| The coach consider the athlete benefits from multidisciplinary support include nutrition guidance, psychological support and injury prevention            |                   |          |         |       |                |
| The coach consider the fundamental stage to develop basic skill of movements and physical literacy from the grass root for long-term athlete development. |                   |          |         |       |                |
| A high-volume of endurance training regimen has applied for long-term athlete development.                                                                |                   |          |         |       |                |
| The long term athlete development approach ensures the athlete ample time to develop their skill, endurance and mental resilience                         |                   |          |         |       |                |

### Section III

#### Training Techniques for Long-Term Athlete Development

| Items                                                                                 | Strongly disagree | Disagree | Neutral | Agree | Strongly agree |
|---------------------------------------------------------------------------------------|-------------------|----------|---------|-------|----------------|
| High-intensity interval training (HIIT) is applied for long-term athletes development |                   |          |         |       |                |
| Strength Training for Better Performance for long-term athletes development           |                   |          |         |       |                |
| Small sided games is applied for long-term athletes development                       |                   |          |         |       |                |
| Mastering Ball Control for long-term athletes development                             |                   |          |         |       |                |
| Perfecting Passing Techniques for long-term athletes development                      |                   |          |         |       |                |

### Section IV

#### Key Components of Long-Term Athlete Development in Football

| Items                                                                        | Strongly disagree | Disagree | Neutral | Agree | Strongly agree |
|------------------------------------------------------------------------------|-------------------|----------|---------|-------|----------------|
| Importance of Shooting Accuracy for long-term athletes development           |                   |          |         |       |                |
| Understanding Player Positions and Roles for long term-athlete development   |                   |          |         |       |                |
| Tactical Decision-Making on the Field for long-term athletes development     |                   |          |         |       |                |
| Agility and Speed Drills for long term athlete's development                 |                   |          |         |       |                |
| Stamina Building Exercises for Footballers for longterm athletes development |                   |          |         |       |                |
| Team work is applied for long-term athletes development                      |                   |          |         |       |                |

## Section V

### Evaluation of Training Environment and Methods for Long-Term Athlete Development

| Items                                                                                                 | Strongly disagree | Disagree | Neutral | Agree | Strongly agree |
|-------------------------------------------------------------------------------------------------------|-------------------|----------|---------|-------|----------------|
| The club has his own training center.                                                                 |                   |          |         |       |                |
| The training supplies that the club gives to you are comfortable for long term athlete developmement. |                   |          |         |       |                |
| The coach uses gym training to facilitate long-term athletes developmement                            |                   |          |         |       |                |
| There is balance between training load and recovery time                                              |                   |          |         |       |                |
| There is a high practice of individualizationon athlete development                                   |                   |          |         |       |                |
| There is sufficient monitoring and feed back during training                                          |                   |          |         |       |                |
| Training is based on Coach collaboration with sport scientist and profesional experts                 |                   |          |         |       |                |

## Section VI

### Assessment of Coaching Methods and Performance Improvement Strategies for Long-Term Athlete Development

| Items                                                                                                                           | Strongly disagree | Disagree | Neutral | Agree | Strongly agree |
|---------------------------------------------------------------------------------------------------------------------------------|-------------------|----------|---------|-------|----------------|
| Technical training is necessary in each training session                                                                        |                   |          |         |       |                |
| A coach, apply most of the time Athlete centered coaching methods in a training session.                                        |                   |          |         |       |                |
| The coach, analyze the progress of performance regularly.                                                                       |                   |          |         |       |                |
| Coach has different plan to improve athletes' performance and find solution for current issues on long distance.                |                   |          |         |       |                |
| Coaches use a method to sustain your performance when the competition day reaches.                                              |                   |          |         |       |                |
| Incorporating strength and conditioning exercises into training routines have positively impacted long term athlete development |                   |          |         |       |                |

**APPENDIX II**  
**JIMMA UNIVERSITY**  
**SPORT ACADEMY**  
**DEPARTMENT OF SPORT SCIENCE**

**Structured Interview for coaches and administrators**

1. How do you measure and evaluate the effectiveness of football development programs in Shashemene in fostering the long-term athlete development of young football players?
2. In what ways do you collaborate with coaches, parents, and community members to ensure that football development programs in Shashemene are tailored to meet the individual needs and long-term goals of young football players?
3. How do you support and provide professional development opportunities for coaches in Shashemene to enhance their training methods and positively impact the development of young football players?
4. How do you ensure that the coaching methods used by coaches in Shashemene align with best practices in athlete development and contribute to the overall growth and success of young football players in the long term?
5. How do you prioritize and allocate resources to support the long-term athlete development of football players in Shashemene?
6. How do you collaborate with coaches and other stakeholders to ensure that training methods are aligned with the long-term development goals of youth football players in Shashemene?

**APENDIX III**  
**JIMMA UNIVERSITY**  
**SPORT ACADEMY**

**DEPARTMENT OF SPORT SCIENCE**

Observation Checklist guide for Project

| <b>No.</b> | <b>Coach</b>                                          | <b>Yes</b> | <b>No</b> |
|------------|-------------------------------------------------------|------------|-----------|
| <b>1</b>   | Give attention for the training                       |            |           |
| <b>2</b>   | Come well prepared                                    |            |           |
| <b>3</b>   | Is aggressive                                         |            |           |
| <b>4</b>   | Miss training                                         |            |           |
| <b>5</b>   | Motive players'                                       |            |           |
| <b>6</b>   | See all players equal                                 |            |           |
| <b>7</b>   | Use his time properly                                 |            |           |
| <b>8</b>   | Sport equipment status                                |            |           |
| <b>9</b>   | Playing field status                                  |            |           |
| <b>10</b>  | Supportive materials lcd, video etc.                  |            |           |
| <b>11</b>  | Different goals                                       |            |           |
| <b>12</b>  | Coach use all materials                               |            |           |
| <b>13</b>  | Medical equipment's                                   |            |           |
| <b>14</b>  | Ratio of training ball                                |            |           |
| <b>15</b>  | Match training with players age                       |            |           |
| <b>16</b>  | Match training with players skill                     |            |           |
| <b>17</b>  | Explain the aim of training                           |            |           |
| <b>18</b>  | Training starts with worming up end with cooling down |            |           |
| <b>19</b>  | Show practical trainings                              |            |           |
| <b>20</b>  | Use variety training drills                           |            |           |
| <b>21</b>  | Train fun training                                    |            |           |

## MAXXANTUU IV

### YUNIVARSIITII JIMMAA

### AKKAADAAMII ISPOORTII

### MUUMMEE SAAYINSII ISPOORTII

#### **GAAFFII DEEBII KENNITOOTA ISPOORTIITIIN GUUTAMU**

Jalqabarratti, gaaffilee guutuuf gargaarsa nuuf gootaniif galata keenya ibsuu barbaadna. Qorannoowwan kunniin Guddiina atileetii yeroo dheeraatiifi tooftaalee shaakalaa pirojeektii dargaggoota kubbaa miilaa magaalaa Shashamannee qorachuf kan xiyyeeffatedha.

Kabajamtoota Deebii kennitoota: Odeeffannoon keessan milkaa'ina qorannoo keenyaa kessatti hedduu barbaachisaa dha. Odeeffannoon Kun qorannoo akaadaamii qofaaf kan oolu waan ta'eef, gaaffilee akka bilisan guuttan kabajaan isin gaafanna. Deebiin garaadhaa fi dhugaa ta'e kennitan milkaa'ina qorannichaa irratti dhiibbaa kallatti ni qabaata.

Unka gaaffii kana irratti maqaa keessan barreessuun hin barbaachisu.

- ✓ Gaaffiin tokko filannoo yoo qabaate, deebii keessan fuulduratti mallattoo “✓” dabaluu dandeessu. ☒
- ✓ Filannoon biraa deebii banaa yoo gaafate, maaloo bilisaan yaada keessan bakka kenname irratti barreessaa.

**Tumsa onnee keessan irraa nuuf gootaniif dursinee isin galateeffanna!**

#### **KUTAA I: SEENAA DUUBEE DEEBII KENNAA**

Qajeelfama: **Filannoo kee irratti bakka mallattoon ☐ argamu irratti mallattoo “✓” kaa'uudhaan gaafficha deebisi.** ☒

Kutaa I

I. Odeeffannoo dhuunfaa (maaloo saanduqa filannoo kenname irratti mallattoo “✓” kaa'aa).

1. Saala            A. Dhiira ☐

B. Dhalaa ☐

2. Umrii A. 19-20 ☐

B. 21-25 ☐ C. 25 ol ta'e ☐

3. Sadarkaa Barnootaa

A. 5-8 ☐

B. 9-10 ☐

C. 11-12 ☐

D. 12 fi isaa ol ☐

4. Kilabii kubbaa miilaa waliin hangam turtan?

A. Waggaa Tokkoo ☐

B. Waggaa 1-2 ☐

C. Waggaa 3 ☐

D.Waggaa 4 Ol □

5. Maqaa kilabii keetii barreessi\_\_\_\_\_

## GAAFFII QORANNICHAAN WALQABATEE

Maaloo sadarkaa waliigaltee ykn waliigaluu dhabuu keessanii tokkoon tokkoon himaa irratti mallattoo “□” kaa'uudhaan deebii barbaachisaa ta'e iskeelii 1 hanga 5 irratti deebisi 1 "cimsee walii hin galu" bakka bu'a, 5 immoo "cimseen walii galaa bakka bu'a

### Madaallii Tooftaalee Guddina Atileetota Yeroo Dheeraa

| Gaaffilee                                                                                                                                                  | Cimsee walii hin galu=1 | Walii hin galu=2 | Giddu-galeessaan=3 | Walii ni gala=4 | Cimseen walii gala=5 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|------------------|--------------------|-----------------|----------------------|
| Sagantaan leenjii yeroo yeroon kennamu guddina atileetota yeroo dheeraa fooyyessuu keessatti bu'a qabeessa ta'eera                                         |                         |                  |                    |                 |                      |
| Malli leenjii fe'umsa garmalee tarkaanfataa ta'e fooyya'iinsa guddaaf gumaacheera                                                                          |                         |                  |                    |                 |                      |
| Sagantaa leenjii dhuunfaa fedhii addaa atileeti tokkoo guddina atileetota yeroo dheeraa keessatti                                                          |                         |                  |                    |                 |                      |
| Shaakala humnaa fi haala mijeessuun hojii leenjii keessatti hammachuun guddina atileetota yeroo dheeraa irratti dhiibbaa gaarii qaba                       |                         |                  |                    |                 |                      |
| Kubbaa miilaa keessatti guddina yeroo dheeraaf yeroon fayyuu fi boqonnaa gahaan murteessaadha                                                              |                         |                  |                    |                 |                      |
| Sagantaan leenjii sadarkaa umurii atileetotaaf kan mijatu ta'uu ibsameera                                                                                  |                         |                  |                    |                 |                      |
| Fayyadamni leenjii gidduugaleessaa atileetota yeroo dheeraa keessatti ga'umsa ni guddisa.                                                                  |                         |                  |                    |                 |                      |
| Shaakala leenjii humnaa sagantaa leenjii keessatti hammachuun guddina atileetota yeroo dheeraa irratti dhiibbaa gaarii qaba.                               |                         |                  |                    |                 |                      |
| Leenjisaan kun faayidaan atileetiin deeggarsa ogummaa hedduu irraa argamu qajeelfama soorataa, deeggarsa xiinsammuufi ittisa miidhaan akka dabalatu ilaala |                         |                  |                    |                 |                      |
| Leenjisaan guddina atileetota yeroo dheeraaf dandeettii bu'uuraa sochii fi dubbisuu fi barreessuu qaamaa hundee irraa guddisuuf sadarkaa bu'uuraa ilala    |                         |                  |                    |                 |                      |
| Shaakala leenjii humnaa sagantaa leenjii keessatti hammachuun guddina atileetota yeroo dheeraa irratti dhiibbaa gaarii qaba.                               |                         |                  |                    |                 |                      |
| Haalli guddina atileetotaa yeroo dheeraa atileetiin dandeettii, obsaa fi dandeettii sammu isaa guddisuuf yeroo gahaa mirkaneessa                           |                         |                  |                    |                 |                      |

### Tooftaalee Leenjii Guddina Atileetota Yeroo Dheeraa

| Gaaffilee                                                                                       | Cimsee<br>walii hin | Walii hin<br>galu=2 | Giddu-<br>galeessaan | Walii ni<br>gala=4 | Cimseen<br>walii |
|-------------------------------------------------------------------------------------------------|---------------------|---------------------|----------------------|--------------------|------------------|
| Leenjiin gidduu-galeessaa cimina olaanaa (HIIT) guddina atileetota yeroo dheeraaf hojiirra oola |                     |                     |                      |                    |                  |
| Leenjii Ciminaa Raawwii Fooyya'aa Guddina atileetota yeroo dheeraa                              |                     |                     |                      |                    |                  |
| Taphoota gama xixiqqaa guddina atileetota yeroo dheeraaf appllied dha                           |                     |                     |                      |                    |                  |
| Mastering Ball Control for yeroo dheeraa atileetota development                                 |                     |                     |                      |                    |                  |
| Guddina atileetota yeroo dheeraaf Tooftaalee Darbiinsaa Perfecting                              |                     |                     |                      |                    |                  |

### Qaamolee Ijoo Guddina Atileetota Yeroo Dheeraa Kubbaa Miilaa Keessatti

| Gaaffilee                                                                              | Cimsee<br>walii hin<br>galu=1 | Walii hin<br>galu=2 | Giddu-<br>galeessaan<br>=3 | Walii ni<br>gala=4 | Cimseen<br>walii<br>gala=5 |
|----------------------------------------------------------------------------------------|-------------------------------|---------------------|----------------------------|--------------------|----------------------------|
| Barbaachisummaa Sirrummaa Dhukaasaa guddina atileetota yeroo dheeraatiif               |                               |                     |                            |                    |                            |
| Guddina atileetota yeroo dheeraaf Ejjennoo fi Gahee Taphattootaa hubachuu              |                               |                     |                            |                    |                            |
| Murtee Tooftaa Dirree irratti fir guddina atileetota yeroo dheeraa                     |                               |                     |                            |                    |                            |
| Agility and Speed Drills guddina atileeti yeroo dheeraaf                               |                               |                     |                            |                    |                            |
| Shaakala Ijaarsa Dandeettii Taphattoota Kubbaa Miilaa guddina atileetota yeroo dheeraa |                               |                     |                            |                    |                            |
| Hojiin garee guddina atileetota yeroo dheeraaf hojiirra oola                           |                               |                     |                            |                    |                            |
| Barbaachisummaa Sirrummaa Dhukaasaa guddina atileetota yeroo dheeraatiif               |                               |                     |                            |                    |                            |
| Guddina atileetota yeroo dheeraaf Ejjennoo fi Gahee Taphattootaa hubachuu              |                               |                     |                            |                    |                            |
| Murtee Tooftaa Dirree irratti fir guddina atileetota yeroo dheeraa                     |                               |                     |                            |                    |                            |
| Agility and Speed Drills guddina atileeti yeroo dheeraaf                               |                               |                     |                            |                    |                            |

### Madaallii Naannoo Leenjii fi Malawwan Guddina Atileetota Yeroo Dheeraa

| Gaaffilee                                                                                                  | Cimsee<br>walii hin<br>galu=1 | Walii hin<br>galu=2 | Giddu-<br>galeessaan<br>=3 | Walii ni<br>gala=4 | Cimseen<br>walii<br>gala=5 |
|------------------------------------------------------------------------------------------------------------|-------------------------------|---------------------|----------------------------|--------------------|----------------------------|
| Kilabichi wiirtuu leenjii mataa isaa qaba.                                                                 |                               |                     |                            |                    |                            |
| Meeshaaleen leenjii kilabichi siif kennu guddina atileetota yeroo dheeraaf mijataa dha.                    |                               |                     |                            |                    |                            |
| Leenjisaan kun leenjii jiim fayyadamuun guddina atileetota yeroo dheeraaf haala mijeessa                   |                               |                     |                            |                    |                            |
| Fe'iinsa leenjii fi yeroo fayyuu gidduutti madaalliin jira                                                 |                               |                     |                            |                    |                            |
| Guddina atileetotaa irratti shaakala dhuunfaa ol'aanaatu jira                                              |                               |                     |                            |                    |                            |
| Yeroo leenjii hordoffiin deebii gahaan ni jira                                                             |                               |                     |                            |                    |                            |
| Leenjiin kun tumsa Leenjisa saayintistii ispoortii fi ogeeyyii profesional waliin taasisu irratti hundaa'a |                               |                     |                            |                    |                            |

### Madaallii Mala Leenjijummaa fi Tooftaalee Fooyya'iinsa Raawwii Hojii Guddina Atileetota Yeroo Dheeraaf

| Gaaffilee                                                                                                                                            | Cimsee<br>walii hin<br>galu=1 | Walii hin<br>galu=2 | Giddu-<br>galeessaan<br>=3 | Walii ni<br>gala=4 | Cimseen<br>walii<br>gala=5 |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|---------------------|----------------------------|--------------------|----------------------------|
| Tokkoon tokkoon leenjii keessatti leenjiin teeknikaa barbaachisaadha                                                                                 |                               |                     |                            |                    |                            |
| Leenjisaan, yeroo baay'ee mala leenjii Atileet giddugaleessa godhate shaakala keessatti hojiirra oolchi.                                             |                               |                     |                            |                    |                            |
| Leenjisaan, adeemsa raawwii hojii yeroo yeroon xiinxala.                                                                                             |                               |                     |                            |                    |                            |
| Leenjisaan ga'umsa atileetotaa fooyyessuu fi dhimmoota yeroo ammaa fageenya dheeraa irratti furmaata argachuuf karoora adda addaa qaba.              |                               |                     |                            |                    |                            |
| Leenjistoonni yeroo guyyaan dorgommii ga'u ga'umsa kee itti fufsiisuuf mala fayyadamu.                                                               |                               |                     |                            |                    |                            |
| Shaakala humnaa fi haala mijeessuun hojii leenjii keessatti hammachuun namoota atileetota yeroo dheeraa guddatan irratti dhiibbaa gaarii geessiseera |                               |                     |                            |                    |                            |

**MAXXANTUU V**  
**YUNIVARSIITII JIMMAA**  
**AKKAADAMII ISPORTII**  
**MUUMMEE SAAYINSII ISPOORTII**

**Af-gaaffii leenjistootaa fi deggertootaf taasifamu**

**Qajeelfama Af-gaaffii**

Jalqabarratti, Af-gaaffii kana deebisuuf gargaarsa nuuf gootaniif galata keenya ibsuu barbaadna. Itti aansuun qorannoowwan kunniin Guddiina atileetii yeroo dheraatiif fi tooftaalee shaakalaa pirojeektii dargaggoota kubbaa miilaa magaalaa Shashamannee qorachhuf kan xiyyeeffatedha.

**AF-GAAFFII CAASEFFAMA QABU BULCHITOOTA**

1. Bu'a qabeessummaa sagantaaleen misooma kubbaa miilaa Shashamannee guddina atileetota yeroo dheeraa taphattoota kubbaa miilaa guddisuu keessatti qaban akkamitti madaaltu?
2. Sagantaan guddina kubbaa miilaa Shaashamannee fedhii dhuunfaa fi galma yeroo dheeraa taphattoota kubbaa miilaa guutuuf akka qophaa'u gochuuf leenjistoota, warra, fi miseensota hawaasaa waliin karaa kamiin tumsitu?
3. Leenjistoonni Shaashamannee mala leenjii isaanii akka guddifataniif fi leenjistoonni guddina taphattoota kubbaa miilaa irratti dhiibbaa gaarii akka qabaataniif carraa guddina ogummaa akkamitti deeggartuu ykn kennitu?
4. Malli leenjijummaa Shaashamannee itti fayyadaman muuxannoowwan gaggaarii guddina atileetotaa wajjin akka walsimuu fi guddina waliigalaa fi milkaa'ina taphattoota kubbaa miilaa yeroo dheeraa keessatti akka gumaachan akkamitti mirkaneessitu?
5. Guddina atileetota yeroo dheeraa taphattoota kubbaa miilaa Shaashamannee deeggaruuf qabeenya akkamitti dursa kennitee ramada?
6. Malli leenjii kaayyoo guddina yeroo dheeraa taphattoota kubbaa miilaa Shaashamannee waliin akka walsimuuf leenjistootaa fi qooda fudhattoota biroo waliin akkamitti tumsitu?

**MAXXANTUU VI**

**YUNIVARSIITII JIMMAA**

**AKKAADAMII ISPORTII**

**MUUMMEE SAAYINSII ISPOORTII**

**TARREE SAKATTA’IINSA ILAALCHAA**

| <b>Lakk.</b> | <b>Leenjisaan</b>                                                       | <b>Eeyyee</b> | <b>Lakki</b> |
|--------------|-------------------------------------------------------------------------|---------------|--------------|
| <b>1</b>     | Leenjiidhaaf xiyyeeffannoo kenna                                        |               |              |
| <b>2</b>     | Akka gaariitti qophaa'ee dhufaa                                         |               |              |
| <b>3</b>     | Aggaammii qaba                                                          |               |              |
| <b>4</b>     | Leenjii darbuu                                                          |               |              |
| <b>5</b>     | Taphattoota kaka'umsa qaban                                             |               |              |
| <b>6</b>     | Taphattoota hunda walqixa ilaali                                        |               |              |
| <b>7</b>     | Yeroo isaa sirnaan itti fayyadama                                       |               |              |
| <b>8</b>     | Haala meeshaalee ispoortii                                              |               |              |
| <b>9</b>     | Haala dirree taphaatti                                                  |               |              |
| <b>10</b>    | Meeshaalee deeggarsaa lcd, viidiyoo fi kkf.                             |               |              |
| <b>11</b>    | Kaayyoo adda addaa                                                      |               |              |
| <b>12</b>    | Leenjisaan meeshaalee hunda fayyadama                                   |               |              |
| <b>13</b>    | Meeshaalee yaalaa's                                                     |               |              |
| <b>14</b>    | Reeshiyoo kubbaa leenjii                                                |               |              |
| <b>15</b>    | Shaakala walsimsiisaa umurii taphattootaa wajjin                        |               |              |
| <b>16</b>    | Shaakala ogummaa taphattootaa waliin walsimsiisuu                       |               |              |
| <b>17</b>    | Kaayyoo leenjii ibsi                                                    |               |              |
| <b>18</b>    | Leenjiin kan jalqabu qaama isaanii ho'ifachuufi yeroo xumuraa qabaneesu |               |              |
| <b>19</b>    | Leenjii qabatamaa agarsiisi                                             |               |              |
| <b>20</b>    | Shaakala leenjii adda addaa fayyadamuu                                  |               |              |
| <b>21</b>    | Leenjii bashannansiisaa leenjisuu                                       |               |              |