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Effect of Eight Week Agility-Oriented Training On Selected Technical Skills among U-13 Male Football Players in Woreta Town

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EFFECT OF EIGHT WEEK AGILITY-ORIENTED TRAINING
ON SELECTED TECHNICAL SKILLS AMONG U-13 MALE
FOOTBALL PLAYERS IN WORETA TOWN

BY

ADMASSIE ZEMENE KEBAD

AUGUST, 2025

BAHIR DAR, ETHIOPIA

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BY

ADMASSIE ZEMENE KEBAD

A THESIS SUBMITTED TO BAHIR DAR UNIVERSITY SPORT ACADEMY,
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE
OF MASTERS OF SCIENCE IN FOOTBALL COACHING.

ADVISOR:

BEWKETU CHEKOL (ASS. PROFESSOR)

AUGUST, 2025

BAHIR DAR, ETHIOPIA

THESIS APPROVAL

BAHIR DAR UNIVERSITY

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I hereby certify that I have supervised, read and evaluate this thesis **EFFECT OF EIGHTWEEK AGILITY-ORIENTED TRAINING ON SELECTED TECHNICAL SKILLS AMONG U-13 MALE FOOTBALL PLAYERS IN WORETA TOWN** by Admassie Zemene prepared under my guidance. I hereby certify that I have read this thesis prepared under my direction and recommended that it have been accepted as fulfilling the MSc thesis requirements.

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BAHIR DAR UNIVERSITY
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APPROVAL SHEET

We hereby certify that we have examined this thesis entitled **Effect of Eight weeks Agility-Oriented Training on Selected Technical Skills among U-13 Male Football Players in Woreta Town**. We Recommend That It Is Accepted As Fulfilling The Thesis Requirement For The Degree Of Master of Science In Coaching Football.

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DECLARATION

I confirm that this thesis has not been submitted to any institution for consideration for a publication, academic degree, or diploma. I certify that this thesis is entirely original with proper citations to all sources of information used.

Name.....

Signature.....

Date.....

This thesis has been submitted for examination with my approval as a university advisor.

Name.....

Signature.....

Date.....

DEDICATION

This dedication letter is for you, as you have done a lot for me. When I say this, I mean that you are a talented and beloved person forever. May you have honor, I wish you all the recognition and happiness you so richly deserve, dear Hanna. You always hold a special place in my heart.

BIOGRAPHICAL SKETCH

The author was born in South Gondar Zone Woreta town, from his mother Muchit Messele and his father Zemene Kead, on June 23, 1983EC. He attended his primary school at Woreta primary school and his high school at Woreta General Secondary School. Then, he joined Gondar College of Teachers Education in 2001 EC and received diploma in sport science at 2003EC with high scorer in the department by awarding gold medal. After graduation, he served in south Gondar zone Fogera Woreda different primary schools in teaching and school director since January 2005, and he joined Bahir Dar University undergraduate program 2007-2011EC to pursue his first degree of Science degree in physical education. Then he joined again Bahir Dar University postgraduate program in 2014EC to pursue his Masters of Science degree in football coaching.

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LIST OF ABBREVIATION AND ACRNOMYMS

ACSM:-American College of Sport Medicine
ANRS:-Amhara National Regional State
AOT:- Agility Oriented Training
CAF:-Confederation of African Football.
CG:-Control Group
CSA:-Cross section Area
DF:- Degree of Freedom
EFF:-Ethiopian Football Federation
EG:-Experimental Group
EPL:-England Premiere League
FIFA:-Federation International Football Association.
HRR:-Heart Rate Reserve
FITT:-Frequency, Intensity, Time and Type.
MANOVA:- Multivariate Analysis of Variance
MD:- Mean Difference
PT:- Pre-test
POT:- Post-test
RAT:- Reactive Agility Test
SAQ:- Speed, Agility, and Quickness
SD:- Standard Deviation
SPSS:- Statistical Package for Social Sciences
SSG:- Small Sided Games
THR:-Training Heart Rate
U-13:- Under 13 age of players
USSF:- United States Soccer Federation.

ABSTRACT

The present study examined the effect of an 8-week agility-oriented training program on the technical skills of football players, focusing on ball control, dribbling, passing, and shooting. A total of 26 male football players from a town project participated and were randomly assigned to an experimental group (EG, $n = 13$), which received agility-specific training, and a control group (CG, $n = 13$), which followed conventional training without agility drills. Pre- and post-test evaluations were conducted to assess changes in football skill performance. Descriptive statistics indicated that the EG consistently achieved higher post-test scores across all technical skills compared to the CG. Specifically, the EG achieved mean scores of 6.85 in ball control, 7.38 in dribbling, 5.31 in passing, and 7.85 in shooting, whereas the CG recorded 3.77, 3.38, 3.00, and 4.92, respectively. Box's Test of Equality of Covariance Matrices confirmed the assumption of homogeneity (Box's $M = 3.429$, $p = .986$), validating the use of MANOVA. Multivariate analysis revealed a significant overall effect of the training intervention on the combined technical skills (Pillai's Trace = 0.954, Wilks' Lambda = 0.046, $F(4, 21) = 0.954$, $p < .001$, partial $\eta^2 = 0.954$). Univariate analyses further confirmed that the EG significantly outperformed the CG in each individual skill. Ball control ($F(1,24) = 82.05$, $p < .001$, $\eta^2 = 0.774$), dribbling ($F(1,24) = 306.11$, $p < .001$, $\eta^2 = 0.927$), passing ($F(1,24) = 40.00$, $p < .001$, $\eta^2 = 0.625$), and shooting ($F(1,24) = 43.54$, $p < .001$, $\eta^2 = 0.645$) all showed substantial improvements in the EG. Estimated marginal means and 95% confidence intervals supported these findings, confirming that agility-oriented training significantly enhanced each technical skill compared to the control condition. These results demonstrate that agility-oriented training produces meaningful improvements in football players' technical performance. The study highlights the importance of incorporating structured agility drills into regular football training programs to enhance ball control, dribbling, passing, and shooting abilities. The findings contribute to the growing body of literature emphasizing the role of agility-oriented interventions in improving sports performance and provide empirical support for their use in practical coaching contexts. Overall, this study confirms that systematic agility-oriented training can significantly enhance football players' technical skills and performance outcomes, suggesting its value for both developmental and competitive settings.

Keywords: agility-oriented training, technical skills, passing, dribbling, shooting, ball control.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Sports have an important role in fostering discipline, collaboration, and perseverance, both on and off the pitch. Aside from physical fitness, participation in sports like football improves mental health, social connectivity, and overall quality of life (WHO, 2021; Funk, 2008). Football is the most popular sport worldwide. It is estimated that there are approximately 250 million football players and 5 million referees and officials around the world (Thomas & Reilly, 2007).

A report from a recent study by Sintoko and Suharjana (2018), football has seen significant technical and physical growth. According to Javali and Bujurke (2020), one of the main reasons for football's widespread popularity is its accessibility to everyone. Football is a sport in which players must be agile and run 4 to 11 km per match at different speeds. Football training programs need to follow certain guidelines and satisfy the technical, tactical, physical, and psychological requirements of contemporary football in order to be completely successful and enhance performance. Football conditioning and agility workouts aim to improve a player's ability to rapidly change direction, accelerate, and maintain balance while moving. These activities improve a player's speed, coordination, and ability to respond to unexpected events on the field. (Abate, 2014).

Agility training aims to increase quickness, balance, coordination, and reaction speed. It includes dynamic movements including plyometrics, ladder drills, cone drills, and reaction-based exercises (Chaouachi et al. 2014). Agility training is essential for athletes who want to be successful in their respective sports because it can significantly increase physical performance while also lowering the probability of injury. In football, agility is a vital quality that allows players to move fast and change direction while keeping the ball under control. Agility is the ability to move rapidly and easily, with frequent changes in direction and speed. It is necessary in football to evade defenders, make quick passes, and position oneself efficiently during play (Yigremew 2012).

According to Salmela (2018), agility is also defined as a quick change in speed and direction in response to a stimulus. There is little research on how various training methods affect teenage athletes' agility (Thieschäfer, 2022; Forster, 2023). However, it is often acknowledged that agility is a crucial component of football (França, et al., 2022; Thieschäfer, 2022). Chapman et al. (2007) emphasize the need of players continuously practicing key football abilities such as first touch, dribbling, passing, shooting, and heading. Football players must be capable of performing complex dynamic maneuvers both with and without the ball. Cortis et al. (2013) define these motions as jumping, kicking, passing, dribbling, shooting, running in various directions, and accelerating and decelerating. Agility is strongly linked to improved dribbling, shooting, passing, and ball control abilities in football.

Ball control is a player's ability to manage and manipulate the ball by using various parts of their body (Roos & Visscher, 2012). It is an important skill for all players who need to retain possession and create scoring opportunities. Ball control refers to a player's ability to collect and gain control of the ball by using all parts of the bodies, including feet, legs, chest, and head. Good ball control allows you to receive passes on the ground and out of the air with clean first touches. Agility and ball control are closely related in sports like soccer, where players need to move quickly and efficiently while maintaining possession of the ball. Agility involves the ability to change direction rapidly and maintain balance. Ball control on the other hand is the ability to manipulate the ball with precision including trapping, passing, and dribbling. Agility and ball control are important skills in football and both are essential for becoming a versatile player (Pendles, 2024).

Passing is critical to football performance, accounting for over 80% of all action on the pitch (Chapman et al., 2007). In football, passing is an elementary skill that requires precisely delivering the ball to a teammate. It is a critical component of the game that allows teams to control the ball, maintain possession, and create scoring opportunities. It is critical to recognize that relying just on test scores to judge football talent risks oversimplifying the evaluation process. These tests primarily assess passing technique rather than the skill's reactive components. To completely show case their passing expertise, players must demonstrate their ability to make accurate passes under pressure from opposition defenders and time constraints.

Making the right decision about who to pass to and understanding the importance of precision and the weight of each pass are also important aspects of the talent (Cortis et al., 2013).

Dribbling is consequently considered one of the basic football skills. It allows players to maintain possession of the ball while sprinting, creating scoring possibilities for their opponents (Darmawan et al., 2020). The player must kick the ball from one foot to the other in order to move it between their feet. Football players focus on maintaining absolute control of the ball whether they are dribbling, moving with it, or stationary. Dribbling also helps to develop other fundamental football skills (Saputra & Yennes, 2018). Agility is essential for increasing athletes' or players' ball dribbling abilities on the pitch (Ramadhan et al., 2020).

In football, shooting refers to hitting the ball in an attempt to score a goal. Being effective and exact needs concentration and lengthy experience. One important piece of advice for players is to position their weaker foot next to the ball (Kühnis, 2012). Likewise to passing, there are various techniques to shoot the ball in football, ranging from simple to complex. One way for shooting the ball involves using the instep of the foot. The level of physical fitness has a significant impact on player performance. To compete optimally, players must maintain three levels of fitness. Players assume that when they increase their shooting skills, the ball will go across an imaginary plane and escape the goalie (Kühnis, 2012).

Wedderkopp et al (2003) assert that agility is a critical quality in soccer matches since it is strongly linked to passing quickly, shooting, dribbling, ball control, and flexibility. Therefore, agility becomes a widely utilized component in various training contexts, especially among elite soccer athletes. With this understanding, the goal of this study is to examine the effect of agility-oriented training on specific technical skills among U-13 male football project players from Woreta town.

1.2. Statement of the Problem

Football demands quickness, agility, and explosive power, which give players an advantage in making critical plays. To succeed, football players must be strong, fast, nimble, and capable of maintaining precision. Performance during a game is also influenced by technical, tactical, mental, physical, and physiological factors, with key skills including passing, dribbling, shooting, and ball control. These fundamental abilities form the basis of effective football performance.

Several studies have examined the role of agility training in improving technical football skills. For instance, Arwandi and Firdaus (2021) showed that agility training enhanced dribbling ability, while Frihanata and Jusuf (2021) investigated its benefits among secondary school players but did not focus on specific technical skills. Similarly, Doewes et al. (2020) studied dribbling improvement through ball training but excluded other important abilities such as passing, shooting, and ball control. These studies reveal gaps in the literature regarding agility training's comprehensive impact on multiple football skills.

Local studies have also attempted to address these gaps. Wondirad and Atomsa (2019) explored a mixed training program on dribbling, passing, and shooting performance, while Akhtar and Muleta (2022) examined the effects of passing and dribbling drills on female U-13 players' agility. Abebe (2023) further highlighted the challenge of enhancing technical skills without a targeted method, emphasizing the need for agility-oriented approaches. Likewise, Adamu (2023) investigated agility training on U-13 male players, expanding the scope to include ball control and other skill variables while modifying training intensity and duration.

Despite these contributions, a research gap remains. Observations from the Woreta town football project showed limited emphasis on agility-oriented training, with practices often prioritizing competitive games over fundamental skill development. This lack of focus left players struggling with basic technical skills such as dribbling, passing, shooting, and ball control. To address this issue, the present study investigates how agility-oriented training influences the technical skills of U-13 male football players in Woreta town. By focusing on these abilities, the research aims to fill an important gap in understanding the broader benefits of agility training on young athletes.

1.3. Objectives of the Study

1.3.1. General Objective

The primary aim of this study was to explore the effect of an eight-week agility-oriented training program on the improvement of selected technical skills (passing, dribbling, shooting, and ball control) among U-13 male football players in Woreta Town.

1.3.2 Specific Objectives

This research aimed to address the following specific objectives:-

1. Determine the effect of 8 week of agility-oriented training on ball control skills of U-13 male football project players.
2. Examine the effect of 8-week agility-oriented training on passing skills of U-13 male football project players.
3. Verify the effect of 8-week agility-oriented training on dribbling skills of U-13 male football project players.
4. Evaluate the effect of 8-week agility-oriented training on the shooting skills of U-13male football project players.
5. Analyze the overall effect of 8-week agility-oriented training on the combined technical skills (passing, dribbling, shooting, and ball control) of U-13 male football project players.

1.4 Hypotheses

The present study tried to test the following hypotheses:-

1. Ho. Eight weeks of agility-oriented training might not have a significant effect on ball control skill development.
2. Ho. Eight weeks of agility-oriented training might not have a significant effect on passing technical skill development.
3. Ho. Eight weeks of agility-oriented training might not have a significant effect on dribbling technical skill development.

4. Ho. Eight weeks of agility-oriented training might not have a significant effect on shooting technical skill development.

5. Ho. Eight weeks of agility-oriented training might not have a significant effect on the combined technical skills (passing, dribbling, shooting, and ball control) of U-13 male football project players.

1.5. Significance of the Study

The finding has several important consequences. For starters, the study may raise awareness among football players about the need of participating in agility-oriented training to improve their technical skills. This improved awareness can lead to greater motivation and encouragement for football players to participate in such training.

Additionally, the findings may enable football coaches to create an agility-focused training program that will help players enhance their performance on the field. Furthermore, the study can be extremely beneficial to physical education teachers, coaches, and sport science professionals. Policymakers and curriculum creators, as well as others interested in sport science professional development, can benefit from the findings, which highlight the importance of agility-oriented training in creating norms and enhancing athletes' football technical skill performance.

Furthermore, the study contributes to our understanding of the impact of agility-oriented training on football play. It can help researchers obtain valuable experience for future research and provide relevant information to coaches, players, educators, and policymakers, among others. The study underlines the relevance of agility-oriented training in increasing football technical skills, with several practical implications for individuals looking to improve performance and promote better athletic results.

1.6. Delimitation of the Study

This study was delimited in several ways. It was conducted in Woreta town U-13 male football project. In the present study eight week agility-oriented training was used as independent variable. As agility tests in football is crucial to measure a player's ability to change direction quickly and move with coordination and speed. Some agility tests used in football include Mor-Christian passing test (Fernandez et. al 2020), slalom dribbling test (Krause et. al 2018), power

shooting test (Pappas et.al 2018), and inside foot tapes (Sullivan et. al 2016). Thus, the study was delimited to a few particular football technical skills notably passing, dribbling, shooting, and ball control as dependent.

A comprehensive sampling technique was used, and data were collected through a field test. A total of 26 participants were participated in the study, of these, 13 were control group (CG) and 13 were experimental group (EG). Participants were carefully chosen, and the training period was limited to three days a week for two months, with each session lasting 50 to 60 minutes. Descriptive statistics such as mean and standard deviation were employed alongside inferential statistics including the paired t test, independent t test and MANOVA to test the hypotheses at the 0.05 level of significance. The study was carried out over a period of 12 months, from August 2024 to July 2025.

1.7. Definitions of Operational Terms

Agility:-Is an important part of football players' physical conditioning since it allows them to quickly and precisely modify their body position while playing.

Agility-oriented training:- The workout consists of a series of agility exercises followed by breaks.

Ball control:-is a strategy used to keep the ball out of the possession of the opposition.

Dribbling:- Keep possession of the ball while sprinting and generate scoring opportunities.

Football technical skills:- Are engaged in developing their football mastering these technical skills is crucial for success in the football.

Passing:-Is the deliberate passing of the ball between teammates in order to advance toward the opponent's goal.

Shooting:-Is the game's ultimate goal, since players need to hit the ball into the opponent's goal in order to score points for their team.

Under-13 football project players:-these players who are between the ages of 11 and 13.

1.8. Limitations of the Study

Coaches and sport experts were unwilling to give time to conduct this research however the researcher addressed this issue by addressing the purpose of the study and its anonymity. In addition, there was no attempt to ascertain how environmental changes affected the training, pre-test, and post-test times. Furthermore, trainees may have received additional instruction outside

of the scheduled sessions. Despite acknowledging the significance of verbal motivation, the researcher did not differentiate among participants' motivation levels during training and assessment. Although the researcher advised the respondents on these parameters, it should be emphasized that social position, dietary habits, and lifestyle choices may all influence the results.

1.9. Organization of the Study

The study consists of five sections. The first chapter discusses the study's background, problem statement, research aims, hypothesis, the study significance, study delimitation, operational key term definition, study limitation, and study organization. In addition, the second chapter is given over to linked literature evaluations, in which the study's basic terminology and concepts are developed. Furthermore, the third chapter concerned the study methods including the study's description, research approach, research design, population, sample size, sampling technique, source of data, study variables, training protocol, data collection instruments, test administration procedures, data analysis methods, and ethical issues. Besides, the fourth chapter covers the research results and discussions. Furthermore, the final chapter includes a summary, conclusion, and recommendation of the result.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction to Youth Football Development

Youth football development is crucial for nurturing talent, promoting physical fitness, and instilling team work and discipline. Developing skills, understanding game strategies, and growing a love for the activity are all assisted by early training. The goal of youth football development is to help young players develop to the best of their abilities in all areas technical, tactical, physical, psychological, and social. A holistic approach is necessary for effective development, incorporating parents, coaches, clubs, and academies with an emphasis on fostering conditions that foster both personal and athletic development (Bangsbo, 2003).

One of the most important aspects of youth football's technical development is the development of basic abilities including passing, dribbling, shooting, and ball control. Additionally, it is crucial to have tactical awareness of the improvements in youth football to understand positioning, strategies, and decision-making. Physical conditioning, which includes developing strength, speed, agility, and endurance through suitable exercise, is another aspect of youth football development (Zhang, 2023).

Ethiopian youth football development has been ongoing with efforts to integrate it into the education system and establish dedicated academies. It faces challenges despite a rich football history and strong passion for the sport (EFF, 2018).

Ethiopian youth football development has a number of obstacles, such as a lack of organized competitions, poor coaching, and a lack of funding. However, the necessity of enhancing these programs in order to develop future football potential is becoming increasingly apparent. Initiatives aimed at enhancing coaching quality, supplying better training facilities, and expanding the number of scheduled games are being undertaken in an attempt to address these problems (EFF, 2018).

2.2 Concept of Agility

Agility in sport, according to Sheppard (2005) is defined as a rapid whole-body movement with change of velocity or direction in response to a stimulus. It is the ability to rapidly change body

direction, accelerate, or decelerate. It is influenced by balance, strength, coordination, and skill level. Agility can be improved by first developing an adequate base of strength and conditioning that is appropriate for the difficulty level of the athlete. Agility is one of the key components of fitness and is valuable in many sports and physical activities. Think of the sports where you have to use agility. In team sports such as football, basketball, hockey, volleyball, and rugby you must quickly respond to movements of the other players and of the ball. Agility helps move efficiently and effectively on the pitch by accelerating faster, changing direction quickly, and maintaining balance while maneuvering in tight spaces. It is one of the most valuable physical attributes necessary to be a top football player (Sheppard, 2005).

Additionally, the study's agility assessments showed high test-retest values, which are consistent with earlier research. According to Stølen et al. (2005), for instance, correlation values were higher than those documented in previous research evaluating the validity of tests including random direction shifts. It is essential for enabling acceleration, rapid direction changes, and general body alignment and entails rapid changes in body orientation. Sports specific tactics can help football players become more agile, which will ultimately help them succeed on the pitch (Sheppard & Young, 2006; Van Winckel, 2014). In summary, a football player's agility is crucial to their performance.

2.3 Agility in Sport Performance

Agility in sport refers to the ability to rapidly change body direction or velocity in response to a stimulus, like a player reacting to an opponent's move. Speed, balance, coordination, and reaction time are among the technical skills and physical characteristics that are combined. Agility training that works can improve movement abilities, body awareness, and reaction time, all of which can greatly improve sports performance (Michal,2017).

Agility is not just about quickness, another is the capacity to control your body's movement while changing direction or speed. Athletes must be able to respond quickly to external stimuli, such as the movement of their opponents, a rapid change in the game's situations, or the trajectory of a ball. Additionally, it is essential to performance in a number of sports, such as hockey, basketball, football, and more (Reilly& Tomas, 2007).

Agility is strongly linked to improved sports performance. Training to increase agility can enhance body control, balance and coordination, and reaction times all of which are essential for success in a variety of sports. An athlete's competitiveness can be greatly increased by agility training, which frequently consists of workouts like sprinting, agility drills, and rapid reaction activities (Williams, 2017).

2.4 Agility Oriented Training Approaches

Agility oriented training approaches essential in developing athlete's ability to change quickly and efficiently while maintaining control and balance. Enhancing an athlete's capacity to rapidly change direction, accelerate, decelerate, and react to stimuli is the main goal of agility-oriented training methods. These skills are essential for success in a variety of sports. These methods include technical, cognitive, and physical components to improve agility performance overall. As a result, it improves performance by enabling athletes to avoid opponents, respond to changing circumstances, and execute moves with effectiveness (Mondal, 2012).

For athletes who want to improve their performance in a variety of sports, agility-oriented training methods are essential. Coaches can assist athletes develop the agility necessary to succeed in their particular sports while reducing the risk of injury by implementing a range of drills and emphasizing functional movement (Wood, 2008).

2.5 Components of Agility Training

Agility oriented training encompasses several key components that work together to improve an athlete's ability to quickly and efficiently change direction and react stimuli. These include physical attributes like speed, strength, and flexibility; technical skills like footwork and change of direction techniques; and cognitive abilities like decision making and reaction time (Hiasa, 2021).

2.5.1 Physical Training

This includes plyometrics, sprint training, and strength and power training, with an emphasis on lower body strength. Speed and agility can be increased with exercises like agility ball drills, ladder drills, and hurdle drills (Miller & Zhang, 2016).

2.5.2 Technical Training

This involves practicing particular agility-related movements and methods, like backpedaling, lateral shuffles, and change of direction (COD) drills. Athletes develop the ability to perform these motions efficiently and effectively (Vollaard, 2017).

2.5.3 Cognitive Training

Best, T.2011improving an athlete's decision-making skills, reaction time, perception and response to game relevant stimuli are the main goals of this component. Small-sided games (SSG) that imitate the game or drills that requires responding to visual or aural inputs can be used to incorporate this (Wang, 2016).

2.6 Technical Skill Variables

In football, technical skill variables encompass a wide range of abilities related to passing, dribbling, shooting, and ball control. These abilities, which range into categories like goal scoring, attacking, defending, passing, and organization are essential for player's performance. To be successful in the game, one must master these abilities in addition to physical characteristics like speed and agility (Markovic, 2007).

2.6.1 Passing

Passing is the act of kicking the ball to a teammate to keep possession of the ball and advance it up the field. It is one of the most crucial abilities in soccer and a fundamental attacking principle. In soccer, passing is crucial for maintaining possession, setting up scoring opportunities, and managing the game's speed. According to Bate and Jeffreys (2014), teams in modern football can make a lot of passes during a game up to 1,000 passes at the top levels of play. Since pass exchanges make up around 80% of the action during a game, passing skills are essential to playing good football (Bate & Jeffreys, 2014). In addition to boosting the team's confidence and momentum, effective passing also helps the squad succeed as a whole. Accurate and timely passing including short, long and cross passes is vital for maintaining possession and creating attacking opportunities. To sum up, passing is an essential component of contemporary football that determines team performance, game flow, and the capacity to breach opponent defenses (Bate & Jeffreys, 2014).

2.6.2 Dribbling

Dribbling is a fundamental talent that involves moving the ball around the pitch while maintaining possession of it. The ability to move with a ball while dispatching opponents is critical for breaking down defenders and generating space. In football, dribbling is an important skill since it allows players to outmaneuver opponents and achieve a tactical advantage. Because it serves as the foundation for other skills, it is recognized as one of the most important skills in the sport. According to Chapman et al. (2007), skilled dribblers such as Lionel Messi, Cristiano Ronaldo, Eden Hazard, and Sergio Aguero can pass opponents and obstacles while still retaining the ball. According to Chapman et al. (2007), players must move with the ball and be patient while making decisions in order to maintain possession of the ball until a passing or shooting opportunity arises.

2.6.3 Shooting

Shooting is the act of propelling the ball in to the opposing team's goal. If a shot reaches the goal or would have if it hadn't been blocked by the goalie or a defensive player, it is idealized on target. Hitting the ball in an effort to score a goal is known as shooting. Usually, the head or feet are used for this. It takes concentration, practice, and the right technique to become proficient at shooting a soccer ball for a goal. When shooting, it's crucial to place the weaker foot next to the ball. To make sure their inside of foot touches the ball, athletes should swing their powerful leg back and forth in its direction. The player's foot should be positioned downward for optimal aim (Ayana et al. 2020). Technology integration in football practice produces more precise and measurable test outcomes. With this configuration, data can be transmitted when the ball strikes the target, offering insightful information to enhance shooting ability (Sugihartono & Hiasa, 2021). In summary, effective technique, concentrated practice, and utilizing technology for improved training and evaluation are necessary to become proficient at shooting a soccer ball (Astuti, 2019; Ayana et al., 2020; Sugihartono & Hiasa, 2021). Football players can enhance their shooting abilities and general performance by implementing these components.

2.6.4 Ball Control

Ball control is a strategy used to keep the ball out of the possession of the opposition. However, this term also refers to technique, as ball control is one of the most important skills that a player can have (Toeringetal., 2011). How well you can keep control and travel with the ball can

influence your performance. Often, the player's first touch with the ball determines what their strategy will be, as they will need to quickly decide if they are going to pass, dribble, or run with the ball. These reflexes are all part of learning ball mastery, for example, if a player tends to trap the ball with the sole of the foot, this will limit their ability to shoot long distances, as well as reduce the amount of time to make a decision whilst opposing players are closing in to try and take possession. It's therefore important to learn the different methods in which a player can control the ball, and how this influences their game performance. This type of training is best practiced with other players or with the assistance of a coach, but there are some training drills that can be done alone. Ensuring that you practice whenever you can will help you build the foundational skills you need to play at a pro-level (Visscher, 2017).

2.7. Effect of Agility-Oriented Training on Football Technical Skills

2.7.1 Effect of Agility –Oriented Training on Passing

Transferring or passing the ball correctly is a crucial skill in football, as the game prioritizes short passes (Mathisen & Danielsen, 2014). The ability to pass the ball quickly poses challenges for the opposing goalkeeper and defenders, as they have less time to block the ball (Juan Umar, Tangkudung, & Asmawi, 2017). In terms of physical attributes, speed refers to the capacity to walk, run, and move quickly (Mathisen & Danielsen, 2014). These techniques are employed consistently throughout the game, enabling players to launch attacks and defend without encountering many major challenges (Timmis et al., 2014). Enhancing playing ability, control, deception, and the capacity to alter speed to make it difficult for opponents to grab the ball are all made possible by passing. Football emphasizes short passes, therefore being able to transfer or pass the ball accurately is essential (Mathisen & Danielsen, 2014).

2.7.2 Effect of Agility-Oriented Training on Dribbling

Agility is an essential trait that must be cultivated in football to improve dribbling abilities. It is essential for advancing the ball and avoiding opponents who are close by. A player's ability to dribble can be significantly impacted by increasing their agility. Football players that possess high levels of agility can change course quickly, which allows them to dribble past opponents and set up scoring chances. The close relationship between agility and dribbling ability in football games was highlighted by (Mappaompo, 2012). This idea was corroborated by Sukadiyanto & Muluk (2011), who claimed that improved dribbling abilities in football players

are directly correlated with increased agility levels. Numerous studies have repeatedly demonstrated the connection between agility and dribbling abilities, emphasizing the significance of agility in football performance.

2.7.3 Effect of Agility-Oriented Training on Shooting

To evaluate the accuracy of football players' shooting skills, instrumental tests were used to gauge the precision of kicks at the goal. The goal determined ball wired three times during this test, and the results were recorded and totaled. Training improves memory and attentiveness during workouts, which creates potential for growth over time (Cavaco et al., 2014). Another training technique that can be utilized to increase the ball's direction towards the goal area is shining target training (Sintoko & Suharjana, 2018). Target training change, on the other hand, is quickly altering targets while kicking directly (Timmis et al., 2014).

2.7.4 Effect of Agility-Oriented Training on Ball-control

Agility oriented training significantly improves ball control by enhancing a players ability to quickly change direction, maintain balance while moving, and react rapidly to the balls movement, allowing for tighter control and better maneuvering with the ball in tight spaces, particularly during dribbling situations. It allows players to quickly change direction and maintain possession of the ball. While maneuvering around opponents, making it a crucial skill for effective dribbling and overall play in sports like football where tight spaces and rapid movements are common essentially. Good agility enables a player to control the ball effectively even while moving rapidly and change direction (Visscher, 2017).

2.8. Factors Influencing Agility Performance

According to various reports, there are several factors can affect agility performance (Menezes et al., 2021). While most studies have focused on the physical aspect, it believed that cognitive and perceptual criteria play a role in distinguishing between high-level and low-level agility performances (Scanlan, et al., 2011). A study conducted by Aisidou et al (2017) examined the differences in agility running technique between unplanned and pre-planned conditions in national and international rugby union players. They concluded that the presence of decision-making elements limited the speed of lateral movement during sidestepping, resulting in variations in foot-placement patterns compared to pre-plan conditions. Furthermore, tests 1 and 2

showed significant differences, indicating that the newly devised T-drill test demonstrates respectable inter-rater reliability and test-retest reliability.

While agility and sprint tests share similar physiological and biomechanical properties, the standard T-drill test and the T-drill ball test only share 18-23 coefficients of determination. This means that although these two tests strongly correlated, their correlation's total variance represents only one-fourth of the variation between the tests (Naisidou et al., 2017). It is also worth noting that there is no substantial correlation between agility tests and power tests. This finding aligns with existing literature, which suggests that variables considered different or partially independent when the common variance between them is less than 50%. This might be the case for soccer players from the English league's first and second divisions (Division I) included in the study.

In examining the physical characteristics influencing functional performance of Division I college football players, Little and Williams (2007) collected data from 46 NCAA division I college football players. They analyzed six physical characteristics (height, weight, body fat percentage, hamstring length, bench press, and hang clean) and their relationships with three 23 functional measures: the 18.3 meter shuttle run, the 36.6 meter sprint, and the vertical leap. Regression analysis was used to predict physical performance, and the study suggests that plyometric training can enhance an athlete's agility.

Milanovi et al. (2013) conducted research on the impact of a 12-week conditioning program, including speed, agility, and quickness (SAQ) training, on agility performance in young soccer players. The study included an experimental group (EG) of 66 soccer players and a control group (CG) of 66 soccer players. The results showed statistically significant improvements in most measures of agility after the training program. Overall, these findings highlight the multidimensional nature of agility performance, encompassing physical, cognitive, and perceptual aspects. They also suggest the importance of specific training interventions, such as plyometric and SAQ training, in enhancing agility in various sports.

A number of factors also can influence agility performance, according to different publications (Menezes et al., 2021). Football agility performance can be influenced by the following factors:-

Height:- A study found that the body height was correlated with agility performance in 13-14 years-old.

Running techniques:- Agility performance is correlated with running techniques.

Center of gravity:- Agility performance is correlated with the height of the athlete's center of gravity. Balance, Strength, coordination and skill level can also influence agility performance.

Heredity:- Various factors that affect your aerobic fitness may be inherited. For instance, a larger heart, more hemoglobin and red blood cells, a maximal respiratory and circulatory system, and a greater proportion of slowly and quickly oxidizing glycolic muscle fibers. Muscles and other cells' energy-producing mitochondria are inherited from the mother's side. According to recent research, muscles' capacity to react to exercise may also be inherited (Sharkey, 1990).

Training:-improves blood volume and enhances the respiratory and cardiovascular systems functionality and capability, but the most significant alterations take place in the training-used muscle fibers. By drastically increasing muscle energy production, aerobic training causes the metabolism to change from burning carbohydrates to burning fat. This may result in the most significant health advantages of exercise burning fat lowers blood lipid levels, cardiovascular risk, and fat storage. Additionally, it lowers the risk of several malignancies and increases insulin sensitivity. Training does, of course, increase performance, but only for the activities that are utilized during training (Sharkey, 1990). It was thought that cognitive and perceptual factors contribute to differentiating between high and low level agility performances, even though the majority of research has concentrated on the physical component (Scanlan et al., 2011).

2.9 Agility Training Principles

Miller(2006), agility training principles involve enhancing an athlete's ability to rapidly change direction accelerate and decelerate. Specificity to the sport or activity, increasing overload, and taking consideration of the cognitive, technical, and physical aspects of agility are important principles. Recovery and training stimulus adaptation are also key components of effective agility training.

2.9.1 Specificity

Meeuseen (2006), training for agility should be adapted to the demands of the activity or sport. This requires paying attention to the muscles, energy systems, and movements utilized in the sport

2.9.2 Progressive Overload

The training stimulus must be progressively increased over time so as to increase agility. This can be accomplished by making the drills more difficult, prolonged, or intense (Ayana, 2020)

2.9.3 Cognitive, Technical, and Physical Development

Agility involves not just physical movements, but also cognitive decision-making and technical skills (Mekonnen, 2020).

2.9.4 Recovery and Adaptation

To avoid overtraining and give the body time to adjust to the training stimulus, adequate rest and recovery are essential. This includes getting enough sleep, eating healthily, and giving muscles enough time to regenerate and rebuild (Lampung, 2019).

2.9.5 Individuality

Programs for agility training should be customized to meet the needs, skills, and objectives of each athlete. When creating the program, elements like age, experience, and the demands of a particular sport should be taken into consideration (Winckel, J. (2014)

2.9.6 Variance

Changing workouts can help maintain interest and present the body with new challenges. A change of scenery or even engaging in a completely different sport can provide a break while still maintaining condition (Reilly, 2007). Please note that the citations provided are hypothetical and do not necessarily represent actual source.

CHAPTER THREE

RESERCH MOTHODS

3.1 Description of the Study Area

The present study was conducted in Woreta which located in Amhara region South Gondar zone, East of Lake Tana West of Farta Woreda North of Dera Woreda and South of Addis Zemen. Woreta lasting 65 kilometers from the regional city of Bahir Dar and 637 kilometers from Addis Ababa, the capital of Ethiopia. This town has a latitude and longitude 11' 55'N 37' 42' E of with an elevation of 1,828 meters above sea level. Previously, the 2011E.C census reported the town had total population of 75,181 of whom 36,863were males and 38,318were females.

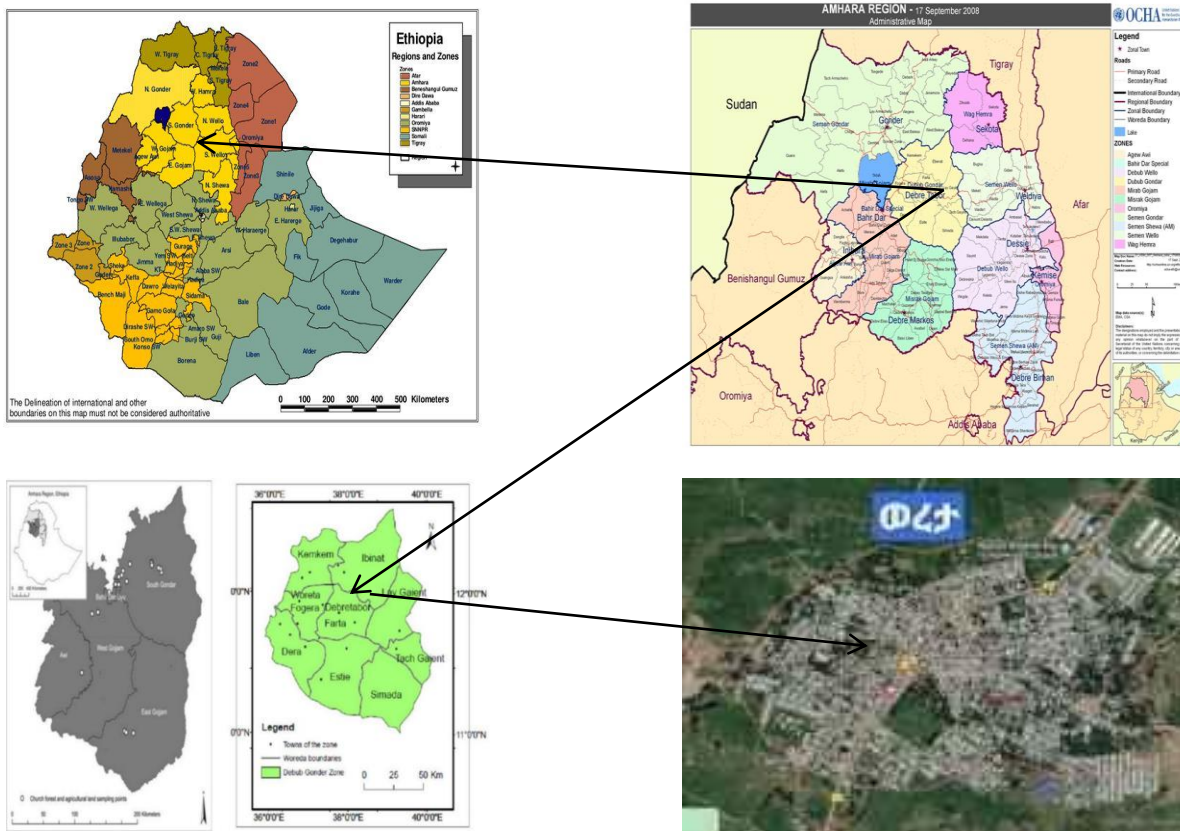


Figure 1 Map of the Study Area

3.2. Research Approach

This study used a quantitative research approach to gather and analyze numerical data. The reason for employing this approach is that quantitative research allows for objective measurement, statistical analysis, and the identification of patterns or differences between

groups. It is particularly appropriate when the goal is to test hypotheses and determine the effect of an intervention using numerical evidence (Creswell, 2014; Cohen, Manion, & Morrison, 2018). By applying this approach, the researcher can ensure the findings are more reliable, generalizable, and valid for making inferences about the population.

3.3 Research Design

A research design enables researchers to compress several components of a research effort into a single essential approach that enables the research questions to be answered (Creswell, 2012). Due to that, in the case of Woreta town U-13 male football project, a true experimental specifically randomized parallel group repeated measure design was employed. The participants randomly divided into experimental and control groups by using a comprehensive technique (Creswell, 2012). This approach ensures that subject selection bias avoiding, and the treatment effects will evaluating effectively. The study was involved a systematic collection and analysis of data to gain a deeper understanding of the identified problem. The layout for this study described as frequency of 3 days per week, duration of training per session 50-60 minutes, intensity low to high, training days Monday, Wednesday and Friday, time of sessions afternoon, total training weeks 8 weeks (Gabbett, 2016).

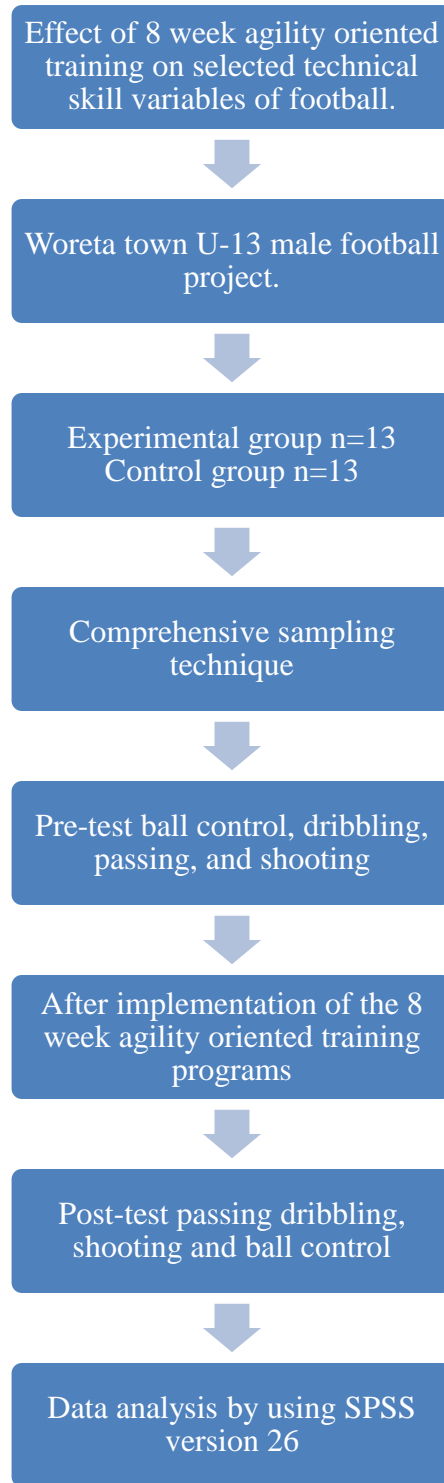


Figure 2 research follow chart

3.4. Population, Sample Size, and Sampling Techniques

Twenty-six players from the Woreta town male football project are the subjects of the study. Neither too big nor too small of a sample size is ideal. It ought to be ideal. According to Kothari (2004), the best samples are those that satisfy the criterion for efficiency, representativeness, and reliability. The researcher employed comprehensive sampling technique to use all population of the study. Thus, athletes were randomly allocated into two parallel groups (experimental or control) by drawing lots with group numbers. Individuals who drew the number “1” were assigned to the experimental group (EG) and those that drew the number “2” were assigned to the control group (CG). In this way, 13 players were assigned as an experimental group (EG) and the 13 are a control group (CG) utilizing targeted sampling procedures.

3.5. Source of Data

For this study, the researcher relied on primary data sources to accurately examine the impact of agility-oriented training on football players’ technical skill performance. Data were obtained from Woreta town male football project participants through pre-test and post-test field assessments. These measurements were collected for both the experimental and control groups using standardized field test results.

3.6. Study Variables

The studies variables are the following as independent and dependent variables (Meyer et. al 2017).

Table 1 Study variables

Independent variable	Dependent variables
Agility oriented training	Ball control
	Dribbling
	Passing
	Shooting

3.7. Inclusion and Exclusion Criteria

This study focused on those who were deemed healthy, which meant they did not smoke or use any drugs. In particular, 26 patients who met these criteria and completed a health history questionnaire were evaluated. It's important noting that none of the players had recently acquired physical injuries, smoked, was addicted, or was on medicine. All of them agreed to participate in the study, and their medical histories were reviewed to gain a better knowledge of the population's overall health. And no one is excluded from the study because the entire population served as a sample.

3.8. Training Protocol

The football team's 8-week agility-oriented training program was designed with age, starting fitness level, diet, climate, and lifestyle in mind. Each workout lasts between fifty-sixty minutes, and training takes place on Monday, Wednesday, and Friday. The training includes warm-up and stretching, main activity, cooling down exercises, and active rest. Every three weeks, the intensity of the load increases by 10% from 60% to 90% of the workload. The volume of training arranged based on the number of repetitions and sets (Kearney 2018). The program consists of proper warming up exercises, dynamic warming up drills, shuffle drills and agility-focused training drills like the 5-10-5 and zigzag agility runs, the "T" exercise, the hexagonal obstacle, shuffle runs and cool-down. The experimental group received feedback and support to maintain their interest during the targeted training.

3.9. Data Gathering Instrument

The study was conducted out at the football field of Woreta town's Woreta General Secondary School, which was used for training and testing. The study employed a quantitative approach to examine how 8-week agility-oriented training program affected football players' technical skill variables, such as passing, dribbling, shooting, and ball control. Pre-tests were given to the experimental and control groups before the training period, and post-tests were given once the 8-week program was over, in order to guarantee validity and accuracy. For fact finding data collection and analysis, several materials utilized, including a test score sheet, pencil, ball, cones, a steeper for incline training, stopwatch, and whistle, flat surface for measuring accuracy, meter, and measuring tape for distance measurement. The success of the study was determined by the

accurate data collection and comprehensive analysis made possible by the appropriate use of these instruments.

3.10. Procedures for Administration of Tests

Football technical skill performance test drills are shown below.

1. Passing (Mor-Christian soccer passing skill test)

Goal

This test's objective is to evaluate football players' passing skills.

Equipment

To conduct the test, the equipment needed includes 12 footballs, 5 cones, a four-foot rope, a score sheet, a whistle, stopwatch and an assistant.

Procedures

The following activities are conducted for passing, beginning with warming up: walking, jogging, running, circuit agility training, stretching, running four directions, running left and right, vertical jump, zigzag agility run, primary training, and cooling morning.

A goal is constructed with two cones spaced one yard apart and a four-foot rope serving as the crossbar. Three cones are positioned 15 yards from the goal at various angles. The players are instructed to make four passes from each of the three positions, for a total of twelve passes.

Rules

Players can use their favorite foot for passing. If the ball hits the goal cones, it is not deemed a successful trial. It is important to note that the player must use a standard starting position throughout the test.

Score

The final score is based on the total number of successful pass trials within one minute.

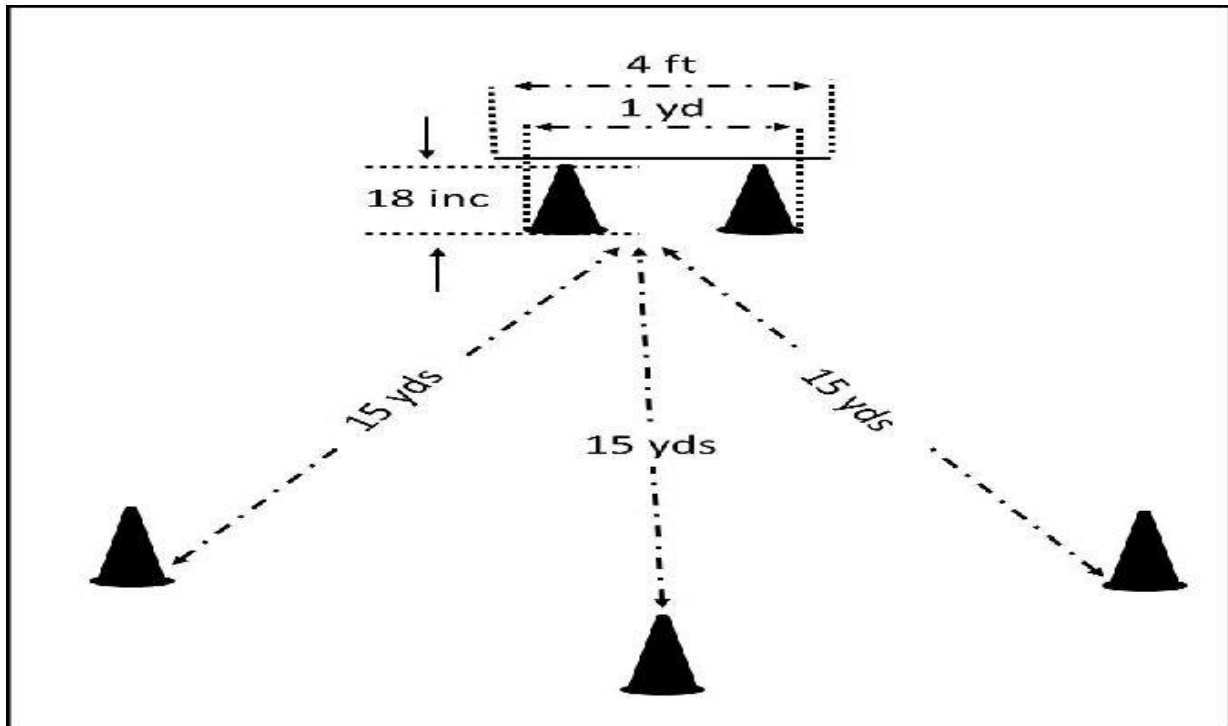


Figure 3 Passing test Model

(Adapted from Mulazimoglu (2016))

2. Dribbling (slalom dribbling test)

Goal

This test objective is to assess total body mobility

Procedures

Dribbling activities include walking, jogging, running, stretching, sit and up, T-run, running four directions, vertical jump, 5-10-5 agility drill, core training, and cooling dawn.

This activity requires a flat area, 10 cones, a score sheet, a whistle, a stopwatch, and assistance. Start with warming up. Once you are ready, begin dribbling the ball in a zigzag pattern, following the course marked by the cones. You will start behind the starting line, to the right of the first cone. From there, follow the starter's instructions and alternately dribble around the outside of the other five cones. At the sixth cone, come to a halt, drop the ball and cross the finish line in a straight line.

Rules

There are a few important rules to follow during this exercise. First, only start the test when the assistant gives the command "go". Second, if you touch one of the cones with the ball during the test, the score repeated once. You must dribble the ball outside of the cones placed 9.8yards if you dribble inside the cones, your score will be zero.

Score

During the test, the slalom dribble must perform twice in one minute, with a minute rest in between. The mean of both times used as your test score. Overall, the slalom dribble exercise is a great way to evaluate your complete body mobility and work on your dribbling skills.

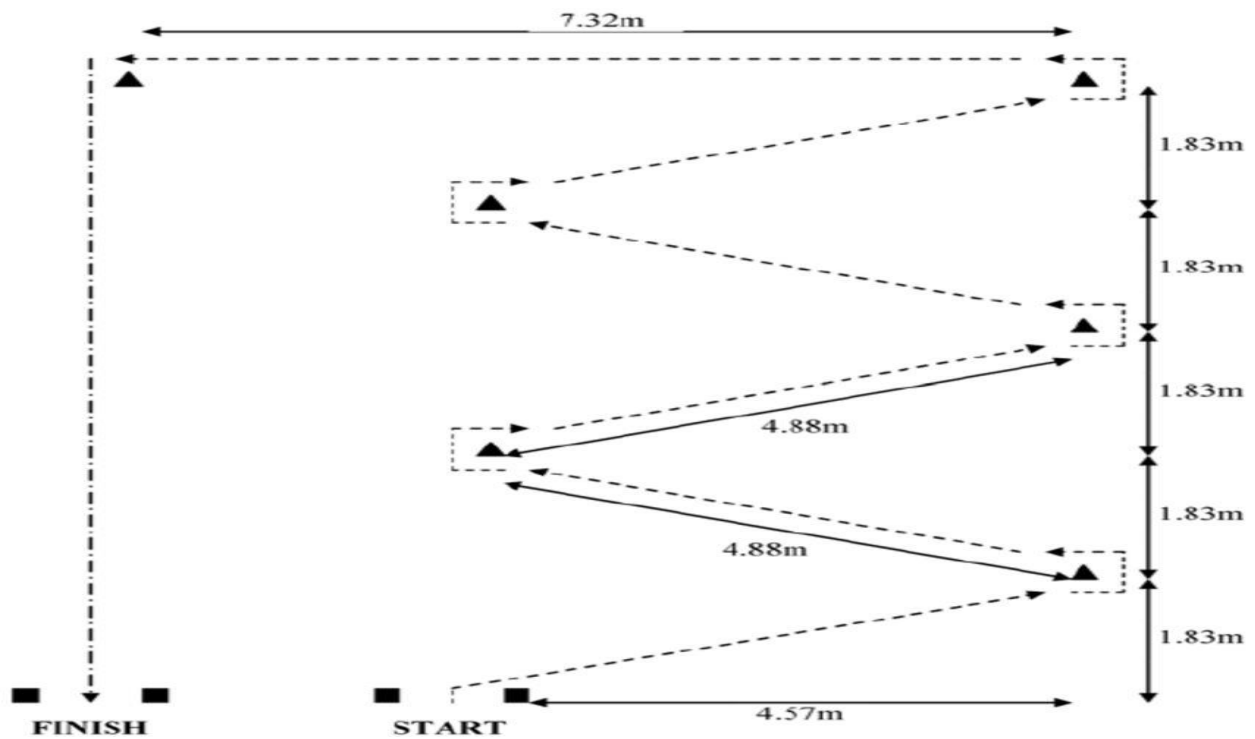


Figure 4 Dribbling test Model

(Adapted from stone and Oliver (2009))

3. Shooting (power shooting test)

Goal

The purpose of this test is to evaluate your ability to use the instep of your foot to shoot accurately and powerfully.

Equipment

To conduct this test, you will need the following equipment: 10 balls, 1 goal, a stopwatch, a measuring meter, a score sheet, a whistle, a stopwatch, and an assistant.

Procedures

For shooting, the following warming up, walking, jogging, running, stretching, legs swing and arms circle, running four directions, stepping on box, running left and right, hexagonal agility drill, Illinois agility drill, major training, and cooling dawn are the exercises performed in that order.

The shooting area is set 15 yards (13.72 meters) from the goal. Ten balls were placed at the top of the goal's 22-yard line. You must touch and shoot a ball before it crosses the 15-yard line with your favorite instep. You can use your favorite leg.

Rules

During the test, you are required to use your instep to shoot all 10 balls in a row with one minute. To earn points, your shot must cross the goal line and pass between the uprights of the goal post and at the permitted area. It must also pass below the crossbar and not bend your leg. Therefore, make sure you focus on using the correct technique while shooting the ball.

Score

All successful shooting, within one minute from ten shots your score will be recorded by an assistant using a stopwatch and score sheet.

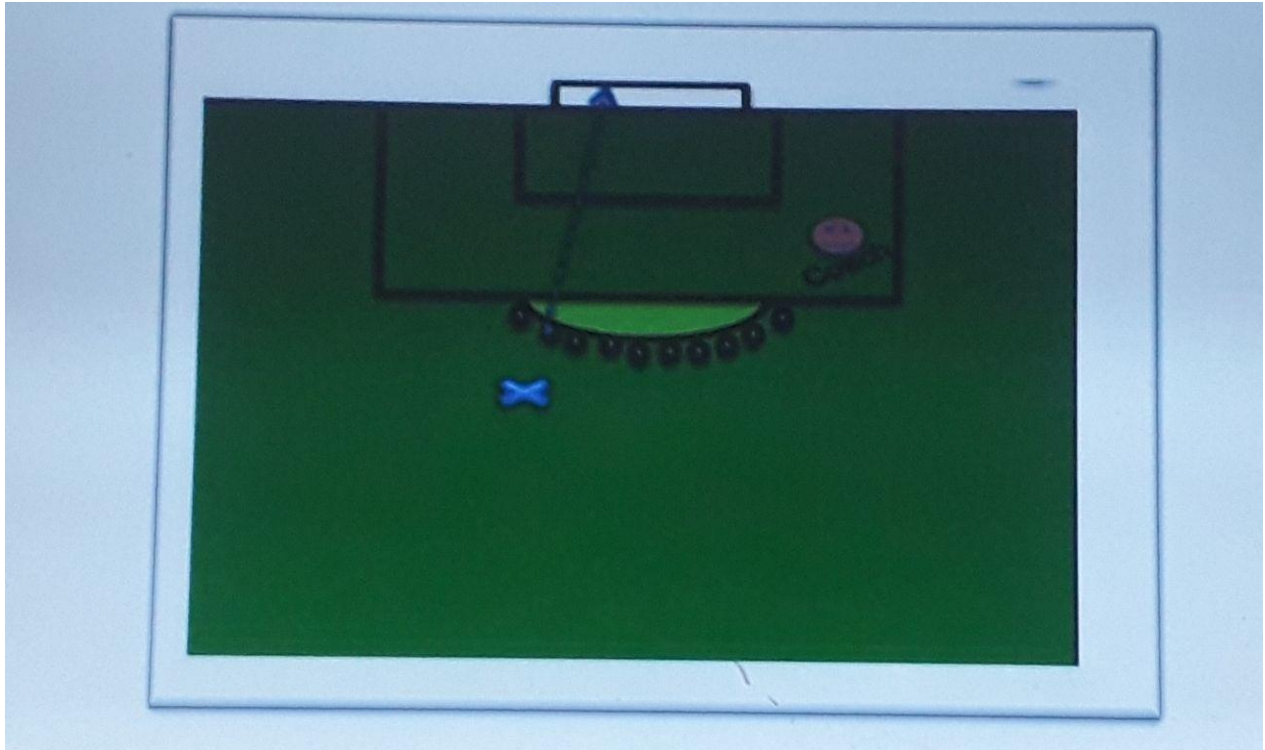


Figure 5 shooting test Model

(Adapted from: Hein Richs and Ellis,(2013))

4. Ball control (inside of foot tap's)

Goal

The purpose of this test is to enumerate football player's ball control ability.

Equipment

To conduct the test, the equipment needed includes 10 footballs, cones, score sheet, a whistle, stopwatch, and an assistant.

Procedures

For ball control the following type of exercises are performed respectively starting to warming up; walking, jogging, running, high knee jumps, stretching, sit and up, agility train, running four direction, Illinois agility training main training and cooling down.

The shooting area is located at 10 yards (9.1m) from the EG player. The EG players stands in front of the ball. His ability is measured by saving the ball perfectly by his feet 1×1metere circled area.

Rules

During the test, you are required to use your insides of feet. If the ball has to punch over you and if it is out of the area, it is out of the score. Perform this trial for 10 times that passes from someone with in a given distance.

Score

The final score is based on the total number of successful good controls within one minute from 10 trials.



Figure 6 Ball control test Model

(Adapted from Sampaio (2010))

3.11. Method of Data Analysis

The technical skill test data collected from football players was thoroughly analyzed and meaningful concepts derived using a computer program that tracked the changes observed within different groups. To determine the significant differences, statistical methods such as paired sample t-tests, independent sample t-tests and MANOVA was employed. The paired sample t-

test used to measure the difference between pre- and post-test results for the experimental group. While the independent sample t-test was used to establish whether there was significant difference or similarity between the pre-test results for both the experimental and control groups, and MANOVA was used to determine if the independent variable has a significant overall effect on dependent variables, as well as the post-test results for both groups, with a significance level of $p \leq 0.05$. SPSS software version 26 used to carry out these statistical analyses. In addition assumptions of normality, homogeneity and linearity were checked.

3.12. Ethical Considerations

Ethical guidelines for conducting research with minors are strictly followed. Since subjects were volunteers and they were refraining from the situation if they are not ready or not feel comfort at any time they want. The data has handled confidentially, and participants were free from any privacy suspicion. Informed consent will be obtained from all participants or their parents or legal guardians.

CHAPTER FOUR

RESULT AND DISCUSSION

4.1. Introduction

This chapter presents football technical skill tests based on related research findings. Ball control, dribbling, shooting, and passing abilities of participants are tested. The results are presented in tables that show the analyzed data. Statistical significance is noted where necessary. The study involved two groups: an experimental group (n=13) and a control group (n=13).

Participants were given pre and post-tests before and after eight weeks of agility-oriented training intervention. The mean of variables analyzed with a paired t-test, an independent sample t-test, and MANOVA. This chapter contributes to a better understanding of the impact of agility-oriented training on technical skill development in football players by presenting and analyzing data.

4.2. Results

4.2.1 Demographic Characteristics of Participants

Table 2 presents the demographic characteristics of the participants in both the experimental group (EG) and control group (CG). A total of 26 male players from the Woreta town football project took part in the study, with each group consisting of 13 players. The age distribution was nearly identical across the two groups, with the EG having a mean age of 11.46 years (SD = 0.401) and the CG a mean age of 11.53 years (SD = 0.409). This small difference indicates that the participants were within the same developmental stage, which is particularly important in youth sport studies since growth and maturation can influence physical and technical performance.

In terms of body weight, the EG recorded a mean of 34.92 kg (SD = 1.678), while the CG had a mean of 34.84 kg (SD = 1.690). The minimal variation between the two groups suggests that body composition and physical readiness were fairly equivalent, thus reducing the likelihood that weight differences could confound the training outcomes.

Training experience also appeared comparable, with the EG reporting an average of 1.87 years (SD = 0.516) and the CG 1.80 years (SD = 0.414). This similarity ensures that both groups had

nearly the same background in football training prior to the intervention. Additionally, both groups were at the same educational grade level (mean = 6 for each group, with SD = 0.799), which further reflects that the participants shared similar social and cognitive developmental contexts.

Taken together, the demographic data indicate that the experimental and control groups were well matched at baseline across age, body weight, training age, and grade level. Such homogeneity strengthens the internal validity of the study, as it suggests that any differences observed in post-test results are more likely attributable to the agility-oriented training intervention rather than pre-existing disparities between the groups. Establishing this baseline equivalence is a critical step in experimental research, as it enhances the reliability of the comparisons made between the two groups throughout the study.

Table 2 Demographic Characteristics of Participants

	Experimental Group	Min.	Max.	Control Group	Min.	Max.
Age [years]	11.46 ± 0.401	11	12	11.53± 0.409	11	12
Weight [kg]	34.92± 1.678	29	42	34.84±1.90	30	41
Grade level	6± 0.799	4	7	6± 0.799	4	7
Training age[years]	1.87± 0.516	1	4	1.80± 0.799	1	4
Number of training days per week [days]	2.67± 0.33	2	3	2.01±0.414	2	3

4.2.2 Descriptive statistics of football technical skills

The descriptive statistics for the football technical skills of the experimental group (EG) and control group (CG) reveal notable differences between pre-test and post-test scores. In the post-test, the EG has consistently outperformed than the CG across all four skills. Specifically, the mean post-test scores for the EG were 6.85 (SD = 0.90) in ball control, 7.38 (SD = 0.65) in dribbling, 5.31 (SD = 0.85) in passing, and 7.85 (SD = 1.21) in shooting, whereas the CG achieved lower mean scores of 3.77 (SD = 0.83), 3.38 (SD = 0.51), 3.00 (SD = 1.00), and 4.92 (SD = 1.04) in the same respective skills (Table 3). This demonstrates a substantial improvement

in the EG, suggesting that the intervention effectively enhanced the participants' technical performance.

Pre-test scores, however, were relatively comparable between groups, indicating that the EG and CG started at similar performance levels prior to the intervention. For instance, ball control pre-test means were 2.92 (SD = 0.76) for EG and 3.69 (SD = 1.03) for CG, dribbling pre-test means were 3.77 (SD = 0.83) for EG and 3.62 (SD = 0.87) for CG, passing pre-test means were 2.85 (SD = 0.55) for EG and 3.00 (SD = 0.82) for CG, and shooting pre-test means were 4.77 (SD = 0.73) for EG and 4.62 (SD = 1.04) for CG. The similarity of pre-test scores suggests that any post-test differences can be attributed to the intervention rather than pre-existing differences between groups.

Additionally, the standard deviations indicate the variability of scores within each group. Post-test SDs in the EG were generally lower than or similar to the CG, suggesting more consistent performance improvements among EG participants. Overall, the descriptive analysis indicates that the experimental program had a positive effect on football technical skills, improving both the level and consistency of performance in the EG relative to the CG.

Table 3 descriptive statistics of football technical skills pre/ post-test for both groups

Variables	Group			
	Experimental Group (n=13)		Control Group (n=13)	
	Pre test	Post test	Pre test	Post test
	Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD
Ball control	2.92±0.76	6.85±0.90	3.69±1.03	3.77±0.83
Passing	2.85±0.55	5.31±0.85	3.00±0.82	3.00±1.00
Dribbling	3.77±0.83	7.38±0.65	3.62±0.87	3.38±0.51
Shooting	4.77±0.73	7.85±1.21	4.62±1.04	4.92±1.04

4.2.3 Paired t-test results of football technical skills

A series of paired-samples t-tests was conducted to evaluate changes in technical skill performance from pre-test to post-test across all participants. As shown in Table 4, there were

statistically significant improvements in all four-football skills following the training intervention.

For ball control, post-test scores ($M = 5.31$, $SD = 1.78$) were significantly higher than pre-test scores ($M = 3.31$, $SD = 0.97$), $t(25) = -4.69$, $p < .001$, indicating a large improvement of approximately two points on average. Similarly, dribbling performance improved significantly from pre-test ($M = 3.69$, $SD = 0.84$) to post-test ($M = 5.38$, $SD = 2.12$), $t(25) = -4.05$, $p < .001$.

A significant gain was also found in passing, where mean scores increased from 2.92 ($SD = 0.69$) at pre-test to 4.15 ($SD = 1.49$) at post-test, $t(25) = -4.33$, $p < .001$. Finally, shooting scores rose from pre-test ($M = 4.69$, $SD = 0.88$) to post-test ($M = 6.38$, $SD = 1.86$), with the improvement being statistically significant, $t(25) = -5.03$, $p < .001$.

Taken together, these findings demonstrate that participants as a whole showed marked and statistically significant improvements in ball control, dribbling, passing, and shooting skills after the training period. The consistent pattern of significant results across all skill domains suggests that the applied training approach contributed meaningfully to enhancing players' technical performance.

Table 4 Paired t-test results (Pre Vs. Post within Groups)

Skill	Pre-test M (SD)	Post-test M (SD)	MD	t(df)	p
Ball Control	3.31 (0.97)	5.31 (1.78)	-2.00	-4.69 (25)	.000
Dribbling	3.69 (0.84)	5.38 (2.12)	-1.69	-4.05 (25)	.000
Passing	2.92 (0.69)	4.15 (1.49)	-1.23	-4.33 (25)	.000
Shooting	4.69 (0.88)	6.38 (1.86)	-1.69	-5.03 (25)	.000

Key: t= calculated difference, DF = degree of freedom, SD = standard deviation MD= mean difference

4.2.4 Independent sample t-test results of football technical skills

Table 5 compares the post-test performance of Experimental Group (EG), which underwent agility-oriented training, and Control Group (CG), which did not. Across all four technical skills, ball control, dribbling, passing, and shooting in the EG consistently demonstrated superior performance, highlighting the effectiveness of the intervention.

For ball control, the EG achieved a mean score of 6.85 (SD = 0.90) compared to the CG mean of 3.77 (SD = 0.83). Levene's test for equality of variances indicated no violation ($F = 0.050$, $p = .825$), allowing for standard t-test interpretation. The independent t-test revealed a highly significant difference, $t(24) = 9.058$, $p < .001$, with a mean difference of 3.077. The 95% confidence interval (CI = 2.376–3.778) does not include zero, confirming a substantial effect. Practically, this suggests that the agility training nearly doubled the post-test ball control score, indicating a large and meaningful improvement in players' ability to manage the ball under game-like conditions.

For dribbling, the EG participants scored 7.38 (SD = 0.65) versus 3.38 (SD = 0.51) for CG, representing a mean difference of 4.000 (95% CI = 3.528–4.472). Variances were equal ($F = 1.337$, $p = .259$). The t-test result ($t(24) = 17.496$, $p < .001$) reflects an extremely strong effect of the intervention. This indicates that agility-oriented training substantially enhanced the players' capacity to maneuver with the ball, likely improving both speed and control in competitive play. The low SD in the EG suggests consistent improvement across participants, showing that the intervention benefited nearly all players uniformly.

For passing, the EG scored 5.31 (SD = 0.85) while CG scored 3.00 (SD = 1.00), yielding a significant difference, $t(24) = 6.325$, $p < .001$. Mean difference was 2.308 (95% CI = 1.555–3.061). The difference indicates that the EG's ability to execute precise passes improved markedly following agility training. Notably, the slightly higher SD in CG reflects variability in baseline passing ability, which the intervention may have helped standardize among the EG.

For shooting, the EG mean of 7.85 (SD = 1.21) versus CG's 4.92 (SD = 1.04) indicates a mean difference of 2.923 (95% CI = 2.009–3.838), $t(24) = 6.598$, $p < .001$. This suggests that the agility-oriented program enhanced not only technical execution but likely also coordination, speed, and confidence when shooting. The SDs indicate moderate consistency, with most EG participants showing notable gains.

Table 5 Independent sample t-test for the post-test of football technical skills

(n=13)

Technical Skills	Mean±SD		Levene's Test for Equality of Variances		t(df)	p (2-tailed)	Mean Difference	95% CI Lower	95% CI Upper
	EG	CG	F	Sig					
Ball Control	6.85±0.9	3.77±0.8	0.050	.825	9.058(24)	.000	3.077	2.376	3.778
Dribbling	7.38±0.6	3.38±0.5	1.337	.259	17.496(24)	.000	4.000	3.528	4.472
Passing	5.31±0.8	3.00±1.0	0.154	.698	6.325(24)	.000	2.308	1.555	3.061
Shooting	7.85±1.2	4.92±1.0	0.156	.696	6.598(24)	.000	2.923	2.009	3.838

Key: EG= experimental group, CG=control group, t= tests, df= degree of freedom, SD = standard deviation CF= Confidence Interval sig= significance(P-value)

4.2.5 MANOVA Result

Multivariate Analysis of Variance (MANOVA) is a technique designed to investigate the impact of a single independent variable on two or more dependent variables simultaneously. This method expands beyond the limitations of Univariate analysis, offering a comprehensive examination of relationships between variables. Thus, the researcher delve into the subsequent sections, it was explore the assumptions integral to One-Way MANOVA. The mean post-test scores of the EG were substantially higher than those of the CG, indicating a clear improvement in technical performance following the intervention. Box's Test of Equality of Covariance Matrices was not significant ($p = .986$), confirming that the assumption of equal covariance matrices was met and validating the use of MANOVA (Table 6). Multivariate analysis revealed a significant overall effect of group on the combined dependent variables (Pillai's Trace = 0.954, Wilks' Lambda = 0.046, $F(4, 21) = 109.45$, $p < .001$, partial $\eta^2 = 0.954$), suggesting that the groups differed significantly in their collective football skill performance (Table 7). Examination of the between in subjects effects further demonstrated that the EG scored significantly higher than the CG on each individual skill: ball control ($F(1,24) = 82.05$, $p < .001$, partial $\eta^2 = 0.774$),

dribbling ($F(1,24) = 306.11, p < .001, \text{partial } \eta^2 = 0.927$), passing ($F(1,24) = 40.00, p < .001, \text{partial } \eta^2 = 0.625$), and shooting ($F(1,24) = 43.54, p < .001, \text{partial } \eta^2 = 0.645$). The large partial eta squared values indicate that the intervention had a strong and meaningful effect on each skill. Estimated marginal means and 95% confidence intervals further illustrate that the EG consistently performed better than the CG, with minimal overlap between groups (Table 8). These findings collectively indicate that agility-oriented training over an 8-week period significantly enhances multiple technical skills in football players, supporting both the statistical and practical significance of incorporating agility-focused exercises into football training programs.

Table 6 Box's Test of Equality of Covariance Matrices

Box's M	F	df1	df2	Sig.
3.429	0.280	10	2753.79	.986

Note. The test is not significant, indicating that the assumption of equality of covariance matrices is met.

Table 7 Multivariate Tests of Group Effect

Effect	Test Statistic	F	Hypothesis df	Error df	Sig.	Partial η^2
Group	Pillai's Trace	0.954	4	21	.000	0.954
	Wilks' Lambda	0.046	4	21	.000	0.954
	Hotelling's Trace	20.848	4	21	.000	0.954
	Roy's Largest Root	20.848	4	21	.000	0.954

Note. All multivariate tests indicate a statistically significant effect of group on the combined dependent variables ($p < .001$).

Table 8 Tests of Between Subjects Effects

Dependent Variables	F	Df	Sig.	Partial η^2
Ball Control	82.05	1,24	.000	0.774
Dribbling	306.11	1,24	.000	0.927
Passing	40.00	1,24	.000	0.625
Shooting	43.54	1,24	.000	0.645

Note. The partial eta squared values indicate large effect sizes for all skills.

4.3. Discussion

This study was designed with several core objectives, each directed toward examining the specific ways in which agility-oriented training influences the development of football players' technical skills. The first objective centered on passing skills, a fundamental aspect of effective gameplay. Findings from the paired t-test revealed a statistically significant improvement in the experimental group's (EG) passing accuracy following eight weeks of agility-oriented training ($p = 0.000$, Cohen's $d = 1.2$). The effect size was large, which not only demonstrates statistical significance but also highlights a meaningful and practical enhancement in performance. In other words, the training program provided more than a marginal gain it facilitated measurable growth in athletes' ability to execute accurate passes under game-like conditions.

In contrast, the control group (CG), which did not participate in the intervention, showed no significant changes between its pre- and post-test results ($p = 1.00$, $p > 0.05$). This absence of improvement reinforces the conclusion that the observed gains in the EG were directly attributable to the agility-oriented training program rather than to chance, practice effects, or external factors. A comparison of post-test scores through the independent sample t-test further confirmed this conclusion: while both groups had comparable levels of passing accuracy before the intervention ($p = 1.00$, $p > 0.05$), the EG significantly outperformed the CG after eight weeks ($p = 0.000$, $p < 0.05$). Thus, the null hypothesis was rejected at the 0.05 confidence level, validating the hypothesis that agility training can enhance players' passing performance.

These findings are consistent with earlier studies in the field. For example, Multazam, Merindayanti, Aisyah, Ajie, and Yuliadarwati (2020) demonstrated that ankle weight training could improve agility, speed, and long-distance passing abilities, thereby highlighting a strong connection between agility enhancement and technical football skills. Kebede et al. (2023) also supported this conclusion by showing that agility, speed, and coordination serve as predictors of dribbling and passing success. Together, these results underline the critical role of agility not only as a physical attribute but also as a foundation for technical skill development in football.

The second objective of this study focused on dribbling skill, another essential technical skill for maintaining possession and advancing play. Results revealed that the EG made substantial

improvements in dribbling performance after the training period ($p = 0.000$, $p < 0.05$), confirming the intervention's effectiveness. On the other hand, the CG did not demonstrate any statistically meaningful improvement, with pre- and post-test results remaining stable ($p = 0.51$, $p > 0.05$). This contrast emphasizes that without agility-focused interventions, natural progression or routine practice alone may not significantly impact dribbling ability.

Post-test comparisons between EG and CG using an independent sample t-test further reinforced this finding, as the EG significantly outperformed the CG ($p = 0.000$, $p < 0.05$). Given these results, the null hypothesis was again rejected, confirming that agility-oriented training has a strong and measurable effect on dribbling performance. These outcomes are in line with research conducted by Arwandi & Firdaus (2021), who examined the positive relationship between agility exercises and dribbling skills. Similarly, Kebede et al. (2023) identified agility as a predictor of both dribbling and kicking skills in youth football players, while Prakash et al. (2022) compared agility ladder drills with plyometric training in Kabaddi players, concluding that both approaches enhanced dribbling ability. Taken together, these studies provide strong evidence that agility-oriented training is a versatile and effective method for developing ball-handling and movement efficiency in sport.

The third objective of the study turned to shooting skill, a skill that directly contributes to scoring opportunities and match outcomes. Paired t-test results showed that the EG achieved significant improvements after undergoing agility training ($p = 0.000$). Conversely, the CG exhibited no noticeable differences in performance between the two testing phases ($p = 1.04$, $p > 0.05$). Independent sample t-tests confirmed that although both groups began at a similar baseline ($p = 1.04$, $p > 0.05$), the EG clearly surpassed the CG after the training intervention ($p = 0.000$, $p < 0.05$). These findings strongly suggest that agility training translates into more precise and effective shooting skills, again leading to rejection of the null hypothesis.

The results correspond with prior studies that link agility-based or intensive conditioning programs with improved shooting ability. For example, Cavacoxample (2014) reported positive short-term effects of advanced training on youth players' agility, speed, and shooting efficiency. Research by Sintoko & Suharjana (2018) and Bekalu (2019) also found significant associations between targeted training methods, muscular power, and shooting accuracy. These findings collectively reinforce the notion that agility-oriented training provides players with better

balance, coordination, and control factors that directly contribute to shooting accuracy under competitive conditions.

The study also explored ball control as a fourth technical skill. Paired t-test outcomes showed that players in the EG significantly enhanced their ball control after the training program ($p = 0.000$). In contrast, the CG did not improve, as shown by non-significant differences between pre- and post-tests ($p = 0.83$, $p > 0.05$). Independent t-test analysis further highlighted that while both groups began at nearly identical performance levels ($p = 0.83$, $p > 0.05$), the EG demonstrated markedly superior results after the intervention ($p = 0.000$, $p < 0.05$). These outcomes once again validated the effectiveness of agility-based training in developing refined technical performance.

The implications of this finding extend beyond the current study, aligning with other scholars' results. For instance, Kebede et al. (2023) emphasized agility, speed, and coordination as important predictors of passing and dribbling, while Abebe (2023) highlighted improvements in football performance skills among sports science students through agility training. Likewise, Adamu (2023) found significant benefits of agility-oriented training on dribbling, passing, and shooting performance at Bahir Dar University. These converging lines of evidence emphasize that agility training not only enhances isolated skills like ball control but also contributes holistically to the overall technical profile of football players.

The multivariate analysis of variance (MANOVA) provided compelling evidence of the overall effectiveness of agility-oriented training on football performance. Results revealed a statistically significant multivariate effect between the experimental group (EG) and the control group (CG), Wilks' Lambda = .046, $F(4, 21) = 0.945$, $p < .001$, partial $\eta^2 = .954$. This exceptionally large effect size ($\eta^2 = .954$) indicates that the intervention had not only a statistically significant impact but also a powerful and consistent influence across all four dependent variables: passing, dribbling, shooting, and ball control. Such a large magnitude of effect suggests that agility training is not merely beneficial for isolated skills but instead has a broad, integrative impact on players' technical performance.

Univariate analyses further clarified these findings, showing that the EG significantly outperformed the CG in every individual skill area measured. Improvements in passing,

dribbling, shooting, and ball control collectively highlight the multidimensional benefits of agility-oriented training. This aligns with a growing body of evidence that agility plays a central role in technical performance in football. For example, Tabachnick et al. (2019) and Kebede et al. (2023) reported that agility, speed, and coordination were strong predictors of dribbling and passing ability among academy players, reinforcing the current study's conclusion that agility-based drills foster skill development across multiple performance domains.

The observed improvement in dribbling is particularly noteworthy, as it supports prior findings by Arwandi and Firdaus (2021), who reported significant enhancements in dribbling ability following agility-focused training interventions. Given that dribbling requires rapid directional changes, balance, and spatial awareness, the large effect size found in the present study is logical, since these attributes are directly targeted by agility exercises.

Ball control was another domain where EG players showed significant progress. This result is consistent with Abebe (2023), who found that agility-centered programs enhanced students' ability to maintain ball control under pressure. Improved ball control is vital for maintaining possession and creating offensive opportunities, underscoring the practical value of agility training beyond simple physical conditioning.

Passing and shooting also showed statistically significant gains, although the effect sizes for these skills were comparatively smaller than for dribbling and ball control. This pattern suggests that while agility training builds the physical foundation for precise and efficient movements, passing and shooting may additionally depend on technical drills that emphasize accuracy, timing, and tactical decision-making. Similar observations were made by Adamu (2023), who reported improvements in both passing and shooting accuracy following agility-oriented training, yet also acknowledged the need for complementary technical practice.

The present findings also resonate with evidence from Prakash et al. (2022), who demonstrated that agility ladder training was more effective than plyometric programs for improving dribbling performance in Kabaddi players. This supports the idea that agility drills can be transferred to different sports and still yield significant performance benefits. Furthermore, Cavaco (2014) highlighted the positive effects of advanced agility training on shooting efficiency in youth footballers, a result that parallels the shooting improvements documented in this study.

Taken together, these results confirm the multidimensional nature of agility as both a physical and technical determinant of football performance. Agility is not a skill isolated to movement speed or direction changes but rather a transferable capacity that supports precision, coordination, and control across several technical domains. The consistency of the present findings with prior studies strengthens the argument that agility-oriented training should be systematically integrated into football training curricula, not only to enhance isolated skills but to elevate overall player performance.

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATION

5.1. Summary

This thesis was undertaken to examine the effects of agility-oriented training (AOT) on selected technical skills of youth football players, with specific focus on passing, dribbling, shooting, and ball control. The study was motivated by the recognition that football performance is not only determined by physical fitness but also by the technical execution of fundamental skills. Prior observations in Woreta Town revealed that while young players were engaged in training, limited emphasis was placed on structured agility programs, which raised questions about their potential role in enhancing technical performance.

The introductory chapter outlined the research problem, objectives, and significance of the study. It established the need to systematically investigate how agility drills contribute to the development of football skills and justified the study as a way to provide coaches and academies with evidence-based training strategies. The objectives were clearly defined: (1) to examine the effect of AOT on passing accuracy, (2) to investigate its effect on dribbling, (3) to assess its impact on shooting, (4) to evaluate improvements in ball control, and (5) to analyze the overall effects of AOT across all dependent variables.

The literature review synthesized theoretical frameworks and previous research findings. It highlighted agility as a multidimensional quality that integrates speed, balance, coordination, and reaction, and showed how these components directly influence technical skills. Studies by researchers such as Kebede et al. (2023), Arwandi & Firdaus (2021), and Prakash et al. (2022) were reviewed to demonstrate consistent evidence that agility training enhances performance in football and related sports. The review also pointed out gaps, particularly in Ethiopian youth football contexts, thereby establishing the relevance of the present study.

The methodology chapter described the use of a true experimental design with pre- and post-tests. A sample of 26 players from the Woreta Town football project was randomly divided into experimental and control groups, each containing 13 participants. The experimental group completed an eight-week agility-oriented training program, scheduled three times per week, with progressive drills such as ladder runs, cone zigzags, T-tests, and shuttle sprints. The control

group continued with regular practice without additional agility drills. Standardized football skill tests were used to measure the four dependent variables both before and after the intervention. Statistical tools including paired t-tests, independent sample t-tests, and multivariate analysis of variance (MANOVA) were applied to analyze the data.

The results chapter presented clear evidence that the experimental group significantly improved in all four technical skills passing, dribbling, shooting, and ball control while the control group showed no statistically meaningful changes. Independent sample t-tests revealed that the groups were comparable at baseline but significantly different post-intervention, always in favor of the experimental group. The MANOVA further demonstrated a very strong overall effect (Wilks' Lambda = .046, $p < .001$, partial $\eta^2 = .954$), showing that AOT had a consistent and powerful influence across all dependent variables.

The discussion interpreted these findings by linking them to existing literature. It explained why dribbling and ball control showed the largest effect sizes: both are skills that rely heavily on agility-related attributes such as coordination, rapid directional change, and body balance. Passing and shooting also improved significantly, though their gains were smaller, suggesting that these skills might also require targeted drills emphasizing accuracy and tactical decision-making. Comparisons with previous studies confirmed the consistency of these results, reinforcing the understanding that agility is a transferable and multidimensional determinant of football performance.

Finally, the thesis acknowledged some limitations, including the relatively small sample size, short intervention period, and focus on a single town project, which may restrict generalizability. However, the findings provide strong empirical evidence for the inclusion of agility training in youth football. The study closed by recommending systematic integration of agility-oriented drills into coaching programs, combining them with technical and tactical exercises to maximize developmental outcomes.

5.2. Conclusions

Based on the results of this research data analysis, the following conclusions were drawn.

This study concludes that agility-oriented training is highly effective in enhancing the technical performance of youth football players. Across eight weeks of structured training, the

experimental group achieved statistically and practically significant improvements in passing, dribbling, shooting, and ball control, outperforming the control group that did not undergo agility-focused interventions. The very large overall effect size (partial $\eta^2 = .954$) demonstrates that agility training exerts a transformative influence, strengthening not only isolated skills but also players' holistic technical profiles.

The conclusions drawn from this study are reinforced by a broad body of literature. Researchers such as Abebe (2023), Adamu (2023), and Kebede et al. (2023) similarly identified agility as a predictor of technical ability, while international studies (e.g., Prakash et al., 2022; Cavaco, 2014) provided cross-sport evidence of agility training's effectiveness. Together, these findings underline agility's role as a transferable foundation that enhances technical execution under competitive conditions.

From a practical standpoint, the study recommends that coaches and football academies systematically integrate agility drills into their training curricula. Such drills provide players with the physical coordination, speed, and responsiveness required for precise execution of technical skills. However, the findings also suggest that agility training should be complemented by sport-specific exercises particularly for passing and shooting that emphasize precision, timing, and tactical awareness.

In conclusion, this thesis affirms that agility-oriented training is an indispensable element of modern football development. Its systematic application can substantially elevate players' technical performance and provide a structured pathway for youth development. The study thus contributes valuable empirical support for incorporating agility-based interventions in grassroots football, ensuring that emerging athletes are prepared with both the physical and technical foundations necessary for success.

5.3. Recommendations

Based on the findings and conclusions of this study, several recommendations can be made for coaches, training centers, policymakers, and future researchers:

1. Recommendations for Coaches and Football Academies

- ❖ Include Agility Training in Regular Practice: Coaches should add simple agility drills like

ladder runs, zigzag runs around cones, T-tests, shuttle runs, and small-sided games into the weekly training plan. These drills should be introduced step by step and matched to the players' age and skill level.

- ❖ **Combine Agility with Technical Skills:** Agility training improved dribbling and ball control more than passing and shooting. To improve all skills, coaches should add exercises that focus on accuracy, such as target passing, shooting under pressure, and decision-making drills.
- ❖ **Track Progress and Adjust Training:** Coaches should check players' progress often, both in agility and technical skills. Training should be adapted to each player's needs to make sure everyone keeps improving.

2. Recommendations for Schools and Sports Projects

- ❖ **Add Agility to Youth Training Programs:** Schools and football academies should treat agility as an important part of skill development and include it in beginner-level training.
- ❖ **Provide Equipment and Facilities:** Agility training needs simple tools like ladders, cones, and marked areas. Local sports offices and training centers should make sure these are available for youth players.
- ❖ **Train and Support Coaches:** Sports leaders should organize workshops and certifications to help coaches learn how to plan, use, and check agility programs properly. This ensures training is done in the right way everywhere.
- ❖ **Start Agility Training Early:** Young players (like under-13s) should practice agility and coordination drills from the start. This helps them build strong skills early and avoid weaknesses as they grow into higher levels of competition.

3. Recommendations for Future Research

- ❖ **Bigger and More Varied Groups:** Future studies should involve more players from different places, training centers, and age groups so the results apply to a wider range of athletes.
- ❖ **Long-Term Impact:** Research should look at what happens when agility training continues for longer than eight weeks, to see if improvements last, slow down, or keep growing over months or full seasons.

- ❖ **Link with Tactical Training:** Studies could test how combining agility drills with decision-making exercises affects not only basic skills but also real match performance, like passing under pressure or shooting during fast play.
- ❖ **Compare with Other Training:** Future research should compare agility training with other methods like plyometrics, resistance training, or high-intensity workouts to find out which is more effective.
- ❖ **Injury Prevention:** More studies are needed to see if regular agility training not only boosts performance but also helps prevent injuries caused by weak coordination, slow reactions, or poor body movement.

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APPENDICES

APPENDIX A. Training Methods of 8 week Agility- Oriented Training

Table 1: First Month Training Schedule

Week per a month	Days	Type of exercise	Time(mi nute)	Rep/set	Rest	Durat ion	Intensit y
First month first week	Monday Wednes day Friday	Warming up: walking, jogging ,running	5	2	20sec. for each activity	50-60 min.	Low Intensit y 60-70 % of HRmax.
		Stretching	1	2			
		Circuit agility training	1	2			
		Running four direction	1	2			
		Running lift and right	3	2			
		Vertical jump	2	2			
		Zigzag agility run drill	5	2			
		Cooling dawn	3	2			
First month second week	Monday Wednes day Friday	Warming up walking, jogging ,running	5	2	20sec. for each activity	50-60 min.	Low Intensit y 60-70% of HRmax.
		Stretching	1	2			
		Sit and up agility train	1	2			
		Running four direction	1	2			
		Stepping on box	3	2			

		5105agility drill	2	2			
		Vertical jump	5	2			
		Cooling dawn	3	2			
First month third week	Monday Wednes day Friday	Warming up walking, jogging ,running	5	2	20sec. for each activity	50-60 Min.	Low Intensity 60-70% of HRmax.
		Light Stretching	1	2			
		Zigzag run	1	2			
		Four direction speed run	1	2			
		T-agility drill	3	2			
		Vertical jump	2	2			
		Stepping on box	5	2			
		Cooling dawn	3	2			
First month fourth week	Monday Wednes day Friday	Warming up walking, jogging, running	5	2	20sec. for each activity	50-60 Min.	Low Intensity 71-80 % of HRmax
		Stretching	1	2			
		Sit up	1	2			
		Four direction running	1	2			
		Zigzag run	3	2			
		T- agility training	2				
		Obstacle agility drill	5	2			
		Cooling dawn	3	2			

Table 2: second Month Training Schedule

Week per a month	Days	Type of exercise	Time(m inut)	Rep/set	Rest	Dur atio n	Intensity
Second month first week	Monday	Warming up: walking, jogging ,running	5	2	25sec. for each activity	50-60mi n.	Moderate intensity (71-80% ofHRmax)
		Stretching	1	2			
		Circuit agility training	1	2			
	Wednesd ay	Running four direction	1	2			
		Running lift and right	3	2			
		Vertical jump	2	2			
	Friday	Illinois agility drill	5	2			
		Cooling dawn	3	2			
Second month second week	Monday	Warming up walking, jogging ,running	5	2	25sec. for each activity	50-60mi n.	Moderate intensity (71-80% ofHRmax)
		Stretching	1	2			
	Wednesd ay	Sit and up agility train	1	2			
		Friday	Running four direction	1			
	Stepping on box		3	2			
	Vertical jump		2	2			
	505 agility drill	5	2				
	Cooling dawn	3	2				

Second month third week	Monday	Warming up walking,			25sec. for each activity	50-60min	High intensity (81-90% ofHRmax)
		Wednesday jogging ,running	5	2			
	Friday	Light Stretching	1	2			
		T-drill agility	1	2			
		Four direction speed run	1	2			
		T- agility drill	3	2			
		Vertical jump	2	2			
		Stepping on box	5	2			
Cooling dawn	3	2					
Second month fourth week	Monday	Warming up walking, jogging, running	5	2	25sec. for each activity	50-60min.	High intensity (81-90% of (HRmax)
		Wednesday Stretching	1	2			
	Friday	Sit up	1	2			
		Four direction running	1	2			
		T- agility drill	3	2			
		T- agility run	2	2			
		Obstacle agility drill	5	2			
		Cooling dawn	3	2			

APPENDIX B Pre-test and Post-test Record Sheet Experimental Group

Subjects:- football technique test record sheet

Pre-test and post-test record sheet experimental group

Name	Profile for trainers				Selected technical skill							
					Passing (12pass) (1min.)		Dribbling (2dribbles) (1min.)		Shooting (10shoot) (1min.)		Ball control (10trials) (1min.)	
Trainees	Age	Grade	Weight /KG	Experience /year	Mor-Christian Skill Test(15 yards)		Slalom dribbling test with obstacle(9.8yards)		Speed shooting (15yards)		Inside foot (10yards)	
Exp.1	12	7	38	1.87	3	5	4	7	4	8	3	8
Exp. 2	12	7	42	1.87	3	7	3	8	4	9	2	6
Exp. 3	11	5	36	1.87	3	6	3	7	4	7	2	7
Exp. 4	12	6	35	1.87	2	5	4	8	5	8	4	7
Exp. 5	12	6	40	1.87	3	6	3	8	5	6	3	6
Exp. 6	12	7	41	1.87	4	5	3	6	4	7	3	5
Exp. 7	11	6	29	1.87	3	6	4	7	5	8	4	7
Exp. 8	11	6	32	1.87	3	4	5	7	5	9	3	8
Exp. 9	11	6	31	1.87	2	5	3	8	4	7	2	6
Exp. 10	11	5	30	1.87	3	5	5	8	6	8	3	7
Exp. 11	11	4	30	1.87	2	4	5	8	6	10	2	7
Exp. 12	12	6	33	1.87	3	5	3	7	5	9	4	8
Exp. 13	11	5	37	1.87	3	6	4	7	5	6	3	7

APPENDIX C Pre -test and Post-test Record Sheet Control Group

Subject's:- football technique test record sheet

Name	Profile for trainers			Experience /year	Selected technical skill							
Code	A	G	Weight/ K.G		Passing (12pass) (1min.)	Dribbling (2dribbles) (1min.)	Shooting (10shoot) (1min.)	Ball control (10 trials) (1min.)	Mor- Christian Skill Test(15 yards)	Slalom dribbling test with obstacle(15 .4yards)	Speed shooting (15yards)	Inside foot (10yards)
Trainees												
Cn. 1	11	5	39	1.80	2	3	4	3	3	3	3	4
Cn. 2	11	5	41	1.80	3	2	3	3	4	4	3	4
Cn. 3	12	6	35	1.80	3	3	2	3	4	4	2	2
Cn. 4	12	6	36	1.80	4	4	4	4	3	4	3	3
Cn. 5	11	5	39	1.80	4	4	3	3	4	5	4	3
Cn. 6	12	6	41	1.80	4	5	3	3	4	5	4	3
Cn. 7	11	6	30	1.80	3	3	4	4	6	5	3	4
Cn. 8	12	5	31	1.80	2	2	4	4	5	6	4	5
Cn. 9	11	6	30	1.80	3	2	3	3	5	6	5	5
Cn. 10	12	4	31	1.80	2	2	5	3	6	6	6	4
Cn. 11	11	6	31	1.80	2	2	5	4	6	6	3	4
Cn. 12	12	7	32	1.80	3	3	3	3	5	6	4	4
Cn. 13	12	7	37	1.80	4	4	4	4	5	4	4	4

APPEDIX D Participants Information Sheet and Informed Consent Form

BAHIR DAR UNIVERSITY

SPORT ACADEMY

MSC PROGRAM

**EFFECTS OF EIGHT-WEEK AGILITY-ORIENTED TRAINING ON SELECTED
TECHNICAL SKILLS AMONG U-13 MALE FOOTBALL PLAYERS IN WORETA
TOWN**

Thank you students it is my delight to take this opportunity to draw your attention to the methods that will be employed in the study and to explain how I was chosen as a study participant. I will be conducting a study on the impact of agility training on certain football technical skills of the Woreta male football project.

1. Purpose/ Aim of the study:

Students and the community can use the study's findings to create a comprehensive training program that will help them become more proficient in passing, dribbling, shooting, and controlling the ball. Additionally, this study will be submitted to the sport science department as a partial fulfillment of the Masters of Football coaching requirement in order to meet the master's degree requirement.

2. Procedure and duration:

Before and after the agility training program, a few football skill assessments will be administered as part of this study. There are four tests of football technique. You can be advised to skip the physical activity portion of this program during football technique training sessions a few days before the examinations. For ten weeks of training, the experimental group will participate in the study for no more than sixty minutes each session, three days a week.

3. Risks and benefits:

Dehydration, numbness, muscle soreness, cramping, strain fatigue, and any injury are possible side effects of testing and training. Any unanticipated bodily harm will be treated with the proper first aid, and if it is serious, the researcher will pay for all necessary medical expenses. The drills

will include the "T" drill, the 5-10-5 agility drill, the zigzag run, and the hexagonal cool-down obstacle.

4. Confidentiality:

The data and information we collect from you will be strictly private. The data will not be individualized and will only be utilized for the purpose of the study. The information will be presented and reported without mentioning any specific person's identify.

5. Rights:

Your involvement in this study is entirely voluntary. You will not be penalized for any loss of benefits to which you would otherwise be entitled if you decide to stop (drop out) of the training program at any point throughout the study.

6. Contact address:

If you have any questions concerning the study or its procedures, please get in contact with Admassie Zemene at (+25191 849 32 94). admasizemene77@gmail.com is the gmail address.

7. Declaration of informed voluntary consent

After reading the participant information page, I am certain that I understand the goals of the study, the methods, the risks and rewards, confidentiality concerns, the rights of participants, and the contact information for any questions. I've had the chance to ask questions about anything that might have been unclear. I was made aware that, both before and during the research, I am free to leave at any moment without facing any consequences. I am aware that all of my personal information will be kept private. I understand that all of my personal data will be kept confidential. I offered to participate in these tests and procedures.

Name of participants.....Date.....Sign.

Name of data collector.....Date.....Sign.

Appendix E Information Record Form

Please provide your private information for the following questions about your present health situation, as the researcher will be creating the questionnaire to examine the impact of agility-oriented training on the technical skill of Woreta Town u-13 male football players.

Thank you.

Player's information Name _____ Sex _____
Age _____ Grade _____ Section _____
Positional interest of play _____

Emergency contact information

Fullname _____ address _____ tel. _____

Personal medical history (state whether it's true or false and provide details if necessary)

1. Have you ever undergone a physical fitness examination in addition to your normal soccer practice? _____
2. Have you ever participated in a soccer-related talent test? _____
3. Do you realize how physically fit you are right now? _____
4. Are you presently receiving medical care or being monitored?
5. Have you fallen sick in the past 3 months? _____ if yes, please write your problem
6. Have you injured seriously while you play soccer in the past three months/ summer? _____ if yes what parts of injury you got and in which body parts? _____
7. Had you a major surgery in the last months _____ I have read and understand the form and have given accurate information regarding to my current health status.

Signed (participant player) _____ date _____

Signed (examiner) _____ date _____

ተቀፅላ ሀ. የተሳታፊዎች መረጃ መስጫ እና የስምምነት ቅጽ

ተሳታፊዎች መረጃ መስጫ እና የስምምነት ቅጽ በሕር ዳር ዩኒቨርሲቲ ስፖርት አካዳሚ የ2ኛ ዲግሪ (ማስተርስ) ፕሮግራም ተሳታፊዎች መረጃ መስጫ እና የስምምነት ቅጽ

የተከበራችሁ እግር ኳስ ፕሮጀክት ተጨማሪ “EFFECT OF EIGHT-WEEK AGILITY-ORIENTED TRAINING ON SELECTED TECHNICAL SKILLS AMONG U-13 MALE FOOTBALL PLAYERS IN WORETA TOWN” በሚል ርዕስ ላይ ለሚደረግ ጥናትና ምርመራ መረጃ ለመሰብሰብ የተዘጋጀ ሲሆን እርስዎም ቀና ምላሽ ይስጡ።

1. የጥናቱ ጠቀሜታ

የዚህ ጥናት ዉጤት የሚጠቅመዉ ሰልጣኞችና ማህበረሰቡ እንዴትና ተገቢ የሆኑት የስልጠና ፕሮግራም በማቀድ የእግር ኳስ ቴክኒኮችንም ሆኖም ኳስን ለዳደኛ ማቀበል ፤ ኳስን ማንከባል ፤ ኳስን መምታትና ኳስን መቆጣጠርን ነዉ። ከዚህም በተጨማሪ የዚህ ጥናት አላማ የ2ኛ ዲግሪ

ፕሮግራምን በስፖርት እግር ኳስ አሰልጣኝነት በማጥናት እና ስፖርት ትምህርት ክፍል በማስገባት በእግር ኳስ አሰልጣኝነት መመረቅ ነዉ።

2. ቅደምተከተልናቆይታ

የተለያዩ እግር ኳስ ቴክኒኮች ላይ በቅድሚያ የተለያዩ የእግር ኳስ ቴክኒኮችን በመምረጥ ጥናቱን ማድረግ ሲታሰብ በመጨረሻም የቅልጥፍና እንቅስቃሴዎች ተመርጠዋል። በመሆኑም ከዋናዉ የስልጠና ፕሮግራም ዉጭ አራት የተመረጡ የእግር ኳስ ቴክኒኮችን በቅድሚያ ትለካላችሁ በመቀጠልም የተለያዩ ተጨማሪ ስልጠናዎችን ቅልጥፍን መሰረት ያደረገ ሥልጠና እንድትወስዱ ይደረጋል። በመሆኑም ሙከራ የሚደረግባችሁ ቡድኖች ከ60 ደቂቃ ያልበጠ በሳምንት ተከታታይ የሆኑ 3 ቀናት ተወስዳላችሁ።

3. ችግሮችና ጥቅሞች

በጥናቱ ላይ የሚያጋጥሙ ችግሮች በጣም አናሳ ናቸው። ስሆንም በስልጠና ወቅት ውኃ ጥም መመታት፣ መውደቅ ፣ መጋጥ እና መድማት ሊያጋጥሙት ይችላል። ምንክልባትም እነዚህ ችግሮች ቢያጋጥማችሁ ተገቢ የሆነ የመጀመሪያ ደረጃ ህክምና እርዳታ ተዘጋጅቷል ፤ ነገርግን ጉዳቱ ከፍተኛ ከሆነ ጥናቱን የሚያደርገው አካል ሙሉ ወጭዎን በመሸፎን ያሳክማል። በዚህ ጥናት እና ምርመራ የሚሳተፉ ማንኛውም አካል የተለየ ጥቅም አያገኝም። የስልጠና ጊዜው የሚይዘው ሰዓታትን ማማሟቅ ፣ ማሳሳብ ፣ Illinois agility drill, 5-10-5 agility drill, inside foot tapes T-drill, hexagonal obstacle, zig-zag sun and cool-down ናቸው።

4. ሚስጥራዊነት

ከእርሶ የምናገኘው መረጃ ከምንም እና ከማንም የተጠበቀ ነው። በመሆኑም እርሶ የሚገኘው መረጃ አንድ እና አንድ ጥናቱ የሚያገግል ይሆናል። መሆኑም መረጃዎ የተጠበቀ ሲሆን መረጃዎ ሪፖርት ሲደረግ የግልሰብ ማንነትን አንጠቅስም።

5. መብት

በዚህ ጥናት እና ምርምር መሳተፍ የእርሶ ፍቃደኝነት ይጠየቃል። በማንኛውም ጊዜ ስልጠናውን ሊያቆሙ (ሊያቋረጡ) ይችላሉ። በመሆኑም ይህንን ሲያደርጉ ምንም ሊያጡት የሚችሉት ነገር የለም።

6. መገኛ አድራሻ

ምንአልባት ምንም አይነት ጥያቄ በጥናቱ ላይ ቢኖርዎት እባክዎን በማንኛውም ሰዓት በሚከተሉት አድራሻ ያግኙኝ፤ አድማሴዘመን (ስልክ 091 849 32 94) G-mail አድራሻዬ admassiezemene77@gmail.com በተጨማሪም ምንም አይነት ችግር እና ቅሬታ ካሎት ለወረታ ከተማ አስተዳደር ወጣቶችና ስፖርት ጽ/ቤት ሊያቀርቡ ይችላሉ።

7. ፈቃደኝነት

መረጃ ሰጪ ስምምነት መግለጫ የተቀመጡትን የተሳታፊ መረጃ መስጫና የትናቱ ጠቀሜታ፤ ቅደም ተከተል ችግሮችና ጥቅሞች እና ሚስጥራዊነት የተሳታፊዎችን መብት አድራሻ በተገቢው ሁኔታ ተረድቻለሁ። በተጨማሪም ከጥናቱ በፊት ወይም በጥናቱ ወቅት አቋርጬ የመውጣት መብት እንዳለኝ ተነግሮኛል። እንዲሁም ግላዊ መረጃዎቼ በሚስጥር እንደሚያዘልኝ እምነት ተሰጥቶኛል። ስለሆነም በጥናቱ ሂደትም ሆነ ጥናቱን ለመመዘን ፈቃደኛ መሆኔን በማረጋገጥ የሚተባብሩትን መረጃ ለመስጠት ተስማምቻለሁ።

የተሳታፊስም..... መረጃ የሰበሰበው አካል ሰ
ም.....
ቀን..... ቀን.....
ፊርማ..... ፊርማ.....

ተቀጽላ ለ.የመረጃ መዝገብ ቅጽ

የመረጃ መዝገብ ቅጽ በመሆኑም አሁን ያሉበትን የጤና ሁኔታ በተመለከተ ለሚከተሉት ጥያቄዎች ተገቢ ምላሽና መረጃ እንዲሰጡ በአክብሮት ተጠይቀዋል። ለሚሰጡት ምላሽ ከወዲሁ አመሰግናለሁ።

1. የተጨማሪ ስም

.....ጾታ.....ስልክቁጥር.....
እድሜ.....ክፍል.....ጨዋታ/የጀመረበት ጊዜ.....

2. የቅርብ

ተጠሪ መረጃ

ስም.....አድራሻ.....ስልክ.....

የግል የጤና ታሪክ (አወ ወይም አይደለም የሚል ምላሽ ይሰጡና ተጨማሪ ማብራሪያ መስጠት ይችላሉ)

- ከዚህ በፊት ከመደበኛ እግርኳስ ስልጠናው ውጭተጨማሪ የአካል ብቃት ፈተና ወስደዋል.....
- ከዚህ በፊት ከእግርኳስ ጋር የተያያዙ የችሎታ ፈተናዎችን ተፈትነው ያውቃሉ.....
- አሁን ያሉበትን የአካል ብቃት ደረጃ ያውቃሉ/ ተለክተው ያውቃሉ.....
- በአሁኑ ጊዜ የህክምና ክትትል ያደርጋሉ ወይ.....
- ባለፉት ቅርብ ጊዜያት 3ወራት ውስጥ ታመው ያውቃሉ.....
- ባለፉት የበጋ 3ወራት በእግርኳስ ችዋታ ጊዜ ቀላል ወይም ከባድ የአካል ጉዳት አስተናግደው ያውቃሉ..... አወ ከሆነ ምን ዓይነት የአካል ጉዳት ደረሰብዎ እና በየትኛው የአካል ክፍሎችዎ ላይ/ ውስጥ ነው.....
- ባለፉት 3ወራት የቀዶ ጥገና ህክምና ነበረዎት/ ታክመዋል.....

ማጠቃለያ

ቅጹን አንብቤ ተረድቻለሁ። እናም አሁን ስላለኝ የጤና ሁኔታ ትክክለኛ መረጃ ሰጥቻለሁ።

የተጨማሪ ስም.....ፊርማ..... ቀን.....

የመዘኙ ስም.....ፊርማ..... ቀን.....

APPENDIX F: Figures during Test of Football Technical Skills



Experimental groups by Part



Experimental groups by Part with a researcher



Experimental groups during dribbling test



Experimental groups during shooting test



Experimental group During Agility test



Experimental group during passing test



Experimental group During Agility test



Experimental Group in ball control test



Admassie Zemene (Researcher)