

## BASIC MOVEMENT COORDINATION ANALYSIS OF ATHLETIC BASIC COORDINATION

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### Abstract

The aim of this research is to determine the level of students' ability to master basic movements in the ABC running method. This research uses a descriptive method. The sample for this research was students from the basic athletic training department for the January-June 2023 semester. It consisted of 91 male students using purposive sampling, basic exercise training during 5 years. Based on the descriptive statistical description of the data from the analysis of the basic movements of ABC running coordination above, it can be seen the results of students' coordination abilities after being tested with test items for each ABC running movement, an average putting value was obtained with a score of 38.33, the average score was 38.33. Skipping average 39.15, Stung average score 37.43, Stepping score 38.43, Hopping average score 40.62, SprungLauf average score 37.43, Hillkick average score 42.71, and mercing average score 38.48. After knowing the average value of the results obtained, the percentage in movement mastery is still in the low category so it really influences movement mastery, especially in the learning process during basic athletics lectures. Recommendations for coaches and sports players to recognize the importance of mastering coordinated movements in mastering movement skills, especially for athletics.

**Keywords:** Movement Ability, Flexibility, Coordination, Athletics.

### INTRODUCTION

In the world of sports, achieving high performance is not only determined by physical excellence alone, but also by effective coordination between various body movements[1], [2]. Coordinated movements are a key factor in achieving optimal results, allowing athletes to combine strength, speed and skill with extraordinary precision[3], [4], [5]. This phenomenon has attracted the attention of sports and human movement science researchers to understand more deeply how this coordination can be improved to achieve better results.

Coordination plays a very important role in carrying out a combination of movements in each athletic number. Good coordination movements play a very important role in carrying out a combination of movements. In every athletic number, a harmonious movement relationship is needed so that the resulting movement will be as expected[3], [6], [7]. Coordination is an element in evaluating movement. Movement that is said to be perfect is movement that is harmonious and sustainable. And it becomes an evaluating process in assessing movement. *Running ABC* is a basic athletic movement that must be mastered, in essence Running ABC is a basic athletic coordination exercise that has structured and patterned movements that follow the basic movements in each number in athletics[8], [9].

*Running ABC* is a basic movement associated with all sports. The letters ABC in Running ABC have an important meaning that reflects the concept of movement that involves the body as a whole[10]. The aim of Running ABC is to improve body mastery in mastering movements in a comprehensive and harmonious manner including

strength, endurance and body flexibility[11]. Through ABC Running exercises, various basic concept movements such as putting, skipping, stance, stepping, hopping, sprung lauf, hillkick and mercing. The definition of Running ABC refers to a series of movements involving walking and running body parts. Running ABC is an abbreviation for A (Athletic), B (Basic), and C (Coordination). These three aspects are very important in improving athletes' physical abilities and performance[12], [13]. Through ABC running training, runners can develop muscle strength, increase flexibility and increase endurance[14], [15]. The benefits of Running ABC include improving basic athletic coordination movement abilities, reducing the risk of injury, and improving overall movement coordination.

The movements from Running ABC include:

- 1) *Putting*The putting/Angkling movement is the movement of the legs tiptoe forward with the ball of the foot as the support for the left and right legs and the arms making alternating swings. Angkling movements provide the basis for making the soles of the feet land symmetrically, which is very good for improving body balance.
- 2) *Skipping*The high knee up movement is a forward stepping movement where one knee is lifted and together with the lower leg/leg forms an angle of approximately 70°-85° while the supporting leg is straight and rests on the ball of the foot.
- 3) *Stung Had (But Kick) Movement* is a movement of stepping forward with the knees lifted alternately and followed by the feet which form a cycle/wheel rotation at the base of the pelvis with a rapid movement with the feet/lower legs forming an angle of approximately 70°-85° while the supporting leg is straight and rests on the ball of the foot.
- 4) *Stepping* The combination movement starts with a single knee up and is followed by the other leg alternately with a single knee up as well. You can start the movement with your left foot or right foot first; If the combination movement starts with the left foot starting the ankle movement, then the knee up movement starts with the right foot and is lifted alternately.
- 5) *Hopping* The general description of this movement is like someone running, but the heels are lifted further back to hit the buttocks. By practicing this movement, the knee joints and muscles, namely the peroneus longus muscle, gastrocnemius muscle, extensor digitorum longus muscle, soleus muscle, become more flexible as well as the front thigh muscles (rectus femoris tendon) and hamstring muscles (glutens maximus muscle)[16]. , adductor muscles, medial thigh muscles, and medial thigh muscles) become stronger, apart from of course the muscles in the ankles and other body parts getting the same effect.
- 6) *Sprung lauf (bounding)* The general description here is to run and jump with big steps forward using one leg as a push in turn, and when in the air one leg is bent at a 90 degree angle and lands on the other leg. Run like a deer in the air.
- 7) *HillKick* is a step with the foot as if kicking forward with the right and left foot alternately. The general description for this movement is the stung/butkick, the center of strength. The leg movement comes from the groin like a spinning wheel. This exercise will strengthen the leg and foot muscles which will influence the strength of stepping when running with a stable frequency and can further increase the height and distance of the jump.

- 8) Mercing is a continuation of the hillkick movement, or exactly the same as the hillkick movement, where the center of power for the leg movement comes from the groin like a spinning wheel. The difference with the hillkick is that the lower part of the leg (sole of the foot) is kicked down when the foot lands alternately with a fast movement frequency.

*Running ABC* is basic movement coordination as an indicator for determining the main basic movement which is an instrument in assessing movement coordination. Ideally, someone who has good basic movement coordination is able to perform combined movements smoothly and has smooth movements carried out automatically, especially in carrying out combined movements in basic athletics lecture material. However, developments in the field are still not optimal. This can be proven by practical exam data involving the coordination movements of students studying athletics three semesters ago. One of the problems that occurs when carrying out coordinated movements is that there is no harmonious combination of movements in carrying out a movement so that it affects the focus and smoothness of the movement that will be carried out. The harmony of student coordination movements includes various aspects, such as synergy between one movement and another[17].

Limitations in students' movement coordination can come from a lack of understanding of the importance of carrying out successful movements, lack of effective communication, and challenges in carrying out movement tasks optimally. Therefore, a deep understanding of these factors is decisive in carrying out movement tasks. coordination to achieve more optimal harmony. In this context, this research aims to look at the basic movements of student coordination. By carrying out a series of tests and understanding this problem, it is hoped that relevant strategic steps can be taken to improve collaboration, communication and the effectiveness of student coordination movements.[18]

## **METHOD**

This research method is a quantitative descriptive method[19]. The aim of this research is to determine the level of mastery of basic athletic coordination movements. In this research, the variable studied is basic movement coordination, namely ABC Running athletics. This type of research is descriptive research that describes what is. The design of this research is to carry out a test to determine the quality level of students' coordination movement mastery abilities in the coaching department for the January-June 2023 semester for all basic athletics courses.

The research location is at the FIK UNP Freshwater athletics track. This research will be carried out on 12-13 September 2023 at 16.00 -18.00 WIB until completion. The population in this study were all students who were taking basic athletics courses, totaling 119 men and women combined, while the sample was male students who were taking active athletics courses, totaling 92 people. with a sampling technique, namely purposive sampling[20].

## **RESULTS**

The research data was obtained from tests carried out at the FIK UNP athletics track and data obtained from students 18 Aged Women and men

**Table 1: Average results of Coaching students' ABC running movement abilities**

	Putting	Skipping	Stung had	Stepping	Hopping	Sprung lauf	Hillkick	Mercing
Judge A	37.71	39.29	37.29	37.86	42.86	35.57	43.71	38
Judge B	38	39.29	37.57	39	40	37.71	42.43	39
Judge C	39.29	38.86	37.43	38.43	39	39	42	38.43
Score	38.33	39.15	37.43	38.43	40.62	37.43	42.71	38.48

Source: Data Processing Results

**Table 2: Assessment Norms**

Assessment Norms	Information
1 to 20	Very less
21 to 40	Not enough
41 to 60	Enough
61 to 80	Good
81 to 100	Very well

#### a) Putting

Based on the description table above, the putting movement obtained an average score from judge A 37.71, judge B 38 and Judge C 39.29 from a maximum average score of 100

#### b) Skipping

Based on the description table above, the putting movement obtained an average score from judge A 39.29, judge B 39.29 and Judge C 38.86 from a maximum average score of 100.

#### c) Stung had

Based on the description table above, the putting movement obtained an average score from judge A 37.29, judge B 37.57 and Judge C 37.43 from a maximum average score of 100.

#### d) Stepping

Based on the description table above, the putting movement obtained an average score from judge A 37.86.29, judge B 39 and Judge C 38.43 from a maximum average score of 100.

#### e) Hopping

Based on the description table above, the putting movement obtained an average score from Judge A of 42.86, Judge B of 40 and Judge C of 39 from a maximum average score of 100.

#### f) Sprung Lauf

Based on the description table above, the putting movement obtained an average score from judge A 35.57, judge B 37.71 and Judge C 39 from a maximum average score of 100.

### **g) HillKick**

Based on the description table above, the putting movement obtained an average score from judge A 43.71, judge B 42.43 and Judge C 42 with a maximum average score of 100

### **h) Mercing**

Based on the description table above, the putting movement obtained an average score from judge A 38, judge B 39.29 and Judge C 38.43 from a maximum average score of 100.

## **DISCUSSION**

Based on the descriptive statistical description of the data from the analysis of the basic movements of ABC running coordination above, it can be seen the results of students' coordination abilities after being tested with test items for each ABC running movement, an average putting value was obtained with a score of 38.33, the average score was 38.33. Skipping average 39.15, Stung average score 37.43, Stepping score 38.43, Hopping average score 40.62, SprungLauf average score 37.43, Hillkick average score 42.71, and Mercing average score 38.48. After knowing the average value of the results obtained, the percentage in movement mastery is still in the low category so it really influences movement mastery, especially in the learning process during basic athletics lectures. This means that in mastering the movements that are being carried out, it is still very necessary to practice basic coordination movements. Which can improve basic movement skills in every number in athletics, especially running numbers. As in previous research conducted by [21] that running Abc can improve students' basic short distance running technical abilities. There are various ABC running training methods that can be done to improve basic coordination movements well.

The benefits of Running ABC that are carried out are that it can be an improvement guide for an athlete, coach in improving technique and coordination, including hand position, body position and feet, when the athlete is carrying out actual technical movements. By knowing several movement coordination errors, it is easy for coaches and sports players to detect early errors in coordinating movements more effectively and efficiently. From the results of previous research, running ABC has a significant influence on improving learning outcomes for sprinting. [22]. By doing ABC running exercises, you can make a positive contribution in improving the mastery of basic running skills in athletes [23], [24]. This is one of the methods used in training to improve the ability to master basic running movements. with regular and programmed practice you can get better results than your previous abilities. ABC running training requires monitoring and control by the coach so that the training can be evaluated and improved better than before. In athletics, ABC running training can focus on foot speed, hand movements, body position and synchronization between these movements so that you can move in a balanced and harmonious manner. [25].

## **CONCLUSION**

Based on the research that has been carried out, it can be concluded that the level of coordination possessed by students is still low, with the scores obtained average putting score 38.33, average Skipping score 39.15, average Stung score 37.43, Stepping score 38.43, average Hopping score 40.62, SprungLauf average score

37.43, Hillkick average score 42.71, and average score -Mercing average 38.48. With the average score obtained, the results of movement mastery obtained are still in the low category of the maximum average score. so this has a big influence on movement mastery of all the main teaching materials related to coordination movement tasks for each number in athletics. By going through a test using ABC running, you can find out how far a person's mastery of basic movements has improved. Recommendations for coaches and sports players to recognize the importance of mastering coordinated movements in mastering movement skills, especially for athletics. Serves as a guide for sports players in practicing basic coordination movements.

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