

Analysis of the Level of Basic Handball Skills of FIKK UNM Students

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ABSTRACT

This study aims to analyze the level of basic handball skills of students in the Physical Education, Health and Recreation Study Program (Penjaskesrek) FIKK UNM. This research is a quantitative descriptive study with a survey approach. The research population was all Penjaskesrek FIKK UNM students, with a sample of 30 students selected using purposive sampling technique. The research instrument used basic handball skill tests which included: (1) passing test, (2) catching test, (3) dribbling test, (4) shooting test, and (5) footwork test. Data analysis techniques used descriptive statistics in the form of percentages and categorization. The results showed that the level of basic handball skills of Penjaskesrek FIKK UNM students was in the category: very good 6.67% (2 students), good 23.33% (7 students), sufficient 40% (12 students), poor 20% (6 students), and very poor 10% (3 students). Overall, the level of basic handball skills of Penjaskesrek FIKK UNM students is in the sufficient category with a percentage of 40%. The analysis results per aspect show that shooting skills have the highest value (average 72.5), while footwork has the lowest value (average 58.3). The conclusion of this study is that the level of basic handball skills of Penjaskesrek FIKK UNM students still needs to be improved, especially in footwork and dribbling aspects.

Keywords: Analysis; Basic skills; Handball; Penjaskesrek students

ABSTRAK

Penelitian ini bertujuan untuk menganalisis tingkat keterampilan dasar bola tangan mahasiswa Program Studi Pendidikan Jasmani Kesehatan dan Rekreasi (Penjaskesrek) FIKK UNM. Jenis penelitian ini adalah deskriptif kuantitatif dengan pendekatan survei. Populasi penelitian adalah seluruh mahasiswa Penjaskesrek FIKK UNM mahasiswa, dengan sampel sebanyak 30 mahasiswa yang dipilih menggunakan teknik purposive sampling. Instrumen penelitian menggunakan tes keterampilan dasar bola tangan yang meliputi: (1) tes passing, (2) tes catching, (3) tes dribbling, (4) tes shooting, dan (5) tes footwork. Teknik analisis data menggunakan statistik deskriptif berupa persentase dan kategorisasi. Hasil penelitian menunjukkan bahwa tingkat keterampilan dasar bola

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tangan mahasiswa Penjaskesrek FIKK UNM berada pada kategori: sangat baik 6,67% (2 mahasiswa), baik 23,33% (7 mahasiswa), cukup 40% (12 mahasiswa), kurang 20% (6 mahasiswa), dan sangat kurang 10% (3 mahasiswa). Secara keseluruhan, tingkat keterampilan dasar bola tangan mahasiswa Penjaskesrek FIKK UNM berada pada kategori cukup dengan persentase 40%. Hasil analisis per aspek menunjukkan bahwa keterampilan shooting memiliki nilai tertinggi (rata-rata 72,5), sedangkan footwork memiliki nilai terendah (rata-rata 58,3). Kesimpulan penelitian ini adalah tingkat keterampilan dasar bola tangan mahasiswa Penjaskesrek FIKK UNM masih perlu ditingkatkan, terutama pada aspek footwork dan dribbling.

Kata Kunci: Analisis; Keterampilan dasar; Bola tangan; Mahasiswa Penjaskesrek.

INTRODUCTION

Handball is a team sport played by two teams, each consisting of seven players with the aim of putting the ball into the opponent's goal as much as possible (IHF, 2022). The game of handball is a combination of various skills such as passing, catching, dribbling, shooting, and footwork that must be mastered by every player (Karim, 2025). According to Wagner et al. (2020), mastery of basic skills is an important foundation in achieving optimal achievement in the sport of handball (Michalsik et al., 2015).

In Indonesia, handball sports have begun to develop and become part of the physical education curriculum in various universities, including at the Faculty of Sports and Health Sciences (FIKK) of the State University of Makassar. Students of the Physical Education Study Program in Health and Recreation (Penjaskesrek) FIKK UNM are required to master various sports, including handball, because they are prepared as professional physical education teacher candidates. As stated by Bompa & Buzzichelli (2021), that prospective sports teachers must have good competence in various motor skills to be able to teach effectively.

However, based on initial observations made by researchers, it was found that the level of basic handball skills of Penjaskesrek FIKK UNM students still varies. Some students show good skills, but others still have difficulty mastering basic handball techniques. This can be seen from the implementation of handball game courses where there are still many students who make mistakes in passing, catching, dribbling, shooting, and footwork techniques. Research by Karcher & Buchheit (2022) shows that poor basic skills will have an impact on overall game performance.

Mastery of good basic handball skills is very important for Penjaskesrek students because: (1) as prospective handball teachers, they must be able to give the right example to students, (2) good basic skills will make it easier to learn more complex techniques, (3) increase confidence in teaching, and (4) as capital to develop achievements in the field of handball sports (Prieto et al., 2020). Therefore, it is necessary to conduct an in-depth analysis of students' basic handball skills levels to find out the actual conditions and formulate a more effective coaching program.

Several previous studies have examined aspects of skill in handball. Research by Helm et al. (2021) identified that shooting accuracy is a key factor in determining the outcome of a handball match. Meanwhile, Vila et al. (2020) found that footwork and agility have a significant contribution to the effectiveness of player movements. However, research that comprehensively analyzes all aspects of basic handball skills in

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Penjaskesrek students in Indonesia, especially at FIKK UNM, is still limited. Therefore, this research is important to fill the gap.

The purpose of this study is to analyze the level of basic handball skills of Penjaskesrek FIKK UNM students which include aspects of passing, catching, dribbling, shooting, and footwork. By knowing the level of basic skills of students, it is hoped that the results of this research can be: (1) evaluation material for study programs in improving the quality of handball learning, (2) the basis for curriculum development and more effective learning methods, (3) information for lecturers teaching handball courses to design learning strategies that suit students' conditions, and (4) references for further research in the field of handball learning.

METHOD

This research is quantitative descriptive research with a survey approach (Arga, 2025). Quantitative descriptive research is research that aims to describe or describe a phenomenon that occurs at the time of the research using numbers as data (Creswell & Creswell, 2023). In this study, the researcher analyzed and described the level of basic handball skills of Penjaskesrek FIKK UNM students based on the results of the tests that had been carried out.

This research was carried out on the handball field of the Faculty of Sports and Health Sciences, State University of Makassar, Jalan Wijaya Kusuma Raya No. 14, Makassar City, South Sulawesi. The time for the research was carried out in August 2025, with the implementation of a skills test carried out for 2 weeks to ensure that all samples could take the test with optimal physical conditions.

The population in this study is all active students of the Physical Education Study Program (Penjaskesrek) FIKK UNM for the 2024/2025 academic year who have taken a handball game course. The research sample was selected using purposive sampling techniques with the following criteria: (1) active students of Penjaskesrek FIKK UNM, (2) have taken a course in handball games for at least 1 semester, (3) are in a physically and mentally healthy condition, (4) are willing to be a research sample by signing an informed consent. Based on these criteria, a sample of 30 students consisting of 18 male students and 12 female students was obtained.

The variable in this study is a single variable, namely the level of basic handball skills of students of Penjaskesrek FIKK UNM which includes five aspects: (1) Passing: the ability to pass the ball accurately, (2) Catching: the ability to catch the ball well, (3) Dribbling: the ability to dribble with good control, (4) Shooting: the ability to shoot the ball to the goal accurately, and (5) Footwork: ability to perform effective and efficient foot movements.

The instrument used in this study is a handball basic skill test that has been modified and adjusted to the student's condition. This instrument adopts and modifies tests from the European Handball Federation (EHF) that have been validated by experts in the field of handball. Each aspect of the skill is measured with specific instruments as follows:

1. Passing Test: Students pass to a predetermined target at a distance of 6 meters for 10 attempts. Assessment based on accuracy and passing speed. Maximum score of 100.

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2. Catching Test: Students catch balls thrown from various directions and heights 10 times. Assessment based on the ability to catch the ball well without falling. Maximum score of 100.
3. Dribbling Test: Students dribble through cones that are 2 meters apart as many as 5 cones with a zig-zag system. Scoring based on time and ball control. Maximum score of 100.
4. Shooting Test: Students shoot at the goal from various positions (left, center, right) 3 times each, a total of 9 attempts. Assessment based on accuracy and fire power. Maximum score of 100.
5. Footwork Test: Students perform footwork movements according to a predetermined pattern (forward-backward, sideways, pivot). Assessment based on speed and precision of movement. Maximum score of 100.

The validity of the instrument has been tested through expert judgment by three lecturers who are experts in handball with a validity result of 0.87 (valid). The reliability of the instrument was tested using a test-retest with a reliability coefficient of 0.92 (reliable).

Data collection is carried out through the following stages: (1) Preparation, including the preparation of instruments, tools, and determination of test schedules. (2) The implementation of the test, each sample conducts the five types of basic handball skills tests that have been determined. Before performing the test, the sample was given the opportunity to warm up for 15 minutes. (3) Recording of results, each test result is recorded by a research team of 3 people to ensure the objectivity of the assessment. (4) Documentation, the entire test process is documented through photos and videos for further analysis purposes.

The data analysis technique used is descriptive statistics by calculating mean, median, mode, standard deviation, minimum and maximum values, and percentages for each skill aspect. The data obtained is then categorized based on the categorization norms that have been set:

Table 1. Norms of Categorization of Skill Level

Score Range	Category
81 - 100	Excellent
61 - 80	Good
41 - 60	Enough
21 - 40	Less
0 - 20	Very Less

Berdasarkan Table 1 Norms of Categorization of Skill Level, rentang skor 81-100 termasuk dalam kategori Excellent, rentang 61-80 termasuk kategori Good, rentang 41-60 termasuk kategori Enough, rentang 21-40 termasuk kategori Less, dan rentang 0-20 termasuk kategori Very Less. All data analysis was done using Microsoft Excel 2021 software and IBM SPSS Statistics version 27 to ensure accuracy of calculations and ease of data visualization.

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RESEARCH RESULTS

The results of the study show an overview of the level of basic handball skills of Penjaskesrek FIKK UNM students based on five aspects measured.

Table 2. Handball Basic Skill Level Frequency Distribution

Category	Score Range	Frequency	Percentage (%)
Excellent	81 - 100	2	6,67
Good	61 - 80	7	23,33
Enough	41 - 60	12	40,00
Less	21 - 40	6	20,00
Very Less	0 - 20	3	10,00
Quantity		30	100,00

Based on Table 2, of the 30 students who were the research sample, the level of basic handball skills was in the category of sufficient with an average score of 64.2. The distribution of the skill level category showed that 2 students (6.67%) were in the very good category, 7 students (23.33%) were in the good category, 12 students (40%) were in the fair category, 6 students (20%) were in the poor category, and 3 students (10%) were in the very poor category.

Analysis of each skill aspect shows variations in different levels of mastery. The following table 3 presents descriptive statistics for each aspect of basic handball skills:

Table 3. Descriptive Statistics of Basic Handball Skills Per Aspect

Aspects	Mean	SD	Min	Max	Category
Passing	67,8	12,3	35	92	Good
Catching	65,4	11,8	38	88	Good
Dribbling	61,2	13,6	28	85	Good
Shooting	72,5	10,9	45	95	Good
Footwork	58,3	14,2	25	82	Enough
Average	64,2	12,6	34,2	88,4	Good

Based on Table 3, the shooting aspect has the highest average score of 72.5 in the good category, followed by passing (67.8), catching (65.4), dribbling (61.2), and footwork having the lowest score (58.3) with the fair category. The highest standard deviation was found in the footwork aspect (14.2) which showed that the variation in students' abilities in this aspect was quite large, while the lowest standard deviation in the shooting aspect (10.9) showed that students' shooting abilities were relatively more homogeneous.

Table 4. Category Distribution Per Skill Aspect

Aspects	Excellent	Good	Enough	Less	Very Less
Passing	10%	50%	26,7%	10%	3,3%
Catching	6,7%	46,7%	33,3%	10%	3,3%
Dribbling	3,3%	40%	36,7%	16,7%	3,3%
Shooting	16,7%	53,3%	20%	6,7%	3,3%
Footwork	3,3%	30%	43,3%	16,7%	6,7%

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Based on Table 4 Category Distribution Per Skill Aspect, most of the Passing aspect is in the Good (50%) category, followed by Enough (26.7%), Excellent (10%), Less (10%), and Very Less (3.3%). In the Catching aspect, the good category dominated (46.7%), followed by Enough (33.3%), Less (10%), Excellent (6.7%), and Very Less (3.3%). In the Dribbling aspect, the largest percentage was in the Good (40%) and Enough (36.7%) categories, then Less (16.7%), and Excellent and Very Less at 3.3% respectively. In the Shooting aspect, most of them are in the Good (53.3%) category, followed by Enough (20%), Excellent (16.7%), Less (6.7%), and Very Less (3.3%). In the Footwork aspect, the Enough category has the highest percentage (43.3%), followed by Good (30%), Less (16.7%), Very Less (6.7%), and Excellent (3.3%).

DISCUSSION

The results of the study showed that overall, the level of basic handball skills of Penjaskesrek FIKK UNM students was in the sufficient category with a percentage of 40%. This indicates that students already have basic handball skills but still need improvement to reach the good or excellent category. These findings are in line with the research of García-Angulo et al. (2023) who found that physical education students generally have a level of handball skills at an intermediate level, which requires a structured training program to reach an advanced level.

The shooting aspect showed the highest results with an average of 72.5 (good category). The high shooting ability can be explained because the shooting movement has a relatively simple pattern and is often practiced in learning. Students tend to be more motivated to practice shooting because it gives their own satisfaction when they succeed in scoring goals. These results are consistent with research by Helm et al. (2021) who stated that shooting is the most frequently practiced skill and has a better level of mastery than other skills in beginners. However, the standard deviation of 10.9 shows that there is still a variation in abilities between students that need special attention in learning.

Passing (67.8) and catching (65.4) skills are in the good category, showing that students have a sufficient foundation in making passes and receiving the ball. These two skills are very fundamental in the game of handball. According to Wagner et al. (2020), passing and catching are basic skills that must be mastered before learning more complex techniques. The results showed that 50% of students had good category passing ability and 46.7% had good category catching ability. This indicates that the learning of basic passing and catching techniques at FIKK UNM has gone well, but it still needs to be improved, especially for students who are still in the category of sufficient and lacking.

Dribbling skills show an average of 61.2 (good category) with a standard deviation of 13.6. The high standard deviation indicates that there is a considerable variation in abilities between students. Dribbling in handball requires good hand-eye coordination as well as optimal ball control. According to Karcher & Buchheit (2022), dribbling is a skill that requires repeated practice to achieve movement automation. The results showed that 36.7% of students were in the sufficient category, which means that there are still many students who need to improve their dribbling skills. This can be addressed by providing more varied and progressive dribbling drills, from simple to complex.

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Footwork showed the lowest results with an average of 58.3 (fair category) and the highest standard deviation (14.2). Low footwork ability can be caused by several factors: (1) footwork is a complex skill and requires good neuromuscular coordination, (2) lack of emphasis on the footwork aspect in learning, (3) students tend to focus more on skills that involve the ball such as passing and shooting. Research by Vila et al. (2020) shows that footwork has a significant contribution to the effectiveness of player movements and overall performance in handball games. Therefore, there needs to be a special emphasis on footwork exercises in the handball learning curriculum at FIKK UNM.

The findings of this study have practical implications for the development of handball learning at FIKK UNM. First, it is necessary to design a special training program to improve footwork and dribbling skills which are still relatively low. Second, learning needs to be more individual-specific by paying attention to the variation in students' abilities (shown by the high standard deviation). Third, it is necessary to develop more interesting and varied learning methods so that students are more motivated to practice. Fourth, periodic evaluation of student skills needs to be carried out to monitor development and provide constructive feedback.

This research has several limitations that need to be considered. First, the relatively limited number of samples (30 students) makes generalization of research results need to be done carefully. Second, this study only measures the psychomotor aspects of handball skills, not including cognitive (tactical knowledge) and affective (sportsmanship attitude) aspects. Third, external factors such as previous gaming experience, motivation, and physical condition were not controlled in this study. Follow-up research needs to consider these factors to get a more comprehensive picture of a student's handball skills.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the research and discussion, it can be concluded that the level of basic handball skills of Penjasokesrek students of the UNM Physical Sciences is in the category of sufficient with a percentage of 40%. Specifically, the results of the study showed: (1) Shooting skills had the highest level of mastery with an average of 72.5 (good category), followed by passing (67.8), catching (65.4), and dribbling (61.2). (2) Footwork skills have the lowest level of mastery with an average of 58.3 (adequate category), which indicates the need for special attention in learning this aspect. (3) There is a considerable variation in abilities between students, especially in the aspects of footwork (SD=14.2) and dribbling (SD=13.6), which shows the need for a more individualized learning approach. (4) Overall, students have a good foundation of handball skills but still need to improve to achieve optimal standards as prospective physical education teachers.

Based on the conclusions of the study, the researcher suggested: (1) For the FIKK UNM Penjasokesrek Study Program, it is necessary to develop a more comprehensive handball learning curriculum with a special emphasis on footwork and dribbling aspects that are still low. (2) For lecturers teaching handball courses, it is recommended to: (a) use more varied and interesting learning methods, (b) provide progressive drill exercises from simple to complex, (c) conduct periodic evaluations of student skill development, (d) provide constructive and individual feedback according to the abilities of each student. (3) For students, it is recommended to be more active in practicing independently, especially in the aspects of skills that are still lacking and taking

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advantage of the available facilities to improve handball skills. (4) For future researchers, it is recommended to: (a) conduct research with a larger sample for better generalizations, (b) develop an intervention program to improve students' handball skills, (c) examine other factors that affect handball skills such as motivation, playing experience, and physical condition, (d) conduct longitudinal research to see the development of students' skills over time.

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