Physical and Technical Profiles of Garuda Basketball Club’s 17 to 18 Years Old Male Group

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Abstract. The background of this research is the attempt of creating the best basketball players by investigating the requirements which have to be prepared in every stage. In fact, there has not been any data which can be reference as the target for athletes in every age stages to achieve, especially in the ages of 17 to 18. Thus, a data is needed to be the reference so that it can be found what kind of requirements which have to be fulfilled by the athletes. Garuda, one of the basketball clubs in NBL (Indonesia professional basketball competition), is not only a professional team but it also develops youth to be the next basketball players. The research problem is how the physical and technical profiles of Garuda basketball club’s 17 to 18 years old men group are like. Descriptive method was used in this research. This research aims at portraying the physical and technical profiles of Garuda basketball club’s 17 to 18 years old men group. In physical profile, the results show that no athlete (0%) is classified in perfect, very good, and low categories. Six (35.3%) and eleven (64.7%) of them are classified in good and moderate categories. Meanwhile, the results show that no athlete (0%) is classified in perfect and low categories on technical profile. Four (23.5%) and eight (47.1%) of them are classified in very good and good categories. Based on the results, it can be concluded that physical and technical profiles of Garuda basketball club’s 17 to 18 years old men group are considered as in moderate and good categories.

1. Introduction

In order to create a good basketball player, what needs to be prepared for each stage should be readily available. However, for the achievement of the targets to be achieved by the athlete at any stage, especially ages 17-18 years, there has been no data that can be used as a reference or benchmark targets [1]. So, it takes the data to be used as a reference or benchmark reference in order to know what needs to be met by each stage of age, especially aged 17-18 years, because that age is a gateway for the young talents to get into professional basketball.

From the expert’s perspectives, it can be concluded that the profile is an illustration, graphics, and writing in which it explains, gives, and describes facts about such specific things as someone’s data, organization, or group. While for others, the profile can be interpreted as the view from the side (on the face), painting (picture) side view [3]. In this study, what is meant by profile is a description of the physical condition and the ability of technical ability possessed by the male athletes of the basketball club Garuda group aged 17-18 years.

The definition of a basketball game according to the official rule book of basketball. "Basketball is played by two teams each consisting of five players. The goal of each team is score by shooting a ball through a hoop and try to prevent the other team scoring [4]. "Basketball game is basically a game..."
played by 10 people who were in the field and consists of two teams, where each team of consists of 12
players including five people as a player in the field and 7 as a reserve player, this game aims to put the
ball as much as possible into opponents' basket to score as many points as possible and prevent the
opponent to score. The player can play and put the ball in any way as long as they conform to the
regulations set by FIBA as the organization of international basketball.

Physical according to KBBI http://kbbi.web.id/fisik website is physical; Body. But the physical is
meant by the author is the readiness of the players' physical condition, in which there are bio motor
components such as endurance, speed, strength, and flexibility. In terms of physical condition, there are
four basic physical components namely flexibility (flexibility), speed, strength and endurance. Of the
four components of aforementioned physical condition, they can be divided into multiple elements of
physical abilities, more specifically, such as agility, maximum strength, speed endurance, power and so
forth. Physical is the main asset to be able to perform any activity [5].

- There will be an increase in the ability of the circulatory system and heart work.
- There will be an increase in strength, flexibility, stamina, speed, and other components of
  physical condition.
- There will be a better economic motion at the time of exercise.
- There will be a faster recovery in the organs of the body after exercise.
- There will be a quick response from our body organism at any time when such a response is
  required.

From aforementioned statement, it is proved that the physical condition of every person, especially
an athlete, if they are in a good physical condition, it will be very helpful and very profitable as it can
be seen from the profits earned from a good physical condition. How can someone have a good physical
condition? The answer is to practice systematically and continuously.

For example, to put the ball as much as possible into the opponent's basket, the players are required
from the above, the pattern of exercises that have been compiled in a training program should be
conducted gradually from the simplest to the difficult, or from the simple to the more complex, and done
repeatedly, where more and more performing various movements that have been determined to make an
athlete becomes faster to reach the stage of automation motion has become imperative for an athlete to
have the automation stage. Having done systematically and repeatedly, the training load should be added
gradually [7]. Therefore, every time the load increases, so does the abilities of the athlete.

In the basketball, the four components of physical conditions are all necessary in this game. The
special physical conditions needed in basketball are, among others: "aerobic endurance, anaerobic
endurance, strength endurance, speed cyclically-acyclic, rapid strength, flexibility" [8]. The speed,
power, agility, coordination, strength, and endurance needed to compete with the players at a higher
level. Basketball demands that players be strong, quick and agile. The proper strength training prepares
a basketball player for the rigors of the season. - Dominant energy system: lactic anaerobic and aerobic.
- Limiting factors: the take-off power, acceleration power, P-E. - Training objectives: MXS, take-off
  power, acceleration power, P-E "9].

Based on the opinion of some experts, it can be concluded that the physical elements that are needed
in Basketball game include: flexibility, speed cyclic-acyclic, agility, coordination, aerobic endurance,
aerobic endurance, power, power endurance. The athletes should keep practicing those components
in order to meet the needs of games and competitions in order to achieve better achievement [10].

Like other branches of sports, basketball requires the player to master some techniques. By mastering
the technique, everyone will be able to play effortlessly. "There are four basic techniques in the game
of basketball, namely controlling the ball (ball handling), passing and catching the ball (passing and
catching), bouncing the ball to the floor (dribbling), and shots (shooting). "All basketball players should be able to do these techniques all together [11].

In this study, the authors are eager to discover how an athlete is ready to enter a phase of tougher competition as a professional basketball player. The author will examine the physical and technical preparedness of the athletes, in this case, the author took the Garuda basketball club players group aged 17-18 years old as the samples [12]. The results of research are expected to provide an overview for coaches to make a reference in the preparation of training programs in an effort to improve the physical and technical ability of their athletes to be better prepared to enter the next phase which is certainly tougher.

2. Method

The use of research method is tailored to the issues examined by the researcher. The method used in this research is descriptive quantitative method. "This descriptive study is a research that only describe what is found or occurred in an arena, field, or a particular area." Descriptive method can solve and investigate the issues examined and can describe the situation in the intention of getting a general idea clearly, systematically and accurately in relation to the facts, nature, and the relationship of the observed phenomenon.

The population in this study is the Garuda basketball club athletes coaching division consisting of 113 male and female registered athletes. In order to make the sample representative to the population. The researcher determined to use purposive sampling. Purposive sampling is done by taking the subject is not based on strata, random, or region but based on their particular purpose. This technique is usually done for several considerations, for example due to limited time, effort, and funds that cannot take a large and distant sample.

The sample taken in this research is the 17 male athletes age 17-18 years old. The selection of the age group 17-18 years is due to the fact that the age group of 17-18 is the senior coaching age group in the Garuda basketball club coaching division.

The research instrument used in this study include:

- Sit and Reach
- 20 Meter run
- Agility test (Illinois Agility Test)
- Vertical Jump
- Leg Dynamometer (Leg Strength)
- Hand Dynamometer
- Two Hand Medicine Ball-Put
- Sit Ups
- Bleep test
- Ball Throwing and Catching Test
- Shooting test (Under Basketball)
- Shooting test (Medium Shoot)
- Shooting test (Three Point Shoot)
- Lay Up shoot test
- Dribbling test

Descriptive data collection techniques mean that this research collected the data through experiments. After the data obtained from the test and measurement, then the next step was to process the data using statistical computation. The data was then converted to into the value of the physical condition conversion data taken from the Sport Test and Measurement Module.
3. Results and Discussion
Based on the results of data analysis and processing on tests of physical condition and skill test on Garuda basketball club male athletes age group 17-18 years, the result is presented in the following table:

| No | Name          | Test Items                  | Total | Means | Expected | Observed | Criteria |
|----|---------------|-----------------------------|-------|-------|----------|----------|----------|
|    |               | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  |               |
| 1  | Rhey Mutsla   | 6  | 4  | 6  | 8  | 8  | 6  | 6  | 8  | 4  | 56             |
| 2  | God Love Grace| 10 | 6  | 8  | 6  | 4  | 4  | 4  | 8  | 4  | 54             |
| 3  | Rasyid Azmi   | 6  | 4  | 6  | 6  | 4  | 2  | 4  | 6  | 4  | 42             |
| 4  | Eka Ramadhan  | 4  | 4  | 6  | 6  | 8  | 4  | 6  | 8  | 6  | 52             |
| 5  | Damar Prima N | 6  | 4  | 6  | 8  | 8  | 4  | 6  | 6  | 6  | 54             |
| 6  | Anthony Ngora | 6  | 4  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 52             |
| 7  | Akbar         | 6  | 4  | 6  | 6  | 6  | 4  | 6  | 6  | 4  | 48             |
| 8  | Ary Riski R.  | 4  | 2  | 6  | 6  | 8  | 4  | 6  | 6  | 4  | 46             |
| 9  | Faris Muthi   | 4  | 4  | 6  | 8  | 6  | 6  | 6  | 8  | 4  | 52             |
| 10 | Joshua Putra  | 8  | 6  | 8  | 6  | 4  | 4  | 6  | 6  | 6  | 54             |
| 11 | Hilya         | 4  | 4  | 6  | 4  | 4  | 4  | 4  | 6  | 4  | 40             |
| 12 | Ianda Renzana | 6  | 6  | 8  | 6  | 6  | 4  | 6  | 8  | 4  | 54             |
| 13 | Fauzi Khoerun | 6  | 4  | 6  | 4  | 4  | 2  | 4  | 6  | 4  | 40             |
| 14 | Aslam Syahrul | 8  | 4  | 6  | 4  | 6  | 2  | 4  | 6  | 4  | 44             |
| 15 | Richardo      | 6  | 4  | 6  | 6  | 6  | 6  | 6  | 8  | 6  | 54             |
| 16 | Moch. Ilham   | 8  | 4  | 6  | 6  | 2  | 2  | 4  | 6  | 4  | 42             |
| 17 | M. Hari S     | 6  | 4  | 6  | 6  | 2  | 4  | 4  | 6  | 4  | 42             |
|    |               | 104 | 72 | 108 | 102 | 92 | 68 | 88 | 114 | 78 | 826           |
|    | Σ Jumlah      |       |     |       |       |     |     |     |       |     | 96.05          |

| Test | Item               |
|------|-------------------|
| 1    | Sit and reach     |
| 2    | Lari 20 Meter     |
| 3    | Illinois Agility Test |
| 4    | Vertical Jump     |
| 5    | Leg Dynamometer   |
| 6    | Hand Dynamometer  |
| 7    | Two Hand Medicine Ball-Put |
| 8    | Bleep test       |

- The highest score in Sit and reach Flexibility test was 30 cm and the lowest is 6 cm. The average score is 14.65 cm which can be categorized as “good”
- The best time record in sprint test is 3.08 seconds and the worst score is 3.47. and the average result of the test is 3.23 seconds which can be regarded as “enough”
- From illinois test, the best time records is 15.87 seconds while the lowest score is 18.5 seconds. The average score for this type of test is 17.34 categorized as “good”
- The best performer in vertical jump is 65 cm and the lowest is 47 cm. The average score for this test is 56.35 categorized as “good”
- The best leg dynamometer test result is 300 kg while the lowest result is 125 kg. The average result is 216.88 kg that is categorized as “good”.
- The best hand dynamometer test result is 42 kg while the lowest result is 27 kg. The average result is 33 kg that is categorized as “enough”.

Simpangan Baku
1.65 0.97 0.79 1.22 1.97 1.41 1.01 0.99 0.94 0.52 0.68

Note
Test 1 = Sit and reach
Test 2 = Lari 20 Meter
Test 3 = Tes Illinois Agility Test
Test 4 = Vertical Jump
Test 5 = Leg Dynamometer
Test 6 = Hand Dynamometer
Test 7 = Two Hand Medicine Ball-Put
Test 8 = Bleep test
Test 9 = Bleep test
The highest score in Two hand medicine ball-put test is 4.87 cm and the lowest score is 3.72 cm. The average score is 4.43 categorized as “enough”.

The best achiever in sit up test is 85 times and the lowest achiever is 50 times. The average of sit up test is 63.41 that can be categorized as “good”.

The more detailed explanation of the information presented in the table is presented as follows:

- The best results from catching and throwing balls against the wall (passing) is 32 times and the lowest result is 25 times. The average results of the test throwing balls against the wall catch is 28.4 times or are in “good” category.
- The best score in shooting test (under basket) is 21 times and the lowest is 13 times. The average score in this test is 16.6 times and is in good category
- The best score in shooting test (medium shoot) is 21 times and the lowest score is 12 times. The average score is 16.4 times which is in “good” category.
- The best score in three point shooting test (three point shoot) is 19 times and the lowest is 8 times. The average test result is 12.8 times that can be categorized as “good”.
- The highest score in layup test is 7 times and the lowest score is 4 times. The average score for layup test is 5.6 that is in “good” category.
- The best score in dribbling test is 16.89 seconds and the lowest score is 19.18 seconds. The average score is 18.10 seconds categorized as “good”.

Based on the explanation, the male players club's technical profile is labeled as "good. the tables showed the ability of technical skills of Garuda basketball club athlete aged 17-18 years is 6.5 in average with standard deviation of 1.18 or it can be labeled as "good".
Based on interviews with the coaching staff on October 18, 2014 at the club's training ground in Gelora Saparua, one of the factors that cause the physical condition of athletes all club members is labeled as "enough". It is because the exercise program created by the team coach prefers to increase the technical skills of athletes. As for the physical exercise, the material provided only as conditioning or merely maintaining athletes' fitness.

4. Conclusion
Based on the results of data processing, calculation, and analysis, it can be concluded that physical and technical profile of male Garuda Basketball club athletes aged 17-18 years were as follows:

- The physical profile male Garuda Basketball club athletes aged 17-18 years are in the category of "Enough".
- The technical profile male Garuda Basketball club athletes aged 17-18 years are in the category of "Enough"

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