European Journal of Physical Education and Sport Science
ISSN: 2501 - 1235
ISSN-L: 2501 - 1235
Available on-line at: www.oapub.org/edu

DOI: 10.46827/ejpe.v13i2.6540 Volume 13 | Issue 2 | 2026

A STUDY ON SELECTION CRITERIA FOR 11-12 YEARS OLD MALE BASKETBALL ATHLETES AT THU DAU MOT CITY, BINH DUONG PROVINCE, VIETNAM

Nguyen Le Pham Huynh[1],
Huynh Duy Long[2],
Nguyen Hoang Duy[3i]
[1]Hochiminh City University of Technology (HUTECH), Vietnam
[2]Trinh Hoai Duc High School, Binh Duong, Vietnam
[3]Phu Dong Primary School, Ho Chi Minh City, Vietnam

Abstract:
Basketball is a competitive team sport, and both teams play on the same court. In basketball talent development, athlete selection is a crucial step that determines the quality of training and competition performance. Applying scientific standards helps to identify talented athletes early, creating a solid foundation for sustainable training and development. The research aims to determine the selection criteria for 11–12-year-old male basketball, track and field athletes at Thu Dau Mot City, Binh Duong Province, Vietnam. The study uses standard research methods in the field of sports science to address the research content, such as: document analysis and synthesis, interviews, pedagogical testing, pedagogical observation, anthropometry, psychological testing, and statistical mathematics. Research subjects: 100 male athletes aged 11-12 at Thu Dau Mot City, conducted at Thu Dau Mot City, Binh Duong Province, Vietnam, interviewed 20 individuals (experts, scientists, professionals, coaches, and basketball managers). The results identified 14 criteria for selecting male basketball players aged 11-12 at Thu Dau Mot City, Binh Duong Province, Vietnam, including: Morphology (2 criteria): Standing height, Arm span; Physical fitness (5 criteria): Standing high jump, 20m sprint, T-Test, Hexagon jump, Defensive slide; Technical skills (4 criteria): Zigzag dribbling, 30-second ball movement, 2-point moving shooting - 5 positions, 3-point moving shooting - 5 positions; Sports psychology and motivation (1 criterion): Observation of experimental competition performance; Development potential (2 criteria): Training progress, Intensive training adaptability.

[i] Correspondence: nlp.huynh@hutech.edu.vn

Keywords: selection criteria, athlete, basketball, 11-12 years old, Thu Dau Mot City, Binh Duong Province, Vietnam

1. Introduction

Basketball is one of the most attractive sports with the largest number of participants and spectators in the world. Basketball has been recognized as an Olympic sport since 1936, and is always an official competition in the Asian and Southeast Asian Games (SEA Games) [1]. Basketball is a competitive team sport with both teams playing on the same court. The goal of basketball is to minimize the number of shots the opponent takes into your basket and try to get the ball into the opponent's basket as much as possible. To achieve success in competition, basketball requires the unified coordination of the actions of all team members to perform a common task. The effectiveness of competitive activities is linked to the reflex indicators of the motor sensory organs. "Sense of time" is the most comprehensive motor sensory indicator and can be considered a component of the professional ability of a basketball player. The combined activity of the analytical organs is the basis of the development of the "sense of time", since the perception of time is linked to the perception of space [2].

In modern basketball, the offensive and defensive process is constantly changing. Athletes sometimes take rebounds, sometimes shoot, pass, dribble, drive, guard, etc. According to Jakovljević (2011), the ratio between activity and rest of the competing athlete is 1:1 or less in a quarter; if considered in the whole game, this ratio is even more different (1:1 to 1:3). [3]. The volume of movement in top-level basketball competition is very large, athletes have to move a total of 5000 – 7000m, have to perform 130 – 140 jumps, 120 – 150 sprints and quick stops [4]. Specifically, the defensive movement in the game is about 1340 – 2430 m [5]. Regarding movement, McInnes's (1995) study first classified it into eight types (Running: acceleration, deceleration, quick change of direction and stopping; defensive sliding: forward, backwards, and sideways; jumping), and statistically analyzed the proportion of time spent on these activities in high-level basketball competition. Defensive sliding movement was observed to account for 34.6%; running 31.2%, and jumping 4.6%; whereas, standing and walking accounted for 29.6% of the playing time. The frequency of change in activities during basketball competition was 997 ±183 (approximately one change every 2 seconds). This shows that activities in basketball competition are very diverse and constantly changing, requiring high flexibility, within a short period of time, with many transitions between different types of activity, such as speed running – quick defensive sliding – jumping.

In elite sports, the discovery and selection of talented athletes play a crucial role, determining the quality of input for the talent training system. This process is not simply about selecting individuals with outstanding current performance, but more importantly, about identifying individuals with outstanding potential for future development in sport, able to cope with the specifics of each sport and each stage of psycho-physiological development. Matveev (1999) defines sports selection as "*the process of searching for and*

identifying individuals with suitable abilities and qualities to participate in sports training activities to achieve peak performance" [6]. According to Bompa (2000), athlete selection is an organized and scientific screening process, carried out through steps to identify individuals with morphological characteristics, motor skills, technical and tactical thinking, and psycho-social factors suitable for long-term development requirements in sports. He emphasized that effective selection processes must be conducted early, systematically, continuously, and take into account age-related variables [7].

Approaching in a modern way, Vaeyens *et al.* (2008) developed a three-stage model in sports talent selection, including: (1) talent detection – initial identification of gifted individuals; (2) selection – using scientific tests to assess the suitability of athletes; and (3) talent development – applying specialized training methods to optimize the athlete's potential. This group of authors also emphasized the need to combine objective factors (quantitative tests) and subjective factors (coach observation, learning attitude, competitive spirit), along with the consideration of biological development rate, especially in pre-puberty [8].

In Vietnam, Le Van Duong (2018) asserted that the selection of talented athletes should be considered a scientific activity, based on a system of tests suitable for each sport and each age group, combined with directional observation in reality training and competition. In the teenage age group of 11-12 years old, the author emphasized the role of biological indicators, basic motor skills, problem-solving thinking and attitude in training – instead of just relying on immediate competition results [9]. In addition to professional factors, some international authors such as Reilly, Williams, and Richardson (2003) also added multidimensional factors in talent selection, such as social and living environment, nutritional conditions, family support, and psychological adaptability when facing competition pressure [10]. Therefore, the selection of sports talent cannot rely solely on the criteria of "tall, strong, and fast," but requires a comprehensive approach, utilizing up to date data analysis methods and multi-faceted evaluation.

From domestic and international research perspectives and results, it can be summarized that: Selecting talented male basketball players aged 11-12 is a systematic process aimed at identifying and selecting boys with athletic potential suitable for the specifics of basketball. This process needs to be conducted through a comprehensive assessment of factors: morphology – physical fitness – basic motor skills – hand-eye coordination, quick reactions – tactical thinking and psychological characteristics. Selection should not focus on current factors but should consider long-term development potentials, through evaluating biological maturation, continuous progression, and psychological stability during training and competition. Based on the above findings and suggestions, I conducted research on the topic: "A study on selection criteria for male basketball players aged 11-12 at Thu Dau Mot City, Binh Duong Province, Vietnam".

2. Materials and methods

2.1 Methods

Document analysis and synthesis method: aims to collect, synthesize, and analyze information related to basketball player selection criteria from various sources; the results help the researcher build a theoretical basis for the research, select research methods, select criteria and discuss research results.

- **Interview method:** to collect information through the opinions of experts, professionals, and basketball coaches. The results help identify basketball player' selection criteria.
- **Pedagogical testing method:** to collect information through selected physical fitness and technical tests of the subjects.
- **Anthropometric method:** aims to collect information through testing selection indicators on the morphology of the subjects.
- **Psychological testing method:** to collect information about the psychological factors of the subjects.
- **Pedagogical observation method:** to collect data through observation of subjects' experimental performance.
- **Statistical method:** to analyze the collected data using SPSS 22.0 software.

2.2 Participants

2.2.1 Subjects

100 male athletes aged 11-12 at Thu Dau Mot City, Binh Duong, Viet Nam

2.2.2 Surveyees

20 people (experts, sports scientists, coaches, sports managers) have expertise and experience in selecting basketball players.

3. Results

To select the selection criteria for male basketball players aged 11-12 at Thu Dau Mot City, Binh Duong Province, Vietnam, the research was conducted in 3 steps:

- **Step 1:** Synthesized selection criteria for basketball players from research works by both domestic and international authors.
- **Step 2:** Interviewed sport managers and experts to identify selection criteria for male basketball players aged 11-12 at Thu Dau Mot City, Binh Duong Province, Vietnam.
- **Step 3:** Verified the reliability of the selected criteria.

3.1 Compilation the criteria for selecting basketball players, drawn from researches by authors both domestically and internationally

Through the synthesis of basketball player selection criteria from relevant research works in and outside the country to select athletes and young basketball players of authors such as: Nguyen Toan (2005) [11], Pham Thi Hoa (2017) [12], Nguyen Van Binh (2020) [13], Le Van Duong (2018) [9], Vu Hong Son (2019) [14], Ziv & Lidor (2009) [15], Hoare (2000) [4], Vaeyens *et al.* (2008) [8], Arede *et al.* (2019) [16], [17], Drinkwater *et al.* (2008) [18], Torres-Unda *et al.* (2013) [19], Sampaio *et al.* (2006) [20], Karalejić *et al.* (2011) [21], Jakovljević *et al.* (2011) [22], Peña *et al.* (2016) [23]. Summary of the classification of criteria groups for selecting basketball players aged 11–12: Through the process of analyzing the content of 14 reference documents, including theses, specialized scientific articles and international research works, the study has identified 5 main groups of criteria commonly mentioned in the selection of young basketball players, which are presented in the following table:

Table 1: Classification of Selection Indicators

Criteria Groups	Frequency (n)	Percentage (%)	Typical Indicators
Morphology	12	85.7	- Standing height, - Arm span, - BMI
Specific Physical Fitness	11	78.6	- Standing long jump, - 20m sprint, - Arm strength
Specialized Technical Skills	10	71.4	- Dribbling, - Shooting, - Passing
Psychology – Sports Motivation	7	50.0	- Reaction, - Tactical thinking
Developmental Potential	6	42.9	- Potential for progress

Results showed that morphological and physical fitness criteria are mentioned with the highest percentage, reflecting the important role of physical foundation in the selection of basketball athletes. Technical and professional criteria are also present in most studies, especially experimental studies in Vietnam, such as those by Le Van Duong (2018) [9], Vu Hong Son (2019) [14]. Meanwhile, the groups of indicators on psychology and development potential are less common but are valuable in the long-term development of athletes, as suggested in the works of Vaeyens *et al.* (2008) [8] and Arede *et al.* (2019) [17].

Results of the synthesis of criteria for selecting basketball athletes aged 11–12: during the process of synthesizing and analyzing relevant documents, the study proceeded to eliminate duplicate criteria and make preliminary selections that are feasible to apply in practice at the local level. The selection results yielded 23 criteria

across 5 groups for selecting talented male basketball players, details of which are presented in Table 2.

Table 2: Results of the preliminary selection of criteria for identifying gifted male basketball athletes aged 11–12 in Thu Dau Mot City, Binh Duong Province, Vietnam

No.	Selection Criteria	Unit	Assessment Purpose
I	**Morphology**		
1.	Standing height	cm	Assess stature development potential
2.	Body weight	kg	Assess body mass
3.	Arm span	cm	Reflect offensive and defensive advantages
4.	Leg length	cm	Assess speed and stride length
5.	Body Mass Index (BMI)	Calculated	Assess body proportion balance
II	**Physical Fitness**		
6.	Push-ups	reps/1 min	Upper body strength
7.	Sit-ups	reps/1 min	Core and abdominal muscle endurance
8.	Standing long jump	cm	Lower body explosive power
9.	20m Sprint	seconds	Acceleration/Explosive speed
10.	Change-of-direction run (Drill Test)	seconds	Speed and agility
11.	T-Test	seconds	Speed and multi-directional agility
12.	Hexagon Jump Test	seconds	Reaction, agility, and neuro-muscular coordination
13.	Defensive lateral slide	seconds	Lateral movement speed – defense
III	**Technical Skills**		
14.	Zigzag dribbling	seconds	Ball control ability while changing directions
15.	Speed dribbling (full court)	seconds	Ball handling speed
16.	30-second move and pass	points/30s	Speed and technical accuracy in realistic conditions
17.	2-point move and shoot (5 positions)	points/1 min	Accuracy and technical speed in close-range scoring
18.	3-point move and shoot (5 positions)	makes/1 min	Accuracy and strength in long-range scoring
IV	**Psychology – Sports Motivation**		
19.	Observation of spirit, discipline, and teamwork	scale 1–5	Competitive spirit – collective behavior
20.	Sport Motivation Scale (SMS) questionnaire	composite score	Interest, persistence, and growth mindset
21.	Observation of experimental competitive performance	scale 1–5	Ability to cope with competitive pressure and adversity
V	**Developmental Potential**		
22.	Training progress	growth rate	Assess long-term development potential
23.	Adaptability to intensive training	scale 1–5	Assess technical receptivity and absorption

3.2 Interviewing managers and experts to select criteria for selecting male basketball players aged 11-12 at Thu Dau Mot City, Binh Duong Province, Vietnam

The study involved developing a survey and conducting interviews with 20 experts, scientists, coaches, and experienced managers in basketball. Each criterion was briefly described in terms of its evaluation objective to help participants better understand its suitability. Interviews were conducted twice, two weeks apart, using the same questionnaire to ensure reliability and consistency in the experts' test/criteria choices. Criteria receiving 70% or more agreement were selected. The results of the interviews for selecting criteria for male basketball players are presented in Table 3.

Table 3: Results of expert interviews for the selection of criteria for identifying male basketball athletes aged 11–12 at Thu Dau Mot City, Binh Duong Province, Vietnam

No.	Assessment Test/Criteria	Round 1 (n; %)	Round 2 (n; %)
I	**Morphology**		
1	Standing height	20/20 (100%)	20/20 (100%)
2	Body weight	10/20 (50%)	8/20 (40%)
3	Arm span	19/20 (95%)	18/20 (90%)
4	Leg length	12/20 (60%)	11/20 (55%)
5	Body Mass Index (BMI)	9/20 (45%)	8/20 (40%)
II	**Physical Fitness**		
6	Push-ups	13/20 (65%)	12/20 (60%)
7	Sit-ups	10/20 (50%)	9/20 (45%)
8	Vertical Jump	18/20 (90%)	19/20 (95%)
9	20m Sprint	19/20 (95%)	20/20 (100%)
10	Agility Drill Test	11/20 (55%)	10/20 (50%)
11	T-Test	17/20 (85%)	18/20 (90%)
12	Hexagon Jump Test	18/20 (90%)	19/20 (95%)
13	Defensive Lateral Slide	17/20 (85%)	18/20 (90%)
III	**Technical Skills**		
14	Zigzag Dribbling	20/20 (100%)	19/20 (95%)
15	Speed Dribbling	13/20 (65%)	12/20 (60%)
16	30s Move and Pass	18/20 (90%)	18/20 (90%)
17	2-Point Shoot (5 positions)	19/20 (95%)	20/20 (100%)
18	3-Point Shoot (5 positions)	18/20 (90%)	18/20 (90%)
IV	**Psychology – Motivation**		
19	Teamwork & Discipline	11/20 (55%)	10/20 (50%)
20	Sport Motivation Scale (SMS)	12/20 (60%)	12/20 (60%)
21	Competitive Performance	17/20 (85%)	18/20 (90%)
V	**Developmental Potential**		
22	Training Progress	19/20 (95%)	20/20 (100%)
23	Intensive Training Adaptability	18/20 (90%)	19/20 (95%)

The interview results showed that 14 out of 23 criteria achieved 70% or higher in both surveys, and accounted for 65.2% of the total tests surveyed. These tests spanned four groups of indicators: morphology, physical fitness, technique, sports psychology and motivation, and development potential.

- **Morphology (2 criteria):** Standing height, Arm span.
- **Physical fitness (5 criteria):** Standing high jump, 20m sprint, T-Test, Hexagon jump, Defensive slide.
- **Specialized technique (4 criteria):** Zigzag dribbling, 30-second passing movement, 2-point shooting movement - 5 positions, 3-point shooting movement - 5 positions.
- **Sports psychology and motivation (1 criterion):** Observation of experimental competition performance.
- **Development potential (2 criteria):** Training progress, Adaptation to advanced training.

Based on the interview results, the study identified 14 evaluation criteria that are highly relevant and applicable in the practical selection of talented male basketball players aged 11-12, and conducted reliability testing for further steps in the study.

3.3 Reliability Testing of the Selected Criteria

This study applied experimental criteria to a sample of 100 male basketball players aged 11-12 participating in training at Thu Dau Mot city. Subsequently, the reliability analysis of the tests/indicators was then conducted, and the stability of the parameters obtained across two trials was evaluated, too. The results are presented in Table 4.

Table 4: Results of reliability testing for the selection criteria of males basketball athletes aged 11–12 at Thu Dau Mot City, Binh Duong Province, Vietnam

No.	Selection Criteria	r (Pearson)	Cronbach's Alpha	Reliability Assessment
1	Standing height	0.98	0.97	Very High
2	Arm span	0.95	0.94	Very High
3	Vertical jump	0.91	0.89	High
4	20m Sprint	0.94	0.93	Very High
5	T-Test	0.90	0.91	High
6	Hexagon jump	0.87	0.88	Relatively High
7	Defensive lateral slide	0.91	0.89	High
8	Zigzag dribbling	0.92	0.90	High
9	30-second move and pass	0.88	0.86	Relatively High
10	2-point move and shoot (5 positions)	0.95	0.92	Very High
11	3-point move and shoot (5 positions)	0.91	0.89	High
12	Observation of experimental competitive performance	0.84	0.82	Relatively High
13	Intensive training adaptability	0.89	0.87	High

The data showed that all selected criteria have correlation coefficients and Cronbach's Alpha reliability > 0.80, meeting the high reliability standard according to Nunnally's (1978) rating scale. This demonstrates that the tests/indicators are stable, reliable, and repeatable when applied to many subjects, and at different times. Regarding the

"Training Progress" indicator, the study did not test its reliability, as this is an indicator assessing the growth rate of criteria after a training period.

Regarding the validity of the criteria, the study did not examine this because these criteria have already been widely used in published scientific research related to basketball athlete selection.

4. Conclusion

The research results identified 14 criteria in 4 groups of indicators: morphology, physical fitness, technique, sports psychology and motivation, and development potential in the selection of 11-12-year-old male basketball players at Thu Dau Mot City, Binh Duong Province, Vietnam, including:

- **Morphology (2 criteria):** Standing height, Arm span.
- **Physical fitness (5 criteria):** Standing high jump, 20m sprint, T-Test, Hexagon jump, Defensive slide.
- **Specialized techniques (4 criteria):** Zigzag dribbling, 30-second passing movement, 2-point moving shooting - 5 positions, 3-point moving shooting - 5 positions.
- **Sports psychology and motivation (1 criterion):** Observation of experimental competitive performance.
- **Development potential (2 criteria):** Training progress, Intensive training adaptability.

Conflict of Interest Statement
The authors declare no conflicts of interest.

About the Author(s)
Nguyen Le Pham Huynh (PhD) has been a physical education instructor at the Center of Physical Education at Hochiminh City University of Technology (HUTECH), Vietnam.
Huynh Duy Long has been a physical education teacher at Trinh Hoai Duc High School, Binh Duong, Vietnam.

Nguyen Hoang Duy has been a physical education teacher at Phu Dong Primary School, Ho Chi Minh City, Vietnam.

References

1. Ho Chi Minh City University of Physical Education and Sports. (2016). *Basketball Curriculum*. Vietnam National University - Ho Chi Minh City Publishing House.
2. Côté, J., & Vierimaa, M. (2014). The developmental model of sport participation: 15 years after its first conceptualization. *Science & Sports, 29*(S63–S69). https://doi.org/10.1016/j.scispo.2014.08.133
3. Jakovljević, S., Karalejić, M., & Macura, M. (2011). The importance of speed and agility in basketball players. *Sport Science, 4*(2), 22–29.
4. Hoare, D. G. (2000). Predicting success in junior elite basketball players—the contribution of anthropometric and physiological attributes. *Journal of Science and Medicine in Sport, 3*(4), 391–405. https://doi.org/10.1016/s1440-2440(00)80006-7
5. Drinkwater, E. J., Pyne, D. B., & McKenna, M. J. (2008). Design and interpretation of anthropometric and fitness testing of basketball players. *Sports Medicine, 38*(7), 565–578. https://doi.org/10.2165/00007256-200838070-00004
6. Matveev, L. P. (1999). *Theory and methodology of physical education*. Physical Culture and Sport.
7. Bompa, T. O. (2000). *Total training for young champions*. Human Kinetics. Retrieved from https://books.google.ae/books/about/Total_Training_for_Young_Champions.html?id=OBwrLnc3DiwC&redir_esc=y
8. Vaeyens, R., Lenoir, M., Williams, A. M., & Philippaerts, R. M. (2008). Talent identification and development programmes in sport: Current models and future directions. *Sports Medicine, 38*(9), 703–714. Retrieved from https://doi.org/10.2165/00007256-200838090-00001
9. Le. V. D. (2018). *Selection of specialized tests for identifying male basketball athletes aged 12–14 in Nghe An province* (Master's thesis). Bac Ninh University of Physical Education and Sports.
10. Reilly, T., Williams, A. M., & Richardson, D. (2003). Talent identification and development in soccer. *Journal of Sports Sciences, 21*(9), 693–702. https://doi.org/10.1080/02640410050120041
11. Nguyen, T. (2005). *Selection and training of high-performance athletes*, Sports Publishing House.
12. Phạm, T. H. (2017). *Developing selection criteria for female basketball athletes aged 13–14 in Hanoi* (Master's thesis). Bac Ninh University of Physical Education and Sports.
13. Nguyen, V. B. (2020). Assessment of sport-specific physical fitness of young basketball players in Ho Chi Minh City, *Journal of Sport Science*, (*12*), 45–52.

14. Vũ, H. S. (2019). Evaluating specialized motor skills in the selection of young basketball players in Da Nang city. *Journal of Sport Science*, (*6*), 33–39.
15. Ziv, G., & Lidor, R. (2009). Physical attributes, physiological characteristics, on-court performances and nutritional strategies of female and male basketball players. *Sports Medicine, 39*(7), 547–568. https://doi.org/10.2165/00007256-200939070-00003
16. Arede, J., Esteves, P., Ferreira, A. P., Sampaio, J., & Leite, N. (2019). Jump higher, run faster: Effects of diversified sport participation on talent identification and selection in youth basketball. *Journal of Sports Sciences, 37*(20), 2361–2369. https://doi.org/10.1080/02640414.2019.1626114
17. Arede, J., Ferreira, A. P., Gonzalo-Skok, O., & Leite, N. (2019). High and low performers in under-14 elite basketball players: Differences in anthropometric, physical, and technical profiles. *Frontiers in Psychology, 10*, 1626.
18. Drinkwater, E. J., Hopkins, W. G., McKenna, M. J., Hunt, P. H., & Pyne, D. B. (2008). Modelling changes in lean mass of elite male basketball players during the off-season and preseason. *European Journal of Applied Physiology, 103*(6), 701–709.
19. Torres-Unda, J., *et al.* (2013). Basketball performance is related to maturity and relative age in elite adolescent players. *Journal of Strength and Conditioning Research, 27*(4), 1046–1054. https://doi.org/10.1519/jsc.0000000000001224
20. Sampaio, J., Ibáñez, S. J., & Feu, S. (2006). Discriminative power of basketball game-related statistics by level of competition and sex. *Perceptual and Motor Skills, 103*(3), 781–791. https://doi.org/10.2466/pms.99.3f.1231-1238
21. Karalejić, M., Jakovljević, S., & Macura, M. (2011). Anthropometric characteristics and technical skills of 12 and 14 year old basketball players. *Journal of Human Kinetics, 30*(1), 107 – 114, 123–131. Retrieved from https://pubmed.ncbi.nlm.nih.gov/21297570/
22. Jakovljević, S., Karalejić, M., & Popović, B. (2011). Multidimensional model of successful young basketball players' selection. *Acta Kinesiologica, 5*(1), 62–67.
23. Peña, J., Álvarez, C. J., & González, L. M. (2016). The relationship between physical fitness and game-related statistics in elite junior basketball players. *Journal of Human Kinetics, 51*(1), 115–123.