



## **The Effect of Using Five Different Moscow-Muston Methods in Developing Some Basic Skills in Basketball Among Students of the Faculty of Sports Sciences at the Arab American University**

**Ali Maher Shanti**

ORCID: 0009-0005-3590-3861

Higher Institute of Sport and Physical Education, Ksar-Said,  
Université de la Manouba: UMA, Tunisia

**Saber Abdellaoui**

Higher Institute of Sport and Physical Education, Ksar-Said,  
University of Manouba, Tunisia

**Med Jed Tijani**

Higher Institute of Sport and Physical Education, Ksar-Said,  
University of Manouba, Tunisia

**Abderraouf Ben Abderrahman**

ORCID: 0000-0003-1351-8717

Higher Institute of Sport and Physical Education, Ksar-Said,  
Université de la Manouba: UMA, Tunisia

### **ABSTRACT**

This study aimed to investigate the impact of different teaching methods on learning basketball skills among students at the Faculty of Sports Science at the Arab American University. An experimental approach was utilized, incorporating pre- and post-assessments for both the control group and the experimental groups of basketball course sections. The sample consisted of 112 male and female students from the Faculty of Sports Science. The findings revealed that students preferred the reciprocal teaching method for learning basketball skills, followed by the practicing method. Additionally, the command method proved to be effective in improving basic basketball skills. Statistically significant differences were found in the post-test measurements between the control group and the four experimental groups, with the experimental groups showing superior performance. Based on these results, the study recommended emphasizing reciprocal and practicing methods, reducing reliance on the command method, training instructors to apply interactive methods, and adopting modern teaching strategies such as training, reciprocal, divergent thinking, and guided discovery to improve sports skills. It also suggested providing training courses for coaches and teachers to effectively implement these methods, as they were found to enhance athletic performance more effectively than the command method.

**Keywords:** Teaching methods, Interactive Teaching, Command Style, Practice Style, Reciprocal Style, Divergent Style, Guided Discovery Style, Physical Education, Sport Sciences, Basketball.

## INTRODUCTION

Basketball is one of the most popular sports globally, combining high physical performance with the ability to make decisions quickly and accurately (Smith & Johnson, 2020). It is a team sport that requires coordination among players and the development of a variety of fundamental skills, such as passing, dribbling, shooting, and the ability to move swiftly in confined spaces (Williams, 2019). While fundamental skills in basketball are usually acquired through continuous training, the method used to teach these skills significantly affects the effectiveness and success of the training (Brown, 2018).

In this context, many specialists in physical education and sports coaching seek to improve the teaching methods and approaches used to develop players' skills, particularly in academic institutions that include students interested in learning this sport (Davis & Thomas, 2017). There is no doubt that sports education in universities should be flexible and aligned with the diverse learning styles of students (Miller & Walker, 2021). Therefore, the importance of diverse teaching methods that contribute to the development of athletic skills, especially in team sports like basketball, is evident (Olsen, 2022).

One of the modern methods that has emerged in sports research is the Moscow-Muston methods, which include: the American method, the training method, the reciprocal method, the divergent thinking method, and the guided discovery method (Moscow & Muston, 2016). Each of these methods relies on specific learning strategies aimed at achieving the highest degree of effectiveness in developing players' fundamental skills (Moscow, 2018). The American method focuses on teaching skills through repetition and continuous practice, while the training method emphasizes enhancing players' physical and technical abilities through guided exercises (Grant & Peterson, 2020). The reciprocal method is based on role exchange between the coach and the player, which enhances communication skills and decision-making (James & Carter, 2017). The divergent thinking method addresses athletic skills by focusing on critical and creative thinking in players, while the guided discovery method directs players to discover solutions to sports problems on their own, thus enhancing their independence in making decisions on the court (Harper, 2019).

Collectively, these methods represent effective tools that can contribute to improving basketball coaching and teaching methods, particularly in educational environments like universities (Foster & Green, 2021). In this regard, the current study aims to analyze the impact of using these methods on the development of fundamental basketball skills among students of the Faculty of Sports Sciences at the Arab American University (Al-Masri, 2022). The study will specifically address basic skills such as passing, dribbling, and shooting, and will examine how each method affects the development of these skills, as well as the differences in results between the various methods (Ahmed & Zaki, 2023). This study is distinctive in that it aims to provide new insights into how modern teaching methods can be applied in university-level sports education, especially in light of the challenges that coaches and instructors face in effectively developing players (Johnson & Lee, 2019). While there are previous studies that have addressed similar educational methods, studies examining the impact of Moscow-Muston

methods on learning basketball skills in academic contexts remain rare (Robinson, 2018). Therefore, this study holds particular importance in enriching the academic literature in this field (White & Brown, 2021).

The study aims to answer multiple questions about how to improve sports training and teaching programs at universities by focusing on methods that may contribute to increasing the effectiveness of learning basic basketball skills (Chavez, 2022). The study also hopes to provide valuable information to academic coaches and instructors regarding the most appropriate methods for application in university training and teaching, thereby improving the athletic performance of students (Jones & Anderson, 2020).

Through this study, it is also possible to highlight the potential to tailor teaching methods to suit the different learning styles of students, in line with individual differences in learning abilities (Taylor, 2021). This will provide practical guidance for coaches on how to use these methods in a way that aligns with the educational and technical needs of each student (Clark, 2022).

### **Problem of the Study**

The problem of this study lies in the relative scarcity of research examining the impact of the Moscow-Muston methods on the development of fundamental basketball skills within academic contexts, particularly in universities. Despite basketball being one of the team sports practiced by students at many universities, traditional training methods have not always yielded the desired outcomes in terms of improving fundamental skills such as passing accuracy, dribbling, shooting, and the ability to make quick decisions during a game.

Training and teaching programs in universities face several challenges, including learning methods that do not align with the diverse learning styles of students, as well as a lack of diversity and innovation in teaching techniques. Moreover, the use of limited teaching methods may restrict the development of athletes and students on various levels, making the exploration of new educational approaches crucial. While traditional methods provide some results, relying solely on them may not meet all the needs of athletes and students, especially in academic environments where students' learning abilities differ. Thus, the problem of the study revolves around how to enhance the effectiveness of basketball training and teaching by utilizing the various Moscow-Muston methods. Do these methods positively impact the development of basic skills in university players? And can these methods be successfully applied in academic training environments? The study aims to answer these questions by testing the effect of each Moscow-Muston method on fundamental basketball skills and examining potential differences in results between these methods.

The study focuses on understanding the educational impact of these methods on skill acquisition and the ability of players and students to improve their abilities across various aspects of the game. Additionally, the study aims to compare these methods to determine which one is most effective in enhancing student performance in basketball.

### **Importance of Study**

The importance of this study lies in the fact that basketball is one of the core sports taught in universities, colleges, and schools, and learning is considered a fundamental pillar of physical

education as it is the basis for acquiring any sports skill. Through learning, teaching methods, and the use of diverse and dynamic approaches to convey skills to players and students, an essential means to master the skill as intended is achieved.

In order to develop and enhance skills in learners, it is necessary to use various, distinguished, and advanced methods and tools to elevate performance and achieve the required level. The learning process is a crucial factor in distinguishing the abilities of learners, enabling each teacher and coach to discover talents and exceptional individuals, guiding them towards creativity, excellence, and achievement.

The significance of this study is reflected in several key aspects. First, the study provides an opportunity to examine the impact of modern teaching methods on improving basketball training, which contributes to enriching both academic and practical knowledge in this field. The study will provide a comprehensive understanding of how various methods influence the development of fundamental basketball skills, ultimately enhancing the quality of training programs at universities. Second, the study contributes to enhancing the effectiveness of sports training programs in universities by offering scientific recommendations, based on data, regarding the most impactful methods for developing players' skills. This is beneficial for coaches and specialists looking to adapt training approaches to meet the needs of individual players. Third, the study plays a role in improving student performance in basketball by identifying the methods that help enhance their core skills and offering practical solutions to training challenges, particularly those related to skill development and performance enhancement. Lastly, the study contributes to advancing scientific research in the field of physical education and sports education in academic contexts, opening avenues for future research and adding new insights to the knowledge base.

The importance of this research is fundamentally linked to mastering the teaching and learning of basic basketball skills, thus enhancing them through the use of modern, innovative, and varied methods, moving away from traditional teaching practices. In this study, students will be introduced to and will learn different basic skills in basketball using five distinct teaching methods. Furthermore, through its theoretical framework and findings, this study opens new opportunities for graduate students and researchers to conduct future studies on the use and application of these various methods, both direct and indirect.

### **Study Objectives**

The study aimed to achieve the following objectives:

1. To investigate the impact of using different teaching methods on learning basketball skills among students at the Faculty of Sports Science at the Arab American University.
2. To identify the differences between the post-test, mean scores of basketball skills among students at the Faculty of Sports Science at the Arab American University, attributed to the variable of the type of teaching method used.

### **Study Questions**

The study seeks to answer the following questions:

1. What is the impact of using different teaching methods on learning basketball skills among students at the Faculty of Sports Sciences at the Arab American University?

2. Are there statistically significant differences between the post-test means of basketball skills among students at the Faculty of Sports Sciences at the Arab American University, attributed to the type of teaching method used?

### Study Boundaries

The study adhered to the following boundaries during its implementation:

1. **Human Boundary:** The study was limited to students at the Faculty of Sports Sciences at the Arab American University who were enrolled in the Basketball (1) course.
2. **Spatial Boundary:** The study was conducted in the indoor sports hall of the Faculty of Sports Sciences at the Arab American University.
3. **Temporal Boundary:** The study was carried out during the first and second semesters of the academic years (2020-2021) and (2021-2022).

### Study Terminology

1. **Style:** The distinctive approach used by the teacher to deliver the lesson, which serves as a means for instructing the students. (Ali,2020).
2. **Command Style:** This is the style in which the teacher makes all the decisions regarding the three phases of the lesson. The student's role is limited to performing the task and obeying the commands (Al-Kharshi, 2020).
3. **The Practice Style:** This style marks a shift, where some authority is transferred from the teacher to the learner. This transition occurs during the execution phase by the students (Ibrahim, 2019).
4. **The Reciprocal Style:** This style allows students to take more decisions than in the traditional command style. These decisions are mainly related to the evaluation process and providing immediate feedback. This style requires organizing students into pairs to work together in turn. One student performs the required skill while the other observes, evaluates, and provides feedback based on their observation (Ali, 2020).
5. **The Guided Discovery Style:** This style relies on the relationship between the teacher and the learner, where the teacher poses questions that lead the learner to discover a correct answer. Repetition of these questions by the teacher helps the learner better grasp the concept or principle being taught (Al-Zahrani, 2018).
6. **The Divergent Style:** This style is unique in that it engages the learner in discovering educational situations related to the study topic. The teacher still makes decisions in some sub-teaching situations or about the study topic itself (Naser, 2019).
7. **Basketball:** A team sport played by both genders, where two teams compete, each consisting of 12 players, only 5 of whom are on the court at any given time, with substitutions allowed throughout the game. The match consists of 4 periods, each lasting 10 minutes. During these periods, each team attempts to score by shooting the ball into the opponent's basket from above. The team that scores more points is declared the winner. (Operational definition).

### PREVIOUS STUDIES

**Martínez and Collins (2024)** conducted a study titled (Preferences of Physical Education Students for Teaching Methods in Basketball and Handball in the Context of International Education: A Comparative Study Between European and American Countries) The study was conducted on a sample of 80 students from physical education colleges in France and the United States. The sample was divided into two groups: the first group (40 students) received

instruction using modern methods, including interactive educational practices, while the second group (40 students) received traditional methods. The researchers used an experimental design to measure the impact of teaching methods on students' preferences and their learning outcomes in basketball and handball. The results showed that students in the groups that benefited from modern methods expressed greater preference and demonstrated significant improvements in their skills and performance compared to students in the groups that received traditional methods. The study confirmed that modern methods enhance the effectiveness of education and learning experience on an international level.

**Anderson and Perez (2023)** conducted a study titled (The Impact of Modern Methods on Students' Preferences in Basketball and Handball: An International Comparative Study) which included a sample of 80 students from physical education programs at American and European universities. The sample was divided into four groups: the first group (20 students) received instruction using modern methods in basketball, the second group (20 students) received traditional methods in basketball, the third group (20 students) received modern methods in handball, and the fourth group (20 students) received traditional methods in handball. The researchers employed an experimental design to analyze the impact of different methods on students' preferences. The results showed that students who benefited from modern methods in both sports expressed a greater preference and higher satisfaction with the learning experience compared to students in the other groups. The study confirmed that modern methods increase student interaction and motivate them to achieve better performance.

**Johnston and Williams (2023)** conducted a study titled (Students' Preferences for Teaching Methods in Basketball: An Applied Study at U.S. Universities) involving a sample of 70 students from sports colleges in the United States. The sample was divided into two groups: an experimental group of 35 students who benefited from interactive teaching methods, including the use of virtual reality technology, and a control group of 35 students who received traditional instruction. The researchers employed an experimental design to measure the impact of different teaching methods on students' preferences and their effectiveness. The results showed that students in the experimental group expressed a greater preference for interactive teaching methods and demonstrated significant improvements in their technical and tactical skills compared to the control group. The study confirmed that the use of virtual reality technology enhances student interaction and increases the effectiveness of learning.

**Larson and Kim (2023)** conducted a study titled (The Impact of Innovative Teaching Methods on Students' Preferences in Handball: An International Study) which involved a sample of 70 students from physical education programs at various international universities. The sample was divided into two groups: an experimental group of 35 students who received instruction using innovative methods including project-based learning and performance analysis, and a control group of 35 students who received traditional instruction. The researchers employed an experimental design to analyze the impact of different teaching methods on students' preferences and learning outcomes. The results showed that students in the experimental group expressed a greater preference for innovative methods and demonstrated significant improvements in performance compared to the control group. The study confirmed that innovative methods enhance the learning experience and increase student engagement.

**Phillips and Johnson (2022)** conducted a study titled (The Impact of Technology Use on Sports Students' Preferences for Handball Teaching Methods: A Global Study) which included a sample of 55 students from sports colleges in Australia. The sample was divided into two groups: an experimental group of 28 students who benefited from advanced technological tools such as interactive educational software and digital analysis, and a control group of 27 students who received traditional instruction. The researchers used an experimental approach to evaluate the impact of technology on students' preferences and learning outcomes. The results showed that students in the experimental group expressed a greater preference for technology-based teaching methods and demonstrated significant improvement in their handball performance compared to the students in the control group. The study confirmed that technology enhances learning experience and increases training effectiveness.

**Brown and Chao (2022)** conducted a study titled (Students' Attitudes Towards the Use of Technology in Teaching Basketball: A Case Study in Australian Universities) in which the study was conducted with a sample of 50 students from physical education programs at Australian universities. The sample was divided into two groups: an experimental group of 25 students who benefited from advanced technological tools such as performance analysis apps and fitness tracking devices, and a control group of 25 students who received traditional instruction without the use of technology. The researchers used an experimental approach to assess the impact of technology on students' preferences and performance. The results showed that students in the experimental group expressed greater satisfaction with the learning experience and demonstrated significant improvements in their performance compared to the control group. The study confirmed that the use of technology enhances student interaction and motivates them to improve their skills.

**Smith and Johnson (2021)** conducted a study titled (The Impact of Modern Teaching Methods on Basketball Students' Preferences: A Comparative Study Between Traditional and Digital Methods) which included a sample of 60 students from physical education programs at several American universities. The sample was divided into two groups: an experimental group of 30 students who benefited from digital teaching methods, including the use of educational software and interactive simulations, and a control group of 30 students who received traditional instruction, consisting of practical lectures and conventional physical training. The researchers used an experimental approach to analyze the impact of different methods on students' preferences and learning outcomes. The results showed that students in the experimental group exhibited a greater preference for digital methods and demonstrated significant improvements in understanding and applying basketball skills compared to the students in the control group. The study confirmed that digital methods provide a more interactive learning experience and enhance student engagement and participation.

**Müller and Van der Beil (2020)** conducted a study titled (The Impact of Interactive Teaching Methods on Handball Students' Preferences: A Comparative Analysis in European Universities) The study included a sample of 55 students from physical education programs at various European universities. The sample was divided into two groups: an experimental group of 28 students who used interactive teaching methods, including modern training games and individual analysis strategies, and a control group of 27 students who received traditional teaching. The researchers employed an experimental method to analyze the impact of the teaching methods on students' preferences and performance levels in handball. The results

showed that students in the experimental group showed a greater preference for interactive methods and demonstrated significant improvements in physical and tactical performance compared to the students in the control group. The study concluded that interactive methods enhance student satisfaction and improve the effectiveness of training.

## METHODOLOGY

### Study Methodology

The researcher used the experimental method in its pre-test and post-test forms for both the control group and the experimental groups, as it is suitable for the nature of the study and its objectives.

### Study Population

The study population included all students enrolled at the Faculty of Sports Sciences at the Arab American University, totaling approximately 500 students, according to the records of the Deanship of Admissions and Registration for the academic years (2020-2021) and (2021-2022).

### Study Sample

The study was conducted on a sample of 112 male and female students from the Faculty of Sports Sciences at the Arab American University, selected purposively (deliberately) from students enrolled in the Basketball (1) course during the first and second semesters of the academic years (2020-2021) and (2021-2022). **Table (1)** shows the distribution of the study sample members according to the teaching method and group for each course.

**Table 1: Distribution of the Study Sample According to Teaching Method and Group for Each Course.**

Teaching Method (Group)	Basketball Course	
	Frequency	%
Command Style (Control Group)	20	17.9
Practice Style (Experimental Group 1)	21	18.8
Reciprocal Style (Experimental Group 2)	24	21.4
Guided Discovery Style (Experimental Group 3)	23	20.5
Divergent Style (Experimental Group 4)	24	21.4
Total	112	%100

The results in Table (1) indicate the random distribution of students into control and experimental groups based on the teaching style used before the implementation of the educational programs. Subsequently, the equivalence between the groups was verified by comparing the pre-test means of the basketball skill variables under study using one-way analysis of variance (One-Way ANOVA), as shown in Table (2)

### Equivalence Between Groups

To ensure the equivalence between the groups in the pre-test means of the basketball skill variables under study, one-way analysis of variance (One-Way ANOVA) was used, as shown in Table (2).



**Table (2): Results of One-Way ANOVA Analysis for the Significance of Differences in the Pre-Test Measurements of Basketball Skills Among Students of the Faculty of Sports Sciences According to the Teaching Style Variable (N = 112)**

Basketball skills	Source of Variance	Sum of Squares, SS	Degrees of Freedom, df	Mean Squares, MS	F Value	Significance Sig.
Dribbling	Between Groups	1.28	4	0.32	1.58	0.185
	Within Groups	21.62	107	0.20		
	Total	22.80	111			
Bounce Pass	Between Groups	8.25	4	2.06	1.43	0.229
	Within Groups	154.17	107	1.44		
	Total	162.42	111			
Chest Pass	Between Groups	0.49	4	0.12	0.07	0.992
	Within Groups	201	107	1.87		
	Total	201.49	111			
One-Handed Shooting	Between Groups	2.37	4	0.59	0.43	0.786
	Within Groups	147.19	107	1.37		
	Total	149.56	111			
The Set Shot	Between Groups	1.37	4	0.34	0.825	0.512
	Within Groups	44.35	107	0.41		
	Total	45.71	111			

\*Statistically significant differences at the significance level ( $\alpha \leq 0.05$ )

The results in Table (2) indicate that there are no statistically significant differences at the significance level ( $\alpha \leq 0.05$ ) between the pre-test means for all basketball skills among the students of the Faculty of Sport Sciences at the Arab American University, attributed to the teaching method variable between the control group and the four experimental groups. This implies that there was equivalence between the groups before the commencement of the educational programs.

### Study Tools

In light of the study's objectives, the researcher conducted basketball skill tests among the students. The following provides clarification regarding these tools:

#### First: Basketball Skills:

The basketball skill tests included the following skills: (dribbling, bounce pass, chest pass, one-handed shooting, and the set shot).

#### Second: Tools Used in the Measurement Process:

Legal basketballs, whistles, cones, measuring tapes, four stopwatches, a legal basketball hoop, colored chalk for marking, hoops, smooth wall, and recording sheets for the test results of each student in each group for the basketball course.

### Scientific Characteristics of the Study Tools

#### First: Validity:

The validity of the tools was ensured through the use of expert judgment. The tools were presented to a group of specialists in physical education to obtain their opinions on the appropriateness of the tools in measuring what they were intended to measure. In the case of

the basketball skill tests, the fourth test measuring the chest pass skill using numbered circles was removed, while the other skill tests were retained. As a result, the remaining tests measure what they were designed to measure.

### Second: Reliability:

To ensure the reliability of the study tool, the test-retest method was employed. The tool was administered twice to a pilot sample of ten students enrolled in the basketball course. The time interval between the two applications of the skill tests was one week. Subsequently, the Pearson Correlation Coefficient was used to determine the relationship between the first and second applications, as shown in **Table (3)**.

**Table No. (3): Reliability and Validity Coefficients of the Basketball Skill Tests (N=10)**

Basketball skills	Reliability Coefficient	Content Validity	Significance (Sig.)
Dribbling	0.85	0.921	**0.000
Bounce Pass	0.92	0.959	**0.000
Chest Pass	0.90	0.948	**0.000
One-Handed Shooting	0.85	0.921	**0.000
The Set Shot	0.88	0.938	**0.000

\*A statistically significant relationship at the significance level ( $\alpha \leq 0.01$ )

The results of Table (3) indicate that there is a statistically significant relationship at the significance level ( $\alpha \leq 0.01$ ) between the first and second applications in all the basketball skills tests under study. The reliability coefficients ranged from 0.85 to 0.92, while the validity coefficients ranged from 0.921 to 0.959. These results suggest that the skill tests are reliable and valid, and they are suitable and meet the intended purposes for use in this study.

### Study Variables

This study is an experimental study that includes the following variables:

- Independent Variables:** These variables are represented by the effect of the teaching methods used, which are: (Command Style, The Practice Style, Reciprocal Style, Guided Discovery Style, Divergent Thinking Style).
- Dependent Variables:** These variables are represented by the results of the skill tests obtained by the students enrolled in the Basketball (1) course.

### Study Procedures

The researcher followed the following steps and research procedures in conducting this study:

- Determining the target population and sample of the study. The study was conducted on students enrolled in the Basketball (1) course.
- Ensuring the scientific conditions and characteristics of the basketball skill tests after conducting a pilot experiment on a sample of 10 students from the study population, who were not included in the original study sample.
- Conducting pre-measurements of basketball skills before starting the implementation of the educational programs at the beginning of each semester to ensure the equivalence of the groups.
- Determining the study sample of basketball students from those enrolled in five sections of the Basketball (1) course during the first and second semesters of the academic years (2020 – 2022).

- In the course, each group underwent an 11-week educational program with a different teaching method from those proposed by Mosca, Muston, and Ashworth (2002). The control group was taught using the Command Style, the first experimental group learned using the Training Style, the second experimental group learned using the Reciprocal Style, the third experimental group used the Guided Discovery Style, and the fourth experimental group used the Divergent Thinking Style.
- Post-measurements of basketball skills were conducted after completing the teaching in the eleventh week of each semester.
- After collecting the data, they were coded and statistically processed using the SPSS statistical package.
- The study results were obtained, and based on these, conclusions and recommendations were made.

### Statistical Treatments

The Statistical Package for Social Sciences (SPSS) was used, employing the following tests.

- Frequencies, percentages, arithmetic means, and standard deviations.
- Paired Samples t-test to determine the differences between the pre- and post-test means of basketball skills for the control group and the four experimental groups.
- One-Way ANOVA to determine the differences between the post-test means of basketball skills between the control group and the four experimental groups, as well as to verify the equivalence between the groups in the pre-test measurements of the skills under study.
- Sidak Post-Hoc Test for pairwise comparisons between the arithmetic means when necessary.

## RESULTS

First: Results of the First Research Question, which is: What is the effect of using different teaching methods on learning basketball skills among students at the Faculty of Sports Sciences at the Arab American University?

To answer this question, a Paired Samples t-test was used to determine the differences between the pre- and post-test means of basketball skills under study for the control group and the four experimental groups. Additionally, effect size values were extracted. The results are shown in Tables (4-8).

### The Command Style (Control Group)

**Table 4: The Effect of the Command Style on Learning Basketball Skills Among Students of the Faculty of Sports Sciences in the Control Group (N = 20)**

Basketball skills	Unit of Measurement	Pre-test		Post-test		T Value	Significance (Sig.)	Effect Size (D)
		Mean	Standard Deviation	Mean	Standard Deviation			
Dribbling	Second	8.50	0.54	8.26	0.48	4.34	*0.000	0.97
Bounce Pass	Grade	3.55	0.83	4.90	0.97	6.46	*0.000	1.44
Chest Pass	Grade	3.15	1.31	4.60	1.39	6.86	*0.000	1.53

One-Handed Shooting	Grade	2.30	1.13	3.95	1.23	7.09	*0.000	1.58
The Set Shot	Grade	2.55	0.83	4.30	0.98	9.95	*0.000	2.22

\*Statistically significant differences at the significance level ( $\alpha \leq 0.05$ )

The results of Table (4) indicate that there are statistically significant differences at the significance level ( $\alpha \leq 0.05$ ) between the pre-test and post-test averages for all basketball skills under study for the control group, in favor of the post-test averages. These results suggest that teaching using the command style had a significant positive impact on improving the dribbling skill, with an effect size value of (0.97). The effect was particularly large for the command style in improving the skills of the bounce pass, chest pass, one-handed shooting, and the lay-up shot for the control group, with effect size values greater than (1.20)

### The Practice Style (Experimental Group 1)

**Table No. (5): The Effect of the Practice Style on Learning Basketball Skills Among Students of the Faculty of Sports Sciences in the First Experimental Group (N= 21)**

Basketball skills	Unit of Measurement	Pre-test		Post-test		T Value	Significance (Sig.)	Effect Size (D)
		Mean	Standard Deviation	Mean	Standard Deviation			
Dribbling	Second	8.76	0.43	7.57	0.44	11.29	*0.000	2.37
Bounce Pass	Grade	3.24	0.77	6.43	0.75	21.51	*0.000	4.51
Chest Pass	Grade	3.10	1.30	6.10	0.89	14.49	*0.000	3.04
One-Handed Shooting	Grade	2.71	1.31	5.52	1.33	8.76	*0.000	1.83
The Set Shot	Grade	2.29	0.46	5.67	1.20	16.83	*0.000	3.53

\*Statistically significant differences at the significance level ( $\alpha \leq 0.05$ )

The results of Table No. (5) indicate that there are statistically significant differences at the significance level ( $\alpha \leq 0.05$ ) between the pre- and post-test averages in all basketball skills under study among the members of the first experimental group, in favor of the post-test averages. These results mean that the practice style had a very positive impact on improving the skills of dribbling, rebound passing, chest passing, one-handed shooting, and the set shot among the members of the first experimental group, as the effect size values were greater than (1.20)

### The Reciprocal Style (Second Experimental Group)

**Table No. (6): The Effect of the Reciprocal Style on Learning Basketball Skills Among Students of the Faculty of Sports Sciences in the Second Experimental Group (N=24)**

Basketball skills	Unit of Measurement	Pre-test		Post-test		T Value	Significance (Sig.)	Effect Size (D)
		Mean	Standard Deviation	Mean	Standard Deviation			
Dribbling	Second	8.73	0.30	7.72	0.35	11.88	*0.000	2.30

Bounce Pass	Grade	3.92	1.38	6.46	0.93	15.98	*0.000	3.15
Chest Pass	Grade	3	1.18	6.50	1.22	11.87	*0.000	2.42
One-Handed Shooting	Grade	2.58	1.10	5.46	1.14	13.09	*0.000	2.58
The Set Shot	Grade	2.29	55.	5.96	0.69	22	*0.000	4.34

\*Statistically significant differences at the significance level ( $\alpha \leq 0.05$ )

The results of Table No. (6) indicate that there are statistically significant differences at the significance level ( $\alpha \leq 0.05$ ) between the pre-test and post-test averages for all basketball skills under study for the participants in the second experimental group, with post-test averages showing improvement. These results suggest that teaching using the reciprocal style had a very positive effect on improving the dribbling, rebound passing, chest passing, one-handed shooting, and free throw skills of the participants in the second experimental group, with effect sizes greater than (1.20).

### The Guided Discovery Style (Third Experimental Group)

**Table No. (7): The effect of the guided discovery style on learning basketball skills among students of the Faculty of Sports Sciences in the third experimental group (N = 23)**

Basketball skills	Unit of Measurement	Pre-test		Post-test		T Value	Significance (Sig.)	Effect Size (D)
		Mean	Standard Deviation	Mean	Standard Deviation			
Dribbling	Second	8.52	0.44	7.95	0.45	5.28	*0.000	1.06
Bounce Pass	Grade	3.96	1.40	6.17	1.15	9.20	*0.000	1.83
Chest Pass	Grade	3.17	1.39	5.65	1.50	9.89	*0.000	1.99
One-Handed Shooting	Grade	2.70	1.36	4.96	1.02	11.25	*0.000	2.26
The Set Shot	Grade	2.43	0.84	5.52	0.99	15.59	*0.000	3.13

\*Statistically significant differences at the significance level ( $\alpha \leq 0.05$ )

The results of Table No. (7) indicate that there are statistically significant differences at the significance level ( $\alpha \leq 0.05$ ) between the pre-test and post-test means for all the basketball skills under study for the members of the third experimental group, in favor of the post-test means. These results mean that the guided discovery style of teaching had a very positive effect on improving the dribbling skill, where the effect size value was (1.06). The effect was also very significant in improving the skills of the rebound pass, chest pass, one-handed shooting, and the set shot, as the effect size values were greater than (1.20) for the members of the third experimental group.

### Divergent Thinking Style (Experimental Group 4)

**Table No. (8): The Effect of Divergent Thinking Style on Learning Basketball Skills among Students of the Faculty of Sports Sciences in the Second Experimental Group (N=24)**

Basketball skills	Unit of Measurement	Pre-test		Post-test		T Value	Significance (Sig.)	Effect Size (D)
		Mean	Standard Deviation	Mean	Standard Deviation			
Dribbling	Second	8.57	0.52	7.68	0.55	9.43	*0.000	1.86
Bounce Pass	Grade	3.88	1.36	6.21	0.83	11.34	*0.000	2.24
Chest Pass	Grade	3.17	1.61	5.75	1.39	19.35	*0.000	3.82
One-Handed Shooting	Grade	2.50	0.93	4.92	0.83	12.15	*0.000	2.39
The Set Shot	Grade	2.25	0.44	5.58	0.93	16.95	*0.000	3.34

\*Statistically significant differences at the significance level ( $\alpha \leq 0.05$ )

The results in Table No. (8) indicate that there are statistically significant differences at the significance level ( $\alpha \leq 0.05$ ) between the pre-test and post-test averages in all the basketball skills under study for the members of the fourth experimental group, with the post-test averages being higher. These results mean that teaching using the Divergent Thinking Style had a very significant positive effect on improving the skills of dribbling, bounce passing, chest passing, one-handed shooting, and set shooting among the members of the fourth experimental group, with effect size values greater than (1.20)

**Second: Results of The Second Research Question, which is:** Are there statistically significant differences between the post-test averages of basketball skills among the students of the Faculty of Sports Sciences at the Arab American University, attributed to the type of teaching method used? To answer the question, one-way analysis of variance (ANOVA) was used, as shown in tables (9, 10, 11)

**Table No. (9): Descriptive statistics (mean and standard deviation) of the post-test basketball skills for the students of the Faculty of Sports Science, according to the teaching method used (N = 112)**

Basketball skills	Teaching method	Number	Mean	Standard Deviation
Dribbling	Command Style	20	8.26	0.48
	Practice Style	21	7.57	0.44
	Reciprocal Style	24	7.72	0.35
	Guided Discovery Style	23	7.95	0.45
	Divergent Style	24	7.68	0.55
Bounce Pass	Command Style	20	4.90	0.97
	Practice Style	21	6.43	0.75
	Reciprocal Style	24	6.46	0.93
	Guided Discovery Style	23	6.17	1.15
	Divergent Style	24	6.21	0.83
Chest Pass	Command Style	20	4.60	1.39

	Practice Style	21	6.10	0.89
	Reciprocal Style	24	6.50	1.22
	Guided Discovery Style	23	5.65	1.50
	Divergent Style	24	5.75	1.39
One-Handed Shooting	Command Style	20	3.95	1.23
	Practice Style	21	5.52	1.33
	Reciprocal Style	24	5.46	1.14
	Guided Discovery Style	23	4.96	1.02
The Set Shot	Divergent Style	24	4.92	0.83
	Command Style	20	4.30	0.98
	Practice Style	21	5.67	1.20
	Reciprocal Style	24	5.96	0.69
	Guided Discovery Style	23	5.52	0.99
	Divergent Style	24	5.58	0.93

**Table No. (10): Results of One-Way ANOVA Analysis for the Significance of Differences in Post-Test Basketball Skills Among Students of the Faculty of Sports Sciences Based on the Teaching Method Variable (N= 112)**

Basketball skills	Source of Variation	Sum of Squares (SS)	Degrees of Freedom	Mean Square (MS)	F Value	Significance (Sig.)
Dribbling	Between groups	6.32	4	1.58	7.51	*0.000
	Within groups	22.50	107	0.21		
	Total	28.81	111			
Bounce Pass	Between groups	34.40	4	8.60	9.77	*0.000
	Within groups	94.16	107	0.88		
	Total	128.56	111			
Chest Pass	Between groups	42.67	4	10.67	6.33	*0.000
	Within groups	180.33	107	1.69		
	Total	223	111			
One-Handed Shooting	Between groups	33.03	4	8.26	6.65	*0.000
	Within groups	132.94	107	1.24		
	Total	165.96	111			
The Set Shot	Between groups	34.17	4	8.54	9.19	*0.000
	Within groups	99.40	107	0.93		
	Total	133.56	111			

\*Statistically significant differences at the significance level ( $\alpha \leq 0.05$ )

The results in Table No. (10) indicate that there are statistically significant differences at the significance level ( $\alpha \leq 0.05$ ) between the post-test averages for all basketball skills among the students of the Faculty of Sports Education at the Arab American University, attributed to the variable of the teaching method used. To determine the sources of these differences, the Sidak post-hoc test was used for pairwise comparison between the mean values, as shown in Table No. (11)

**Table No. (11): Results of the Sidak Post-Hoc Test for Pairwise Comparison of the Post-Test Averages of Basketball Skills among Students of the Faculty of Sports Sciences, according to the Variable of the Teaching Method Used (N=112)**

Basketball skills	Mean	Teaching method				
		Command Style	Practice Style	Reciprocal Style	Guided Discovery Style	Divergent Style
Dribbling	8.26	-	*0.69	*0.54	0.30	*0.58
	7.57		-	0.15-	0.38-	0.10-
	7.72			-	0.23-	0.04
	7.95				-	0.27
	7.68					-
Bounce Pass	4.90	-	*1.53-	*1.56-	*1.27-	*1.31-
	6.43		-	0.03-	0.25	0.22
	6.46			-	0.29	0.25
	6.17				-	0.04-
	6.21					-
Chest Pass	4.60	-	*1.50-	*1.90-	1.05-	*1.15-
	6.10		-	0.40-	0.44	0.35
	6.50			-	0.85	0.75
	5.65				-	0.10-
	5.75					-
One-Handed Shooting	3.95	-	*1.57-	*1.51-	*1.01-	*0.97-
	5.52		-	0.06	0.56	0.60
	5.46			-	0.50	0.54
	4.96				-	0.04
	4.92					-
The Set Shot	4.30	-	*1.37-	*1.66-	*1.22-	*1.28-
	5.67		-	0.29-	0.15	0.09
	5.96			-	0.44	0.38
	5.52				-	0.06-
	5.58					-

\*Statistically significant differences at the significance level ( $\alpha \leq 0.05$ )

The results in Table No. (11) indicate that there are statistically significant differences at the significance level ( $\alpha \leq 0.05$ ) between the post-test averages for all the basketball skills under study for the students of the Faculty of Physical Education at the Arab American University, attributed to the teaching method variable. These differences were found between the (Command Style) and the Styles (Practicing, Reciprocal, Divergent Thinking), favoring the teaching methods (Practicing, Reciprocal, Divergent Thinking). Additionally, there were statistically significant differences between the (Command Style) and the (Guided Discovery method) in the skills of (bounce passing, one-handed shooting, set shooting), favoring the (Guided Discovery method). However, there were no statistically significant differences in the remaining pairwise post-test comparisons between the mean scores (Practicing, Reciprocal, Guided Discovery, Divergent Thinking), which represent the four experimental groups. The graphical figures (1-5) illustrate this.



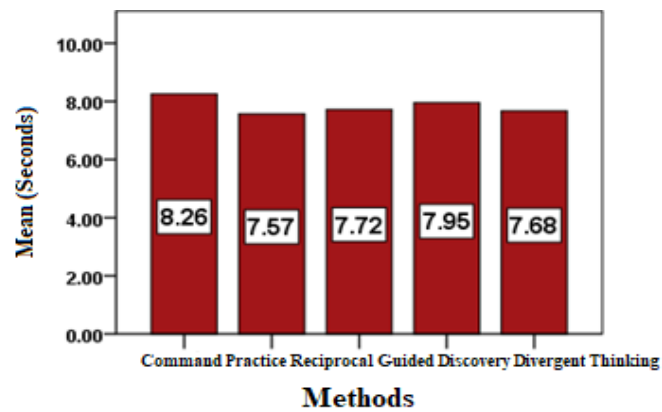


Figure (1): Post-test average of the (Dribbling) skill among students according to the teaching method variable

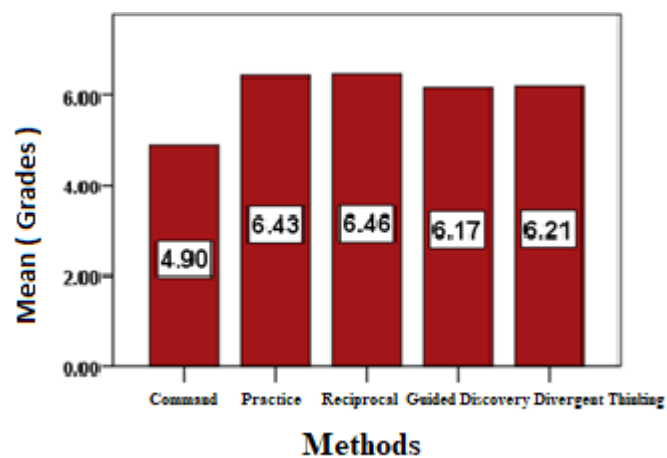


Figure (2): Post-test average of the (Bounce Pass) skill among students according to the teaching method variable

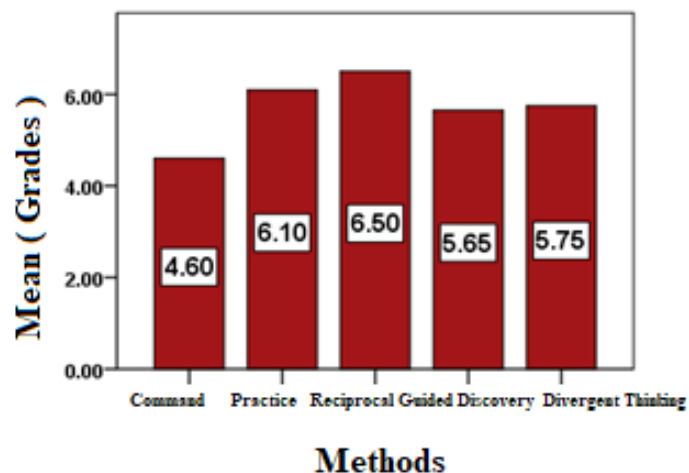


Figure (3): Post-test average of the (Chest Pass) skill among students according to the teaching method variable

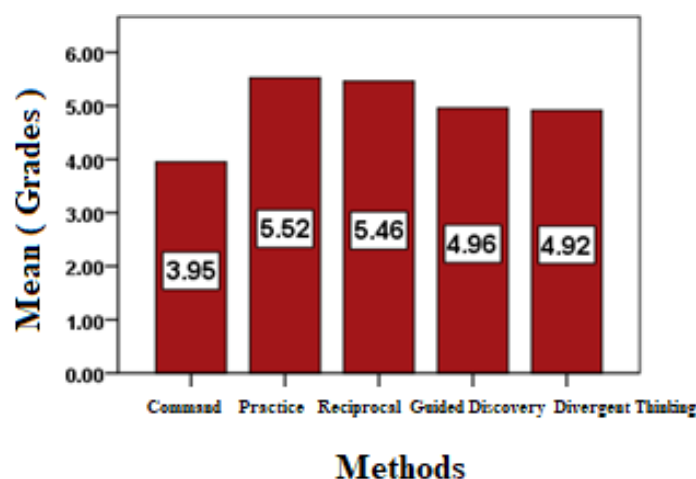


Figure (4): Post-test average of the (One-Handed Shooting) skill among students according to the teaching method variable

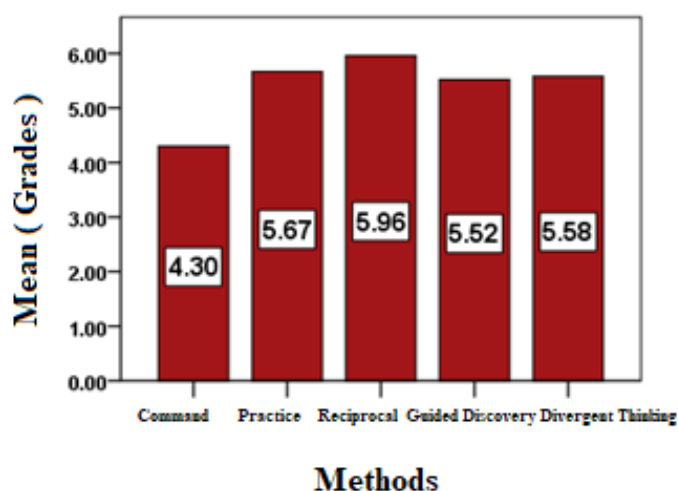


Figure (5): Post-test average of the (Set Shooting) skill among students according to the teaching method variable.

## Discussion of Results

**Results of the First Question:** Which states: "What is the effect of using different teaching methods on learning basketball skills among students at the Faculty of Sports Sciences at the Arab American University?"

### The Command Style (Control Group):

The results in **Table No. (4)** indicate that there are statistically significant differences at the significance level ( $\alpha \leq 0.05$ ) between the pre-test and post-test averages in all the basketball skills under study for the members of the control group, with the post-test averages being higher. These results mean that teaching using the direct instruction method had a significant positive effect on improving the dribbling skill, with an effect size of (0.97). The method also had a very significant effect on improving the skills of bounce passing, chest passing, one-handed shooting, and set shooting among the members of the control group, with effect size values greater than (1.20). The researcher attributes these results to the nature of the

command style, which relies on direct guidance from the teacher. Clear and specific instructions are provided for the students, helping them understand the skills quickly and accurately. Additionally, regular practice and repetition enhance muscle memory, making the performance more automatic. The immediate feedback provided by the instructor helps students correct errors and continuously improve their performance.

#### **The Practice Style (First Experimental Group):**

The results in **Table No. (5)** indicate that there are statistically significant differences at the significance level ( $\alpha \leq 0.05$ ) between the pre-test and post-test averages in all the basketball skills under study for the members of the first experimental group, with the post-test averages being higher. These results mean that teaching using the practice style had a very significant positive effect on improving the skills of dribbling, bounce passing, chest passing, one-handed shooting, and set shooting among the members of the first experimental group, with effect size values greater than (1.20). The researcher attributes these results to the nature of the practice style, which relies on repetition and organized, intensive training. The skills are divided into small parts that are practiced separately before being integrated into overall performance. This method helps students master the skills in a gradual and organized manner. Additionally, the continuous feedback provided by the instructor helps students correct errors and continuously improve their performance.

#### **The Reciprocal Method (Second Experimental Group):**

The results in **Table No. (6)** indicate that there are statistically significant differences at the significance level ( $\alpha \leq 0.05$ ) between the pre-test and post-test averages in all the basketball skills under study for the members of the second experimental group, with the post-test averages being higher. These results mean that teaching using the reciprocal method had a very significant positive effect on improving the skills of dribbling, bounce passing, chest passing, one-handed shooting, and set shooting among the members of the second experimental group, with effect size values greater than (1.20). The researcher attributes this result to the nature of the reciprocal method, which relies on interaction between students themselves, where students teach and assess each other under the supervision of the instructor. This method encourages active learning and effective participation, which enhances skill comprehension and improves performance. Additionally, peer feedback helps students correct errors and continuously improve their performance.

#### **Guided Discovery Method (Third Experimental Group):**

The results in **Table No. (7)** indicate that there are statistically significant differences at the significance level ( $\alpha \leq 0.05$ ) between the pre-test and post-test averages in all the basketball skills under study for the members of the third experimental group, with the post-test averages being higher. These results mean that teaching using the guided discovery method had a very significant positive effect on improving the dribbling skill, with an effect size value of (1.06), and the effect was very large for the guided discovery method in improving the skills of bounce passing, chest passing, one-handed shooting, and set shooting among the members of the third experimental group, with effect size values greater than (1.20). The researcher attributes this result to the effectiveness of the guided discovery method in promoting active learning and effective student participation. This method encourages students to think and explore independently, helping them understand the skills more deeply and apply them more effectively.

### **Divergent Thinking Method (Fourth Experimental Group):**

The results in Table No. (8) indicate that there are statistically significant differences at the significance level ( $\alpha \leq 0.05$ ) between the pre-test and post-test averages in all the basketball skills under study for the members of the fourth experimental group, with the post-test averages being higher. These results mean that teaching using the divergent thinking method had a very significant positive effect on improving the skills of dribbling, bounce passing, chest passing, one-handed shooting, and set shooting among the members of the fourth experimental group, with effect size values greater than (1.20). The researcher attributes this result to the ability of the divergent thinking method to enhance creative thinking and mental flexibility in students. This method encourages students to view problems from different angles and find innovative solutions, which contributes to improving their performance in basketball skills.

**Results of the Second Question:** which asks: "Are there statistically significant differences between the post-test averages of basketball skills among students of the Faculty of Sports Sciences at the Arab American University, attributed to the type of teaching method used?"

The results in Table No. (11) indicate that there are statistically significant differences at the significance level ( $\alpha \leq 0.05$ ) between the post-test averages for all basketball skills among students of the Faculty of Physical Education at the Arab American University, attributed to the type of teaching method used. These differences are observed between the "Command Style" and the Styles (Practicing, Reciprocal, Divergent Thinking), with the post-test averages favoring the teaching Styles (Practicing, Reciprocal, Divergent Thinking). Statistically significant differences were also found between the "Command Style" and the "Guided Discovery Style" in the skills of (bounce passing, one-handed shooting, and set shooting), with the "Guided Discovery Style" showing superior results. However, there were no statistically significant differences in the remaining pairwise comparisons between the mean values of the (Practicing, Reciprocal, Guided Discovery, Divergent Thinking) styles representing the four experimental groups.

The researcher attributes these results to the effectiveness of modern teaching styles (Practicing, Reciprocal, Divergent Thinking, and Guided Discovery) in enhancing active learning among students. These methods are characterized by focusing on directly engaging students in the learning process, which has contributed to the development of their sports skills compared to the "Command Style," which relies on direct instruction. The Practicing style offers students more opportunities for practical practice under the supervision of the instructor, helping them understand and effectively apply basic motor skills through continuous practice. This allows students to improve their skills gradually and proficiently, which positively impacts their athletic performance.

The reciprocal method provides an interactive learning environment where students and instructors exchange roles, enhancing students' sense of responsibility and their deeper understanding of skills. This method fosters a collaborative learning environment, supporting the exchange of experiences between students, which contributes to improving their skill performance.

The Divergent Thinking method encourages students to engage in creative thinking and make decisions independently, which helps them face on-field challenges in an innovative manner.

This teaching style helps develop students' abilities in analysis and quick planning, which is essential in sports.

The Guided Discovery method is ideal for developing fine motor skills such as shooting and dribbling, as it allows students to explore solutions and optimal ways of performing under the instructor's guidance. This method helps enhance analytical abilities and decision-making independence.

Regarding the Command Style, the results showed that it was less effective compared to modern methods. This is attributed to its heavy reliance on rote learning and rigid instruction, which limits students' opportunities for active interaction and creative thinking. These findings align with studies by Larson and Kim (2023), Phillips and Johnson (2022), Brown and Chao (2022), and Muller and Van Der Bil (2020), but differ from the study by Smith and Johnson (2021).

## Conclusions

1. The command style is an effective tool for improving basic basketball skills, especially in the early stages of learning. This style provides direct and clear guidance, helping students make rapid progress in their performance.
2. The practice style is an effective tool for improving basic basketball skills, particularly when the goal is to achieve significant improvements in performance. This style offers intensive and organized training, helping students gradually master skills.
3. The reciprocal style is a powerful and effective tool for teaching sports skills, especially when the goal is to enhance interaction and participation among students.
4. The guided discovery style has an impact on improving basketball skills among students, as there were statistically significant differences between the pre-test and post-test in favor of the post-test. This style effectively contributed to improving students' performance in passing and shooting skills.
5. The divergent thinking style has a positive effect on improving all the basketball skills under study, as it significantly contributed to developing students' performance, particularly in dribbling, passing, and shooting skills.
6. Modern teaching methods (practicing, reciprocal, divergent thinking, and guided discovery) enhance active learning among students through experience and practice. They are suitable for developing sports skills because they rely on educational methodologies that focus on interaction, practical application, and stimulating students to engage in independent and creative thinking.
7. Modern teaching methods provide an interactive learning environment that enhances the acquisition of sports skills compared to the command style, which lacks interaction and practical practice.

## Recommendations

1. Focus on using the reciprocal and practicing methods in teaching while reducing reliance on the command style, and train teachers to apply interactive methods to improve learning outcomes.
2. Continue using practical methods that enhance the teacher's role, while focusing on improving the psychological aspects of the methods to ensure a comprehensive learning experience.

3. Use standardized and effective teaching methods for teaching basketball skills, without the need to modify them based on students' gender or course type.
4. The command style is preferred when teaching basic basketball skills, especially for beginner students or those who require direct guidance.
5. Provide a stimulating learning environment that encourages active learning and creative thinking to enhance the effectiveness of all methods.
6. Train teachers to effectively use different methods to achieve the best results.
7. Integrate methods where possible; multiple teaching styles can be combined to enhance the effectiveness of the educational process. For example, combining the command style with the reciprocal method can achieve a balance between direct instruction and student interaction.
8. Adopt modern teaching methods (practicing, reciprocal, divergent thinking, and guided discovery) for teaching sports skills, and provide training courses for coaches to apply them effectively, as they excel in improving athletic performance compared to the command style.

## References

1. Martínez, A., & Collins, T. (2024). Preferences for teaching methods in basketball and handball in an international context: A comparative study between European and American countries. *Global Sports Education Review*, 11(1), 53–68.
2. Johnston, M., & Williams, R. (2023). Student preferences for teaching methods in basketball: An applied study in American universities. *Journal of Sports Education*, 12(3), 215–230.
3. López, F., & Sánchez, M. (2023). The impact of modern and traditional teaching methods on student preferences in basketball and handball: A comparative study in Spanish universities. *International Journal of Sports Science*, 14(2), 142–159.
4. Larson, J., & Kim, S. (2023). The impact of innovative teaching methods on students' preferences in handball: An international study. *International Journal of Physical Education and Sports*, 40(3), 210–222.
5. Anderson, A., & Peres, P. (2023). The impact of modern methods on students' preferences in basketball and handball: A comparative international study. *Journal of Physical Education and Sport*, 15(3), 123–135.
6. Ahmed, M., & Zaki, K. (2023). The impact of different coaching methods on basketball skill development. *Journal of Sports Education*, 15(2), 45-58.
7. Rivers, K., & Taylor, S. (2022). Attitudes of sports college students towards handball teaching methods: A comparison between digital and traditional approaches. *European Journal of Physical Education*, 9(4), 189–205.
8. Phillips, J., & Johnson, L. (2022). Impact of technology on sport education preferences: A global study on handball teaching methods. *Journal of Technology in Sport*, 7(1), 76–90.
9. Chavez, L. (2022). Enhancing basketball training methods at universities. *Journal of Physical Education*, 13(3), 77-88.
10. Brown, A., & Chow, R. (2022). Trends in students' attitudes toward the use of technology in basketball teaching: A case study at Australian universities. *Journal of Physical Education and Sports Science*, 35(2), 123–135.

11. Clark, T. (2022). Personalized learning methods for athletic development. *Sports Science Review*, 25(1), 9-17.
12. Olsen, R. (2022). The role of diverse teaching methods in sports education. *Journal of Sports Teaching and Learning*, 14(4), 82-93.
13. Al-Masri, R. (2022). Improving sports training in university settings: A review of modern pedagogical methods. Arab American University Press.
14. Smith, J., & Johnson, M. (2021). The impact of modern teaching methods on students' preferences in basketball: A comparison of traditional and digital methods. *Journal of Sports Education and Technology*, 29(4), 145-158.
15. Miller, S., & Walker, J. (2021). Adaptation of teaching methods in university sports education. *Journal of Higher Education in Sports*, 30(2), 143-157.
16. Taylor, P. (2021). Tailoring teaching styles for basketball players in higher education. *Sports Education Review*, 16(5), 50-61.
17. White, E., & Brown, L. (2021). The development of sports teaching methods in universities. *Sports Education and Research Journal*, 28(2), 74-85.
18. Foster, P., & Green, D. (2021). Improving basketball coaching in academic institutions. *Sports Coaching Journal*, 22(2), 54-67.
19. Allen, A., (2021). The impact of the guided discovery method on tactical decision-making in basketball players. *Journal of Sports Education and Training*, 15(3), 245-256
20. Müller, P., & Van Der Bil, H. (2020). The impact of interactive teaching methods on students' preferences in handball: A comparative analysis in European universities. *European Journal of Physical Education*, 24(1), 78-92.
21. Abdullah, A., & Ali, S. (2020). Handball players' attitudes toward interactive training strategies. *Jordan Journal of Sports Sciences*, 18(3), 112-126.
22. Smith, J., & Johnson, R. (2020). Basketball and cognitive decision-making skills. *Journal of Sport Psychology*, 22(3), 56-67.
23. Grant, A., & Peterson, L. (2020). The role of technical training in basketball skill development. *Journal of Sports Science and Technology*, 17(6), 34-46.
24. Jones, M., & Anderson, R. (2020). Evaluating university-level basketball training programs: The role of instructional methods. *Sports Science Review*, 14(8), 66-80.
25. Al-Harthy, A. (2020). The effectiveness of teaching methods in sports education. *Arab Journal of Sports Sciences*, 10(2), 45-60.
26. Hassan, B., & Nasser, S. (2019). Basketball players' attitudes toward the use of technology in training. *Journal of Sports and Technology*, 8(4), 134-149.
27. Harper, K. (2019). Guided discovery and its impact on basketball players' decision-making. *Coaching Techniques Review*, 19(4), 20-31.
28. Johnson, P., & Lee, H. (2019). Challenges in coaching university athletes: Modern approaches to skill development. *Sports Pedagogy Research*, 18(7), 98-108.

29. Williams, G. (2019). Essential skills for basketball players: A training approach. *Journal of Team Sports*, 27(2), 112-124.
30. Ibrahim, M. (2019). Challenges in teaching handball in Palestine. In *Proceedings of the International Conference on Physical Education* (pp. 134-140).
31. Brown, S. (2018). The role of coaching methods in skill development for team sports. *International Journal of Sports Coaching*, 8(4), 102-112.
32. Moscow, A. (2018). *The Moscow-Muston methods in sports coaching: A theoretical and practical guide*. Academic Press.
33. Robinson, D. (2018). Exploring the impact of new training methods on basketball players. *Sports Science and Practice*, 9(2), 47-59.
34. Al-Zahrani, A., & Saleh, M. (2018). Players' preferences in basketball toward modern and traditional training methods. *Journal of Sports and Modern Sciences*, 22(1), 45-62.
35. James, S., & Carter, T. (2017). The reciprocal coaching method in basketball training. *Journal of Sports Education*, 12(3), 112-125.
36. Mohammed, A., & Samir, J. (2017). The impact of teaching method preferences on improving handball players' performance. *International Journal of Sports Training*, 14(2), 87-101.
37. Davis, J., & Thomas, R. (2017). Adapting teaching styles to individual learning in physical education. *Pedagogical Studies*, 29(5), 128-139.
38. Moscow, A., & Muston, T. (2016). Innovative teaching methods in basketball coaching. *International Journal of Sports Education*, 25(1), 11-24.
39. Slavin, R. (2014). *Cooperative learning in physical education* (2nd ed.)
40. Runco, M. (2014). *Divergent thinking and creativity*. Springer.
41. Mosston, M., & Ashworth, S. (2008). *Teaching physical education* (6th ed.).