The impact of practical lessons on developing some basic badminton skills for vocational sports secondary school students in Karbala

Lec. Dr. Ahmed Khattar Saad General Directorate of Education in Karbala / Ministry of Education, Iraq. <u>abofahd707041@gmail.com</u> DOI: 10.56201/ijmepr.v8.no1.2024.pg61.73

Abstract

The purpose of this paper is to identify the effect of practical lessons on developing some basic skills in badminton among students using the curriculum prescribed for students in the first stage of vocational sports preparatory school, which was applied accurately. The researcher used the experimental method, which focused on using practical lessons to develop some basic skills in badminton. The research was applied to a sample of (25) students. The most important results were the emergence of a clear development of some basic skills in badminton, which are represented by serving, cutting strokes, and distances, which led to the development of the level of students' performance of the required sports skills and movements during the lessons. The researcher recommended the need to increase work on the vocabulary of the lesson of racket games, tennis, handball, and basketball, and to pay attention to developing the qualities of action and reaction, in addition to paying attention to developing the basic quality, which is physical fitness.

Introduction:

The world has recently witnessed significant developments in all fields, including sports. This is an indicator of the great interest of specialists and researchers in continuously developing the educational process to raise the level of sports and achieve success. Sports is one of the fields that emphasizes the use of assistive devices, due to their positive impact on the speed of learning and the investment of effort within the specified timeframe. Adopting them as a fundamental focus of teaching methods and supporting them with aids qualifies students to practice and learn skill performance. Practical lessons are also one of the disciplines that researchers in the field of physical education have focused on, given their importance in teaching and acquiring basic skills with minimal effort. They also enable the selection of appropriate vocabulary for each educational stage. Standards are one of the objective means relied upon to evaluate student performance.

Measurement and evaluation cannot be viewed as ends in themselves, but rather as means that lead to increased progress. They are a realistic source for identifying physical and functional status and readiness, and for students to be motivated to exert greater effort to achieve the goals set for the training and educational process. Therefore, the primary objective of curriculum content evaluation is to identify the set objectives, what has been achieved, and what has not. Evaluation in the field of physical education, in particular, is not deviant from the aforementioned concept, as it is a means of achieving educational and learning objectives. It includes determining students' levels, achievements, and rates of progress across all experiences provided by the educational institution, the degree of student achievement and interaction, and the extent to which programs achieve their objectives.

Knowing the physical fitness level of students in any educational institution in the country means developing the correct sports plans and curricula to improve students' physical performance and subsequently raise their level of achievement.

Scientific lessons require physical preparation based on practical principles to raise the level of athletic performance. Students in vocational sports secondary schools require comprehensive physical preparation to carry out the assigned tasks through practical lessons.

Given the nature of practical lessons, students need good physical fitness to meet the requirements of the lesson, learn correct technique, perform, and participate in the lesson. Students also need to participate in team and individual games. The importance of the research lies in identifying the variables that occur to develop some basic badminton skills among first-year students in the Physical Education Department at the Professional Sports Secondary School - Holy Karbala.

Research Problem:

Educational institutions specializing in sports activities, including colleges of physical education, sports institutes, and preparatory schools with their various departments, attach great importance to developing students' physical fitness and basic skills. Based on the researcher's interest in developing basic skills in sports activities, as a trainer, instructor, and educational supervisor in the Department of Specialized Supervision in Karbala, the researcher decided to conduct this study with the aim of identifying the impact of practical lessons in the preparatory sports department on the development of some basic badminton skills. This study will identify the basic badminton skills to be studied, and measure students' levels using appropriate tests before and after the practical lessons. The research aims to evaluate the impact of these practical lessons on the development of these skills, thereby developing appropriate recommendations and solutions that contribute to improving athletic performance, enhancing positive aspects, and avoiding negative aspects of the educational process. The researcher's starting point in this study is that the time allocated to lectures may not be sufficient to effectively develop some sports skills.

Research Objectives:

- The impact of practical lessons on the development of some basic skills among the research sample.

Research Hypotheses:

- There is a positive impact of practical lessons on the development of some basic skills among the research sample.

Research Areas:

Research fields:

- Human field: First-year students in the Physical Education Department at the Karbala Vocational Sports Secondary School for the academic year 2023-2024.
- Time field: (15/11/2023) to (15/4/2024)
- Spatial field: The playgrounds and fields of the Karbala secondary sports school

Theoretical Studies Basic Skills:

It is essential to select players and determine the most important physical attributes and basic skills required for success and continuity. Each sporting activity has its own specific physical abilities, and these abilities must be developed to the greatest extent possible. This ultimately leads to the development of some basic skills, and also helps in quickly learning and mastering basic badminton skills.

Forehand Skill:

The forehand is one of the basic and important strokes that beginners begin to learn, as it is a basic skill that is easy to learn and is used extensively during matches.



Figure (1) Stages of Executing the Tennis Forehand

Mastering this stroke is essential before moving on to other strokes. The modern method of playing the forehand stroke uses both hands to maximize the force applied and support the weight of the racket, especially for beginners and juniors. This is due to the weight of the racket. This method is preferable to using one arm.

An important factor for the success of this stroke is the player's correct stance, which must move in various directions to take the appropriate position to execute the forehand stroke. The ball must fall to the ground either to the right of the right-hand player or to the left of the left-hand player. The forehand stroke is less difficult to execute than the backhand stroke, especially in the beginning, due to the fluidity of movement and the execution of the stroke toward the arm holding the racket.

Murphy (1987) adds, "The forehand and backhand groundstrokes still constitute the cornerstone of proper tennis play... A player must learn tennis by first learning the groundstrokes." (Bill Murphy, 1990)

Tareq Hamoudi Amin (1987) asserts, "The forehand is one of the most important and most widely used strokes in tennis for beginners because it is easy to learn and perform well. It is an offensive stroke and leads the player to win points." (Tariq Hamoudi Amin, 1987)

Ali Salloum (2002) adds, "The forehand is one of the basic, familiar, and most common strokes in tennis. It is also easy to perform compared to other strokes, and therefore it must be learned well and mastered before learning any other strokes."(Ali Salloum)

The Skill of the Backhand:

This is one of the basic and important strokes in the game and must be learned and mastered after the forehand. The difficulty of the backhand lies in hitting the ball in the opposite direction of the arm holding the racket. It is preferable to use both hands to execute the backhand stroke, as observed in recent tennis tournaments. This plays a significant role in propelling the ball with increased force due to the use of both arms. Abdul Sattar Al-Sarraf (1978) believes that "the backhand stroke is frequently used in tennis, and its importance is no less than that of the forehand stroke. It is considered a defensive and offensive tool, and its performance is similar to the forehand stroke. The difference between the two is in the grip of the racket, which is turned slightly to the left." (Abdul Sattar Al-Sarraf, 1987) Hilal et al. add that "mastering the forehand and backhand strokes is of particular importance for beginners and junior players." (Hilal Abdul Razzaq (and others))

The researcher believes that the backhand stroke is highly effective in the game and must be mastered despite its difficulty. Upon mastering it, the beginner or player will feel easy to perform, and that its effectiveness is essential to the game and no less important than the forehand stroke. He also believes that a player's progress and development are achieved through mastering this important stroke, in addition to other strokes.



Figure (2); Stages of Executing the Backhand Ground Shot in Tennis

Volleys:

The volley is one of the important strokes that helps win the match. The closer the player is to the net when playing it, the more dangerous the game becomes for the opponent to return the ball. The volley is distinguished from other strokes in that the ball is hit before it touches the ground, either with the forehand or the backhand (Ali Salloum, 2002).

It is called a volley because the player has the right to hit it and return it to his opponent's court before it touches his own ground. Therefore, it is one of the fastest strokes, taking the shortest time to execute compared to other strokes. This stroke requires a high degree of control and direction, as it is a difficult stroke due to the extreme speed of the ball coming from the opponent, or due to the inability to stand in the appropriate position to hit it.(Tariq Hamoudi Amin, 1987)

The researcher believes that the volley is very important, and this skill should be taught in the early stages of educational programs, despite it being an advanced and difficult stroke. It is a means of intercepting the ball in the air before it bounces off the ground. It is therefore an offensive weapon used by the player to pressure the opponent to finish the point quickly and effectively when the opportunity arises, especially in the front court between the net and the service line. Therefore, it is a strategic stroke through which the style of play can be changed from defense to offense. Accordingly, coaches must teach their novice players how to create numerous opportunities to exploit in performing volleys.



Figure (3) Stages of implementing the forward flying strike



Figure (4) Stages of implementing a back strike

Research Methodology and Field Procedures Research Methodology

The researcher used the experimental method due to its suitability to the nature of the problem.

Research Community and Sample

The researcher selected a sample of (25) students from the original community, represented by first-year students in the Physical Education Department at Karbala Vocational Sports Preparatory School for the 2023-2024 academic year. The sample numbered (50) students, representing the total number of students in the department. Students who failed were excluded from the research sample.

Tools and Devices Used in the Research:

The researcher used the following tools and devices:

- Medicine Balls.
- Measuring Tape.
- Stopwatch.
- Mind-Blower.
- Whistle.
- Record.
- Adhesive Tape.

Exploratory Experiment

The exploratory experiment is a miniature of the primary experiment. It must meet the conditions and circumstances of the primary experiment, whenever possible, so that its results can be considered.

The researcher conducted the pilot experiment on Sunday, November 16, 2023, on a sample of (5) vocational sports secondary school students, other than the research sample. The purpose of the pilot was to:

- Verify the validity of the tests.
- Identify the obstacles hindering the pilot.
- Determine the time required for each test item.
- Determine the extent of the support team's understanding of the workflow.

Field Research Procedures

Pre-tests

The researcher conducted the pretest experiment on Sunday, November 23, 2023, for the pre-specified tests.

Tests Used in the Research

Specifications of the Defensive Dimension Shot Test (Don.R Kikendall & seph Gruber & Robert Johson, 1987) (**French clear test**).

- Purpose of the Test: To measure the skill performance of the defensive dimension shot.
- Test Application: The test was administered to a sample of junior badminton players from clubs in Diyala Governorate.
- Test Equipment: Badminton rackets, shuttlecocks, an elastic rope, additional poles (2.44 meters high), assistants, and a field planned for the test, as shown in Figure (5).



Figure (5) shows the performance test of the defensive distance shot skill.

Test execution method:

The player stands in area (X) and returns the shuttlecock sent by the assistant from area (O) in the form of a high-dimension shot to the assistant's side, so that it passes over the net and then over the rope at a height of (2.44) meters. He attempts to land the shuttlecock in the higher-scoring area, performing (12) attempts.

Points calculation method:

- The player performs (12) attempts, and the best (10) attempts are counted.
- The score is given according to where the shuttlecock lands.
- A shuttlecock that lands on a line between two areas is given the highest score.
- If the shuttlecock does not pass over the rope, a zero is given, as is a shuttlecock that lands outside the designated areas.
- Points are divided from (2, 4, 5, 3).

Specifications of the French & Stalter Smash Test(Ray Collins and partick hedges, 1978)

Purpose of the test: To measure performance of the smash skill.

Test Application: The test was administered to a sample of junior badminton players from Diyala Governorate clubs.

Test tools: Badminton rackets, shuttlecocks, an elastic rope, additional stands (2.13) meters high, assistants, and a court laid out according to the test design, as shown in Figure (6).



Figure (6) shows the crushing skill test.

Test execution method: The player stands in the designated spot (X) and returns the shuttlecock sent to him by the assistant in area (O) with a smash, attempting to land it in the higher-scoring area, provided that the shuttlecock passes over the net and under the rope fixed behind the net at a distance of (60) cm and a height of (2.13) meters. The player performs (12) attempts, observing the strength of the smash.

Points calculation method:

- The player performs (12) attempts, with the best (10) attempts counted.
- The score is given according to where the shuttlecock lands.
- If the shuttlecock does not pass over the net and under the rope or falls outside the designated areas, it is given a score of (0).
- The shuttlecock that lands on a line between the two areas is given the higher score.
 Scores are divided into (5, 4, 3, 2, 1).

Backhand Clear Test (Louay Hussein Shukr Al-Bakri):

Test Objective:

Measure the ability to perform the backhand clear.

Test Implementation:

- Preparation and Tools: Illustration:



Figure (7) shows the layout of the badminton court for the backhand stroke test. Equipment:

- Badminton court.
- (3) new shuttlecocks.
- Measuring tape.
- Masking tape.
- Information form.
- Markers for marking points.
- Stool for placing shuttlecocks (use shuttlecocks comfortably).

Test:

- After explaining the test to the testees, a suitable warm-up time is given, and then each testee is given (5) trial attempts.
- The testee stands in the marked area.
- The testee sends the shuttlecock so that it reaches the testee's left (if holding a shuttlecock with their right arm and vice versa) so that they can hit it with a backhand stroke from below, crossing the net, and attempting to drop it into the area marked with the higher dots.
- An examinee stands (335) cm from the net, extending his arm holding the racket upwards, giving an audible signal (low) if the shuttlecock does not pass over his racket.
- The examinee is given (12) attempts, with the best (10) attempts being counted.
- r. The examinee may move to make the attempt successful, and he may also release any shuttlecock he believes will not result in a successful attempt. If the coach believes the serve is incorrect, he calls (return), and this attempt is not counted.
- g. The maximum number of points the examinee can score in the best (10) attempts is (40) points.

Calculating Test Points:

- The examinee is awarded (1) point if the shuttlecock lands in the designated area (198) cm extending from the center line of the court below the net to the nearest service line.
- The examiner awards points (2 and 3) if the shuttlecock lands in the designated area (198) cm, respectively, starting from the near service line and ending at the far double service line.
- The examiner awards (4) points if the shuttlecock lands in the designated area (76) cm, separating the far double service line from the far single service line.
- The examiner awards (2) points if the shuttlecock lands in the designated area (8) cm, extending beyond the end line of the court.
- A shuttlecock that gets caught in the net or goes outside the boundaries of the court.

Scientific Basis for the Tests Used: Test Validity

Test validity depends on the extent to which the test accurately measures the skill or trait to be measured. A test is considered valid when it measures what it claims to measure. To determine the validity of the test, the researcher distributed a questionnaire to a group of specialized experts (Muhammad Nasr al-Din Radwan, 2006) who confirmed the validity of our selection of research tests.

Test Reliability

Reliability means "the degree of accuracy, precision, and consistency with which the test measures the phenomenon for which it was designed." To determine the test's reliability, the researcher administered the test to a sample of (7) students outside the research sample. They then readministered the test (7) days later to the same sample under the same conditions. The test was created, as shown in Table (1):

Table (1) shows the reliability and objectivity coefficients for the research test.

No.	Test	Stability coefficient	Objectivity factor
1	Test	% 83.0	%95.0

The simple Pearson correlation coefficient value was (0.75) with a degree of freedom of (5) and a significance level of (0.05%).

The Research Methodology

After the researcher conducted the pre-test and recorded the results in special tables, the research sample and its members were exposed to the scientific curriculum prescribed within the curriculum of the first stage of the Physical Education Department for the Vocational Sports Preparatory School. This curriculum included lessons in track and field, football, basketball, handball, volleyball, and gymnastics over the course of two semesters. During this study period, the student was exposed to the physical impact of practical lessons and developed basic skills.

Post-Tests

After completing the curriculum prescribed for the first stage of practical lessons for the first and second semesters, and in order to determine the skill-related impact of these practical lessons on the sample members, the researcher conducted posttests on the research sample members on Sunday, March 29, 2024, at nine o'clock in the morning, under the same conditions. These tests are considered an indicator of the development or decline of physical fitness among students. 3-10 **Statistical Methods:** The researcher used the statistical package (SPSS) to process the data.

Presentation, Analysis, and Discussion of Research Results Presentation and Analysis of Test Results Table (2) shows the arithmetic means, standard deviations, and calculated and tabulated t-values for the tests.

	tests	pre-tests		post-tests	5			
no.		Mean	Standar d deviatio n	Mean	Standard deviation	Calculated value(t)	Table (t) value	Type Sig
1	Smash Test	8.58	0.46	7.66	0.49	9.47		sig
2	Defensive Dimension Test	1.99	0.68	2.18	0.47	6.90		sig
3	Back Dimension Test	4.99	0.49	5.41	0.56	7.17	2.86	sig
4	Volley Test	1.88	0.60	2.24	0.44	6.60		sig

Discussion of the Results

It is clear from the above that there has been significant development in some basic skills among students, while others have experienced minimal development. This is a result of the adequacy of practical lessons, in addition to the teachers' interest in developing students' physical fitness elements. Indeed, they paid even greater attention to developing the basic skills of each game, and did not neglect developing students' physical fitness elements. Muscular strength is one of the attributes that requires the body to engage in specific positions. Focusing on developing these attributes during practical lessons is important, rather than simply developing the skills specific to each game or activity. Therefore, relative differences in the development of some physical fitness elements among students in the Physical Education Department, first stage of the Vocational Sports Preparatory School, emerged in the selection of the smash hit, which relies on the muscle group of the arm muscles in addition to the trunk muscles. The researcher explains this development as a result of the arms alone, without requiring any technique, while the muscular strength of the arm muscles was clearly evident in the defensive distance strike test, which requires high physical fitness, in addition to the participation of two muscle groups: the arm muscles and the trunk muscles. The muscular strength of the leg muscles also showed a clear development in the results of the backward distance strike test, through the large significant differences between the pre-test and the post-test. The researcher explains this by saying that students undergo extensive leg muscle training through various types of skill performance in sports, such as high jump, long jump, javelin throw, shot put, as well as training in the skill of smashing, serving, and the skill of defending against a block wall in volleyball, as well as many gymnastics skills and many team sports that require the maximum degree of force that enables the athlete to produce it as quickly as possible. (Mufti Ibrahim Hamada, Modern Sports Training, 2001)

A significant difference was found in the backhand stroke test. The researcher attributes this to the fact that white muscle fibers have the ability to cause rapid contractions for a short period. The white type of fibers is required for the characteristic of speed, and the individual's muscular pattern requires neuromuscular coordination. This relates to the extent of success of willpower, which is a psychological trait that focuses on the individual's ability to overcome internal and external resistance and the determination to achieve the desired goal. (Kamal Abdel Hamid and Muhammad Subhi Hassanein, 1977) Alaa El-Din and Muhammad Marsal assert that "speed is the various similar or dissimilar movements through which an individual can perform repeatedly in space, or Moving from one place to another with a proper motor rhythm and in the shortest possible time. (Alaa El Din Muhammad and Muhammad Mursal Ahmad, 2002)

Conclusions and Recommendations:

Conclusions

- There was an improvement in the explosive strength of the arms through the good data obtained by testing the forehand smash for the research sample.
- There was an improvement in the speed strength of the leg and arm muscles and transitional speed through the defensive backhand and backhand smash tests.
- There was an improvement in the general endurance through testing the backhand smash for the research sample.
- The researcher found that the practical lessons of the Physical Education Department in the first stage of the Vocational Sports Preparatory School were a means of teaching some basic badminton skills during the study period only.

Recommendations

- Increasing the use of racquet sports lesson vocabulary to be an important factor in raising the student's physical proficiency.
- Emphasizing the need to increase the number of racquet sports lesson sessions for the first stage of the Physical Education Department in the Sports Preparatory School, which aims to develop some basic skills for the remaining lessons.
- Focus on developing all basic badminton skills in the remaining practical lessons in the department.
- Encourage extracurricular activities, events, and classes, including participation in the preparatory professional sports teams for the Ministry of Education's Sports Activities Department's races, as well as broader participation outside of school hours for all students to contribute to developing their physical fitness.

References

- Alaa El Din Muhammad and Muhammad Mursal Ahmad, 2002, Illustrated Physical Exercises: Individual, Pair, and Group in the Form of Small Games, 1st ed., Mansoura, Dar Bilal, p. 9.
- Ali Salloum, previously cited source, p. 80.
- Ali Salloum, 2002. previously cited source, p. 93
- Abdul Sattar Al-Sarraf, 1987, Racket Games (Baghdad, Higher Education Press), p. 64.
- Bill Murphy, 1990. The Comprehensive Book of Tennis Tournament Exercises, (translated by Samir Muslat et al., Baghdad, Higher Education Press), p. 25.
- Don.R Kikendall & seph Gruber & Robert Johson, 1987.OP.Cit. p.231-214.
- Hilal Abdul Razzaq (and others); previously cited source, p. 41.
- Kamal Abdel Hamid and Muhammad Subhi Hassanein, 1977, Physical Fitness and Its Components, 3rd ed., Cairo, Dar Al Fikr Al Arabi, p. 56.
- Louay Hussein Shukr Al-Bakri, the previous source, p. 46.
- Muhammad Nasr al-Din Radwan, 2006: Introduction to Measurement in Physical Education and Sports, 1st ed., Cairo, Kitab Center for Publishing, p. 98.
- Mufti Ibrahim Hamada, Modern Sports Training, 2001: Planning, Implementation, and Leadership, Dar Al Fikr Al Arabi, p. 167.
- Ray Collins and partick hedges, 1978 : Acomprehensive guide to sport skill tests and measurement , Charles thamas pu .U.S.A. p.35-89.
- Tariq Hamoudi Amin, 1987. Ball and Racket Games, (University of Mosul, Directorate of Books for Printing and Publishing), p. 42.