Journal of Physical Education

Volume 37 – Issue (2) – 2025 Open Access

P-ISSN: 2073-6452, E-ISSN: 2707-5729
https://jcope.uobaghdad.edu.iq

The effect of the (K.W.L.H) strategy in learning the skill of smashing in volleyball for second-stage female students, College of Physical Education and Sports Sciences

Haider Fadhel Saleh [1]

[1] University of Diyala, College of Physical Education and Sport Sciences.

DOI:
https://doi.org/10.37359/JOPE.V37(2)2025.2252

Article history: Received 24/ February/2025 Accepted 6/ April/2025 Available online 28/ June/2025

Abstract

The importance of the study stands out in identifying the impact of the learning style for mastery in the educational process in general and skill learning in particular, through which learners can reach mastery in performing skills equally by giving the appropriate opportunity to all learners and providing sufficient time to learn the required skills, as well as Learners can be given additional time to enable them to acquire the required skills if the specified time is not sufficient The problem of the research lies in the dependence of some teachers in the process of learning the skills of the game of volleyball, including the skill of crushing hitting, educational methods and methods that do not achieve great benefit from the learning process, which made the educational process a process that moves away in most of its aspects from excitement and suspense .The study aimed to find out the impact of the learning style for the empowerment of those with motor performance difficulties for the students of the second academic year, and to know the effect of the learning style for the empowerment of those with motor performance difficulties in learning the skill of hitting the volleyball for the students of the second school year, and to know the effect preference of the learning style for mastery In learning the skill of crushing hitting the volleyball and the method used between the pre and post tests.The research assumed: that there are statistically significant differences between the results of the pre and posttests in learning the skill of crushing hitting the volleyball for people with motor performance difficulties for the experimental and control groups, there are statistically significant differences between the results of the tests of the experimental and control groups in learning the skill of crushing hitting the volleyball for students with difficulties Dimensional motor performance .The researcher used the experimental method with the design of equal groups, random selection with pre and posttest, and the study was conducted on second year students in the College of Physical Education and Sports Sciences / University of Diyala for the academic year 2021/2022, whose number is (40) students, who were divided into two groups, control and experimental. With (20) students per group, the experimental group implemented the method

[1] University of Diyala, College of Physical Education and Sport Sciences, Haider.fadel@uodiyalaiq

Journal of Physical Education

Volume 37 – Issue (2) – 2025 Open Access

P-ISSN: 2073-6452, E-ISSN: 2707-5729
https://jcope.uobaghdad.edu.iq

of learning in order to empower those with motor performance difficulties, and the control group implemented the method used in the college, as the experiment included educational units implemented for the period from 3/20/2022 to 4/25/2022 by (8) educational units for the skill of overwhelming multiplication, and the time of one educational unit was (90) minutes.One of the most important conclusions reached by the researcher is that the use of a scale for people with motor performance difficulties for the skill of crushing hitting with volleyball has achieved a positive effect in identifying students who have difficulties in motor performance in the research task.The research recommends the need to introduce the curriculum prepared with the learning method for mastery, which is based on giving additional time invested in providing corrective feedback and explanatory information for basic skills in volleyball to benefit from it in the educational process.

Keywords: K.W.L.H strategy, motor learning, smash, volleyball.

.

Introduction

The great scientific progress achieved in the field of sports has only happened due to the great and continuous scientific efforts of specialists and workers in the field of sports and their search for the most important methods and approaches to modern and diverse scientific strategies that provide the elements for the success of the educational process in all sports sciences.(Easa et al., 2022)

In order to achieve progress in the educational process, many educational practitioners have long sought to find diverse methods, approaches, and strategies that help raise the level of learning and performance of learners by allowing them to participate in the educational process" .This is an attempt to increase the number of female students who can achieve a satisfactory level of performance.(Mondher & Khalaf, 2023)

Volleyball is a sport characterized by a variety of athletic skills, as well as the close interconnectedness between them. This makes the opportunity to achieve progress in skill achievement linked to the quality of performance provided by the previous skill to serve the subsequent skill. This situation imposes attention to the quality of skill performance through the use of different educational methods and strategies to develop that performance, including the skill of smashing with a volleyball.(kanger Hamdan & Sukny, 2017)

In order to be able to reach the required level in the process of learning skills, we must analyze these skills into their stages and know the difficulties that face the learner through the use of the appropriate method, approach or strategy that achieves the desired benefit in acquiring and mastering the skills and being able to perform them smoothly and accurately while saving the effort and time needed to implement them. From here, the research gains its importance as it addresses a vital topic related to those in charge of the educational process by knowing the effect of the (K.W.L.H) strategy in learning the skill of smashing in volleyball for female students.

Journal of Physical Education

Volume 37 – Issue (2) – 2025 Open Access

P-ISSN: 2073-6452, E-ISSN: 2707-5729
https://jcope.uobaghdad.edu.iq

Research problem:

The process of teaching sports skills requires the adoption of multiple educational methods, techniques and strategies, selecting the most appropriate ones to serve the nature of the game and its skills. Through the researcher's follow-up of many educational units for second-year female students, as the researcher is a volleyball teacher, it was noted that there are female students who have difficulty in performing the motor skills of volleyball in general and the smash skill in particular. The researcher believes that some of the methods adopted by some teachers of the subject do not achieve the desired benefit from the learning process, which has led to the educational process moving away in most of its aspects from excitement, suspense and motivation. The researcher believes that adopting new methods, techniques and strategies is the ideal solution to achieve the goal of every teacher to achieve the best learning. Therefore, the researcher decided to study this problem by adopting the (K.W.L.H) strategy to know its impact and importance in the educational process, which would save effort and time.

Research objectives:

-1The aim of the research was to know the effect of the (K.W.L.H) strategy in learning the skill of smashing volleyball for second-year female students.

-2Knowing the superiority of the impact of the (K.W.L.H) strategy in learning the skill of smashing in volleyball and the method followed between the pre- and post-tests.

Research hypothesis:

-1There are statistically significant differences between the results of the pre- and post-tests in learning the skill of smashing volleyball between the experimental group and the control group.

-2There are statistically significant differences between the results of the tests of the two groups, the experimental and the control, in learning the skill of smashing volleyball in the post-tests.

Research areas:

Human field: A sample of second-year female students for the academic year(2024-2023)

Time frame: 1/3/2024 to 3/5/2024

Spatial area: The closed hall in the College of Physical Education and Sports Sciences/University of Diyala.

Research methodology and field procedures:

Research Methodology:

The experimental method was used with a randomly selected equivalent group design with pre- and post-tests due to its suitability to the nature of the research.

Research community and sample:

The research community is represented by the second-year female students at the College of Physical Education and Sports Sciences/University of Diyala for the academic year 2024/2025, numbering (75) female students representing (2) academic departments, where the failed female students were excluded, numbering (13) female students, the female students who were not committed to attendance, numbering (20) male students, and the male students who practice volleyball, numbering (2) female students.

Thus, the final number of the sample became (20) female students who have difficulties in motor performance, representing the experimental group, and (20) female students representing the control group, representing a percentage of (53.3%) of the research

Journal of Physical Education

Volume 37 – Issue (2) – 2025 Open Access

P-ISSN: 2073-6452, E-ISSN: 2707-5729
https://jcope.uobaghdad.edu.iq

community, which is (75) female students, and this is an appropriate percentage to represent the research community in a true and honest manner.

table(1)

Shows the arithmetic means, standard deviations, standard errors, and coefficient of skewness. For the research sample in the research variables (mass, age, and height)

Processors Statistics		lonliness Measure ment	Q	ع±	stand ard error	Coeffic ient of skewne ss
Varia bles physi cal	hei ght	right	1.7 05	0.0 55	0.00 9	0.674-
	the wei ght	kg	67. 900	6.1 64	0.97 5	1.608
the age		year	20. 825	0.9 58	0.15 1	1.865

Table (2) shows that all values of the skewness coefficients for the research sample ranged between (-0.674,

(1.865 ,1.608and that these values were limited between (±1) as“ whenever the values of the skewness coefficient were limited between (±3) this indicates that the degrees are distributed in a normal distribution, but if they are more or less than that, this means that there is a defect in choosing the sample ”([i]), which confirms that all the data are under the normal curve, and this indicates the good normal distribution of the individuals of the research sample because all the extracted values were under this value. In the variables (height, mass, age)

Devices, tools and means of collecting information:

Devices used in the research:

- (1)German-made electronic device for measuring mass and length.
- (1)Dell laptop, made in China.
- (1)Canon Japanese video camera with stand.

(2) -Chinese-made digital electronic timers.

Tools used in the research:

-Legal volleyball court - (12) DVDs for evaluators - (2) Fox whistles - (10) legal volleyballs, Japanese-made (Mikasa)

Information collection methods:

-References and sources, Arabic and foreign - observation - tests and measurements.

-Names of experts and specialists consulted by the researcher, Appendix.(1)

-A questionnaire form to survey the opinions of experts and specialists to determine the validity of the motor performance difficulties scale for the smash skill in volleyball, Appendices (1 and 2).

-Questionnaire form to evaluate the technical performance level of the smash skill in volleyball, Appendix (1 and 3).

Journal of Physical Education

Volume 37 – Issue (2) – 2025 Open Access

P-ISSN: 2073-6452, E-ISSN: 2707-5729
https://jcope.uobaghdad.edu.iq

Field research procedures:

1 – 4-2The test used in the research:

High Facing Smash Skill Test (Najla Abbas Naseef) and others, 2012, 225.(

-Purpose of the test: To measure the level of technical performance of the smash skill.

-Equipment used: Legal volleyball court, (10) volleyballs.

-Performance specifications: The tester performs the crushing strike from the (2) or (4) position.

The trainer prepares from center (3) using the long diagonal preparation, and the examinee must perform (5) attempts, and the correct attempts are counted for the examinee in accordance with the law and registration rules.

-Registration:

Each lab has five attempts.

-The preparation must be good in every attempt.

-Points are calculated for the technical performance stages of the diagonal or linear smash skill.

The lab is given three marks for the preparatory section, and five marks for the main section. And two points for the final section of the technical performance of the skill, so the maximum points for this test are.(10)

Exploratory experiment:

The exploratory experiment was conducted on the skill of smashing in volleyball. This experiment was conducted on a sample of (12) students from Section (B) who were randomly selected from among the sections and are outside the main research sample. The experiment was conducted on 3/6/2024, in the closed sports hall of the martyr (Walhan Hamid Hadi) for sports games in the College of Physical Education and Sports Sciences / University of Diyala.

Pre-tests:

The pre-tests were conducted in the skill of crushing, and the test was conducted in the closed hall of the martyr Walhan Hamid Hadi for sports games over two days at exactly nine o'clock in the morning on Sunday and Monday corresponding to 13-14/3/2024, under the direct supervision of the researcher and in the presence of the assistant work team, for both groups, taking into account the conditions related to the tests, represented by the place, time, devices and tools used, and the method of implementing the test, with the aim of creating the same conditions as much as possible in the post-tests.

Main experiment:

.1 It was implemented by the subject teacher and under the supervision of the researcher in the second semester of the academic year 2024/2025 for the period from 3/1/2024 to 4/25/2024. The implementation of the educational units took (4) weeks. The educational units were implemented at a rate of (2) educational units per week.

.2 The skill exercises prepared based on the K.W.L.H strategy were relied upon by the researcher to be applied by the students in the practical part of the main section of the educational unit.

.3 The teacher applied some therapeutic methods, including the therapeutic method of small cooperative groups in the experimental research group, i.e. dividing the students into small groups.

Post-tests:

Journal of Physical Education

Volume 37 – Issue (2) – 2025 Open Access

P-ISSN: 2073-6452, E-ISSN: 2707-5729
https://jcope.uobaghdad.edu.iq

After completing the application of the vocabulary of the educational units using the (K.W.L.H) strategy

Over the course of (8) educational units, the post-test was conducted for both the control and experimental groups, taking into account the conditions related to the tests, represented by the place, time, tools used, and method of implementing the test, with the aim of creating the same conditions as much as possible as in the pre-tests, as the test was conducted over two days at exactly nine o'clock in the closed hall of the martyr Walhan Hamid Hadi for sports games in the College of Physical Education and Sports Sciences/University of Diyala, at a rate of one day for each group, and under the direct supervision of the researcher.

10-2Statistical methods:

The researcher used the statistical package (SPSS-20) to extract data.

Presentation and discussion of the results:

Presenting the results of the test and evaluation of the performance level of the volleyball smash skill before and after the experimental group and the control group.

Table(2)

Shows the values of the arithmetic means, standard deviations, standard errors, and evaluation of the performance level of the volleyball smash skill before and after the experimental and control groups.

Variables	Tests	lonliness Measurement	Test	The middle Arithmetic	deviation Standard	error Standard
crushing skill	Experimental	degree	tribal	4.390	0.340	0.076
			Dimension Y	8.200	0.361	0.081
crushing skill	Officer	degree	tribal	4.533	0.338	0.076
			Dimension Y	6.620	0.756	0.169

Journal of Physical Education

Volume 37 – Issue (2) – 2025 Open Access

P-ISSN: 2073-6452, E-ISSN: 2707-5729
https://jcope.uobaghdad.edu.iq

Table(3)
It shows the mean, deviation of the differences, the standard error, the calculated (t) value, the error percentage, their statistical significance, and the evaluation of the performance level of the volleyball smash skill before and after the experimental and control groups.

Tests	S-F	A F	standard error	(T) calculated	error rate	Significance Statistics
Experimental	3.810	0.408	0.091	41.794	000	spiritual
Officer	2.0-87	0.916	0.205	10.19-0	000	spiritual

Degree of freedom.(19) =
Table(4)
It shows the values of the arithmetic means, standard deviations, standard error, calculated t-test, error percentage, statistical significance, and evaluation of the performance level of the volleyball smash skill for the control and experimental groups.

Groups	arithmetic mean	standard deviation	standard error	(T) The accountant	error rate	Statistical significance
empiricism	8.200	0.361	0.081	8.429	000.0	spiritual
The officer	6.620	0.756	0.169			

The tabular value of (t) is (2.024) at a degree of freedom of (38) and a significance level of.(0.05)

Discussion of results:

Discussing the results of the two tests (pre- and post-test) for the experimental and control groups in the research skill.

Tables (2 and 3) show that there is a significant difference between the results of the pre- and post-tests in learning the search skill in favor of the post-test. The difference is attributed to: the effect of the curriculum prepared using the (K.W.L.H) strategy, which takes into account various scientific and practical aspects by selecting the appropriate educational units and skill exercises, implementing them and distributing them regularly in a manner that is consistent with the students 'capabilities, in addition to watching the technical performance in volleyball and also the time allocated to practice the skill using the (K.W.L.H) strategy, as

Journal of Physical Education

Volume 37 – Issue (2) – 2025 Open Access

P-ISSN: 2073-6452, E-ISSN: 2707-5729
https://jcope.uobaghdad.edu.iq

repetition and actual practice are an educational method with a positive effect in improving the skill required to be learned, and this is what was indicated by (Nabil Mahmoud Shaker, 2007, 121) Practice is a basic condition for learning. Learning does not happen without practice that achieves the acquisition of the skill in its initial form, then improves coordination and consolidates it. The more repetition of the type of skill practiced, (Issa et al., 2024) the more accurate the motor memory becomes in determining the motor program required for that skill through interaction between the stock and the stimulus to make the appropriate decision. The repetition of the correct response results in the student reaching an advanced stage of successful performance. This is what was confirmed by (Ali Mustafa Taha, 1999, 10) that the stimulus constitutes the event that is entered as an external factor and requires a reaction, and the response constitutes a reaction to the stimulus, which is the process of learning, i.e. change. Tables (2, 3) for the control group show a slight significant difference between the results of the pre- and post-tests in the research skill, in favor of the post-test. The researcher attributes this slight improvement to the fact that the control group uses the method approved by the college, subject to the teacher's instructions. Therefore, the student does not feel free to perform, as each method has its effect on the learner in varying proportions. This was confirmed by (Jamal Saleh et al., 2000, 94)" .Each method has its own place in achieving a specific set of goals, and there is no method that is considered the best in itself, but it achieves varying percentages ".Also, some of the educational units and the vocabulary they contain that were applied to the control group are not at the required level, which would contribute to improving the technical performance of the learner, in addition to the lack of consideration for the principle of gradual progression in exercises from simple to complex, which is what Abbas Abdul Karim (2014, 43) indicated, that" not taking care to choose exercises that achieve the goal of learning delays the learner's arrival at the required level of performance within the specified time period for learning.".

Discussion of the results (post-post) for the experimental and control groups in the research skill

The results of Table (4) showed statistically significant differences in the post-tests between the experimental and control groups, in favor of the experimental group in the post-tests. The researcher attributes these differences to the effect of the (K.W.L.H) strategy and what it included in terms of exercises, repetitions, group corrective methods, and providing feedback. Some individual and group methods were used to treat weak and average-level students by giving them an opportunity to learn the skill by giving them additional educational units that enable them to perform the skill correctly by avoiding errors and focusing on the correct performance of learning so that the student can reduce her errors and perform correctly. (Salman et al., 2022) This, in turn, was effective in enhancing the learning process and improving the skill performance in the post-test for the experimental group. It is known that progress and acquisition of skill performance is achieved through organized practice, and this was confirmed by (Muhammad Abdul Ghani, 1987, 172)" :Progress in movement or skill is achieved through practice, repetition, and avoiding errors, and this is done through the practical performance of the learner under the guidance of the teacher, and this is limited to "It is one of the main steps followed in teaching motor skills ".As for the control group, it also achieved a small percentage of learning, which was clear in the results of the post-test. The researcher explains that field application, (Kazim et al., 2019) repetition of skills in the practical aspect, and the effect of the teacher's explanation of the material had a role in

Journal of Physical Education

Volume 37 – Issue (2) – 2025 Open Access

P-ISSN: 2073-6452, E-ISSN: 2707-5729
https://jcope.uobaghdad.edu.iq

creating learning, as learning cannot occur unless there are repetitions that lead to a relative and sometimes constant change in skill learning. Repetition leads to the development of the skill and mastery of it sometimes if there is correction of errors and sound guidance from the subject teacher. The results were varied because“ individuals learn at different rates) ”Abu Zeina and Farid Kamel, 1998, 48)

Appendix(1)

Educational unit using the K.W.L.H strategy

Educational Unit(1) Time: 90 min

Date: / / 2024 Educational objectives

Learn the skill of crushing -Instill a spirit of competition and hard work.

Educational unit sections	the time	Activities and skills	Direction	Notes
Preparatory section the introduction General warm-up Special warm-up	20d 5d 5d 10d	Preparing tools and taking absences General preparation for all parts of the body Special equipment serving the main section Gaining a sense of the ball and the field	××××××× ×× ×	Emphasis on order Emphasis on general and specific warm-up
Main Section	60d	Explain the skill of smashing in detail and present it through pictures and display it on	×××××××	Focus on clarifying and simplifying the explanation,
Educational aspect	5d		× × ×× × ××××××× ×	

Journal of Physical Education

Volume 37 – Issue (2) – 2025 Open Access

P-ISSN: 2073-6452, E-ISSN: 2707-5729
https://jcope.uobaghdad.edu.iq

		the computer and then by a model. .2Explain the importance of the skill and its technical stages.		correcting errors and monitoring performance accurately, directing questions to everyone in a clear and simple manner, and using most of the time for application and repetition.
The practical side	35d	.Apply the exercises with the maximum number of repetitions, with guidance and correction of errors by the teacher. Direct the following questions: How to stand ready to perform a smash -How to throw the ball up in a way that suits the player's ability -How to hit the ball and return it to the designated place on the field		

Journal of Physical Education

Volume 37 – Issue (2) – 2025 Open Access

P-ISSN: 2073-6452, E-ISSN: 2707-5729
https://jcope.uobaghdad.edu.iq

K.W.L.H Strategy	20d	Each student applies what she has learned in the educational unit by completing a number of attempts and determining the number of successful attempts required to achieve correct performance in the educational unit.		
Final section	10d			
recreational game Departure	7d 3d	A mini-game that serves as the main section. Standing - Saluting - Departing in a regular manner		Commitment to order and calm

Journal of Physical Education

Volume 37 – Issue (2) – 2025 Open Access

P-ISSN: 2073-6452, E-ISSN: 2707-5729
https://jcope.uobaghdad.edu.iq

References

Abbas, N., et al. (2012). *Basic principles of volleyball skills and methods of learning them* (1st ed.). Al-Mawwal Press.

Abdul Karim, A. (2014). *Physical education teaching methods* (1st ed.). Dar Al Fikr Al Arabi.

Abu Zeina, A., & Kamel, F. (1998). *Measurement and evaluation methods in education* (1st ed.). Al Falah Library.

Alawi, M. H., & Al-Din, M. N. (2000). *Measurement in physical education and sports psychology*. Arab Thought House.

Easa, F. A. W., Shihab, G. M., & Kahdim, M. J. (2022). the Effect of Training Network Training in Two Ways, High Interval Training and Repetition To Develop Speed Endurance Adapt Heart Rate and Achieve 5000 Meters Youth. *Revista Iberoamericana de Psicología Del Ejercicio y El Deporte*, *17*(4), 239–241.

Ibrahim, M. A. M. (2000). *Foundations of scientific research for preparing university theses* (1st ed.). Al-Warraq Publishing and Distribution House.

Issa, F. A. W., Mohaif, S. M., & Kadhim, M. J. (2024). The effect of functional strength training according to gradually increasing load in developing some physical abilities and achievement for men's 100-meter competition runners. *Journal of Physical Education*, *36*(2).

kanger Hamdan, R., & Sukny, H. S. (2017). Exercises skill according to private analysis of the game and its impact on the effectiveness of performance rebuff players skill of the National Center for the care of sports talent handball. *Karbala Journal of Physical Education Sciences*, *4*(1).

Kazim, M. J., Zughair, A. L. A. A., & Shihab, G. M. (2019). The effect of zinc intake on the accumulation of lactic acid after cooper testing among football Premier league referees. *Sciences Journal Of Physical Education*, *12*(5).

Mondher, H. A., & Khalaf, S. Q. (2023). The Effect of Game–Like Exercises on the Development of Some Physical Abilities and Fundamental skills In Futsal. *Journal of Physical Education*, *35*(2).

Othman, M. A. G. (1987). *Motor learning and sports training* (1st ed.). Dar Al-Qalam.

Saleh, J., et al. (2000). *Learning technology* (1st ed.). Book Center for Publishing.

Salman, S. M., Kadhim, M. J., & Shihab, G. M. (2022). The effect of special exercises in the rehabilitation of the shoulder muscle for the youth wrestling category. *INTERNATIONAL JOURNAL OF EARLY CHILDHOOD SPECIAL EDUCATION*, *14*(5), 4606–4609. https://doi.org/10.9756/INTJECSE/V14I5.555

Shaker, N. M. (2007). *Features of sports, psychological and cognitive movement* (2nd ed.). University of Diyala, Central Press.

Taha, A. M. (1999). *Closed-loop theories of motor learning* (1st ed.). Dar Al Fikr Al Arabi.