



THE EFFECT OF USING TWO METHODS OF EMBEDDING AND LEARNING THROUGH PRACTICE IN TEACHING THE SKILLS OF HANDLING AND DRIBBLING IN HANDBALL

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Abstract.

In the field of physical education, the basic goal associated with sports is to acquire and improve the basic skills in sports games. This requires the use of appropriate means, methods and techniques, as well as proper understanding of the characteristics, interests and needs of learners in order to achieve the best results. Handball is one of the sports - a practical example - that the researchers used as an example to show what the teaching method is through practice. The skills were divided into exercises (15) studied, and each skill ranged from simple to difficult. After collecting the results, the researchers conducted a statistical analysis and found that the inclusion method can achieve better results. Physical education courses must include the inclusion method recommended by the researchers in order to achieve positive results in the development of some basic handball skills. Exercises (15) were assigned to each skill, and the exercises were different for both skills; the difficulty level of these exercises ranged from simple to difficult. After collecting the results, they were statistically analyzed, and based on the analysis, the researchers clearly found that the inclusion method can achieve better results. The researchers also drew the attention of the heads of physical training to the fact that the application of this method in handball courses will definitely help to achieve positive results in the development of some basic skills in handball..

Keywords: embedment method, learning through practice method, handball.

1-Introducing the research.

1-1Introduction and the importance of the research.

The main purpose of physical education in the field of sports is to acquire skills and knowledge of the basic game skills described in the curriculum. To achieve this goal, the best resources, methods and techniques should be used appropriately, which requires a good understanding of the characteristics, needs and tendencies of the learners in order to achieve effective results.

Handball is a widely played sport and an exciting sport that combines defensive, offensive and contact skills. The curriculum for students of this age group should be no different from other games, using modern scientific methods to develop what needs to be developed to achieve the best results. Each teaching method has its own



goals, characteristics, content and application, corresponding to the effectiveness and skills to be learned, as well as to the age and educational level, taking into account the individual differences of the learners, as well as the educational context (their position, abilities and needs) in order to be coordinated with the goals to be achieved and at the same time consistent.

The above situation has attracted the attention of the researcher to two teaching methods: embedding and practical teaching. They were chosen because they belong to methods that take into account the level of the students. In these methods, the actions are performed at the level of the students, with the aim of having all students participate in the execution simultaneously according to their level. Therefore, the use of the insertion method in teaching is nothing more than a scientific attempt to show its usefulness in improving students' skills at the corresponding level.

The research value is a scientific attempt to use inclusive and practical teaching methods as an effective teaching method in the field of sports. Individual differences need to be taken into account in the learning of handball handling and hitting techniques. The goal is to master these skills in the shortest time and achieve the highest level of learning.

Assumptions that there is a significant difference between the pre-test and post-test of the two groups: the post-test is preferred.

1-2 Research problem.

The second phase of handball practice was conducted through the researchers' real world experience and observational skills and the way these were conducted in the university knowledge academy. They realized that there were differences in the level of students' knowledge of handball, which could be due to the incompatibility of traditional learning methods with modern methods of increasing knowledge capacity.

Therefore, the researchers decided to adopt the method of inclusive and practical teaching as a modern scientific method to allow all students to work together according to their physical and academic abilities and due to the impact and role of this method in improving students' learning ability. Students' ability level

1-3 search targets.

1- To discover the effect of the insertion (inclusion) method on the learning of handball and hitting related skills according to the requirements of the second level students.

2- To understand the effect of the teaching method through games on the acquisition of handball and hitting related skills.

2- To compare the two teaching methods in the acquisition of handball related knowledge and skills.

1-4 Research hypothesis.

1- There are significant differences between the pre-test and post-test for the two groups, in favor of the post-test.



1-5 areas of research

1-5-1 Humanities: - Secondary students, physical education and sports science departments, colleges, universities.

1-5-2 Geographical scope: - From March 1, 2022 to May 20, 2022.

1-5-3 Spatial area: - Sports facilities of university technical colleges.

2- Research methodology and field procedures.

2-1-Research methodology.

Choosing the right scientific research method is one of the most important steps in the research process. Therefore, researchers use experimental methods that are suitable for the type of research and its objectives, which is considered to be one of the most effective means of obtaining accurate knowledge (6).

Considering the above, a design in which a group is randomly selected for pre-test and post-test is called (strictly controlled experimental design) (7)..

Table (1)

Shows the design of matched groups

2-2 sample.

One of tasks is to sample truly

Steps				Groups	Research
Fourth	Third	Second	First		
The difference between the two tests	Post-test	Inclusion Method	Pre-test	Experimental Group	the basic select a that is
The difference between the two tests	Post-test	Competitive Method	Pre-test	First	

representative of the population.

The research sample should accurately and honestly describe the entire community when the researcher obtains data and knowledge. This can only be inferred from the entire community or its representative sample. ”

The research sample included second-year students of the Department of Sports and Exercise Science of the Faculty of Knowledge of the University. A total of (52) students were intentionally selected based on the characteristics of morning work and the time available. Resources related to (fields, tools and equipment) were selected. This method is considered discretionary because it achieves the goals of the research conducted by the researcher..

They were segregated into two classes, with (26) students in each class..

2-2-1 Sample equivalence.



The researcher assessed the equality of the control and experimental groups by using a t-test to assess the similarity of the pre-tests' handling and typing abilities, as demonstrated in Table (2).

Table (2)

It shows the arithmetic means and standard deviations in the equivalence tests for the control and experimental groups, the calculated and tabulated T-values, and their statistical significance.

(*) at a significance level of (0.05) and a degree of freedom (50)

Statistical significance	T* Value Article I. Table	Calculated T value	N	Experimental group 2		Number of sample	Experimental group 1		Measurement	Article I. Tests
				±A	1.2. S		±A	1.1. S		
(i) (i) Non-moral	1.67	1.30	26	1.54	20.41	26	1.9	19.91	how often	Handling
Non-moral		0.38		0.56	14.47		2.22	14.64	Article	Patting

It is clear from Table (2) that the calculated (t) value is smaller than the tabulated (t) value in the equivalence tests, which indicates that there are no significant differences between the two experimental groups in their skill level.

2-3 Devices, tools and methods used in research.

2-3-1 Auxiliary devices and means.

1- Measuring tools.

2- Electronic stopwatch (2). (Casio type)

Handball court.

4- Hand flies (6).

Signs of deafness (6).

6- Handball goal on the wall.

7- Helpful team (*)

2-3-2 Research tools.



1. Arabic and other sources.
- 2- Experts and experts' opinions. See Appendix (1) and (2)
- 3- Questionnaire form, see Appendix (3)
- 4- Tests and measurements.
- 5- Common average.

2-4 Tests used in the research.

Test selection is one of the most important steps in scientific research and is used to determine the variables relevant to the study. Tests are a series of exercises given to a person to determine his or her ability, readiness, or expertise. (1).

Since researchers have access to most of the available scientific resources relevant to their research, a number of standardized tests are selected and submitted to several experts and specialists. These tests are designed to assess the validity and suitability of the various components to achieve the research objectives shown in Table (3).

Table (3)

It shows the percentage of agreement between experts and specialists for the nominated skill tests

Article VI. Article I. Agreement percentage	Article V. Article I. Objective of the test	Art	Basic Skills Classification
100%	Measuring coordination and handling speed	1	Article VII. Article I. Handling Article VIII.
0%	Measuring the speed of passing and receiving from the high level (3) meters	2	
85.71%	Measuring the level of pat skill and agility (30) meters	1	Patting
14.29%	Measuring the pat skill	2	

Based on what was shown in the table above, the aforementioned tests were chosen because they obtained the required percentage of agreement.

2-5 The exploratory experience:-

Experimental exploration is considered to be "a practical training for the researcher to identify the negative and positive aspects of the test that he will encounter while conducting the test in order to avoid these negative aspects. (2) The elements of the test are correctly conducted." Successful and accurate results are obtained based on the scientific methods used. Therefore, the researcher and his assistant conducted an experimental



study on a randomly selected group of third-grade students to test the skills involved in the study. (IV) The students participated in the experimental study on March 1, 2022.

2-6 Pretests:-

After determining the conditions such as test time, location, instruments, implementation methods and support team, preliminary tests were carried out on the research samples of the two experimental groups at the Academy Stadium from March 2 to 3, 2023.

2-7 Field research procedures:-

A series of exercises were used which were integrated into most of the course content. These activities were distributed across the different skills to be examined. For each talent, (15) exercises were used from easy to difficult following the insertion method for the first group, and (15) exercises for each talent. The second group was taught in a competitive manner. The researchers used this set of exercises for (8) weeks, with a typical frequency of twice per week, which meant a total of (16) sessions (*). These were divided as follows:

1- (8) units involved. 2- (7) large units.

(1) One unit has a similar exercise pattern to game situations.

Total (16) educational institutions.

These exercises are incorporated into the practical part of the physical education class, and each class includes 3 different exercises. In the first group, students have the right to choose the exercises that best suit their abilities, and in the second group, the exercises are performed in a competitive manner. The duration of these exercises is (15) minutes, which is equivalent to one time period. The practical activities are part of the main part of the physical education class and last (25) minutes. Therefore, the total time spent on exercises in this teaching method is (240) minutes, and the time spent on each skill in this method is (75) minutes, as shown in the following table: -

Table (4)

It shows the sections of the educational unit, their timing, and the percentage of each part

percentage	Total time for (16) educational units	Time during one unit	Educational unit sections	
6.66	D48	D3	Introduction	Preparatory Section
8.88	D64	D4	Warm-up	
17.77	D128	D8	Physical exercises	Main Section
22.22	D160	D10	Educational activity	



33.33	D240	D15	Applied activity	Preparatory Section
6.66	D48	D3	Mini game	
4.44	D32	D2	Cooling down exercises	
%100	D720	D45	the total	

2-8 Posttests:-

Eight weeks after the introduction (inclusion) and competition methods, the study sample was posttested. The experiment started on March 1, 2023, and ended on May 1, 2023, during a designated physical education class.

The researchers were interested in providing the same conditions as the pretest, including time, location, instruments, methods, and team support.

2-9 Statistical methods. (1)

Arithmetic average

Standard deviation

The 3-Test for Similar Samples is a method of testing for equality between independent samples.

4- A statistical T-test evaluates the significance of the differences between the means of two samples that are related.

The average of the differences' numbers

3- Presentation, analysis and discussion of the results.

3-1 Presentation of the results, analysis and discussion of the pre- and post-tests of the basic skills selected for the control group.

Table (6)

It shows the arithmetic means, standard deviations, and T-value calculated for the pre- and post-tests for the control group in the skill tests.

	T tabular			s f	Post-test	Pre-test		Variables
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Significance of differences		The accountant	Majh2 F		a	s	a	s	Unit of measure	
Moral	1.71	3	12.96	0.3	1.74	21.85	1.10	19.92	Number of times	Handling
Moral		3.3	3.20	0.2	1.85	13.52	2.22	14.64	seconds	Patting

• The tabular (t) value reached (1.71) below the significance level (0.05) and the degree of freedom (26)

From the results of Table (6) and Figure (2), we can see that the arithmetic mean of the pre-test manipulability is (19.92), the standard deviation is (1.10), and the mean of the post-test manipulability is (1.10). The test result is (21.85) and the standard deviation is (1.74). The calculated (t) value is (3), which is larger than the table (t) value (1.71), the degree of freedom is (26), and the significance level is (0.05), indicating that there is a significant difference in favor of the post-test.

The mean score and standard deviation of the pedaling skills in the pre-test are (14.64) and (2.22), respectively, and in the post-test are (13.52) and (1.85), respectively. The estimated T score is (3.3), which is larger than the formal T score (1.71)., with one degree of freedom (26) and below the significance level (0.05), indicating that there is a significant difference in favor of the post-test. The researchers believe that development is related to the emergence of individual differences, which must be taken into account. Therefore, development is relative, (Keven Hardman 1984) explained this as follows: The physical education teacher must understand and internalize the main teaching methods, and he must have a direct understanding of all the latest methods in order to choose the most appropriate method. Method students can. (1) The formalization of exercises in physical education classes and the lack of effectiveness in cultivating the required skills have led to a slight increase in test scores. Therefore, appropriate exercises should be selected to more effectively improve abilities. (Soliman 1983) confirmed this point. The choice of exercises is very important because it represents the main means of improving or developing sports skills and abilities. 3-2 Presentation, analysis and discussion of the results of the pre- and post-tests of basic skills of the experimental group:-

Table (7)

It shows the arithmetic means, standard deviations, and T-value calculated for the pre- and post-tests of the experimental group in the basic skills tests.

Significance of differences	T tabular	The accountant	Majh2 F	s f	Post-test		Pre-test		Unit of measure	Variables
					a	s	a	s		
Moral	1.71	5.5	40.23	1.1	2.31	24.31	1.55	20.40	Number	Handling Test
Moral		4	31.13	0.8	2.16	11.21	0.57	14.46	Th	Patting Test



- The tabular T value was significant (1.71) with a level of significance (0.05) and a freedom of 26.

From the data in Table (7), it can be seen that the average manipulation skill of the pre-test is (20.40) with a standard deviation of (1.55), and the average manipulation skill of the post-test is (24.31) with a standard deviation of (1.55). The standard deviation of (2.31). Regarding the value (t), the calculated value is (5.5), which is higher than the listed value (1.71), with a degree of freedom of 26 and below the significance level (0.05), indicating that there is a significant difference in favor of the post-test.

The mean score and standard deviation of the pedaling skills of the pre-test are (14.47) and (0.56), respectively, and those of the post-test are (11.22) and (2.17). The calculated (t) value is (4), which is higher than the table (t) value (1.71).), with one degree of freedom (26) and below the significance level (0.05), indicating that there is a significant difference in favor of the post-test. The researcher attributes the type of input method (embedding) to Mostton (1981), who explains that it involves "breaking down the motor task into smaller tasks that the student chooses and can handle, and then moving on to the next task" (1) In addition, the sets of exercises used in the body of the book are designed to teach skills in an interesting way, away from the boredom and monotony of formal exercises in the book. (Muhammad 1993) mentions this in his book. The use of interesting exercises during training is very important for improving technical and physical levels. (Muhammad 1993) also mentions this in his book. In addition, methods and procedures that are appropriate to the age of the students can promote the speed of learning of students, as confirmed by (Ian Word 1984): "The teaching method must be appropriate to the age of the students and their mental and psychological. Physical ability, general situation and course environment must be taken into account to achieve the desired goals. " (3)

All students are included in the exercise program, each student participates at his or her own level, and individual differences are taken into account, which increases the learning process. This is what Don Autony (1985) acknowledged: There is no single method that is considered the most effective way of physical education. The method must meet several conditions, the most important of which are the goals and objectives of the method. All students must participate in the course, and the motivation of students is enhanced by the requirement of objectivity of the method.

3-3 Presentation, analysis and discussion of the results of the post-tests of the selected basic skills for the control and experimental groups.

Table (8)

It shows the arithmetic means and standard deviations in the post-selected skills tests for the control and experimental groups, the calculated and tabulated T-values, and their statistical significance.

Significance	T tabular		Maj h2 F	s f	Post-test	Pre-test		Variables
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of differences	1.67	The accountant	27	a	s	27	a	s	Unit of measure	
Moral		4.9		2.30	24.32		1.73	21.86	Number	Handling Test
Moral		4.6		2.17	11.23		1.85	13.53	Th	Patting Test

• The tabulated (t) value was (1.67) at a significance level of (0.05) and a degree of freedom (52)

By displaying the above statistical data in Table (8) for the post-tests of the the control and experimental groups, it appears that there are significant differences in the development of the selected fundamental abilities and in favor of

Researchers attributed these discrepancies to the proper choice of method and exercise type. Similarly, the results are consonant with the findings of (Osthuzon & Griesel 1992) that using the insertion method has an effect on motor development, specifically in its physical and practical aspects, compared to the traditional or command method, which they believe doesn't address the educational and pedagogical goals of the lesson.

Additionally, participating in the lesson atmosphere in a spirit of excitement and seriousness without becoming bored or fatigued during the performance helps the student to be creative, increase their energy, express their abilities, and eliminate nervous tension, all of which are properties of recreation, as confirmed by (Hazam 1988): "Recreation is the act of trying." Effective and enthusiastic performance of labor is considered."(2)

The advantage of the input method (embedding) was derived from the fundamental principle and concept created by Muston, which involved all participants in the educational process, taking into account their individual differences. This is illustrated by (Darrow 1997) who states that there are multiple levels of difficulty, and the student has the right to choose where to begin, they are also the ones who determine the degree of difficulty, as they have the greatest knowledge of their individual needs and capabilities.

As a result, the learner chooses to begin at the level he begins at, and the difficulty of the task is considered. This was reinforced by (Mark and Jayne 1998) that the learners would have the opportunity to choose the degree of difficulty of the performance, this is one of the foundations of (Mosston 1994) in creating the performance series.

Conclusion and recommendations

4-1 Conclusions

The use of the Insertion Method (Inclusion) and the Impertinent Method has an effect on the learning of some basic handball abilities for middle school students.

The participation of all students in executing the exercises, each according to their skill level, taking into account individual differences, enhanced the learning process.



The method of inserting objects is more efficient and effective than the method of requiring students to do something. This is beneficial for students who are in the middle of a handball development.

4- Individual differences in the input method had a positive effect on the speed of student's learning.

4-2 Recommendations:-

1- The effort to implement the method of inserting objects into the physical education lesson will lead to positive results in the development of some fundamental handball abilities.

2- The necessity of utilizing the method in discussion in the physical education lesson for other educational levels and different subjects in order to allow students an opportunity to demonstrate their abilities together and take into account the individual differences between them.

The gradual method is used in the application of physical therapy and the progression from easy to difficult is used to expose the student's physical abilities and skills. These abilities and skills are then discovered and expressed by the student..

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