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The Impact of Landa's Model on Learning the Skills of Dribbling and Passing in Handball for Students

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ABSTRACT

The importance of the research and the need for it are evident in its being a serious scientific endeavor by the researchers to experiment at the university level, utilizing Landa's model and determining its effect on learning some basic offensive skills in handball for students. The research aimed to identify the effect of educational units based on Landa's model. The research sample consisted of second-year students in the College of Physical Education and Sports Sciences - Al-Ain University for the academic year (2024-2025) first semester. The researchers used the experimental method with the design of two equivalent groups (control and experimental). The most important findings of the research were the superiority of the experimental group that implemented Landa's model over the control group that implemented the method used by the instructor in teaching the dribbling and passing skills in handball for students. The researchers recommend conducting similar studies that address Landa's model on samples and levels not covered by the current study for students.

Keywords: *Landa's Model, Dribbling and Passing Skills in Handball*

DEFINITION OF THE RESEARCH:

Introduction and Importance of the Research:

The world has witnessed a significant advancement in information across all fields, including education. In recent years, those responsible for the educational process have increasingly focused on theories, activities, and events that make the learner the central focus of the teaching and learning process. Constructivist theory is one such modern learning theory. Therefore, those responsible for this process have sought various models for its development at different stages of learning. Constructivist theory is one of the most important sources that provide us with these modern educational models, including Landa's model. This model adopts the teaching of methods for the exploratory organization of knowledge and the breakdown of methods into small elementary operations that serve all student levels. This model includes four stages: guided discovery, explanation and clarification, pairing, and snowballing. It relies on a set of strategies unified in a sequential series of basic procedures that are implemented systematically under planned conditions to solve problems after they are identified and then describe their specific organizational operations. It also depends on sequential construction, where the student spontaneously transitions to the subsequent educational process after mastering the first process. Handball is one of the team sports, a competitive sport based on the principle of team spirit. It has gained widespread popularity due to the development in the game through the speed in performing skills and the diversity of team tactics. The continuous development in modern technology according to diverse and rapid plans is one of the main factors that has driven handball towards progress and development. The basic skills of handball are among the fundamental factors for the learner's success during the learning process. The importance of the research and the need for it are evident in its being a serious scientific endeavor by the researchers to experiment at the university level to benefit from Landa's model and determine its impact on learning dribbling and passing skills in handball for students.

Research Problem:

Landa's model is considered one of the important and effective models in the teaching process due to its influence on the learning phase. It also represents an attempt to experiment with a teaching model that has not been previously tested in learning these skills effectively. The game of handball relies primarily on learning basic skills, and it is obvious that most students face difficulty in performing the skill, lack knowledge of the basic steps for each skill, and struggle to connect the parts. In addition, most students lack knowledge of the legal aspects related to the skill and experience difficulty in controlling the motor path and linking the parts of a single movement, which affects dribbling or passing the ball correctly. Furthermore, the students in the research sample have limited cognitive knowledge of the game of handball and the specific skills being learned. Therefore, the researchers addressed a model that may have an impact on students' learning of these handball skills and improve students' performance. Based on the above, the researchers sought to find educational models that achieve the objectives of the educational process, which is what they strive for. Landa's model is one of these models. Therefore, the researchers formulated their research problem with the following question:

Does Landa's model have an effect on students' learning of dribbling and passing skills in handball ?

Research Objectives:

Developing educational units according to Landa's model in learning dribbling and passing skills in handball for students.

Identifying the effect of the educational units according to Landa's model and the method used by the instructor in learning dribbling and passing skills in handball for students.

Identifying the superiority of the control and experimental groups in the post-tests in learning dribbling and passing skills in handball for students.

Research Hypothesis:

There are statistically significant differences between the results of the pre-tests and post-tests for the control and experimental groups in learning dribbling and passing skills in handball for students.

There are statistically significant differences between the results of the post-tests for the control and experimental groups, in favor of the experimental group .

Research Areas

1 Human Scope: Second-year students in the College of Physical Education and Sports Sciences / Al-Ain University.
2 Temporal Scope: 10/15/2024 to 3/15/2025.
3 Spatial Scope: The classroom and handball court (Al-Ain University / College of Physical Education and Sports Sciences).

Definition of Terms

1 Landa's Model: It is defined as an integrated plan characterized by a guiding nature that includes a set of procedures that the teacher practices in the educational setting, which includes the subject matter, its organization, and methods of presentation and processing. The teaching model is usually based on a psychological or educational theory (Abd al-Hamid Nashwani) (3: 548).

2- Research Methodology and Field Procedures

Research Methodology

The researchers used the experimental method with two equivalent groups (control and experimental) in the pre- and post-tests to suit the nature of this problem.

Research Population and Sample

The research population was determined as the second-year students (morning session) in the College of Physical Education and Sports Sciences / Al-Ain University for the academic year (2024/2025), totaling (117) students. As for the research sample, it amounted to (30) students who were divided into two groups, an experimental group and a control group, using a random method and by lottery. Class (C) was chosen as a control group that implements the method followed by the subject teacher in learning some basic offensive skills in handball, and Class (B) was chosen as an experimental group that implements Landa's model in learning some basic offensive skills in handball. A number of individuals from the sample were excluded by the researchers, and the pilot study sample was excluded. The researchers conducted homogeneity and equivalence for the research sample using the skewness coefficient and the t-test for related samples, and Tables (1 and 2) illustrate this.

Table (1) shows the homogeneity of the research sample

Significance	skewness	Error std	Standard deviation	Arithmetic mean	Unit of measure	Variables	N
Homogeneous	0.124	173.500	5.307	173.333	cm	Height	1
Homogeneous	0.118	65.000	1.543	65.080	kg	Mass	2
Homogeneous	005830-	21.000	00490	200633	month	Age Training	4

Table (2) shows the arithmetic means

Significance	Sig.	t	Pre-test Experimental		Pre-test Control		Unit of measure	Processors / Variables	N
			s	x	S	X			
Non-moral	0.117	1.618	1.734	15.149	1.400	14.218	Second	Patting	1
Non-moral	0.477	0.722	0.235	1.542	0.293	1.472	minute	Handing	2

Data Collection Methods, Devices, and Tools Used in the Research:

1 Data Collection Methods:

Arabic and foreign sources and references - personal interviews - questionnaire form - tests and measurements.

2 Devices and Tools Used:

Medical scale - metric measuring tape for measuring heights - stopwatch - plastic cones - adhesive tape - legal handball balls - legal handball court.

4 Identifying Some Basic Handball Skills for Students and Determining the Specific Test for Each Skill

After reviewing a number of sources, studies, and measurement and evaluation resources related to selecting the skills under study, the basic skills (dribbling and passing) were identified. The research then required conducting specific tests for each skill under study, which were tested and presented to a number of experts. Their approval was obtained, and this achieves face validity. However, the researchers conducted a pilot study on a sample from outside the research sample and from the original population, consisting of (10) second-year students, to verify the reliability of the test through test-retest and to determineObjectivity by having two referees score the degrees, and then finding the correlation coefficient. The correlation coefficients were high, and this achieved reliability and objectivity.

5 Specifications of the Test Items:

Firstly: Test of Dribbling Speed in a Zigzag Path for a Distance of (30) meters (Dhiaa al-Khayyat and Nawfal al-Hayali) (2: 212):

Objective of the Test: Measuring the level of dribbling skill.

Equipment: Handball balls - stopwatch - five cones - handball court.

Description of the Test Performance: Five cones are placed on the ground in a straight line, and the distance between each cone is (3) meters. The start

and finish lines are marked at a distance of (3) meters from the first cone. The player stands behind the start line. Upon the start signal, the player dribbles the ball while running in a zigzag pattern between the cones, going back and forth until crossing the finish line.

Scoring: The time recorded for the round trip (to and fro) is calculated from the moment of the start signal until the player crosses the finish line.

Secondly: Passing Test (Handling) on the Outer Boundaries of the Free-Throw Line (Jamil Qasim Muhammad al-Badri and Ahmed Khamis Radhi al-Sudani) (1: 266):

Objective of the Test: To measure the passing and receiving speed of four players.

Equipment Used: A handball, a stopwatch, and a handball court.

Performance Description: Players are positioned along the sidelines, extending from one sideline to the opposite sideline, specifically on the outer perimeters of the free-throw line. They proceed to exchange the ball through passes (to and fro) until a total of twenty round trips (a pass and its return) are completed by the players.

Instructions and Recording: The time taken to complete twenty round trips is recorded.

Field Research Procedures:

pre-tests : The researchers administered the pre-tests on Monday, October 28, 2024, to the sample of the experimental group, which implemented the Landa model, and the control group, which followed the conventional teaching method employed by the subject teacher.

The Main Experiment: The researchers prepared educational units for the experimental group that works according to the Landa model, which represent four educational stages distributed over (8) educational units, with a duration of (90) minutes per educational unit. The educational units were implemented according to the Landa model on Sunday,

November 3, 2024, at a rate of two educational units per week for a period of four weeks. The application period for the educational curriculum ended on Tuesday, November 26, 2024.

Steps of the Educational Unit:

The experimental group followed the following steps in the educational unit:**The preparatory section**: with a duration of (15) minutes. It includes**Introduction and general warm-up (7) minutes**: This includes the educational aspect of students' attendance and standing in line, recording attendance and absence, preparing the necessary tools, standing in a semicircle, and giving exercises to warm up the body's muscles and joints that serve the skill to be taught.**Physical exercises (special warm-up) (8) minutes**: Special warm-up exercises are performed to prepare all the body's systems, organs, and joints according to the stage to be taught.**- The main section:** lasts (70) minutes.**1 - The educational section:** lasts (30) minutes and includes two stages.The first stage: Guided discovery (15 minutes): During this, a set of questions are asked related to the stage to be taught according to the step-by-step guided discovery method. That is, the answer to each question is to discover the correct technique, and each question paves the way for what follows it on the way to reaching the final motor goal of the stage.An example of this is (patting)?

What is tapping and when is it used?2- What are the types of tapping?3- Is it considered one of the basic handball skills?-**The second stage (explanation and clarification (15 minutes):** after finishing asking and answering the questions, the subject teacher explains the steps of the tapping skill) for all its parts in detail, and after a comprehensive explanation, he presents a live model of the steps, while asking some questions during the explanation to engage the learners, and then the presentation by a student with feedback.**- The practical part:** lasts (40) minutes and includes two stages (the third and fourth).

The third stage: Combining guided discovery with explanation and clarification (30): Performing exercises) Here, the subject teacher makes a combination by performing exercises specific to the parts of the stage that were asked and explained, which is (tapping).**- The fourth stage: (Rolling the snowball (assessment (10) minutes):** The teacher asks questions As a review of what was covered in the educational unit and to work on linking the information obtained in a sequential and coherent manner.**- The final section: with a time of (5) minutes:**During which an entertaining recreational game is given to lighten the load on the players or a game that excites the players and moves them if the educational unit does not require much effort from the players.**2-6-3 Post-tests**

After completing the application of the educational curriculum, the researchers conducted the post-tests and the skill tests on Monday, December 16, 2024 AD. The researchers were keen to create conditions similar to the pre-tests in terms of the presence of the support team, place, and time, under the direct supervision of the researchers, and using the same steps in the pre-test.

Statistical Means:

The researchers employed the Statistical Package for the Social Sciences (SPSS) software to generate the statistical outcomes.

Results Presentation, Analysis, and Discussion

Presentation and Analysis of Results for the Experimental and Control Groups:

Table (3): Shows the Means, Standard Deviations, and Calculated (t) Value for the Pre- and Post-tests of the Two Group

Significance	Sig	T	Experimental post-test		Post-test Control		Processors / Variables	**Group**
			S	X	S	X		
Moral	0.000	4.517	0.746	12.985	1.734	15.149	Patting second	**Experimental**
Moral	0.000	5.241	0.125	1.236	0.235	1.542	Handing minute	
moral	0.029	2.434	0.737	13.645	1.400	14.218	Patting second	**Control**
moral	0.004	3.480	0.211	1.385	0.293	1.472	Handing minute	

Based on the extracted data from the research sample, Table (3) illustrates the differences in the values of certain fundamental offensive handball skills (dribbling, passing) between the pre- and post-tests, as presented in the aforementioned table. The characteristics of the experimental group's sample members indicated significant differences between the pre- and post-test performances.For the dribbling variable, the application of a paired samples t-test to ascertain the differences yielded a calculated t-value of (4.517) at a significance level of ($p = 0.000$) with a degree of freedom ($df = 14$). This significant difference was observed between the pre- and post-tests for the experimental group, with the post-test scores being significantly higher.Regarding the passing variable, the paired samples t-test also revealed a significant difference, with a calculated t-value of (5.241) at a significance level of ($p = 0.001$) and a degree of freedom ($df = 14$), between the pre- and post-tests for the experimental group, again favoring the post-test scores.

Presentation and Analysis of Post-test Results for the Experimental and Control Groups:

Table (4): Shows the Means, Standard Deviations, and Calculated (t) Value for the Post-tests of the Experimental and Control Groups

Significance	Sig	T	Experimental post-test		Post-test Control		Processors / Variables
moral	0.021	2.439	0.737	1345.6	0.746	12.985	Patting (second)
moral	0.026	2.350	0.211	1.385	0.125	1.236	Handing (minute)

Based on the extracted data from the research sample, Table (4) presents the differences in the values of certain fundamental offensive handball skills for the students (dribbling, passing) in the post-test, as displayed in the table above. The characteristics of the sample members from both the control and experimental groups showed differences in the post-test results.

Discussion of Results :

Upon presenting and analyzing the results of the pre- and post-tests for the investigated skills (dribbling, overarm passing) in handball for both the control and experimental research groups, as shown in Tables (3 and 4), statistically significant differences were observed, favoring the post-tests for both groups, although with varying degrees of significance. The researchers attribute these significant differences between the pre- and post-tests to the nature of the instructional approach employed by the subject teacher, which had a clear impact on the students' acquisition of the researched skills. The significant improvements in the post-tests indicate that the learners possess a certain level of learning capacity, which was evidently reflected in their skill development and their ability to connect prior knowledge of the skill with new information, thereby forming a clear understanding of acceptable performance, Furthermore, Table (4) reveals statistically significant differences in the post-test results for the investigated skills (dribbling, overarm passing) between the control and experimental research groups, favoring the experimental group. The researchers attribute this superiority to the effectiveness of the Landa model and its influence, which played a vital and evident role in eliciting and enhancing the learners' comprehension and assimilation of the researched skills' performance. This also heightened their engagement, excitement, motivation, and interest in the lesson. The core principle of the Landa model centers on the learner as the focal point of the educational process, providing them with the freedom to express their opinions without hesitation or fear. This facilitates the posing of questions and the detailed explanation and clarification of the skill phase being taught, enabling the connection and integration of ideas among students towards accurate and optimal responses. Subsequently, the skill performance is demonstrated to the students, allowing them to observe the ideal execution before progressing to the subsequent stage. The Landa model "adopts the teaching of exploratory organization methods for knowledge and the decomposition of methods into small primary operations that serve the levels of all students and relies on a set of strategies that are unified by sequential steps" (Qasim Hassan Hussein) (4: 199) , The researchers also posit that a positive factor contributing to the experimental group's outperformance of the control group was the positive learning environment cultivated by the teacher through the implementation of the model's phases within the prepared units. This encompassed the diversification of instructional exercises for each skill, rendering these units more stimulating, engaging, and enjoyable for the students. Consequently, this fostered their interaction and enthusiasm towards diligently and willingly applying the content. Indeed, the variety and innovation in the utilization and organization of exercises, methods, and approaches in teaching sports skills are most conducive to creating an atmosphere characterized by stimulation, excitement, and enjoyment among students, thereby contributing to the learning of movements and sports activities.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions:

1. item The experimental research group, employing the Landa model, demonstrated a positive influence on the acquisition of certain fundamental offensive skills in handball.
2. item The implementation of the Landa model facilitated the learning of specific fundamental offensive skills in handball among the students. Additionally, it effectively sustained the learners' attention throughout the various stages of the model.
3. item The practice of rephrasing questions to learners as a means of reviewing the content covered within the instructional unit and actively connecting the acquired information in a sequential and coherent manner contributed to the learning of particular fundamental offensive skills in handball.

Recommendations:

1. The utilization of the (Landa) model in instructional settings is recommended due to its steps representing an impactful methodology for the learning process of certain fundamental offensive skills in handball.
2. item Emphasis should be placed on the incorporation of questioning techniques, particularly those based on guided discovery or other discovery-based approaches, within instructional units, as this contributes to the acquisition of specific fundamental offensive skills in handball.
3. item Instructors are encouraged to consider and address the individual differences among learners to facilitate the attainment of their optimal learning potential.

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