

Prepare a variation according to the control of the movement field and its effect on learning the skill of the front hands jump and some Kinetic abilities on the mat of ground movements.

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Abstract:

*Modern research includes according to the stage that takes place in the fields of life, the most important and basic of which is the scientific field. Through the process of transferring experiences between generations, paths of development and progress that have reached the highest levels in our present time are prepared and that this occurs through the continuation of experiences and the best process of transfer of experiences is learning, that innovation Methods and methods of learning have become the concern of researchers, so we notice this through the nature of the change that takes place between generations with the change of concepts, the old methods and methods become with the factor of time and the nature of the techniques that are used in the learning process has a limited impact to become problems determined by the observation of workers, researchers and experts. **Keywords:** Kinetic, movement field, front hands jump*

I. Introduction:

The sports field is considered one of the important fields because it has an impact on the human being and maintaining his health and his mind according to the saying A healthy mind in a healthy body. The methods and methods of learning and the performance of sports movements develop and develop Kinetic abilities through the nature of the physiological work of the body, and the more the movements develop and are complicated, this requires delving into the details and causes The occurrence of the skill and the nature of its performance and this varies from one sport to another.

Gymnastics is characterized by the difficulty of performance because the requirements for the performance of skills and the achievement of their performance requires physical and skill preparation through the development and development of motor and mental abilities and this is achieved by the best methods and methods of learning and to achieve the accurate effect of the occurrence of the learning process of the Kinetic skill, in this type of sport

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requires special conditions that must be met in the practitioner For her, this cannot be achieved for students in colleges of physical education due to the nature of acceptance, as it is not possible to achieve this process as it happens when selecting your gymnast player. Also, the skills that are learned are basic skills and they find it difficult in the learning process because the nature of the practice is for the first time as well as dealing with devices and this is what It is observed through hesitation and fear, especially the beginning of learning, and the performance and learning of the skill often fail, the gradual process of overcoming the difficulty of performance and the student's feeling of safety during the learning process allows him to think in the finer details of the skill in the sense that the focus is on the correct performance and absorbing the feedback that the teacher gives during the performance And keeping him away from any feelings such as fear and inability, that the performance of movements such as your gymnastics skills is not competent Advanced ages and without previous practice, this requires achieving the perception of muscular work as well as the feeling that will accompany the learning process, because the nature of gymnastics also differs in addition to the above in the nature of the practice. Dealing with devices that are components of performance is often a feeling of fear is one of the main reasons because Difficulty is an obstacle in the learning process.

As the importance of research lies in preparing exercises that control the movement field and its paths by minimizing the impact of biomechanical variables that affect performance, specifically the center of gravity of the body by changing distances and the effect of moments, as well as determining the field of movement parts. Performance to the real difficulty of the skill in an accurate and gradual manner, thus enabling the student to focus on the parts of the skill during the learning process and also to perceive the feedback and the correction process accompanying the performance, which has a finer impact on the Kinetic abilities and reduces the learning time.

Research problem:

Through the field experience of the researcher, being a gymnastics teacher, player and coach, he found it difficult to learn the skill of the front hands jump, especially the process of pushing the ground and making the bow in the back, and wrong learning occurs that is difficult for the teacher and student to correct, so the researcher decided to study the problem and develop solutions to it by dealing with the influences causing this

Research aims:

- 1- Preparing exercises according to the control of the movementfield to learn the skill of the front hands jump, floor movements mat
- 2- Identify the effect of exercises in learning the skill of the front hands jump on the rug of ground movements
- 3- Recognize that movement is affected by biomechanical variables that determine the form of performance and result in a movement field that is affected by the nature of physical and movement capabilities and physical measurements
- 4- Recognizing that movement is subject to a system in which movement is determined by one of the two influences overcoming biomechanical variables or internal forces

Research hypotheses:

1- There are significant differences between the pre and post tests in learning the skill of the front hands jump on the floor movement carpet.

2- There are significant differences between the post tests between the experimental and control groups in learning the skill of the front hands jump on the carpet of ground movements.

Research areas:

- The human field, third stage students of the Faculty of Physical Education, Diyala University

The temporal domain

From 1/11/2019 to 1/15/2020

Spatial domain

Gymnastics Hall, Faculty of Physical Education, Diyala University

Defining terms:

The movement field: (a procedural definition of the researcher) is the area or space that the nature of the kinetic structure allows for any ideal performance)

II. Research methodology and field procedures:

Research Methodology:

The researcher used the experimental method to fill in the research problem and its objectives. The experimental method "proving temporary solutions through experience, and it is one of the approaches that is documented with the results it achieves.

Research community and sample:

One of the things that must be taken into account in scientific research is to choose a sample that represents the original community, as the sample is closely related to the nature of the society from which it is taken, as it represents the part that represents the original community on which the researcher conducts a whole and the focus of his work on it" as the original community is for the third stage students of the College of Physical Education Diyala, whose number is (150) students. The research sample is (40) students. They were divided into two experimental and control groups. The control group was chosen by lottery method.

Homogeneity of the sample:

Table No. (1) The researcher conducted homogeneity of the variables of height, weight and age to control the effect of these variables on the learning process and also the nature of the field formed							
Num	Variables	measuring unit	A	STD	Mediator	Coefficient of torsion	Standard error
1	the weight	Kg	74.655	3.798984	73.5	0.667893	0.600672
2	Length	Cm	175.8125	4.239145	176.75	-0.15001	0.670268
3	Age	Year	22.9	1.104768	22	0.807084	0.174679

Equivalent of the sample:

Table (2) The researcher conducted equivalence in the sample, researching the pre-tests to find out the equivalence of the sample										
Num	Skills	measuring unit	Experimental-Pre		Control-Pre		(T) calculated	(T) Tabular	error percentage	The significant differences
			A	STD	A	STD				
1	Hands jump	Degree	2.1	.58	2.08	.38	1.97	0.521	2.9	Non-Sign

At an error Percentage of 0.5 and a degree of freedom (38)

Tools and devices used in the research:

Methods of gathering information:

- sources and references.
- Tests and benchmarks.
- Player test results registration forms
- The Internet

Observation and experimentation

Tools and devices used in the research:

First: Tools "are the means by which the researcher can collect all the data and solve the problem to achieve the goals of the research objectives, whatever those tools are data, sample and devices."

10 meter tape measure

- Adhesive tape
- Chalk
- Various pens and paper
- Spongy rugs

Second: the devices

- Sony 12MP camera
- Computer
- Hand clock

Identify basic skills:

The basic skills were determined according to the curriculum for the academic stage (the third stage of the Faculty of Physical Education) and as follows the front hands jump on the rug of ground movements

Anthropometric identification:

Through the researcher's experience of being a player, a trainer, and currently a teacher of gymnastics, he determined the physical parameters that affect the formation of the movement field, represented by the length of the limbs, the circumference of the chest, the circumference of the pelvis, and the length of the trunk, as well as determining the movement abilities.

Tests used in the research

The skill performance of the skill in question is evaluated by agreement of the judges, "The score is evaluated for students' performance of 10 degrees in accordance with international law, where the performance is assessed before for performance and its nature (4) judges as the highest and lowest grade are deleted, the average of the two scores is extracted, and the student's score is calculated.

Exploratory Experience:

It is a mini experiment that represents the real experience. The researcher conducted the first exploratory experiment on Sunday 10/23/2014.

Main experience:

Pre-tests:

The pre-tests for the skill performance of the skill in question were conducted, where the researcher intended to stabilize the conditions and prepare the process within the specified time to achieve the same conditions for the post tests, where the researcher conducted the tests on Monday 11/11/2019 at nine o'clock in the morning in the hall of the College of Physical Education and then Photographing the tests for the purpose of presenting them to the arbitrators to evaluate the performance of the research sample.

Field applications:

The main experiment was carried out on the research sample for a period of (7) weeks by two hours for one lecture, which began on Tuesday 12/11/2019, as one week included a lecture in the whole lecture week (90 minutes) as the researcher entered the exercises prepared by him. By controlling the level of the height of the center of gravity of the body from the rise area at a height that does not hinder the performance, as the height of the center of gravity of the body constitutes a potential energy that is transformed into a kinetic energy by the steps of the advancement. Handstand being part of the movement that the player passes through, and then the level of heights is reduced so that he can perform the second exercise, which consists of pushing with the hands and lying down with an elongated object on the stretches. The arms reach the performance without the back spurs, i.e. the landing area, and control heights, the physical measurements of the player, especially the area of the hand position and the height of the bands, and the experiment was completed on Monday 12/30/2019.

POST- tests:

The post- tests of the research sample were conducted on Thursday 2/1/2020 at nine o'clock in the morning. The skill test of the research sample was conducted in the gymnastics hall of the College of Physical Education at exactly nine o'clock as it was photographed for the purpose of presenting it to the arbitrators to evaluate the performance of the members of the research sample

III. Presentation and analysis of results:

Through the results that the researcher reached by the researcher and by using the appropriate statistical methods and laws for data processing, he was able to achieve his research hypotheses and objectives according to the applied procedures he had done in his research experiment through which he reached these results, and they were discussed in the light of scientific references.

Table (3) shows the value of the arithmetic mean and the standard deviations of the pre and post tests of the control group and the value of (T) the table and the calculated

Num	Skills	measuring unit	Pre		Post		(T) calculated	(T) Tabular	error percentage	The significant differences
			A	STD	A	STD				
1	Hands jump	Degree	2	0.08	6.0225	0.024	1.97	0.521	2.9	Non-Sign

At an error Percentage of 0.5 and a degree of freedom (19)

Table (3) shows the arithmetic mean and standard deviations for the pre and post tests, the calculated and tabular value (t), and the statistical significance of the hand jump skill.

As the arithmetic mean of the pre-test reached (2), the standard deviation (0.08), the arithmetic mean of the post test (5.4), the standard deviation (0.7), and the calculated value of (t) reached (15.3), which is greater than the tabular (2.9) below the level of significance (0.5) and a degree Freedom (19), which indicates the existence of significant differences between the pre and post tests and in favor of the post test

Table (4) shows the value of the arithmetic mean and standard deviations of the pre and post tests of the experimental group and the value of (T) tabular and calculated

Num	Skills	measuring unit	Pre		Post		(T) calculated	(T) Tabular	error percentage	The significant differences
			A	STD	A	STD				
1	Hands jump	Degree	2.105	0.580	7.425	0.950	18.126	2.9	0.001	Sign

At an error Percentage of 0.5 and a degree of freedom (19)

Table No. (4) shows the arithmetic mean and standard deviations for the pre and post tests, the calculated and tabular value (t), and the statistical significance of the hand jump skill.

As the arithmetic mean of the pre-test reached (2.105), the standard deviation (0.580), the arithmetic mean of the post test (7.425), the standard deviation (0.950), and the calculated value of (t) reached (18.126), which is greater than the tabular which is (2.9) below the significance level (0.5) and a degree Freedom (19), which indicates the existence of significant differences between the pre and post tests and in favor of the post test

Table (5) shows the value of the arithmetic means and the standard deviations of the POST- tests of the experimental and control groups, and the value and value of (t) tabular. And calculated. And error percentage

Num	Skills	measuring unit	Pre		Post		T		error percentage	The significant differences
			A	STD	A	STD	calculated	Tabular		
			1	Hands jump	Degree	7.425	0.949	6.025 5		

At the level of significance (0.05) and the degree of freedom (38)

Table (5) shows the values of the total scores and the difference between the two tests, the arithmetic mean and the standard deviation of the post test for the experimental and control groups, the calculated and tabular value (t) and the statistical significance of the handstand skill. The arithmetic mean of the post test for the experimental group reached (7.425) and the standard deviation (0.949) The value of the arithmetic mean of the post-test of the control group is (6.0255) and the standard deviation (1.024) and the calculated value of (t) amounted to (3.747) which is greater than the tabular value of (2.02) and the degree of freedom (38) and the error percentage reached (0) below the level of significance (0.05) This indicates that there are significant differences between the post-tests in favor of the experimental group.

Table (6) shows the value of the arithmetic mean, the standard deviation, and the correlation coefficient between some physical measurements and movement abilities, the front-hand jump on the ground movement rug and the significant differences

Variables	A	STD	The Simple correlation	error percentage	significant differences
Front jump	7.4250	.94972			
Total length	175.7000	4.35407	.459	.042	Sign
Leg length	98.1000	1.94395	-.452	.045	Sign
Arm length	78.3300	3.19936	-.456	.043	Sign

Shoulder width	57.7150	2.39039	-.474	.035	Sign
Hip width	44.8500	4.64843	-.491	.028	Sign
Agility	12.7250	1.24049	.495	.026	Sign
Explosive power	7.7500	1.01955	.469	.037	Sign
Speed Transition	5.7000	1.34164	-.452	.045	Sign
The Power characteristic of speed of the right leg	5.7600	1.31365	.483	.031	Sign
The Power characteristic of velocity of the left leg	6.2900	1.10592	.145	.543	Non-Sign

Table (6) shows the correlational relationship between performance and the field that it consists of with some physical measurements and some motor abilities, as the results showed not the majority of the variables as being significant and having an effect except for the characteristic strength of speed, where the correlation coefficient with the total length reached 459 and with an error percentage of 0.42. Legs -.452, with .045 error ratio, with arm length -.456, error ratio .043, shoulder width -.474, error ratio .035, hip width -.49, error ratio .028, grace .495, error ratio .026 and explosive force of hands. 469 and with an error percentage of .037, with a translational velocity -.452, with an error ratio of .045, and with a force characteristic of velocity for the right leg. The error rate is greater than .05, so the difference is not significant.

Discuss the results

Through tables (3) (4) (5), as the results in Table (3) show that there is a development among the members of the control group, as it is natural that the learning process takes place through the curriculum prepared for learning the skill by the person in charge of the learning process according to the plan that is done Its application and through Table No. (4), there is a development among the members of the experimental group and the researcher attributes this development to the curriculum prepared by him according to the field control process and through Table (5) the

results showed that the experimental group achieved preference in the learning process, the researcher attributes that To the process of controlling the movement field, "The movement field, as we mentioned that it takes a different form according to the physical measurements, and thus the result is a limited use of the movement capabilities and parts of the body according to the need of movement, is the maximum use affects the technical performance. This feature can be invested in the process of learning the movement of Through the identification and expansion of this field, in both cases, we obtain a process of focus on technical performance through the careful use of movement and mental capabilities. The process of controlling the movement field dealt accurately and in successive steps with the variables affecting the performance. Aa and achieved the gradient with the difficulty resulting from the effect of the variables, the lifting of the center of gravity of the rising zone enabled the player to acquire the kinetic energy after converting the potential energy from the height to the center of gravity as well as raising the landing zone gave the player the feeling of the need to push the hands to rise and complete the exercise as well as the action of the bow in the back and thus focus On the pushing process and then the gradual return to the original position of performance by gradually reducing the center of gravity and practice achieving accurate handling of the nature of the use of muscle groups and its effect on the use of movement abilities through the accuracy of nervous work and mental abilities, the movement path of any skill is a measure of the size of the motor field and its shape consisting of pathways All parts are a result of performance. Therefore, overcoming performance difficulties by a mechanical action that achieves optimal performance, and that the process of controlling the movement field gives us a gradual deal with the effect of these variables. Sport separately, which is the optimal mechanical solution to the movement problem that is required to be performed in the best way to obtain The best results, "Al-Samurai," that the use of exercises according to the process of controlling the movement field achieved to reach the required speed of performance gradually and here is the required speed, which is considered maximum performance and not the maximum speed and it will gradually help by achieving neuromuscular compatibility and reaching the ideal performance and achieving Compatibility also takes the muscle's need for performance from the potential energy, and this achieves more time. "The art of performance does not necessarily mean the use of the potential energy of all muscles because the art of good performance depends on what is developed by assistive exercises and using speed at its maximum level in the form of performance. The effect of the variables is the adaptation of the muscular work to solve the performance problems resulting from the effect of the variables and thus the growth of movement capabilities to achieve the required performance.

Table (6) has shown, through the correlational relations, that the movement capabilities and physical measurements other than the explosive force of the left leg have an effect on the performance, the physical measurements form the ends of the movement field and it limits the use of the movement capabilities. Its increase in the back arch with the increase in the thrust force with the arms means a wrong and unstable landing. The force characterized by speed did not show a link with the nature of performance. The rise represented by the right-footed man is faster and in a greater amount. As for the physical measurements, he showed the moral link, that the external physical measurements of the body determined the form of performance, and this in turn determined the nature of the movement capabilities and the percentage of their contribution to the performance and vice versa and that the ideal performance of the body is achieved through the accuracy of the proportion between the movement shape and

the physical measurements Muhammad Subhi Hassanein believes, "The symmetry of the length of the limbs with each other is of great importance in gaining muscular conformations with Most sporting activities and height may be less important in some sporting activities.

IV. Conclusions:

1- The researcher reached a theory of variables in movement performance and movement interpretation, as the movement performance and its shape are controlled by variables represented (gravity, distance, time, physical measurements, body weight, moments) and the movement action of the ideal performance using the physical and movement capabilities according to the percentage of their contribution as well as capabilities The mentality, as this theory assumes that controlling the size of the movement field affects performance

A- Determines from the variables, the nature of their impact, the difficulty and ease of performance

B - Fast or slow performance

C - The nature of the use of physical and movement capabilities

D - the nature of the use of mental capabilities

2- The theory explains the movement as shown in the diagram. In the event that the internal forces prevail, the movement of the body takes place towards the achievement of the goal. .)

3- The base of variables in performance (the speed of movement performance is inversely proportional to the size of the movement field, where the speed of performance increases as its size decreases and decreases as its size increases and with the optimal use of the nature of movement and mental abilities)

The dynamic field (the area or space that the movement construction allows for any ideal performance according to the biomechanical variables affecting it and the body measurements)

4- The locomotor system, which is one of the movement manifestations (it is the kinetic action resulting from the effect of the biomechanical variables on the body and the internal muscle strength that resists it for that body to achieve the goal of movement) and is divided into two parts

A- The innate locomotor system

B- Acquired locomotor system

V. Recommendations:

1- Focusing on the parts most affected by the variables by controlling the type of effect on the center of gravity

2- Gradual use of means that will help reduce the impact and return to the ideal situation to achieve the principle of gradualism in dealing with difficulty

3- Adopting the process of controlling the movement field in determining the intensity of exercise in training units, for example, reducing the center of gravity while standing up, and so on according to the effect of variables on the body and in the opposite direction

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