The effect of using sliding disc exercises (Gliding) to develop combinatorial abilities and skill performance in modern artistic exercises

* Dr/ Mayada Mohamed Ali Hassan Alakhdar

Introduction and research problem:

considered asModern sports training strategyWhichReflects his overall long-term goalinAchieving the access to sports formatinTimingsthatSuitable for competitive seasonsinSpecialized sports and working to stay in it for as long as possible. In recent years, theories and methods of sports training have developed rapidly. These theories methods have developed and rapidly.thatInterested high-level in sports, considering good resultsYes thatachieved the at levelInternationalOf the real results.

Issam Abdel Khaleq (2003) states that the aids and devices play an important role within the training process, as they help to clearly understand the goal of the training, help the coach to save time and effort, and increase the motivation and enthusiasm of the players. (5:12)

Mohamed Shehata (2002) believes that the term "assisted means" refers to the tools and methods by which the player can be provided with sensory experiences and training situations (physical).-Kinetics-Skill) To acquire a motor or skill task to help facilitate performance. (6:34)

Muhammad Othman (2003 AD) points out that the training programs have taken a form, structure and

organization that is compatible with the new development in the equipment and means used during the training process, and that their use has become a necessity for the physical, skill and psychological rehabilitation of players. It has been proven by experience that their use leads to an increase in athletic levels. (9:153)

Jenson and Schultz added:Jensen Schultz(2007AD)The method developing training for physical qualities should preferably be appropriate to the type of muscular work, in addition to the prevailing movements performed on devices and auxiliary tools that have a positive effect in raising the level of skill performance. (15:84)

Muhammad Abdel Salam (2003 AD) points out that assistive devices have an effective role in providing the player from the beginning with an almost clear motor imagination about the artistic performance while preventing boredom from creeping into the mind, and also adding an element of suspense to training on the devices and tools used and acquiring physical qualities, motor fitness, and some necessary psychological qualities. For performance. (10:20)

Mukhtar Salem (2001 AD) points out that there are now a huge number of diverse innovations and

^{*} Associate Professor at the Department of Rhythmic Exercise and Artistic Gymnastics-Faculty of Physical Education for Girls - Helwan University.

inventions that serve the various sports fields, which are among the real reasons for the development and ease of the training process due to the ease of obtaining, recording and analyzing information. It is also easy to realize the importance of sports technology through a look. Comprehensive and rapid coverage of sporting, Olympic and international achievements, as the credit for this is due to the tremendous technological progress that has been able to solve many problems and obstacles to advance the sporting level and effectively contribute to going beyond human limits to achieve the best results and reduce the chances of injury. (11:11)

With the beginning of the third millennium, which is characterized by scientific and technological revolution in all areas of life, which has influenced the sports field and left clear positive effects, it has brought about a tremendous development in the science of sports training, as various trends have recently been developed that adopt the use of certain types of modern training methods and tools to raise the level of physical and skill performance. Among them are slip disc drills Gliding It is a unique technical tablet and is considered one of the fastest growing programs in development of fitness called the Glide Experience.

And you see Mindy Melra. Mindy Mylrea (2007) stated that this system was specifically designed to transform movements into smooth practice lines of movement, as it helps to achieve the optimal goal of movement easily and continuously

using many exercises that differ depending on the goal of movement and adds a soft touch to difficult movements, while other programs and tools It is difficult and sometimes expensive, which makes sliding drills important. (22)

The idea of sliding discs is simple. They are plate-shaped plates made of plastic or nylon, depending on the type of floor on which they are used. The tool is placed under the feet or hands of the players, and the movements are performed in different movement groups that allow practitioners tonSimulating the process of ice skating. (22)

He mentions "Scott" Zaire scott(2005) found that sliding discs are available in two types: discs made of plastic or reinforced fiber that can be used on rough or hard floors smoothly. HAnd flexible discs, which are made of nylon and can be used on rugs or carpets, which gives the possibility of using them inside homes easily, as they are light in weight. nEasy to use and delivers great results. (23)

Mindy Melra points out:Mindy **Mylrea**(2007) that slip disc drills**Gliding** It is considered integrated program for physical fitness, as it is characterized by continuity of performance without feeling bored or tired, with practitioners feeling happy and joyful during performance. Also, practicing sliding disc exercises on a regular basis leads to improved fitness developing physical by strength, flexibility, endurance and agility. She also adds that disc exercises Sliding is considered an aerobic activity, and its goal is to give the individual aerobic capacity. Practicing these exercises, which include exercises to develop strength, flexibility, coordination, agility, and endurance, makes the heartbeat reach its highest rate, which helps raise physiological efficiency and physical efficiency. (22)

These exercises are considered a new method for a contemporary fitness program that is practiced in a group setting and is characterized by excitement and fun. It is suitable for individuals for whom some other activities are not suitable. The goal of practicing slip disc exercises is not for the practitioner to become proficient in performing these exercises, but the goal is to improve physical and physiological fitness. For the body in general and maintaining health. (24)

Sliding disc drills are one of the recent trends aimed at using as a training methodHTo improve sports performance in various aspects, and through it, physical abilities for playing can be developedHIn a way that contributes to the development of physical performance and has the greatest impact on raising the level of players. The importance of these exercises lies in the fact that they are a slide that involves one or more muscle groups with the aim of lengthening the main muscles in the body. (12:21)

"Aziza," she confirms Salem(2007 AD) that combinatorial abilities are closely linked to the development of artistic motor skills, and that specialized sports activity is what determines the quality of these abilities that must be cultivated and developed, as the individual

cannotAMastering motor skills in a specialized activity in the event that he lacks the coordination abilities specific to this activity. (4: 188).

Coordination abilities are considered the basic component for an individual athlete to reach the sports form. They are the backbone for developing the technical skills specific to each sport. Mastering motor skills with the coordination required for them is necessary for the movement to be performed within its proper framework in terms of strength, speed, and appropriate time. (8:29) (12:21)

Ijal Ibrahim and Nadia Darwish (1997),citing Charles Bucher. mentioned:Charles BucherInnovative dancing must be an important part of physical education programs, where the individual can creatively express feelings through innovative dancing. It brings joy and pleasure to the individual, and is considered a means of emotional release. It also enables the individual to express his desires through motor performance that produces an impact. It is beneficial for various systems within the body, and it also develops ability, stability, control, and balance. (1:37)

Modern artistic exercises, as one of the types of motor expression, are considered a new development of an ancient art that emanated from within the dancer, expressing to the viewer the feelings within him, using the body as a tool and movement as an organized means of communicating ideas, in addition to providing the opportunity for physical, emotional and mental growth because he uses the

mind, body and senses while dancing. (13:99)

Modern artistic exercises are considered a type of art based on the use of movement as a means of expression as a result of a voluntary organization that creates a response to the re-selection of emotional values that give the individual a new entity, in which the movement chooses to express it precisely, then it is designed and organized by means of a rhythmic composition, and the result is the communication of an idea, feeling, or emotional emotion. honest. (16:56)

One of the characteristics of modern artistic exercises is also its use of the various body parts in their natural positions, so that no part of the body is formed in a specific formation that the individual may become accustomed to in his general life. We also see this in the steps of ballet during normal walking. dancers Modern artistic exercises are also unique in that movement begins in them. From a central point in the body we called it(Muscular Center)From there, movement begins appropriately from the center of the body to the rest of its organs until it ends in the limbs, expressing the feelings and sensations inside the individual.(1:78)

The researcher noticed, while teaching the motor expression course, that there was a weakness in the level of coordination abilities among the female students of the second year, and this became clear when evaluating their performance in the sentence assigned to them in innovative dance, as their performance of the skills appeared without coordination between

the arms and legs, as the researcher intended. In choosing a set of modern artistic exercises, which consists of a group of basic motor skills such as walking, running, jumping, jumping, and other skills that make up the motor set, as they are all considered repetitive movements that require the use of large muscle groups without stopping until the end of the motor set, which decline indicates the coordination and physical abilities of the female students. Thus, the negative impact on their level of performance.

After researching and reviewing Arab and foreign references and research related to motor expression in general and innovative dance in particular, the researcher noticed the small number of scientific research that dealt with the use of sliding disc exercises to develop harmonic abilities and develop performance in innovative Therefore, through research, the researcher tried to apply sliding disc exercises to learn The extent of its impact on the development of harmonic abilities, which can have a significant impact on the level of skill modern performance in artistic exercises.

Search goal:

The research aims to identify the effect Exercises Slide-on disc some Capacity Compatibility And the level of performance Skilled in Modern technical exercises.

Research hypotheses:

- There are statistically significant differences between the means of the pre- and post-measurementsAmong the female students of the experimental groupIn some harmonic capacities and

level ofaMahar diseaseY In modern artistic exercises In favor of dimensional measurement.

- There are statistically significant differences between the means of the pre- and post-measurementsAmong the female students in the control groupIn some combinatorial capacityAnd level the performance Skilled in Modern technical exercises In favor of dimensional measurement.
- There are statistically significant differences between the means of the two post-measurements among the female students of the experimental and control group in some harmonic abilities and the level of the performance Skilled in Modern technical exercises In favor of the experimental group.

Some terms included in the search Sliding disc:

It is "a new method of training using lightweight discs that feature the ability to perform a range of exercises similar to the process of ice skating, which can be performed in a small space and with multiple exercise capabilities." (22)

Combinatorial capabilities:

"abilities They are that demonstrate the level of an individual's ability to link a number of separate abilities, coordination, speed of linking many motor skills within a single combinatorial motor framework, and the ability to change from one skill to another smoothly and smoothly while exerting the least possible effort." (8:6)

Skill performance:

It is the degree or arrangement that the athlete reaches in terms of motor behavior resulting from the training process to acquire and master motor performance, provided that it is performed in a manner characterized by fluidity, accuracy, and a high degree of motivation for the athlete to achieve results with economy of effort. (7:8)

Modern technical exercises:

"It is one of the types of arts that express opinions, ideas, and related emotional tones through body movements, as movement is the means of artistic expression of the feelings, sensations, and reactions within the individual." (13:100)

Research plan and procedures: Research Methodology:

The researcher used the experimental method, using pre- and post-measurements, by designing two groups, one experimental and the other control, due to its suitability to the nature of the research.

GatheredAAnd the search sample:

The research community is represented by the female students of the second year at the Faculty of Physical Education, Helwan Thev University. number (115)students, and their ages range from (18).-(20) years old, and the researcher selected the research sample in a deliberate, random way from the female students of the second year of the college, who numbered (48) students, and they were divided as follows:

- An experimental group consisting of (20) female students.
- A control group consisting of (20) female students.
- A survey group consisting of (8) female students.

Conditions and reasons for choosing the research sample:

- 1- Availability of the sample required for research procedures in terms of academic group.
- 2- The researcher teaches them.
- 3- Availability of assistance in implementing tests and research programmes.
- 4- Availability of capabilities and facilities to assist in implementing the research experience.

Homogeneity of the research sample:

The researcher performed homogeneity for the researcher's entire sample, which consisted of (48) female students, in light of the "growth rates, compatibility abilities, and level of skill performance" under study, and Table No. (1) shows this.

Table (1) Homogeneity of the research sample (n=48)

	Tromogeneity of the research sample (n=10)										
M	Variables	measruing unit	SMA	standard deviation	Mediator	Torsion coefficient					
1	height	poison	165.51	2.80	165.00	0.54					
2	the weight	kg	61.25	3.15	61.00	0.23					
3	Career age	year	20.88	1.62	20.50	0.70					
1	Compatibility Kidney For the body	Class	2.55	0.21	2.50	0.71					
2	Precision And compatibility	Class	5.11	0.023	5.10	1.30					
3	Agility the public For the body	the second	8.11	0.21	8.00	1.57					
4	Balance Constant	the second	4.52	0.14	4.50	0.42					
5	the speed Transitional	the second	7.29	0.52	7.20	0.51					
Le	evel of skill performance	degree	7.28	0.14	7.15	2.78					

It is clear from Table No. (1) that the values of the skewness coefficients for the growth rates, some combinatorial abilities, and the level of skill performance under investigation for the research group are limited to (± 3) , which indicates a moderate distribution in these variables.

Equivalence of the two research groups:

The researcher found parity between the two groups (experimental).-control) in light of the following variables: "growth rates, combinatorial abilities, and level of skill performance" under study, and Table No. (2) shows this.

Schedule (2)

indicationDifferences betweenThe experimental and control groups in terms of growth rates, harmonic abilities, and level of skill performance in the modern artistic exercises under investigation (n=40)

M	Variables	measruing unit	Expering group	_		l	value ''T''	indication Statistics	
		umi	M1	P1	m2	P2	1	Statistics	
1	height	poison	166.85	2.58	164.65	2.15	0.11	Not a sign	
2	the weight	kg	61.32	1.22	60.51	1.15	0.25	Not a sign	
3	Career age	year	19.12	0.69	19.25	0.51	0.15	Not a sign	
1	Compatibility Kidney For the body	Class	2.48	0.21	2.50	0.21	0.58	Not a sign	
2	Precision And compatibility	Class	5.10	0.14	5.11	0.014	0.15	Not a sign	
3	Agility the public For the body	the second	8.12	0.021	8.15	0.13	0.85	Not a sign	
4	Balance Constant	the second	14.11	0.25	14.12	0.15	0.46	Not a sign	
5	the speed Transitional	the second	7.21	0.11	7.25	0.11	0.98	Not a sign	
	Level of skill performance	degree	7.17	0.14	7.25	0.021	0.32	Not a sign	

*The value of (T) is at level connotation (0.05)=1.697

It is evident from the tablenumber(2)nonAnd cAndd Statistically significant differences betweenThe experimental and control groups in some combinatorial abilities and the level of skill performance under investigation. This indicates to Equivalence of the two research groups.

Data collection methods:

1- Research tools and devices:

1- Sliding discs. Attachment No. (3) where the researcher used (2) sliding discs for each student.

- 2- A rectameter device for measuring both height and weight. 3-Measuring tape.
- 4- Stop hours.
- 5- A medicine ball weighing 3 kg.
- 6- Cassette.

2- Tests and forms used:

A- Tests of combinatorial abilities: Attachment No. (4)

The researcher came up with tests of combinatorial abilities based on theoretical readings and specialized scientific references (1), (3), (17). These tests were placed in an expert opinion poll form, attached No. (1),

and this form was presented to a group of distinguished experts consisting of (5) Experts in the field of motor expression, whose names are shown in attachment (5), to ensure their suitability for measuring these abilities and their suitability for the age group under study.

Through this, the researcher arrived at tests of combinatorial abilities, which are:

- Jump rope test to measure total body alignment.
- Test throwing and receiving tennis balls to measure accuracy and consistency.
- Running test with change of direction to measure agility.
- Stand-on-instep test to measure static balance.
- Run test (30 m) to measure translational speed.

B- A form for evaluating the level of skill performance in modern technical exercises by arbitrators. Attachment No. (9)

was piousYM levelYes Skill performance in modern technical exercisesBy a committee consisting of (3) Arbitrators the fieldMotor in expression, where the score is calculated out of (10)points, perhaps Yesthat The three grades are summed and divided by (3) in order to calculate the average grade of the student in the skill performance under investigation.

C- Expert opinion poll form on the training program:

The researcher prepared a form to survey the opinions of experts in the field of motor expression, provided that their experience is not less than ten years in the field, in order to determine each of the (time periods for codifying the group of exercises)-Number of weekly training units-Training unit time-Load intensity through the units) Attachment No. (2)

Survey:

The researcher conducted the exploratory study on a sample from within the research community and outside the basic research sample, which consists of (8) female students in the period from Sunday, corresponding to September 24, 2023, to Thursday, corresponding to September 28, 2023, with the aim of: -

- Finding scientific coefficients (validity reliability) for the tests used in the research.
- Ensuring the suitability of slip disc exercises for the research sample members.
- Ensure the validity of the tools and devices used in training.
- Identify the capabilities available for applying research.
- Assistant trainingnTo apply the tests used in the research.

Scientific transactions for the tests under investigation: a-Honesty:

The researcher points outTo the usedinThis research tests was appliedinMany studies have received high validity coefficients, and this confirms their contentT The researcher By selecting (8) female students from the research community and from outside the basic research sample in order toHonesty accountTerminal comparison between the upper and lower quartile, and Table No. (3)It is clearthat.

Table (3)
The post hoc comparison validity of the tests under investigation (n1=n2=8)

M	Variables	measruing unit	upper spring		Lov spr		valuez	indication Statistics	
		ume	M	A	M	A		Statistics	
1	Compatibility Kidney For the body	Class	3.10	0.63	2.55	0.32	3.84	D	
2	Precision And compatibility	Class	5.85	0.21	5.44	0.21	3.15	D	
3	Agility the public For the body	the second	8.84	0.25	8.54	0.032	3.65	D	
4	Balance Constant	the second	16.22	0.18	15.52	0.041	3.88	D	
5	the speed Transitional	the second	7.54	0.21	7.61	0.32	3.47	D	
Lev perf	rel of skill formance	degree	7.80	0.011	7.19	0.21	3.47	D	

• valuez for the significance of both sides at the level = 0.050.202

is evident from the tablenumber(3) And cAndD statistically significant differencesabetweenThe lower quartile upper quartile and the inanoTestsunder considerationAnd for the benefit of Top spring, Which indicates the validity of these testsIn distinguishing between different groups.

B- Constancy:

The researcher applied the tests a sample from the research community and from outside the basic research sample, which consisted of (8) female students. Then she repeated the application on the same sample, and correlation coefficients were calculated between the first and second applications to find the stability of these tests. Table No. (4) shows the correlation coefficient between the two applications...

Table (4)

Reliability coefficients of the tests under investigation (n=8)

M	Variables	measruing unit	First application		Second application		Correlation coefficient	indication Statistics	
		umt	M	A	M	A	Coefficient	Statistics	
1	Compatibility Kidney For the body	Class	2.41	0.17	2.45	0.021	0.93	D	
2	Precision And compatibility	Class	5.15	0.026	5.18	0.011	0.950	D	

	Renability coefficients of the tests under investigation (n=8)											
M	Variables	measruing unit	appli	First application		ond eation	Correlation coefficient	indication Statistics				
			M	A	M	A						
3	Agility the public For the body	the second	8.10	0.19	8.12	0.032	0.990	D				
4	Balance Constant	the second	14.15	0.13	13.90	0.052	0.940	D				
5	the speed Transitional	the second	7.20	0.14	7.15	0.017	0.952	D				
	evel of skill performance	degree	7.23	0.057	7.45	0.52	0.981	D				

Follow Table (4)
Reliability coefficients of the tests under investigation (n=8)

value(t) TabularAt a level of = 0.050.707

It is evident from the tablenumber(4)The correlation coefficients between the first and second applications of the tests under study ranged between (0.990: 0.981), statistically which significant correlation coefficients, indicating that the tests have an acceptable degree of reliability.

Implementation steps for the research experiment: Program goal:

Identifying the effect of sliding disc exercises on some coordination abilities and skill performance in modern technical exercises through:

- Improving some of the compatibility abilities of female students.
- Improving the level of skill performance in modern technical exercises.

Fundamentals of building the program:

- The program is appropriate for the age group.

- Building the program so that it is compatible with the scientific foundations of sports training.
- Program flexibility.
- Taking into account individual differences among the sample members by conducting measurements to determine the maximum ability of the research sample members for each of the exercises included in the program.
- The rest periods between exercises within the training unit should be sufficient to reach a normal state.
- Taking into account the appropriate configuration of the load in terms of size and intensity to avoid the phenomenon of overload.

Implementation steps for research: Program content

The program included (10) training weeks at (3) units per week. The researcher took into account the progression of medium training loads, and each training repetition included (3:5) repetitions of the sliding disc

exercises.**Gliding**Its shapes are shown. Attachment (8)

Pre-measurement:

Pre-measurements were conducted on the female students, the research sample, in the period from 10/1/2023 to 10/2/2023..

Basic experience:

The proposed training program was applied to the female students, the experimental research sample, in the period from 10/3/2023 to 12/17/2023, with three training units per week for a period of (10) weeks, where the

- The average.
- standard deviation.
- t-test.
- Nonparametric Mann-Whitney test.
- Percentage of change.

The statistical method used:

Dimensional measurement

in

number of units reachedTTraining (30)

measurements for the experimental and

control groups on the selected research

the

12/18/2023 to 12/19/2023. It was taken

into account that the measurements

were carried out as in the pre-

measurement and in the same order as

The researcher conducted post-

period

from

- Mediator .
- Torsion coefficient.
- Correlation coefficient.
 - T-test.

training units.

variables

the tests.

Presentation and discussion of results:

Schedule (5)

Meaning of the differences between The averages of the pre and post measurements for the experimental group in some harmonic abilities and the level of skill performance in the modern artistic exercises under study (n=20)

M	Variables	measr uing		Pre- measurement		Dimensional measurement		Improv ement	value	indicatio n
		unit	M	A	M	A	the averages	rate	(T)	Statistics
1	Compatibilit y Kidney For the body	Class	2.48	0.21	4.60	0.28	2.12	85.48%	3.98	D
2	Precision And compatibility	Class	5.10	0.14	9.60	0.63	4.50	88.23%	3.47	D
3	Agility the public For the body	the second	8.12	0.02	7.21	0.11	0.91	12.62%	3.41	D
4	Balance Constant	the second	14.11	0.25	25.23	0.54	11.12	78.80%	3.66	D
5	the speed Transitional	the second	7.21	0.11	6.15	0.63	1.06	17.23%	3.59	D
	evel of skill erformance	degree	7.17	0.14	12.23	0.11	5.06	70.57%	3.45	D

value(T)To signifyDifferencesAt a level of = 0.051.753

It is evident from the tablenumber (5) Existence Differences Function AhsOhabetweenThe averages of the pre- and post-measurements for

the experimental group in some harmonic abilities and the level of skill performance are in favor of the postmeasurement.

Schedule (6)

Meaning of the differences between Averages of the pre- and post-measurements of the control group in some harmonic abilities and the level of skill performance in Modern technical exercises under consideration (n = 20)

N	Variables	measru	Pre- measurement			Dimensional measurement		Improv ement	val	Statist ical
10.	variables	ing unit	M	A	M	A	between the averages	rate	ue (v)	signifi cance
1	Total body compatibility	Class	2.50	0.21	2.88	0.014	0.38	15.20%	2.69	D
2	Accuracy and compatibility	Class	5.11	0.01	5.64	0.032	0.53	10.37%	2.74	D
3	General fitness of the body	the second	8.15	0.13	9.10	0.022	0.95	11.65%	2.69	D
4	Static balance	the second	14.12	0.15	19.21	0.041	5.09	36.04%	2.48	D
5	Transitional speed	the second	7.25	0.11	7.11	0.014	0.14	1.969%	2.66	D
	evel of skill erformance	degree	7.25	0.02	9.15	0.003	1.9	26.20%	2.41	D

value(T)To signifyDifferencesAt a level of = 0.051.753

It is evident from the tablenumber(6) And cAndD differencesFunctionstatistical abetween The averages of the pre- and post-

measurements for the control group in compatibility abilities and the level of skill performance are in favor of the post-measurement.

Schedule (7)

Meaning of the differences between Averages of the two dimensional measurements for the two experimental groups HThe control of combinatorial abilities and skill performance in modern artistic exercises is under investigation n = 40

M	Variables	measrui ng unit	Experiment al group		Contro	l group	value (T)	indicatio n
		ng umt	M	A	M	A	(1)	Statistics
1	Compatibility Kidney For the body	Class	4.60	0.28	2.88	0.014	3.55	D
2	Precision And compatibility	Class	9.60	0.63	5.64	0.032	3.12	D

Follow Schedule (7)

Meaning of the differences between Averages of the two dimensional measurements for the two experimental groups HThe control of combinatorial abilities and skill performance in modern artistic exercises is under investigation n = 40

M	Variables	measrui ng unit	Experiment al group		Contro	l group	value (T)	indicatio n
		ng umt	M	A	M	A	(1)	Statistics
3	Agility the public For the body	the second	7.21	0.11	9.10	0.022	3.98	D
4	Balance Constant	the second	25.23	0.54	19.21	0.041	3.47	D
5	the speed Transitional	the second	6.15	0.63	7.11	0.014	3.55	D
L	evel of skill performance	degree	12.23	0.11	9.15	0.0032	3.44	D

^{*}The value of (T) is at level connotation (0.05)=1.697

It is evident from the tablenumber(7)ExistenceDifferencesFu nctionstatisticalabetweenThe averages of the two post-measurements for the experimental and control research groups in compatibility abilities and the level of skill performance are in favor of the experimental research group.

Discuss the results

It is evident from the table (5)Existence Differences number Function statistical abetween The averages of the pre- and postmeasurements for the experimental group in some compatibility abilities and the level of skill performance are in favor of the post-measurement, as the tabulated (t) value was greater than its calculated value at the significance and the researcher level (0.05). attributes this improvement to the use of sliding disc exercises by the female students of the experimental group.

The researcher believes that harmonic abilities require their

development, especially in complex artistic skills, as well as complex and repetitive skills within the innovative dance routine, as these skills require an advanced level of control and control over performance. This is what harmonic abilities provide when developed, which is reflected in the availability of a high rate of ability. Adjustment and control during motor performance.

In this regard, Sameh Magdy (2014) (3) points out that the spread of the use of non-traditional methods is one of the recent trends in the field of sports training, as the use of non-traditional methods has increased in prevalence to increase the effectiveness of benefiting from the functional capabilities of the athlete, such as the use of devices and auxiliary tools to improve Level of compatibility capabilities.

The results of this study are consistent with the studies of "Maha Al-Hagrasy" and "Hala Kamel" (2009

AD) (12), "**Sameh Magdy**" (2014) (3) in that the use of sliding disc drillsfor himPositive effect in improving the level of players' combinatorial abilities.

The researcher attributes this improvement in the level of harmonic abilities to the positive effect of the sliding disc exercises, which included various exercises that work to develop the harmonic abilities under study, as the female students were attracted to the work through its exercises and the distinct motor performance it includes, which is performed well and new, and it also works on Their enjoyment and excitement, as they had never trained in such a method and tool, and also their positive interaction led to the rapid establishment of an attractive training climate, which helped to invest time and save a lot of effort during performance and freedom movement in all directions and spaces in the training place. This type is considered one of the training innovations. Its application leads to a major breakthrough in the level of female students, and it also stimulated the students' interest and urged them to compare their performances with each other. The sliding disc exercises were characterized by comprehensiveness, balance, and integration in developing combinatorial abilities, taking into account individual differences and the principle of gradual increase in load. This is consistent with the findings of the study of both "Maha Al-Hagrasi", "Hala Kamel" (2009AD) However, a training program that is comprehensive and balanced developing all elements of physical fitness, in addition to taking into

account individual differences between players, has a positive impact on the development of coordination abilities.

This fulfills the first hypothesis of the research, which states:

"There are statistically significant differences between the means of the preand postmeasurementsAmong the female students of the experimental groupIn some harmonic capacities and level ofaMahar diseaseY In modern artistic exercises In favor of dimensional measurement..

It is evident from the table number(6) Existence Differences FunctionstatisticalabetweenThe averages of the pre- and postmeasurements for the control group in some compatibility abilities and the level of skill performance are in favor of the post-measurement, where the tabular (t) value was greater than its calculated value at the significance level (0.05).what!The researcher came differencesFor backThose programTraditional applied within the college Which YtIt was distinguished by the difference in the rhythm of effort during performance, which helpedYesInterchange of performance between anaerobic and aerobic work.

The researcher attributes this result the fact that:theprogramTraditionalHelp developLimited combinatorial capabilitiesshe is fromExercisesHigh intensityBut it is not optimally organized thatIt requires speedinLeg movements and strengthinAbdominal muscles, as it develops the element of compatibility alongside diseaseYFor the arms, which helps develop strength characterized by speed and agility.

This fulfills the second hypothesis, which states:

"There statistically are significant differences between the means ofthe preand postmeasurementsAmong the female students in the control groupIn some combinatorial capacityAnd level the performance Skilled in Modern favor technical exercises In of dimensional measurement...

evident It is from the tablenumber (7)Existence Differences FunctionstatisticalabetweenThe averages of the two post-measurements among the experimental and control research groups in some harmonic abilities and the level of skill performance are in favor of the experimental research group. researcher attributes this improvement between the two groups proposed training program using disc sliding exercises, which contributed to improving harmonic abilities and thus improving the level of skill performance in modern artistic exercises.

AndTwent backThe researcherThis improvementafor metheprogramThe proposal toExercisesSliding andThe tastiestY aGiven the chanceFor studentstotocontinuationin Performing the skill sentence without stopping, And therefore The level of improvementaMahar diseaseY, asShe took careThe researcher developing the proposed programaIt contains a set of exercisesthatIt is developing many...Combinatorial capabilities Whichhave the same pathKinetic For partsSkills to be learnedWhichReturnSubsequentlyOn improvementleveltheaMahar diseaseY In innovative dance.

AndfromaThey are propertiesSlip disc drills alt is not performedWith moreWho is a member ofaBody organsinone time,And this diversityin Exercises Sliding discIn terms of the nature of movement and the method ofaDisease and different speedYesContribute activelyinImproving the combinatorial capabilities under investigation for the experimental group.

The researcher also attributes this improvement to for mealllusion of combinatorial abilitiesinThey complex qualities that do not appear individually and serve the purpose of constructionKineticThis is on the one hand, and on the other hand, training compatible capabilities works develop capabilities in a nodisease Than Lead Hey I have an evolutionphysical abilities, Which in turn leads to improved performance Skilled, And When givenThis is amazing ExercisesIn an diverse interesting and wavinIts composition and construction is the activity practiced, which increases the common physical characteristics with the compatibility abilities. (20:25)

asTThe research results agree with what was indicatedH" Bonnie" Bonnie(2005 AD)(14) Efor meaThe development of combinatorial abilities is linked!closely!By developing motor skills, whereaFemale students cannotnMastering motor skillsinThe state of his lacknFor the combinatorial capabilities of this activity,And

thatThe higher the level of compatibility abilities among female students, the better their ability to learn new skills. It also affects...inMaster the movements previously learned by Wii!ContributedinYou foldYRha and its level riseAnd thattoan High skill levelYlinked!Directly!With increaseaImproving and improving the combinatorial abilities of female students.And she agreesThis amazingResults with study resultsEach of"Sameh Magdy"(2014 AD)(3),Hagrasy, Hala "Maha Al Kamel" (2009AD) (12)wherean exercisesSliding discT!Contribute effectivelyinImproving the level of skill performanceY.

Thus, the third hypothesis of the research has been achieved, which states:

"There are statistically significant differences between the means of the two post-measurements among the female students of the experimental and control group in some harmonic abilities and the level of the performance Skilled in Modern technical exercises In favor of the experimental group.

Conclusions:

In light of the research results, the researcher reached the following conclusions:

- **1-** Sliding disc exercises have a clear positive effect on the level of harmonic abilities among second-year female students in modern innovative dance.
- **2-** Sliding disc exercises have a clear and noticeable positive effect on the level of skill performance in modern technical exercises.

Recommendations:

inLight resultsResearch recommended by the researcher With the following:

- 1- Using sliding disc exercises in different types of motor expression.
- 2- Develop similar programs that suit different ages of males and females.
- 3- Conducting other similar studies that address other variables that were not addressed in the current study.
- 4- Using slip disc drills in other sporting activities.

reviewer

- 1- **Ijlal Muhammad Ibrahim, Nadia Muhammad Darwish (1999 AD):** Modern Artistic Exercises, Dar Al-Kutub, Cairo.
- 2-Zainab Al-Iskandarani (2001 AD): Theoretical and practical foundations ofmotor expression, unpublished memoirs, Faculty of Physical Education for Girls, Zagazig University.
- 3- Sameh Mohamed Magdy(2014 AD): "The effect of using sliding disc exercises on some physical abilities and coordination abilities among players of the national fencing team", Published research, Journal of Physical Education Sciences, Faculty of Physical Education, Helwan University.
- 4-Aziza Mahmoud Salem,Ahmed Hassanein gifts,Mervat Muhammad Salem(2007 AD): Gymnastics between theory and practice, Al-Faniya Foundation for Printing and Publishing, Cairo.
- **5-Issam Abdel Khaleq(2003 AD):** Sports Training (Foundations Theories Applications), 12th edition, Dar Al-Maaref, Cairo.

- 6-Mohamed Ibrahim Shehata, weight training (2001 AD): Knowledge facility, Alexandria.
- **7-Muhammad Al-Arabi Shamoun** (2001 AD): Mental Training in the Sports Field, 2nd edition, Dar Al-Maaref, Cairo.
- 8- Muhammad Sobhi Hassanein, Kamal Abdel Hamid (2001 AD): fitness Physical And its components Dar Al-Fikr Arabi, Cairo.
- **9- Muhammad Abdel-Ghani Othman(2003 AD):** Motor learning and sports training, i 6, Dar Al-Qalam, Kuwait.
- **10- Muhammad Mahmoud Abdel Salam (2003 AD):** Technical performance and educational steps for pommel horse and parallel exercises, Dar Al Maaref, Alexandria.
- **11- Mukhtar Salem(2001 AD):** sports equipment technology, Al Maaref Foundation, Beirut.
- Maha 12-Muhammad Al-Hajrasy, Hala Ahmed Kamel (2009) **AD):** "The effect of ice-skating on...YesImproving exercises elements of physical fitness for female and volleyball karate players (comparative study)", Published research, Mathematical Sciences Journal, Faculty of Physical Education, Minia University.
- **13- Nashwa Mahmoud Nafi (1999):** Theoretical and applied foundations in motor expression (ballet-Modern

- dance-popular),unpublished memoirs,Al-Maghrabi Printing House,Zagazig University.
- **14-Bonnie, petti,** for physical education methods for classroom reach, Human kinetics, 2005.
- **15- Jensen and Shultz:** Applied Kinesiology the Scientific study of Human Performance, 2nd ed., Inc., 2007
- **16-Karen Cowan:** Movement exploration, creative dance, department of liberal studies, the arts, university of Wisconsin, Madison, 2002.
- **17-Katherine. K:** Dance, Dance Studies concentration, college of fine arts, Arizona university, 2003
- **18-Petra Klein:** "Dance Therapy and Dance of Life", training programmes, further education, publication, copyright IIDT Petra Klein, 2002.
- 19-Petra Kuppers: "Modern Dance", St James Ency. Of popular culture, 2002.
- **20-Spring field:** Dance bouts dance major, spring college, 2001.
- **21-Te poel, HDS:** Tae-Bo atrend sport for school sport tae bo technique and course structure of a curent fitness program, lehrhilfen für den sportenterrichs 51, p 1.52004.
- 22-htttp//www.savvierFitness.com/gliding-about.php.
- 23-http//www.allbusiness.com/marke ting advertising.
- 24-http//www. Brigh thub.com/health/fitness/articales 5.