

The impact of Mastery learning strategy on the level of performance of some jumps in Ballet for students at Faculty of Physical Education Menoufia University

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Introduction :

It isn't any more acceptable for a few students to reach the degree of mastery, Therefore nearly most educators have agreed in all their different schools and visions on one basic principle and a strategic important goal, that is to reach with the student the case of desired learning , where for this purpose, all capabilities are employed starting from the educational goals, the curriculum, the accompanying activities, the educational techniques, and their innovations, the teacher and his methods in teaching and evaluation , all this for the purpose of making all students or the majority among them reach the desired degree of mastering of learning and this is to educate and grow a

generation capable to face the requirements of the twenty first century , not only with his memorized information, but also with what it possesses of analytical scientific critic mind for these information .(12 : 94) The mastery learning strategy has been considered among teaching methods that depends on presenting several educational varieties for a learner with the availability of time for him, so as the desired educational good is achieved of the majority of learners mastery most of the educational syllable that is presented to them, Also, it allows a learner to get the time he needs in achieving the subject. In addition to following suitable methods for learning that will lead to the

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capability of this learner to reach a level of mastering and capacity. (13 : 119)

The strategy of mastery learning requires preparing of organized small educational units, organized sequentially with specified educational goals, expected levels of performance, group primary teaching, training and synthesis tests, correction of learning in group or individually, specified educational procedures in which a learner can correct his difficulties in learning a specific unit while the Synthesis tests : are kind of tests used to specify the final achievement of a student in a teaching unit or a whole syllable subject and it is not used in diagnosing the learning difficulties. (7 :150)

The teaching technology methods have been considered among the important basis that the education strategy depends on for mastering in achieving their goals and reaching with the majority of learners to a level of masterly and capability, this

is indicated by **(9:3.4),(17:1),(10:21.22)** teaching by the assistance of the educational technology means now used as an assistant teacher in teaching, since its usage is represented in explanation, training, educational games as a supporter that helps strengthen learners through supporting them with various feedback as it allows an opportunity for them to work in their special speed and supporting them with the an element of suspense. Furthermore, it facilitates an educational environment close enough to educational attitude.

Dance considered an integrated art that performed by to specific movements in a limited place, and by trained persons to express an idea or a story or a certain subject. (6 : 64)

Due to the importance of the mastery learning strategy in acquiring several different dance skills, some scientific studies have been conducted, among them : "Martinez & Joseph,"(1999), "Jorman, et, al" (2004), "Mustafa

Mohamed, Nasr Eldeen", (2007), "Abdelhaleem Hafez Yaseen", (2012) "Mohamed Fadil Mesleh", (2012).

Results of these studies showed the effectiveness of the mastery learning strategy in learning several dance skills in comparison with the method of learning via order .

The researcher has also noticed through her teaching for the syllable of dance (Ballet) and through the theoretical and practical tests at the faculty of physical education –Menoufya University - and through participation in the scientific tests at the department , that the students of the grade group at the faculty find a difficulty in performing some of the skills of ballet (the cat jump - pas de chat and the jumping with switching the legs – changement de pieds), in spite of the big focus and the great concern when teaching all skills , the level of the performance with these students lacks some correct arts of performance , and they have

a wrong vision due to the lack of using all senses in teaching.

Also, the followed teaching methods don't put into consideration the individual differences between the students, due to the short time because of the system of the teaching semester, and the growing number of students inside the lecture, a matter that leads to a decrease of the learning motivation , this has led the researcher to try to know the difficulties , and overcome them through using the strategy of mastery learning and it includes several educational alternatives (teacher – computers – slides) so that the student can use the educational alternatives before the lecture and during it through the display screen in the training hall, so she will be able to see the move and perform it.

In light of what has been mentioned , the problem of the research is represented in trying to recognizing the effect of using the strategy of mastery learning as considered one of the methods of modern

teaching on learning and mastering some of the jumps in the ballet for the students of the grade one at faculty of physical education - Menofia University.

The research goals:

This research aimed to recognizing :

1-the impact of using the strategy of the mastery learning on learning and mastering some jumps (pas de chat – changement de pieds) in ballet for the students of the grade one at Faculty of Physical Education -Menofia University.

2-The impact of using the style of learning by order and mastering some jumps (pas de chat –changement de pieds)in ballet for the students of the grade one at Physical Education Faculty, -Menofia University .

3-Differences between the individuals of the two groups : the experimental and the control in learning and mastering some of the jumps (the cat jump -pas de chat – changement de pieds)in ballet for the students of the grade

one at Faculty of Physical Education -Menofia University

Research Hypothesis:

1-There have been Statistically significant differences between the averages of the pre and post measurements of the experimental group at the level of the performance of some jumps, (pas de chat – changement de pieds) in ballet in favor of post measurement.

2- There have been Statistically significant differences between the averages of the pre and post measurements of the control group at the level of the performance of some jumps , (pas de chat – changement de pieds) in ballet in favor of the post measurement .

3- There have been Statistically significant differences between the averages of the pre and post measurements of the control group and the experimental at the level of the performance of some jumps, (pas de chat, – changement de pieds)in ballet in favor of the experimental group.

Research procedures :

Methodology:

The researcher used the experimental method by using pre and post measurements for two groups, experimental and control. the experimental group (mastery learning) and the other is the control group (learning via orders).

The sample and population of research :

The sample of research has been selected by the intentional way and its number is (31) students in the first grade at Faculty of Physical Education -Menofia University. in second semester for 2012/2013 from the total of research population which is (64) students , (10) have been excluded for the exploratory study and a student stayed for repletion , so basic sample of study has become (20) students at a percentage of 31,25% , they divided randomly into two equal groups as follows:

- Experimental group composed of (10) students used the strategy of the mastery learning .
- Control group composed of (10) students used the method of learning via order.

Calculating the Moderation of distribution of the research sample:

Calculation of the Moderation of distribution of the research sample has been conducted in the variables that might have an effect on the experimental variable like the growth rates (age,height,weight,intelligence) and some special physical capabilities and the level of performance of some jumps in ballet (under consideration), these measurements have been implemented (Homogeneity and parity) after conducting the scientific procedures of the physical tests and the intelligence test,(under consideration).

Parity of the two groups of the research :

The researcher has implemented the parity between the two groups of research, the control and the experimental in rates of growth rates (age- height-weight-intelligence) and the physical artistic variables , (under consideration). , so as to make sure of the parity of the two

groups from these variables , this has been considered as the pre measurement of the two

groups of the research , and tables (1) (2) clarify this:

Table (1)

Signification of the differences between two groups experimental and control in rates of growth rates (age , height , weight , intelligence)

Variables	Measurement unit	Experimental group N=10		Control group N=10		T.test
		Mean	Std.deviation	Mean	Std.deviation	
AGE	Year\day	18.60	0.58	18.50	0.47	0.39
HEIGHT	m\cm.	164.50	4.26	163.77	4.39	0.36
WEIGHT	Kg\g.	61.33	3.71	60.85	3.96	0.27
INTELLEGENCE	degree	44.10	4.28	43.60	4.14	0.25

Value of tabulated " T " at level 0,05=2,101

Seen from the table (1) the unavailability of implications of differences at level 0,05 between the experimental and the control

groups in rates of growth (age, height, weight, intelligence), a matter that implied the parity of individuals of the groups in these variables .

Table (2)

Signification of the differences between the experimental and the control groups in physical and technical variables , under consideration.

Variables	Measurement unit	Experimental group N=10		Control group N=10		T.test
		Mean	Std.deviation	Mean	Std.deviation	
Muscular power for leg on the vertical axis	cm.	28.25	3.36	28.00	3.41	0,16
Muscular power for leg on Horizontal axis	cm.	140.0	5.00	138.5	5.50	0,60
Agility	Seconds	9.19	0.48	9.24	061	0,19

Follow Table (2)
Signification of the differences between the experimental and the control groups in physical and technical variables , under consideration.

Variables	Measurement unit	Experimental group N=10		Control group N=10		T.test
		Mean	Std.deviation	Mean	Std.deviation	
Dynamical Balance	Degree	69.20	3.66	68.50	3.48	0,42
Flexibility of the torso and thigh	Cm	10.75	2.34	10.20	2.19	0,51
Jumps in Ballet Pas de chat -cat's step	Degree	1.10	0.69	1.00	0.55	0,34
Changement de pied	Degree	1.00	0.62	0.95	0.51	0,19

Value of Tabulated" T " at level 0,05= 2,101

Seen from the table (2) the unavailability of implications of differences at level 0,05 between the experimental and control groups in the physical and technical variables under consideration, indicates that there is a parity of the individuals of the two groups in these variables .

Tools of Data Gathering :

First: the used devices and tools in the research:

- Rest meter device to measure the height of the body
- computers. (10)

- Medical balance
- (CDs). (10)
- Overhead Projector. (1)
- Stopwatch.(2) - measuring tape.

- Equipped Hall of dance
- A graduated wooden ruler

Second: the physical tests, under consideration

- 1- Vertical jump test : to measure the muscular ability on the vertical axis.(17:378,379)
- 2- Standing long jump test : to measure the muscular ability on the horizontal axis. (17:221-222)

3- Zigzag run test-Barrow : to measure the general agility.(17:193-195)

4-the dynamic balance test : to measure the dynamical balance. (17:454-456)

5- The bend of the trunk of the front of the stand test to measure the flexibility of the trunk and thigh. (17:327,328)

Third : evaluation of the level of the performance of the jumps in ballet .

The level of performance has been evaluated through a committee composed of (3) members of the teaching board at the department of the exercises and Gymnastic and dance who had their phd degree in physical education and have an experience in teaching in the department that is not less than 8 years, that the degree has to be calculated out of (10) degrees for each jump of the jumps of the pas de chat and the changement of pieds - the three degrees have been calculated for the referees, the total has been divided by three so as to calculate the degree of

the student in jumps, under consideration in ballet .

Fourth: IQ test booklet photographer: prepared by /Ahmed Zaki Saleh (1989) (5) .

Fifth: the strategy of the suggested masterly learning: The goal of mastery strategy learning:

1-Teaching some ballet skills (pas de chat – changement de pieds) for the students of the grade one at faculty of the Physical Education–Menofia University.

Content of the mastery learning strategy:

1-The educational learning steps have been specified, and the way of the technical performance of the ballet skills (pas de chat – changement de pieds) , this is through the study of the researcher of several scientific references in dance (6),(30) .

2-The researcher has displayed the content of the mastery learning strategy on a group of experts in the field of dance and the methods of teaching,

attachment (4) and they have acknowledged the validity of the suggested strategy for applying.

3-The mastery learning strategy has included the following educational alternatives, the first alternative, the teacher and her role in displaying a model of the skill and the verbal explanation, the second alternative is the slides which dance movement has clarified on it to perform the jumps , under consideration, the third alternative is the computer , and the CD .

4- The students of the experiment group who haven't achieved the percentage of 80% of the desired goal, have been supplied with other educational alternatives, and these are the slides and the CD.

5-The students of the experimental group who have achieved 80% or more of the desired goal have been divided onto the rest of the students as leaders to direct them to master and be able to implement the jumps.

6-The mastery learning strategy includes (12) educational units two units weekly, for (6) continuous weeks, and the time of each unit is (90)minutes which have been divided into : the physical preparation and warm up its duration is (10) minutes, then the main part and its duration is (35) minutes for jumps training and the practical application, therefore, the time of the suggested daily educational unit is (45) minutes , and the rest of the educational unit time which is (45) minutes, is for the rest of the skills in syllable of dance , and table (8) clarifies the model of an educational unit by using the strategy of the mastery learning under consideration .

The Pre measurements:

Before conducting the Pre measurements, the researcher has taught two educational units for the individuals of the basic research sample so that all the individuals of the sample will reach a particular level through which the researcher can conduct the Pre measurements

in the period of 21-02-2013, until 28-02-2013, then the research has conducted the pre measurements for two groups (the experimental and the control) in the technical physical variables (under consideration) in the period : 03-03-2013 until 07-03-2013.

Applying the strategy of the mastery learning:

The researcher has applied the content of the strategy of the suggested mastery learning on the individuals of the experimental group for (6) successive weeks, at two educational units per week, attachment (5). The

method of learning by order has also been used in learning the jumps in ballet as a subject of research for the members of the control group attachment (6), at the period between 10-03-2013- and 18-04-2013.

The post Measurements:

The Post measurements of the two groups of research have been conducted in the period from 21-04-2013 until 23-04-2013 in the standard level of performance of the jumps in ballet at the same arrangements and conditions of the Pre Measurements .

RESULTS

Table (3)

Significant differences between pre and post measurements at the level of performance of the jumps in ballet under discussion.

N=10

Variables	Measurement unit	Pre measurement		Post measurement		T.test
		Mean	Std.deviation	Mean	Std.deviation	
pas de chat	Degree	1,10	0,69	8,60	0,57	29,42*
Changement de pieds	Degree	1,00	0,62	8,50	0,51	28,77*

Value of Tabulate" T "at the level of 0,05 =2,262 it is significant at the level of 0,05*

Based on Table (3) there have been differences statistically significant at the level of 0.05 between the post

and pre measurements of the experimental group at the level of the performance of some jumps (pas de chat -

Changement de pieds) in the ballet in favor of the post measurement .

Table (4)

Significant differences between pre and post measurements for control group in the level of performance in ballet jumps under discussion . N=10

Variables	Measurement unit	Pre measurement		Post measurement		T.test
		Mean	Std.deviation	Mean	Std.deviation	
pas de chat	Degree	1,00	0,55	7,40	0,50	21,38*
Changement de pieds	Degree	0,95	0,51	7,80	0,52	24,91*

The value of the tabulated "T" at the level of 0,05=2,262 it is significant at the level of 0,05*

It is seen from the table (4) that there have been Significant differences between the two measurements pre and post of the control group in the

level of performance of ballet jumps and the subject of discussion is in favor of the post measurement

. Table (5)

Significant differences between pre and post measurements for the control group in the level of performance in ballet jumps under discussion.

Variables	Measurement unit	Pre measurement		Post measurement		T.test
		Mean	Std.deviation	Mean	Std.deviation	
pas de chat	Degree	8,60	0,57	7,40	0,50	4,74*
Changement de pieds	Degree	8,50	0,51	7,70	0,52	3,29*

The value of tabulated " T " at the level 0,05=2,101 *significance at level 0,05

It is clear from table (5) that the existence of statistically significant difference at the level of 0.05 between the two measurements for the two groups, the

experimental and the control, in the level of the performance of some jumps in the ballet under discussion. is in favor of the experimental group.

Table (6)

The percentages of the improvement of the pre measurement for the two groups, experimental and control at the level of performing the jumps in Ballet under discussion .

Variables	Measurement unit	Pre measurement		Post measurement		T.test
		Mean	Std.deviation	Mean	Std.deviation	
pas de chat	degree	1,10	8,60	7,40	0,50	4,74*
Changement de pieds	degree	8,50	0,51	7,70	0,52	3,29*

Table (6) shows the existence of the percentages of improvement for the post on the pre measurements at the level of some jumps in ballet under discussion, where the percentages have been at the highest level of jumping changement de pieds (750.00%) and the lowest improvement percent of the pas de chat – is (681.82 %) for the experimental group.

While the highest improvement percentage of jumping–changement de pieds – is (710.53%) and the lowest percentage of the improvement

of the jump of–pas de chat – (640.00%) for the control group.

Discussion

Table (3) the researcher attributes that the improvement in the level of performance in some jumps (pas de chat - Changement de pieds) in ballet of the experimental group has been as a result of the effectiveness of the mastery learning strategy, which includes several modern educational alternatives based on the learning technology. This have led to the astonishment of the learner by

the display of the jumps using a computer, in addition to the successive pictures through slides of high technology, which indeed had great effect in learning the jumps faster . . . As well as correction of the technical errors, and no commitment with restricted time of learning , as each student must take sufficient time in learning and presenting the feedback. The student would only transfer into the following step after mastering 80% of the educational content , the learner is not transformed into the next units unless she masters the jump by 80%. This result agrees with the results of the study of : "Martinez & Joseph", (1999) "Jorman,et, al", (2004) "Mustafa Mohamed Nasr", (2007) "Abdelhaleem Hafez Yaseen", (2012)" Mohamed Fadel Mosleh", (2012) on the effectiveness of the use of mastery learning strategy and what it includes as the educational alternatives, (teacher-computer-educational videos-slides-) in learning and mastering the performance of

motion skills in team and individual sports.

And by which, The validity of the first hypothesis is verified There have been Statistically significant differences between the averages of the pre and post measurements of the experimental group at the level of the performance of some jumps, (pas de chat – changement de pieds) in ballet in favor of post measurement. Table(4)the researcher has seen that this improvement of the level of performance of the jumps (subject of study) in ballet for the individuals of the control group " learning by order " has been due to the positive role of the teacher in the method of learning by order, which depends on displaying an example of the practical jump by the teacher, or by a student on a high level of technical performance. In addition to correcting technical mistakes once seen and continuous evaluation during and after the performance, under discussion.

And by which, the validity of the second hypothesis is verified. There have been statistically significant differences between the averages of the pre and post measurements of the control group at the level of the performance of some jumps, (pas de chat – changement de pieds) in ballet in favor of the post measurement.

Table(5) the researcher gives credit of this improvement of individuals of experimental group to the multitude of the feedback resources through displaying several educational alternatives (teacher-the watched movable photographs by a computer – the fixed photograph by the slides). As well as, taking into account individual differences between the learners. Since the learner who could reach the mastering or being able to through the verbal explanation and giving the model, then giving her the sufficient time in training and learning with correction of errors and presenting the feedback, is different in her comprehension from the

learner that understands and masters in the following stage by using another educational alternative through presenting the fixed photographs through slides.

This is also different from the learner that doesn't master through the previous two stages, where there is a presentation of the third alternative which is to display the jumps by the computer, in addition to her knowledge of the educational steps of the jumps under discussions until the learner could reach after these 3 stages the mastering or being able to perform the jumps. This result agrees with what has been indicated by "**Mohamed Mahmud Alheila**", (2001) with the importance of the method needed to be learnt and applied to the educational field where it aims at mastering the information and the data required to be learnt, by not specifying a specific time for learning. Each learner takes the sufficient time for him /her in learning and his understanding of the educational material through

presenting several educational alternatives functioning to instill the educational material required to be learnt in the mind of the learner.

Table(6)the researcher has seen that the members of the experimental group have been superior over the control group in the improvement percentages of the post over the pre measurements in the level of performing the jumps , (under discussion) in ballet have referred to the effectiveness of using the masterly educational strategy as one of the modern teaching methods , which gives an effective role to the learner in the attained movements, in comparison with learning by order, which leads to a passive learner who relies greatly on the teacher in learning the jumps under discussion .

In this field, "**Abdel Azeem Alferjany**", (1998) indicates that the strategy of masterly learning is where the development of the curriculum in the form of connected successive educational tasks ,from easy to difficult.

He shows to the learner that these tasks have to be mastered in accordance with his self-speed, capabilities and readiness. The suggested educational alternatives in the strategy of the masterly education should be clarified so that the learner can select the suitable alternative. (121:1).

And by which, the validity of the third hypothesis is verified There have been Statistically significant differences between the averages of the pre and post measurements of the control group and the experimental at the level of the performance of some jumps, (pas de chat, – changement de pieds)in ballet in favor of the experimental group.

Conclusions:

1-The strategy of the masterly education (the experimental group) has led to the learning and mastering some of the jumps (pas de chat) (changement de pieds) in ballet.

2- The “learning by order” (control group) has led to the

learning and mastering some jumps (pas de chat – changement de pieds) in ballet.

3-There have been significant differences between the averages of the two post measurements for the experimental and control groups in the level of performance of some jumps (pas de chat-) and (changement de pieds) in ballet . In favor of the experimental group.

4-Using the technological educational alternatives (teacher-computer-slides) had helped the experimental group in recognizing the sides of strength and weakness in the dance performance, which has contributed in the learning and mastering of the jumps (pas de chat-) (changement de pieds) in ballet.

5-Superiority of experimental group over the control group in improvement percentages of the post over the pre measurements in the level of performance of some jumps in ballet, under discussion.

Recommendations :

1-Using the strategy of the masterly education for learning

and mastering the jumps (the cat's jump –pas de chat -the replacement of the legs – changement de pieds) in ballet for the students of the faculty of physician the university of Menofia .

2-Producing several educational alternatives (CD – Educational video-electronic handbook-slides) for learning and mastering the skills of ballet .

3- Emphasizing the encouragement of the teaching board on using the modern technological techniques in teaching the curriculum of the kinetic expression for the students of the physical education and that's to avoid the negative sides of the traditional method in teaching.

4-Implementing more experimental research by using the masterly learning strategy and comparing it with the other teaching methods . As well as selecting the suitable method of it in order to reach the degree of mastering of the different sides (theoretical and applied) in the dance

expression curriculum . . .

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