

The Effect of Teaching by using training style on the cognitive achievement and the performance level of Gymnastics specialized students

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Abstract:

The study aims at identifying the effect of using training style on cognitive achievement and the performance level of floor exercises for third year students "Gymnastics specialization" by designing educational unit included eight lessons within it the theoretical teaching is blend on the application. The researcher used the experimental method for its suitability to the study nature. He used the experimental design for two group one is experimental and the other is control, also he consider the pre- and post-measurements throughout the academic year 2012- 2013. The sample was intentional, Consists of 38 students, they were divided into two equivalent and equal groups of

19 students. He apply the training style on the experimental group, while use the traditional method for control group (Theoretical Teaching a part from the application). The study takes one month from 9/3/2013 to 4/4/2013 as follow: Two lessons per-week (eight lessons) for the experimental group each lessons was 3 hours. While three lessons were for the control group, one of them was theoretical and lessons time were 2 hours.He concluded that using field theoretical teaching emerging by application method show an improvement in the cognitive achievement levels and floor exercises training (under study) for experimental group and the efficiency of this method is more than the traditional one

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which indicates its proficiency and influence. He recommended the application of this method when teaching Gymnastics, for physical education students and conducted similar studies for different ages stages to proving and affirming the power of this method.

Key word: Teaching Integration . Cognitive Acquisition. Floor Exercises.

Introduction:

The development of the philosophy, programs, techniques as well as all aspects of the learning process represented by the instructor, learner, educational material and the learning environment, are shouldered by competent learning institutions, however, the greatest burden is shouldered by the instructor. Briefing knowledge and information is not the only matter that concerns in the learning process, but the ability of the instructor to direct learning is the thing that matters for it turns the learner into a positive participant who sets and achieves his own goals. The use of new learning strategies is, therefore, of great importance to overcome the

monotonous conventional technique.

The efficient instructor is the one who can deliver the speech continuously and knows a lot about the stages and techniques of direct and indirect teaching through which the learner becomes positive and active and not just a negative receiver of all that is delivered to him. (1: 197)

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The researcher believes that detaching practical and theoretical learning activities (practical session – theoretical session) is against the conception and nature of learning. Learning activities that depend only on the verbal method, i.e., verbal explanation proves to be defective for the verbal representation that is not based on direct virtual experience is highly abstractive. Meanwhile, the role of the learner in the learning process that relies on

such type of activities becomes a passive role for such activities defect the rights of learner due to non-consideration of individual differences when creating the learning environment.

Felifal F.M 2007 [2] and Hssan M.M 2008 [4] show that in spite of the number and diversity of teaching methods and techniques that have been subject to modernization, still many of the personnel supervising the educational process in the field of physical education use conventional teaching methods that depend on the instructor explaining, directing and performing the skill model regardless of individual differences that exist in the potentials of students in addition to the non-positive participation of the learner. Meanwhile, the theoretical part of the lesson is taught detached from the application part which is against the principle of setting the theory alongside with the application. The researcher, therefore, believes in the importance of integrating theoretical teaching into practical application so as to achieve the objectives of the educational process in

gymnastic games where the theoretical content is joined with the practical application that regards the potentials and tendencies of learners as well as regarding the positive factor and effective participation of the learners all the time. For this reason, the researcher conducted this study on students specialized in teaching gymnastics to know the impact of the educational unit by integrating theoretical teaching into practical application on the acquisition of knowledge and skilful performance level of the dynamic system on floor gymnastic apparatus.

Methods:

The researcher adopted the experimental approach and used the experimental designs of two sets, one experimental and the other control on the pretest and posttest scales. The 38 Students of third grade of the academic year 2008/2009 who were specialized in gymnastic teaching were divided into two groups, each consisted of (19) students; one experimental and the other control. The researcher adopted the technique of integrating theoretical teaching into practical application for the

experimental group, a teaching technique in which the researcher joined the theoretical content to the practical application in the gymnastic field in a way that cares for the potential, willingness of students as well as their positive participation all the time. The control group adopted the conventional teaching method where the theoretical part was taught in class detached from the practical teaching that takes place in the gymnastic field of the Faculty.

The researcher applied homogeneity and equality between the two groups (the experimental and the control) in the growth rates (age– height – weight), mental capabilities (intelligence), some physical variations (the muscular strength of arms and feet– speed– agility– balance) as well as the cognitive acquisition level (+3, -3) which shows the proper distribution and homogeneity of sample students. The calculated value of (T) came less than tabular (T) at reference level (0.05) a matter that shows the equality of the two groups (experimental & control) in research related variations.

The researcher also prepared a cognitive test, an instrument by which the cognitive level of sample students in the gymnastic rules of floor gymnastic is known before and after the application of the teaching unit. The researcher drafted a number of terms for the major axes out of technical gymnastic international law for men (competition exercises evaluation– regulations that govern exercises– floor gymnastic apparatus). The researcher conducted the test scientific coefficients where he proved the validity of the content by securing the opinion of referees and selected the vocabulary that the experts approved a 100% so that the total number of test vocabulary was (30). The researcher corrected the test by giving each corrected answer one mark to each item of the test items and zero for the wrong answers. The total score was (35) marks. In light of the exploratory experiment, the duration of the test was set by using the equation specified for that purpose and the test duration was set for (30) minutes. The researcher proved the validity of the test where the value of Mann Whitney was zero and the calculated

value (Z) (-2.89) which was bigger than (1.96) a matter that proved the potential of the test to distinguish among the individuals of the sample.

The researcher then produced the test consistent coefficient by applying the test then re-applying the test on an exploratory sample of (20) students with a time interval of (14) days. The researcher calculated the correlation coefficient between the scores of the first and the second applications where the value of the calculated (r) was (0.94) which was greater than tabular (r) at the level (0.05).

The researcher developed an educational unit with the aim of improving skills level and cognitive acquisition of students specialized in gymnastics teaching by integrating theoretical teaching into practical application where he used the axes of floor exercise apparatus of the international gymnastic law to test the topics included in the educational unit lessons that match the set objectives. The researchers organized the

educational experiences along eight lessons whose teaching took four weeks. Intervals between lessons have been considered to achieve continuity and sequence of experiences. The total time frame of the unit was (24) hours distributed as follow; 3 hours for each lesson divided by (7) applied educational lessons of (21) hours and one evaluative lesson at (3) hours.

The researcher processed the results of the study by using an arithmetic mean, standard deviation, (T) test, correlation coefficient, skewness coefficient and Mann Whitney test.

Results

In light of the hypotheses of the study, the researcher demonstrated the results achieved as follows:

1- There are statistical functions variations between the two mean pretest and post test scales for the experimental group in the cognitive acquisition and dynamic system performance level on floor exercise apparatus for the interest of posttest scale.

Table (1)
Variation function between mean pretest and posttest scales for the experimental group in study related variations (N= 19)

Variation	Scale	Pretest	Posttest	T	Function
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	unit	Scale		Scale		value	level
		M	S	M	S		
Skiful performance	Mark	3.5	0.55	7.8	0.4	-6.90	Function
Cognitive Acquisition	Mark	5.2	1.2	25.1	1.4	-6.42	function

Value of tabular (T) at a free grade (18) and level (0.05) = 1.73

Table (1) shows that there are statistical variations between mean pretest and posttest Scales for the experimental group in the cognitive acquisition and the level of dynamic system performance on floor exercise apparatus for the sake of the posttest scale.

2- There are statistical function variation between mean pretest and posttest scales for the control group in the cognitive acquisition and the level of dynamic system performance on floor exercises apparatus for the sake of posttest scale

Table (2)

Variation function between mean pretest and posttest scales for the control group in study related variations (N= 19)

Variation	Scale unit	Pretest Scale		Posttest Scale		T value	Function level
		M	S	M	S		
Skiful performance	Mark	3.1	0.98	6.9	0.87	-1.90	Function
Cognitive Acquisition	Mark	4.8	0.98	18.3	1.2	-6.49	Function

Value of tabular (T) at a free grade (18) and level (0.05) = 1.73

Table (2) shows that there are statistical variations at function level between mean pretest and posttest scales for the control group in the cognitive

acquisition and the level of skilful performance level of the dynamical system for the sake of the posttest scale.

3- There are statistical function variations between mean posttest scales for the two experimental and control groups in the cognitive

acquisition and the dynamic system performance level on floor exercises apparatus for the sake of posttest scale of the experimental

Table (3)
Variation function between mean posttest scales for the experimental and control groups in study related variations (N= 38)

Variation	Scale unit	experimental group		control group		T value	Function level	In the direction of
		M	S	M	S			
Skilful performance	Mark	7.8	0.4	6.9	0.87	2.23	Function	Experimental group
Cognitive Acquisition	Mark	25.1	1.4	18.3	1.2	1.67	Function	

Value of tabular (T) at a free grade (36) and level (0.05) = 1.69

Table (3) shows that there are statistical variations at function level (0.05) between mean posttest scales for the two experimental and control groups at the level cognitive acquisition and the level of skilful performance level of the dynamical system for the sake of the experimental group.

Discussion

For the experimental group, table (1), the researcher relates the improvement to the use of the technique or strategy of integrating the theoretical teaching into practical

application in learning the dynamic system on floor exercises apparatus as this technique gave the students the opportunity to apply what they have known and understood of the laws and conditions of the dynamic system performance on the floor exercises apparatus and knowing the deductions they might get due to committing some mistakes such as getting the legs apart, taking some steps and instability. This technique also helped interaction and dialogue between students and the instructor (researcher) and the

among the students themselves when analyzing the skilful performance of students and extracting the technical errors of the performance, a matter that enabled students to positively participate in the learning process. The researcher also believes that when the student gets to know his faults in the skilful performance and such faults turn into deduction in scores as per the technical gymnastics law, it would be hard to forget them, a matter that leads to the increase of the cognitive acquisition. This clarifies the great difference between the pretest and posttest scales in the cognitive acquisition as student have not studied the technical gymnastics laws before.

As for the control group, table (2), the researcher relates the progress to practical application of the dynamic system on the floor exercises apparatus due to the verbal explanation of the knowledge and information related to the dynamic system and its relevant skills. This helps the formation of a clear picture of those skills and dynamic system and that the conventional method gives

students the proper piece of information a matter that leads to easily performing it and forming a knowledge related to those skills that compose the dynamic system on floor exercise apparatus. The existence of variation of statistical function in the level of skilful performance of the dynamic system on the floor exercise apparatus of the control group for the sake of the posttest scale indicates that the conventional technique (separating the theoretical aspect from application) has positive impact on the performance level.

The researcher relates this progress to the role of the instructor (researcher) in the conventional technique where he gives a clear idea on how to perform properly through (a practical model) and students' observation during the performance of the dynamic system while correcting the faults and the repetition of the performance by the students a matter that positively impact learning and the efficiency of performing gymnastic skills with dynamic system.

As for the difference between the experimental

group and control group, table (3), the researcher relates the improvement and progress of the experimental group to the use of a technique that integrates theoretical teaching into practical application through practical sessions and through dividing students into small groups in which student collaborate to find out their performance faults during the performance of the dynamic system and turn these faults into deductions in the final grades of performance, a matter that makes students more active and more positive for this helps them employ their efforts, exert additional efforts, not to feel boredom or tiresome and develop critical thinking and innovation. This strategy also encourages student to analyze each movement during the performance of the dynamic system, a matter that contributes in the formation of a proper dynamic image of the dynamic system and its skills. This result matches what Abdel Kerim A 1990 [1], and El-Heila M 2003 [3] reached that the status of the learner should be positive and not negative, active and effective rather than just being a receiver to

whatever he receives. The modern concept of science includes the integration of both cognitive and behavioural aspects. This also matches the studies conducted by Felifal F M 2007 [2] and Hassan M M 2008 [4] which outcomes confirmed the efficacy of integrating theoretical teaching into practical application.

Conclusions

In the light of the results of this research, the researcher concluded that the theoretical and practical aspects of teacher education programs must go side by side in order to improve and standardize practical performance. The teaching strategies of applied courses must also be reconsidered, and strategies must be used which are appropriate for the nature of these courses and which would help achieve their goals through stimulating students' learning motivation, creating interactivity with the teacher and the topic to be learned, and giving the learner the opportunity to actively build his/her knowledge. The goal of education is no longer to increase information inasmuch as to allow students the chance

to explore and discover information for themselves. Knowledge alone does not lead to application.

In other words, one who has knowledge is not necessarily able to apply it. It is now time to relate knowledge to application in the field of teacher education.

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