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Effect of using angles graded rings on learning jumping shot and free shot skills in basketball

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ABSTRACT
The aim of study is to learn and improve level of jumping shot and free shot skills in basketball through using assistance instrument (angles graded rings) and test of its impact. 20 students of first class of faculty of education (physical education department)\ University of Samara were participated in present study and assigned in two groups (experiment and control), study was used an experimental approach design method due to it is suitable to achieve aims of the study. Experimental group used assistance instrument and the period of teaching approach was a one month divided in eight learning units, two units a weak (Sunday and Wednesday). Data of study was analyzed by using means, standard deviations, and T test, moreover, we achieved pre and post-tests to collect the data. Study concluded that used assistance instrument had a positive impact on teaching and improving level of jumping shot skill as well as free shot which was developed clearly as a result of using assistance instrument. Finally we found that teaching approaches have an active role on teaching sport skills but in different ratios according to used methods.

***Keywords*:** Graded rings, shot, basketball, learning, jumping shot skill.

1. Introduction

Basketball sport is one of group sports which improved largely through good performance of basic skills; it is no doubt that thanks to the use of modern scientific methods to teach those skills whether offensive or defensive, this development has made it one of important group games around the world. It is become practice in various countries of the world and occupy the attention of many people athletes and non-athletes and perhaps the reason for this due to its exciting and suspense in which the performance is performed in a beautiful harmony between the strength of

performance and speed of movement which appears as a great technic phrase during the performance. However, the most beautiful skill in basketball is shot skill due to it adds exiting and suspense to the game in addition to that the outcome of the game depends on achieving the highest number of points in the basket of an opponent and scoring comes through the shot skill and thus the team can settle the game for them to understand the player has to has high skills in dribble or pass accuracy in different kinds for the offensive will be useless if it is not end scoring in the opposing team's basket.

Subject of basketball is one of important subjects in faculties of physical education because has a great impact in prepare the student mentally, physically, and kinetically through learning several basic skills, due to the huge differences in motor skills were found many different ways and methods of teaching, therefore the choice of method or educational method should be commensurate with the skill to be learned and the potential of the players and the necessary tools for teaching and this was confirmed by many of scientists. Scientific analysis to the field of physical education today has been proved beyond any doubt that there is a major development has occurred in the areas of motor learning and sports training and sees many specialists that these areas have been affected positively dramatically in recent years through the use of various means of educational (Ausama, 1997).

Using assistance instruments and tools in field of learning are important factors which help to increase active of training and create the tendency of the player and increase the process of perception and comprehension thus they help to master the skill of the player by creating an image of the skill. In fact, this has been confirmed by (Houria., 1985) that assistance tools and instruments help on thinking as a result of constantly intention focusing on the skill and the condition of the motor learning as they are more effective in stabilizing the skill correctly. Moreover, Ibrahim (2001) quoting (Mustafa Diab) pointed that modified ring in basketball is a suitable method to improve the accuracy of the free shot and the provision of coach effort as well as the use of this method raises players' exiting and their ability to train and player depends on himself to fix his mistakes and gain success experiences and minimize the experiences of failure.

The importance of study is in finding a method to help the learner to see the target and build a mental kinesthetic path through learning phase to reach the stage of a gradual skill learning after that mastery it, this method is a gradual rise, changing direction, and easy to use. Through careful observation of the researchers found that the difficulty of learning the skill of shot depends on the level of horizontal basket parallel to the earth's surface which rises from the earth of (305cm) and makes the target invisible hence the difficulty in shot, so the learner will imagine a place of target unlike the rest of the group ball games such as football and handball in which the object is at right angles to the ground level and easy to see it. However, the aim of study is to learn and improve level of jumping shot and free shot skills in basketball through using assistance instrument (angles graded rings) and test of its impact.

2. Methodology

2.1 *Participates*:

20 students of first class of faculty of education (physical education department)\ University of Samara were participated in present study and assigned in two groups (experiment and control), study was used an experimental approach design method due to it is suitable to achieve aims of the study. To achieve one initiated line and ensure there are no differences between study groups, researchers used T test to get the equal between participates of study as shown in table (1).

(Table 1)
Shows an equal between experimental and control groups for results of jumping shot test from selected places

N	Area of shot	Experimental group		Control group		T test	Significant
		Mean	SD	Mean	SD		
1	In front of right	13.5	1.871	12.833	2.137	0.575	No S
2	In front of left	13.167	1.691	12.667	1.633	0.610	No S
3	Side right	7.333	1.505	7.667	1.033	0.2	No S
4	Side left	7.167	1.472	7	1.414	0.447	No S
5	Free shot	2.00	0.895	1.667	0.516	0.791	No S

Tabulated T value at the freedom degree 10 and significant level 0.05= 1.812

2.2 *Used tests*:

There are several of tests which measure required situation and for each of them specific characterizes where test is a set of exercises given to the individual to know his capacities and efficient (Mohammad, 1995). So the researchers chose the tests which help to measure jumping shot from different places and the purpose of places variety is to confirm the safety of assistance instrument which used by experimental group. The tests of current study are involved test of front shot which is prepared by Faez and Mouaid (1987) aimed to measure specific skill of player in front shot to the goal where the player will shot to the basket from anywhere outside the free throw of the region which lies along the free-throw line at the intersection of the circle as well as has to install a signal in the selected area of the shooting, moreover shooting should be directly into the basket without touch board basket. However, each player would get 15 attempts performed in three sets each group five throws.

While second test is side shot which aimed to measure shot skill from a location of one basket sides and outside of free throw region away (6 meters) from the center of the basket and the player can shot using one hand or both hands but has to perform ten shots of one sides of basket then moves to the other side to perform ten other shots. Finally we used free throw test which prepared by Faris (2000) to measure free throw goal accuracy where each player performs two sets of throws behind the free-throw line, each set is consisting of a (5) throws in a row.

Figure (1) showed the locations of the scoring boards and shot places, while figure (2) showed shape of helping instrument and its specifications

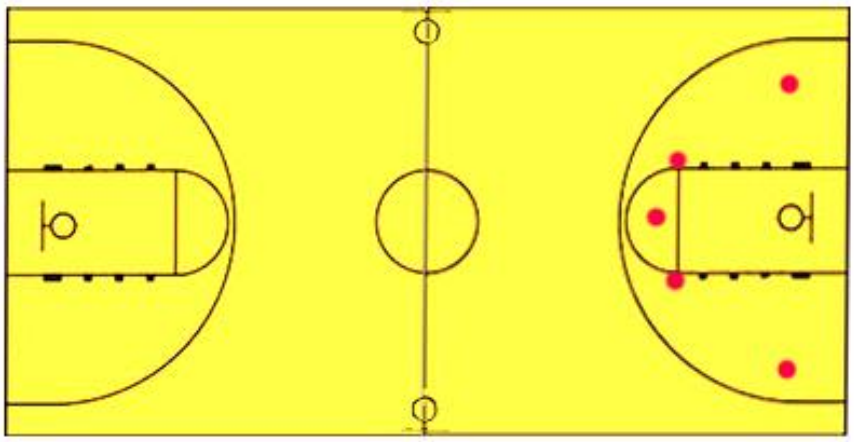

Figure 1. Shows the locations of the scoring boards and shot places

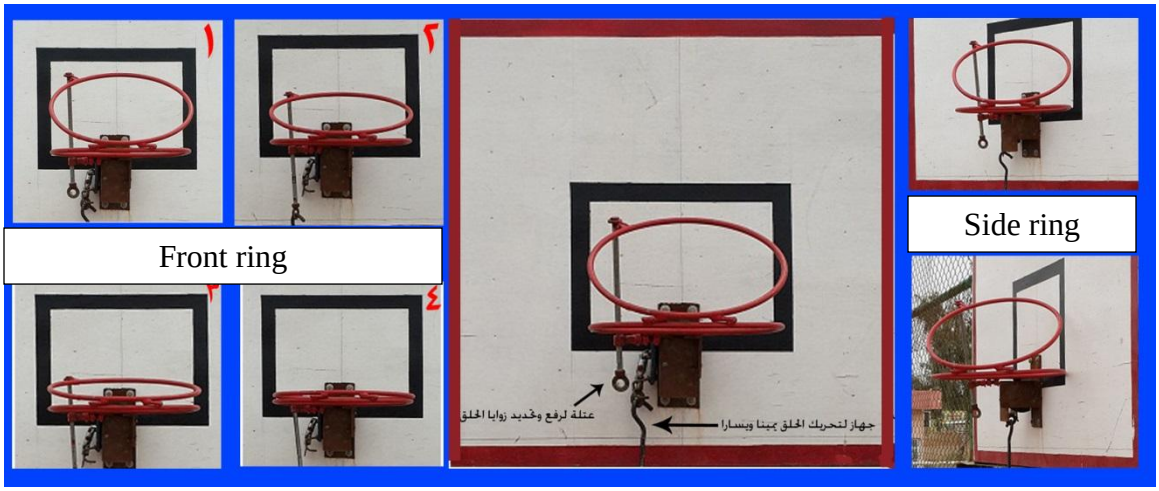

Figure 2. Shows shape of helping instrument and its specifications

2.3 ***Field study procedures*****:**

Pilot study was conducted on Sunday 03.03.2013 by using a sample is different of study subject included (3) students from the first class of the faculty of Education-Department of Physical Education/University of Samarra and under the supervision of assistant team work and the purpose of the pilot study was to identify areas of shots in variety places to know the capacity of the assistance means (multiple angles basket loop) to move easily depends on the specific angles then the pre tests were conducted on Wednesday 03/06/2013.

2.4 *Teaching an approach*:

Teaching curriculum was started on Sunday 03/10/2013 the teaching curriculum which was used in present study prepared by the Ministry of Higher Education on the teaching of the basic skills of basketball but it was used of angles graded rings only to the experimental group and the curriculum was continuing for four weeks by two educational units (Sunday and Wednesday) a week. It is most important to see that first class students were assigned in two groups used the same exercises but experimental group used exercises with angles graded rings whereas control group used normal basket ring. However, identify of angles was as following:

1. The first week of training on an episode of the basket which form an angle 45 degrees with the horizontal level.
2. The second week of training on an episode of the basket which form an angle 30 degrees with the horizontal level.
3. The third week of training on an episode of the basket which form an angle 15 degrees with the horizontal level.
4. The fourth week of training on an episode of the basket which form an angle zero degree with the horizontal level.

Then researchers were conducted post-tests on Thursday 4.4.2013.

2.5 *Statistical analysis*:

SPSS was used to analyze data of present study and we used mean, standard deviation, dependent T test, and an independent T test (Wadeea & Hassan., 1999).

3. Results and Discussion

(Table 2)
Shows results of jumping shot and free throw tests of both groups (experimental and control) in pre and post-tests

Groups	Area of shot	Experimental group		Control group		T test	Significant
		Mean	SD	Mean	SD		
Experimental	In front of right	13.5	1.871	19	1.789	3.78	S
	In front of left	13.167	1.169	18.333	1.752	5.463	S
	Side right	7.333	1.505	13.5	1.378	7.783	S
	Side left	7.167	1.472	13.167	1.329	6.701	S
	Free shot	2	0.894	4.167	1.169	3.081	S
Control	In front of right	12.833	2.137	16.333	1.211	4.869	S
	In front of left	12.667	1.633	16.5	1.378	3.369	S
	Side right	7.667	1.033	11.667	1.211	6.325	S
	Side left	7	1.414	10.333	1.633	2.774	S
	Free shot	1.667	0.516	2.833	0.753	3.796	S

Calculated T value at the freedom degree (5) and significant level (0.05)= 2.015.

Table (2) showed that both groups were achieved aim of the study and significant different was appeared between pre and post-tests in learning shot skill, researchers attribute the reasons of that due to an active teaching which used for both groups where success teaching or training approaches are measured by the extent of the progress made by the student or player in the type of practiced activity through skill, physical, physiological levels and this depends on the adjustment achieved by the individual with the curriculum which applies (Muhammad., 1999), in addition to safety of teaching approach followed in faculty resulted in amount of improvement in performance for both groups. Sallih (2009) confirmed that "the advanced results for all research groups are caused to the integrity of the teaching curriculum including selected exercises scientifically with correct and consistent repetitions in line with the level of susceptibility of the sample.

The main aim of these teaching approaches are teaching and developing level of performance through using proper scientific basics when designing these programs and in line with the capabilities and opportunities to gain knowledge and access to the learner a good level of skill performance to be learned. The basic steps of learning are begun through prepare an educational and training programs built according to the capabilities of the players or the students and to get a good development the educational programs are designed in light of the capabilities and needs of students (Dafer., 2002), moreover the basic of skill learning is to acquire the learner a set of skills capacities which enables him to achieve a good level of skill performance to be learned (Firas., 2002).

(Table 3)
Shows results of jumping shot and free throw tests of both groups (experimental and control) in post-tests

N	Area of shot	Experimental group		Control group		T test	Significant
		Mean	SD	Mean	SD		
1	In front of right	19	1.789	16.333	1.211	3.024	S
2	In front of left	18.333	1.751	16.5	1.378	2.015	S
3	Side right	13.5	1.378	11.667	1.211	2.447	S
4	Side left	13.167	1.691	10.333	1.633	3.456	S
5	Free shot	4.167	1.169	2.833	0.753	2.349	S

Tabulated T value at the freedom degree 10 and significant level 0.05= 1.812.

Significant differences were showed between groups in post-tests and in favor of experimental group because of using assistance instrument which is angles graded rings where using assistance means result in improve learning of skills in basketball as was confirmed by Shmidt (1991) organizing training by using stimuli or help means is more influential in the development of training steadily without change. In addition, the use of help utilities for the experimental group participated in the development of shot skill larger than the control group through the contribution of the means to help make students aware of and surround all the details of skill and thus increase the ability to have the precision, concentration, and reduce errors.

Hurria (1985) said that assistance utilities help thinking as a result of the focus of attention constantly on skill and this is a condition for progress in skill learning. Thus create a tendency among students and increase the perception and comprehension, the means of educational help in speed learning and reduce errors as happened for the experimental group, Akram (1997) showed that teaching tools help to increase the effectiveness of learning through the use of all the senses of the learner to gain a lot of knowledge and skills.

Researchers attribute the cause of improving to the special exercises are used to increase the accuracy of the technical performance of the shot skill through using assistance tools with a variety of difficulties by selecting the angle of view by learners to allow them the ability to estimate the distance and thus increase the percentage of accuracy, whenever the goal is clear will help the learner to increase accuracy and thus achieve the desired aim of performance, it is known that whenever increased entry angle of the ball to the basket loop whenever the success rate of shot are large this scored through the use of the rings at different angles to help the learner to increase loop clarity in one side and increase the accuracy of the correction on the other hand. Adil (1998) confirmed that transverse diameter is increased when the angle of throwing is increasing and as a result of increasing transverse diameter leads to reduce the risk of error in the scoring and increases the chances of achieving the goal, where widening the space which is going through the ball through the basket ring as well as the increased shot angle reduces the likelihood of error and increase the chances of success.

It is very important to use aids tools with modern techniques which are working on the development of student learning and the lack of use of these techniques lead to a delay in the learning process and slowing and under the weight of change in education and technology that make use of educational technology in order to enrich and accelerate the learning process through the use of technology in the learning process and to enriching the curriculum and the acceleration of education and self-care education when students and work on the improve it (Mohammad., 2000).

4. Conclusion

Study concluded that used assistance instrument had a positive impact on teaching and improving level of jumping shot skill as well as free shot which was developed clearly as a result of using assistance instrument. Finally we found that teaching approaches have an active role on teaching sport skills but in different ratios according to used methods.

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