

THE IMPACT OF THE INTEGRATION OF MULTI-LEVEL APPROACH TO PEERS AND SELF-APPLICATION AT THE INVESTED TIME TO LEARN SOME BASIC SKILLS OF BASKETBALL

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Abstract

The research aims to detect the impact of the integration of multi-level approach to peers and self-application to learn some basic skills in the game of basketball (clapotement, scoring), and their impact in the invested time in the second year students of the faculty of physical education, the researchers used the experimental approach in the equal groups method, the research sample consisted of (40) students by (20) students in each group, parity were achieved between the two groups in the variables (height, weight, age) as well as achieving parity between them in basic skills (under study), the integration of multilevel approach with peers was used with the first experimental group students but with the second experimental group, we used the integration of multilevel approach with self-application, and the experiment needed (8) educational units by two educational units per week for each group, and the educational plan time was about (90 minutes), the start of implementation of the experiment began on Sunday 09/02/2014 until Wednesday, 03/12/2014, the researchers used the following statistical methods: the arithmetic mean, standard deviation, simple correlation coefficient (Pearson), (T) test for associated means and two equal samples. After statistically analyzing the data, the researchers found the following two conclusions:

- The process of integration between methods had a clear role in learning of all the basic skills (under study) for students of the two experimental groups and in the invested time.

The integration of multi-level approach to peers achieved better results than the group that practiced the multilevel approach according to the self-application in the learning of all the basic skills (under study) and the invested time.

KEYWORDS: Multi-level approach. Invested time. Learning of basic skills.

1. INTRODUCTION

Education plays a vital and important role in the construction and organization of human societies as it deals with millions of students who are part of the present and the whole future, and as far as the education system provides a good environment and organized school atmosphere, it can provide learners with the knowledge and skills and make them ready to accept more education. The percent of relying on a certain approach depends on the type of skill, educational attitude and learner type. "Said Khalil" agrees upon this as he pointed out that the teaching method that provides a variety of educational attitudes and take into account the individual differences of learners is the appropriate method to achieve the objectives sought by educators "many different educational methods, which provided the opportunity to choose the method suitable to the nature, circumstances and environment of learners to be able to achieve his educational goals and work on the development of learners' abilities. The method is part of the teacher's strategies in teaching, and we note that from the difference in teaching methods between teachers and although the multiplicity of these methods, there is no method better than the other in the educational process, as there is no single method which can achieve all the desired goals but it can achieve part of it.

From here emerged the need to search for effective teaching methods that will overcome the negative aspects related to the teaching of that article, and in response to this, the researchers focused on the techniques and modern methods and their application, and among those methods, the multilevel method according to learning of peers and self-application. And due to the importance of research in this type of studies, researchers tried to use the system to measure academic learning time which suits the actual time spent by the students during physical education lesson for the purpose of control of most of the teaching and learning behaviors of the student and the teacher. As a result, we get to choose the best teaching methods in its investment and suitability to increase the academic learning time to different skills and activities, so we get to the correct objective measurement, and give a realistic picture of the lesson course through real lenses to describe images of interdependence between teaching method and the investment of academic learning time. From here, the academic learning time appears which is a legitimate variable to evaluate student learning of the content of the lesson. The teaching method can be defined as the behavioral educational relationships between the teacher and student while performing activities that they do and their impact on the development of the student and each method is characterized by its own stature in reaching its goals, and we cannot prefer on method to another. Each method and has its own applications, participations and contributions to the development of the student independency.

The basketball game is one of the organized, group games and characterized by precision, speed, thrill and the organized performance, so the process of promoting learning some skills of this game is achieved only through the use of multiple good methods in the delivery of the material to learner. The importance of research lies in the knowledge of the integration effectiveness of the direct educational methods in the invested time in the physical education lesson and the development of the learning process of some skills in basketball.

From here the problem of the research emerges, it is through access to research and studies, it can be said that effective teaching is the one based on the diversification of the methods, and in one lesson we can be used several methods, with the diversification of activities and profiles that students take during the lesson taking into account the consolidation of both types active and passive to students, this is because the teacher's reliance on one method during teaching physical skills does not necessarily lead to the equal learning of all learners, and so the teacher must use new methods of learning in order to provide variety of suitable educational attitudes, and this is what is provided by effective teaching method and despite the multiplicity of teaching methods of Physical Education, whether direct and indirect to teach activities but the search for the best and optimal educational method which fits this activity and that skill and the amount of its compatibility with the ability and capabilities of learners remains of the essential requirements that contribute to the learning process with the optimal investment for the actual learning time to accelerate the learning process. Researchers through their field experiences have observed that being educators of teaching methods in the College of Physical Education, is due to the lack of the educators use of multiple instructional methods for teaching basketball in its educational units, and after the study and analysis, they found that it is very essential to improve teaching methods to get students to better learning level, through the use of a combination of teaching methods.

Aim of research:

1. Identify the effect of using the integration of multi-level approach to peers and self-application in the learning of some basic skills of basketball.
2. Identify the best method to learn some basic skills of basketball.
3. Identify the invested time in learning multilevel approach according to peers and self-application during basketball lesson for the second year Physical Education College students in the University of Diyala.

Research hypotheses:

1. There are significant differences between the before and after tests of the two experimental groups (multilevel approach according to peers- multilevel approach according to self-application) and in favor of the after tests.
2. There are significant differences in the post tests between the two experimental groups (multilevel approach according to peers - multilevel approach according to self-application) and in favor of (multilevel approach according to peers).
3. There is a significant difference in the invested time of learning between the two groups during the lesson.

2. MATERIAL AND METHODS

The researchers used the experimental approach due to its suitability to the nature of the research.

The research sample :Represents the community students of the second year of the College of Sports Education in Diyala for the academic year (2013 - 2014) totaling (132 students) distributed on (5) divisions, research sample has been selected randomly and the Selection fell on division (b) of students and their number was (52) students . Students practicing the game of basketball and the injured students were excluded, and thus the total sample became (40) student, the sample was split into two equal experimental groups randomly. As shown in Table (1)

Table 1: The Experimental design to the research sample divisions

School divisions	group	approach	Total No	Excluded	Final No. Of sample population
A	The first experimental	multilevel approach according to peers -	52	12	20
B	The second experimental	multilevel approach according to self-application			20
Total			52	12*	40

Homogeneity of the sample

* Excluded students (12)

1- students practicing the game : (3)

Injured students who don't wish to participate: (9)

For researchers to be able to return to the experimental factor differences, research groups must be homogeneous and equal in variables associated with research. So the process of homogenization of the research sample was carried out in the (age_weight_height) for the day, Sunday, 01/12/2014 by using the torsion coefficient. As shown in Table (2)

Table 2: The homogeneity of the research sample in terms of (age - weight - height)

Variables	M	SD	Med	Torsion coefficient
age	20	17.55	19	0.38
weight	66.15	16.55	60.7	0.98
height	170.55	70.9	160.4	0.42

It is seen from the table (2) that all the torsion coefficient values were limited between the (± 3) which indicated the homogeneity of the sample in the above variables.

Sample Equivalence: -

Equivalence was found between the two groups in the pre- tests of (clapotement - throw) skills and as follows: -

Table 3: Group equality in the pre- tests of the two skills (High clapotement and free-throw)

Skill	Group of multilevel approach according to peers		Group of multilevel approach according to self-application		T value		Significance of differences
	M	S.D	M	SD	Tabulated	Calculated	
High clapotement	25.2	2.552	24.1	3.111	0.654	2.03*	Insignificant
free-throw	6	2.216	6.2	3.363	0.216		Insignificant

Tabulated (T) value below significance level (0.05) and degree of freedom (38)

Table (3) shows that The calculated (T) value from the pretests between the two groups and for the Skills (high clapotement - free-throw) were respectively (0.654 -0.217), and all these values are less than the value of Tabulated (T) which shows that there are no statistically significant differences between the two groups for the skills above and this indicates equality of sample in the pre-test.

Devices and tools used in the research: -

- Basket balls number (30).
- Stopwatch number (2).
- Constructive number (5).
- testing data registration form.

Tests used in the research: -

1. Clapotement - clapotement meandering test with the ball between (8 constructive).
2. Shooting – lateral shooting test

Pilot experiment: - The researchers had to conduct pilot experiment on a group of students from the same research population but they did not enter the main experiment and numbered (10) students and the goal of the experiment was to identify the obstacles and errors that can occur during the application of the program in order to avoid them as well as to identify the time the tests take. Pilot experiment was carried out on 29/01/2014.

Scientific bases for the tests: (Marwan Abdel Majid Ibrahim) knew that "tests are standardized and their sources are below," but the researchers created the scientific basis for the tests as follows: -

Tests reliability :Researchers found the tests reliability by applying the tests and then re-application on the pilot sample population time with a lag time (7) days, and the reliability coefficient values for the tests under search (0.89, 0.93) respectively, and this indicates that the tests under research have high reliability.

Test validity: Test validity depends on the ability of the test to measure the skill, and it means "the degree of correctness, by which tests are measured, i.e. what we want to measure" (Ahmed Sobhi Hussein) therefore self-validity was used, which is measured by calculating the root square of the coefficient of consistency, (0.94, 0.96) respectively .the results show sincerity of tests

Tests objectivity : most tests used in the search were easy and clear to understand and is not liable to misinterpretation and is far from self-evaluation of the rectifier, but the researchers created objectivity for tests under research through grades of two evaluator, the researchers used a simple correlation coefficient (Pearson) their grades, and the value of the correlation coefficient was high as a it had a high degree of objectivity, objectivity degree was (0.91)

Procedures of Implementing of the experiment:

Pretests: The researchers conducted the pre measurements procedures to skill tests on Saturday, 02.02.2014.

The proposed educational modules: Researchers prepared proposed educational modules for the period from Sunday (09/02/2014) until Wednesday (12/03/2014) for a period of eight weeks, (appendix number (1), (2)) models of educational modules and the work sheet for the experimental groups. The learning of each of the two groups was carried out in a particular method of the adopted methods in the search (integrating of multilevel approach with peers- integrating of multi-level approach with self-application). Where the educational module was divided into three sections (preparatory) and its time was (20 minutes) and (main section) and its time was (60 minutes), (and the educational part and his time involved (15 minutes) and in this part, explanation of

the skill is carried out by a teacher and after that the application begins and its time (45) minutes, during which the students begin the performance of skills according to research methods. then the final section whose time ranges from (10 minutes) and includes a recreational game which causes excitement and fun and leave shout as a conclusion of the educational unit. the educational modules of the two groups were similar in the preliminary and the final part while the difference was in the applied activity of the main part where the sample population did exercises and curriculum for the skills as follows:

The main part: Consists of two sections: -

- Educational activity: After the completion of the introductory part , the students form a side lost square and then the teacher explains the skill with providing a motor model and then he applies the skill on two or more students and correct errors that are committed by the two groups equally, and this section takes (15) minutes.

- Applied activity: the difference lies in the application of this section according to the two research groups, but the time it takes is equal between the two research groups as follows: -

A - The first experimental group: which applied multilevel approach according to the peers shortly before the completion of the educational activity. The teacher explains the goal of the method and how to work on the due paper and stages, four stages were constituted, in each stage there is an exercise or a special activity which differ from the rest of the other stages and taking into account the gradient of exercise hardness and on its the light, exercises are applied at each stage according to peers approach where the group was divided into two groups randomly, "engaging in the performance of duty, where there is a performer student and the other is observant which depends on his correction for errors on the due paper prepared by the teacher.

B – The second Experimental Group: which applied multilevel approach according to self-application also shortly before the completion of the educational activity. The teacher explained the goal of the method and how to work on a due paper, gives the learner in this method adequate opportunity for self-reliance through assessing their performance through the duty paper. Learners may spread in the stations, start to work, and stop from time to time to look at the duty paper, and then compare their performance then moving again.

Post- tests:

• having applied the educational modules, post tests were conducted in research sample on Sunday (03/16/2014).

• Post tests were conducted to research sample under the same conditions of pretests in terms of time, place and tools of the test.

3. RESULTS AND DISCUSSION

Displaying, analyzing and discussing pre and posttests of some of the basic skills of basketball:

Table 4: Means and standard deviations for the pre and post tests for the skills High clapotement - free-throw)

Skills	Statistical treatment variables	Pre tests		Post tests		T value		Differences significance
		M	S.D	M	S.D	calculated	tabulated	
High clapotement skill	multilevel approach according to peers	24.1	3.111	20.03	2.884	4.830	2.09*	significant
free-throw skill	multilevel approach according to self-application	25.2	2.552	22.3	1.250	4.454		significant
	multilevel approach according to peers	6	2.216	25.1	4.011	18.173		significant
	multilevel approach according to self-application	6.2	3.363	20.5	4.685	10.808		significant

Tabulated (T) value below significance level (0.05) and degree of freedom (19)

Table (4) shows that the calculated T value between the pre and post tests for the clapotement skill and for the first group that practiced the multi-level approach according to peers (4.830), and the second group, which has practiced multilevel approach according to the self-application is equal to (4.454)

As for the skill of the free-throw for the first group, which has practiced the multi-level approach according to peers (18.173), while the second group, which has practiced multilevel approach according to the self-application is equal to (10.808). It is clear from the table that the calculated value of (T) is greater than the tabular value, and this indicates the presence of significant differences between the two tests and in favor of the post test. The researchers relate this result to the effect of educational program of multilevel approach according to peers learning and self-application in acquiring specific skills, where work in multiple levels, according to the possibilities and capabilities of the learner lead to improved athletic skills and performing skills properly, and ' Said ElShahid" (1995), agrees upon this where Said Khalil ElShahid pointed out that "the teaching method that provides a variety of

educational positions and take into account individual differences of learners is the appropriate method to achieve the goals sought by the educators.

As well as the integration of modern methods that give a clear and distinct role to the learner, the researchers believe that the two methods of teaching peers and self-application makes of the learner the learning process axis which increase its motivation to learning, it also provides sufficient time for the application and to provide knowledge and information to helps correction of errors. Also, putting the responsibility to the learner makes him trying to take out best of what he got to achieve and perform skills to learn, and that the existence of specific worksheets for each pupil gives him an opportunity to return to the skill and also to remember aspects of correct performance due to the vision of the skill sequence, which was pointed out by "Mohamed Saad Zaghloul, Mustafa Sayeh" (2003) that modern learning methods aim to exploit all the senses of the learner in the learning by using different educational methods and media that address more than one sense helping students with motor remembering and work to facilitate the learning process where the performance becomes more clear as to make the learner positive. "These results achieved the first research purpose.

Displaying, analyzing and discussing posttests of some of some basic skills of basketball:

Table 5: Means and standard deviations for the post tests for the skills (High clapotement - free-throw)

skills	First experimental group multilevel approach according to peers		second experimental group multilevel approach according to self-application		T value		Significance of differences
	M	S.D	M	S.D	calculated	tabulated	
Chest handling	20.03	2.884	22.3	1.250	3.148	2.03*	significant
free-throw	25.1	4.011	20.5	4.685	3.203		significant

Tabulated (T) value below significance level (0.05) and degree of freedom (38)

Table shows (6) that the mean and standard deviation in the post test of high clapotement skill for the first experimental group was (20.03, 2.884), while the second experimental group were (22.3, 1.250) and the calculated T value for the two groups is equal to (3.148). For the free-throw skill for the first experimental group (25.1, 4.011) while the second experimental group (20.5, 4.685) and the calculated T value for the two experimental groups equal to (3.203)

It is clear from the table that the calculated T value is greater than the tabular value, and this indicates the presence of significant differences between the two groups in favor of the first group, which practiced learning through multilevel approach according to peers and for the two skills. The researchers attribute this development in learning level of research sample population to the use of multi-level approach which has a different concept in the performance of duty assigned to the learner, where multiple levels of performance is carried out for the same duty divided on all students each according to his technical potential of performance, This means that learner at any level will start with performance and this was confirmed by Jamal Saleh (1991) that the aim of the educational module is to involve all learners to perform the same duty for the transition from exclusion process to the involvement". In addition, the researchers believe that the teaching method under the guidance of peers has provided an opportunity for the student to see the skill written ,drawn and clarified in all its stages of its proper situation which helped to absorb the skills in question in addition to the continuous assessment and providing feedback from colleague during the learning phase, as well as error detection and correction, and this leads on turn to the progress and improvement in skills, and comes in line with what defined by Afaf Abdul Karim (1990) that " The target of the two-way interactive method are targets associated with relevant academic subject in terms of (providing frequent opportunities to perform ,direct feedback from the colleague, the ability to discuss the work with colleague, and to visualize and understand things and its sequencing in the performance of work) and targets associated with to the role of learners in terms of (social interaction, direct follow -up and drawing conclusions, developing patience and tolerance, to recognize the results of achievement, and to know how to provide the colleague with feedback, " (Zainab, Ghada 2008), added that " The usefulness of this kind of approaches appears at the beginning of learning of motor skills, "because the student's need to identify the specific educational points after each trial and correction of errors in order to be able to perform correctly, thus this approach provides a teacher for each learner."

From the above, it is clear that learning some basic skills of basketball does not occur in its optimal manner unless through the use of various educational methods involved with the educational process to achieve the desired goal.

Displaying, analyzing and discussing invested time results:

To access the achievement of third hypothesis which stated that there are differences in the use of multi-level approach according to (peers – self application) to the invested time during lesson which results were obtained from the analysis of student behavior in the two approaches according to Anderson form and as indicated in table (6).

Student behavior in the two approaches (multilevel according to peers and multilevel according to self-application)

No	fields	First experimental group multilevel according to peers	Second experimental group multilevel according to self-application
1.	practicing motor activity	%25	%35
2.	Receiving information	%38	%20
3.	Giving Information	%16	%12
4.	Waiting	%10	%22
5.	Moving to take place	%10	%9
6.	Others	%1	%2

In the multi-level approaches according to peers, the percent of actual student participation in the lesson that came from the percent of the physical activity practice plus " the percent of his perception and giving of information is 79% and this percentage is higher than the percentage of actual student participation in the lesson in Multilevel approaches according to the self-application, which amounted to 67.%

Researchers attribute that the impact of peers and their support for each other within each stage because that learners in the multilevel approach according to peers work bilaterally and students distribution on heterogeneous Achievement levels lead to the exchange of ideas between students and benefit of low-achievement students from the experience and expertise of students with higher achievement levels, this is due to the properties which characterize this method especially "with regard to feedback, as this method creates an atmosphere of competition and to compare their performance as well as the optimal investment of time devoted to learning the skill. As for the lost time, which came from a waiting percent, move to take place and other things. In multilevel approach according to the peers that appears in the table (5) ratio of 21%, which is less than the multi-level method according to the self-application, which accounted for 33%, where the reason for this is because the student in the multi-level method according to the self-application, where the principle of this method is based on the learner evaluation for himself and recording results using " standard paper, and that means that lost time, so researchers have achieved its objectives and the research hypotheses.

4. CONCLUSION

1. The teaching methods used in the research (the integration of multi-level approach with peers - the integration of multi-level approach with self- application) have a positive influence in the education of some of the skills of basketball.
2. The merging between learning methods, gave positive results in the learning process and this is clear from test results.
3. superiority of the first experimental group, which exercised learning via Multilevel approach according to peers in on the post-test of the second experimental group which practiced learning via Multilevel manner in accordance with self- application of learning skills under discussion.
4. Superiority of the first experimental group in lesson time investment in learning skills under research over the second experimental group.

5. RECOMMENDATIONS

1. The need to apply multilevel approach according to (peer and self-application) to teach skills of Basketball in the lesson of Physical Education.
2. The need to hold training courses to train physical education teachers on how to use Modern teaching methods, including the method of teaching the combination of methods by collaboration between colleges of Physical Education and school districts.
3. The need to other studies using integration of different teaching approaches with its variable styles to Samples of other stages and on other variables.
4. The need to urge employees to teach caring of using methods which contribute to the lesson time investment in order to serve skill learning.

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