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The Effect of Programed Education on Learning Some Basic Skills in Handball and Basketball for the 1st Stage Students in Faculty of Basic Education

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ABSTRACT

Programed education is one of the modern methods with an effective impact on learning. Here, the significance of the study through the researchers' vision to necessitate employment of programed education method in learning handball and basketball skills. Through researchers' observation of the educational process in the Faculty of Basic Education being members in its teaching staff, they noticed a decrease in the skill learning level in handball and basketball subjects. This is due to a lack of using appropriate teaching methods in the faculty to achieve effective education. Hence, the researchers decided to study this problem using modern teaching methods including programed education and its effect on intelligence level in teaching basketball and handball subjects for the 1st stage students at the Faculty of Basic Education. The study aims to determine intelligence level of the 1st stage students in the Faculty of Basic Education, Al-Mustansiriya University and determine the effect of programed education on intelligence level of teaching basketball and handball subjects for the 1st stage students. The study concluded that the proposed educational method by researchers based on programed education was greatly effective in enhancing learning of both skills under study. In addition, it was found that the adopted course was not efficient enough to enhance learning level of members in the control group and for both skills under study.

Keywords: Programed education, basic skills, basketball, handball

INTRODUCTION

Significance of the Study

The educational process, its related basics, theories and rules are of the important aspects required to be known by teachers and physical education trainers to be studied accurately and objectively. Curricula of physical education include motor education subject which, in turn, includes a lot of educational methods, concepts, and topics related to teach events and skills of various individual and team sport games as they are prepared through scientific and practical means that connect theoretical and applied sciences. Therefore, the physical education subjects, including motor education, have a positive influence in sports and high efficiency in educational and sport field. It became necessary during organizing units of the educational and training practice of sport events and games to consider how to benefit from applications of this essential subject. Educational units contribute to types of motor exercises and information toward learners, whether players or new learners. These are selected to be consistent with each skill to be enhanced and to improve their motor requirements in developing motor memory of the

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learner through presentation and explanation of how to apply correct motor paths of target abilities or skills. Thus, this helps learners implement and learn new skills and movements more easily, quickly and with less effort. This also shows that programed education is one of the modern methods with effective influence on learning. Here, the significance of the study lies through researchers' vision of the necessity to employ programed education in learning basketball and handball skills.

Problem of the Study

To reach high levels of learning including scientific developed methods and strategies that respond society's growing requirements through which learners are able to acquire useful information facing new situations, consideration of teaching methods and strategies may make students active, energetic and interactive in learning process. It also helps teachers and learners achieve their planned goals.

Programed education is one of these modern and latest methods as it refers to a new method in self-learning in which a learner's behavior is regulated through an educational program leading learners step-by-step toward the hoped learning. Through researchers' observation of educational the process in the Faculty of Basic Education being members in its teaching staff, they noticed that there is a decrease in skill education in basketball and handball subjects due to the lack of using suitable teaching methods in the faculty to achieve effective education. Thus, they decided to study this problem using modern teaching methods including programed education and its effect on intelligence level in teaching handball and basketball subjects for the 1st stage students at the Faculty of Basic Education.

Objective of the Study

The study aims to define the effect of programed education on the level of teaching handball and basketball from jumping skills for the 1st stage students at the Faculty of Basic Education.

METHODOLOGY

The researchers used the empirical method as it is appropriate to the nature of the study. Equal groups were selected (two possible groups), and the empirical method included all procedures and actions in research based on prior intention in all surrounding conditions of a certain phenomenon (Obaidat et al., 1999: p. 40).

Population and Sample of the Study

The researchers selected the sample of the study purposively from the 1st stage students in the Faculty of Basic Education, Al-Mustansiriya University, evening section for the academic year 2013-2014. Members of the sample were 20 students after eliminating those whose answers were not complete.

Tests

1. Scoring from jumping after bouncing test (Hamoudat and Hamoudat, 1978: p. 233).
2. Scoring from jumping in handball (www.m5zn.com).

Exploratory Trial

The researchers performed the exploratory trial as a beginning of their work to determine negative sides and obstacles that may accompany the trial as the exploratory trial means (an initial empirical study by the researcher on a small sample aiming to select research methodologies and tool (Arabic Language Compound, 1984, 79). The researchers distributed test forms on a random sample outside the study sample from the 1st stage students – morning classes' 15 thousand students to determine difficulties that may face the researcher in his main work. It was also found that it is necessary to detect scientific conditions of test as a beginning of work. They also found the following:

1. Validity: The test is considered "valid" if it measures what it was prepared to measure (Al-Assaf, 1988: p. 429). The researchers depended on superficial validity as one of the common validity types. This form was presented on a number of specialists in psychology field from universities to decide validity with agreement percentage of 100%.
2. Reliability: Reliability is one of the main factors of good testing as it is supposed to give almost the same results if it is reused again at different times (Abdel-Hadi, 1991: p. 159). It also means that if a test gives the same results in each time it necessitate similar surrounding conditions of test application (Salam, p. 219). The researchers used reliability coefficient by internal consistency method for the form, which is known as Cronbach's alpha coefficient on six of sample members with a reliability percentage of 98.99%.
3. Objectivity: The test with specific questions and specific answers, in a way that each question has one answer without any room for conflict is considered objective.

Main Trial

Pre-tests

The researchers conducted pre-tests for both groups of the study (control and empirical groups) at 10 AM of Thursday 13/02/2014 in the sport hall of Faculty of Basic Education, Al-Mustansiriya University.

The educational course

The educational course prepared by the researchers was implemented on the empirical group during the second semester of the academic year (2013-2014) as the program continued to apply for the period from 02/17/2014 to 28/04/2014. Linear method was adopted in learning skills under study through displaying those skills in educational films with the focus on the principle of hierarchy in presenting skills by skill segmentation and asking learners to perform these parts and then link them. After making sure of the stability of the motor program, the course moved into the complication stage of the skill at advanced stages.

Post-tests

After completing application of the educational course, the researchers conducted post-tests at 10 O'clock on thursday morning 01/05/2014 at the sports hall of Faculty of Basic Education, Al-Mustansiriya University for both groups of the study.

Presenting, Analyzing and Discussing Results

Presenting, analyzing, and discussing results of pre- and post-tests for the empirical and control groups.

After performing statistical processes, the counted (T) value was extracted (11.89). Results showed significance in favor of the post-test after comparison with the tabulated (T) value, while total differences between pre- and post-test of the test of scoring from jumping after bouncing for the control group is 1 with total differences square of 13. As for average differences, it was 0.1 and standard deviation of differences average is 0.37. After performing statistical processes, the counted (T) value was extracted (0.27) and compared with the tabulated one shoeing significant results. The researchers attribute this to the clear effect of programed education on intelligence level as (factors which increase subject retention after treatment are Motivation, intelligence, subject organization, and studying method) (Muska and Sare, 1994: p. 21).

The reason for the excellence of the empirical group over the control one is the use of programed education

Table 1: Arithmetic means, SD of pre-and post-tests for scoring from jumping after bouncing in basketball for the empirical and control groups

Tests	Measure units	Groups	Pre-test		post-test	
			Mean–	SD±	Mean–	SD±
Scoring from jumping after bouncing in basketball	Points	Empirical group	2.2	0.927	6.6	1.414
		Control group	1.6	1-	1.5	1.303

Freedom degree (N–1=0). SD: Standard deviation

Table 2: Total differences, average differences of arithmetic means, SD, counted and tabulated T values for pre-and post-tests in scoring from jumping after bouncing in basketball for the empirical and control groups

Tests	Groups	Total difference	Total difference 2	Difference –	SD	Counted T value	Significance	Tabulated T value
Scoring from jumping after bouncing in basketball	Empirical group	44	206	4.4	0.37	11.89	Significant	1.83
	Control group	1	13	0.1	0.37	0.27	Insignificant	1.83

Freedom degree (N–1 = 0) and significance level (0.05). SD: Standard deviation

Table 3: Arithmetic means, SD of pre-and post-tests for the empirical and control groups in handball

Tests	Measure units	Groups	Pre-test		Post-test	
			Mean–	SD±	Mean–	SD±
Scoring from reverse basketball	Points	Empirical group	1.3	1.581	6.3	1.013
		Control group	1	0.866	1.3	0.500

SD: Standard deviation

in teaching basketball skills as (programed education is based on the principle of considering individual differences as these differences are directly considered if it is available for each learner to self-learn according to his abilities and readiness. This is because his learning degree in social education scope may not allow him the opportunity to learn according to these abilities and preparations) (Shelton and Ali Khafajah, 2002: p. 120).

After performing statistical processes, the counted (T) value was extracted (0.90). Results showed insignificance after comparison with the tabulated (T) value. The researchers attribute this to the fact that most teachers teach handball skills through explanation and presentation, and this method does not consider individual differences between learners and insufficient to teach skills to reach a better learning level. One of the most important conditions for successful education process is to consider individual differences between learners and benefit from positive activity of mental and physical processes being carried out by the learner through actual participation in the learning process (education through oral demonstration and presentation through the use of films, photos, teaching, and visual means in the case of not getting the desired result in the absence of the individual learner who participates actively in the educational process) (Othman, 1987: p. 12).

Presenting and Discussing Results of the Post-test for the Control and Empirical Groups

From Table 5, with respect to skill of scoring from jumping in basketball, it is clear that mean has been reached (6.6) and standard deviation (1.414), while using programed education method, arithmetic average was 1.5, and standard deviation is 1.303 with no significant difference between the two groups found as the calculated value (T) was 7.97 which is greater than the tabulated value of (T) amounting to 1.83 below significance level (0.05). This confirms the presence of a significant difference between the two groups in favor of the empirical group. In terms of the skill (Handball test), the mean of the empirical group was 6.3 and standard deviation (1.013), and the arithmetic mean of the control group amounted to 1.3 and standard deviation (0.500), the presence of significant difference between the groups was found the calculated (T) value was 13.28 which is greater than the tabulated (T) value amounting to 1.83 below significance level (0.05). This confirms the existence of significant difference between the two groups in favor of the empirical group as a result of using programed education method. The researchers attribute the reason for that is because of the use of programed education as it is characterized by motivating learners to perform an action as it (works depending on its average as it does not move to any frame of skill unless perfected the previous skill. In all cases, each correct response issued is reinforced immediately and directly and also alerts the learner to any error at once) (Sadeq and Hatab, 1980: p. 401).

CONCLUSIONS

1. The proposed educational method by the researchers based on programed education was greatly effective

Table 4: Total differences, average differences of arithmetic means, SD, counted and tabulated T values for pre-and post-tests in handball for the empirical and control groups

Tests	Groups	Total difference	Total difference 2	Difference–	SD	Counted T value	Significance	Tabulated T value
Scoring from jumping in hand ball	Empirical group	50	282	5	0359	8.47	Significant	1.83
	Control group	3	11	0.3	0.33	0.90	Insignificant	1.83

Freedom degree (N–1 = 9) and significance level (0.05). SD: Standard deviation

Table 5: Arithmetic means, SD, average differences, T value and significance between the empirical and control groups in post-test

Variables	Empirical group		Control group		Average deviation	Calculated value of T	Semantics
	Mean–	SD±	Mean–	SD±			
Scoring from jumping in basketball	6.6	1.414	1.5	1.303	1.45	7.97	Significant
Scoring from jumping in handball	6.3	1.013	1.3	0.500	0.72	13.28	Significant

SD: Standard deviation

in making enhancement in the level of learning both skills under study
2. The adopted method was not sufficient enough to make improvement in learning level for members of the control group and both skills under study
3. Students of the empirical groups showed a greater learning level than students of the control one and both skills under study.

RECOMMENDATIONS

1. The researchers recommend inclusion of approved educational programs in teaching basic skills of handball and basketball subjects through programed education
2. The researchers recommend conducting similar studies focusing on the use of programed education as a method to learn basic skills of other games and events.

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