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EFFECT OF SIMULTANEOUS ENDURANCE TRAINING ON MUSCULAR STRENGTH AND PERFORMANCE IN TRIPLE JUMP AND LONG JUMP

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Abstract
world progresses when it invests intellectual, scientific and research energies of its scientists in a way that serves peoples in all vital requirements in economic, political and social terms. Sports aspect is not excluded from se requirements and some countries consider it main requirement because of its effective role in individual's life in terms of health, economic or social. Everyone knows very well what role of sport is and how it led to progress of most peoples and to have a prominent role in leading world in terms of sports and education in universities. aim of this research is to identify differences in performance and achievement collecting among university students for initial stages when different starting to learn activities of horizontal jump (long jump - triple jump) up to difficult task in athletics, as well as identifying preference for effect of training between two level of performance. Researchers used experimental approach, and implementation of educational program took (6) weeks, at (3) educational units per week, for two experimental groups. study sample consisted of (40) students from College of Physical Education and Sports Sciences / stage Two / Basrah University for academic year 2024/ 2025 sample was divided into two experimental groups, first (18 students) and second (18 students) by a lottery method. Where results showed that educational program has a positive effect on training easy task up to difficult task in training when performing, and that re is a positive transition effect on performance and achievement of effectiveness of triple jump, and researchers recommended need to apply foundations of positive transition to training in arranging teaching activities throughout curriculum to save time And an acceleration of training in athletics in universities .

Key words: simultaneous endurance, muscular strength, triple jump- long jump.

1-1 Introduction & importance research

Training is considered one of higher mental capabilities that distinguish a person from or living things, as requirements of human life that aim to interact with vocabulary of life and overcome difficulties facing course of this life expand, so that person learns models of certain movement, cognitive and emotional activities that affect different life situations, and he does not stand At this point, it goes beyond it to use se vocabulary to solve problems on se dimensions that may face it in future without a specific time, but according to succession of different vocabulary of life. Where (Perkins, Salaman) agree training effect is use of previous training in performance of new skills or duties (Drowatrky 15: 153) & (Perkins,17: 98) in "sense that it is process by which an individual uses training acquired in one of cases". And applying it to new situations, and movement is an important and wide-ranging part of a person's life, as it is first thing that starts his life and what continues his life and is most used in overcoming mistakes or solving problems that he faces in his life,

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and a person does not learn to use what he learned in classroom only, as if he gets A specific mark or feature given by teacher Rare, use this information in solving his public and private life problems, which is one of foundations that distinguish humans from or living creatures. Minds, we touch it as a reality in our practical life, so what students learn in schools, colleges and universities must have its impact outside se places, to be applied in practical life " (Al-Azirjawi , 7:60) points out that had it not been for transmission of training, it would have become imperative for every learner to learn what he needs from special responses to every situation in his life, and this is a difficult matter that cannot meet years of learner's life to master it" (Consequently 164: 2) , a person seeks to shorten time in many vocabulary of his life, and among most important shortcuts is what is known as setting preconceived goals, which help in determining training priorities for life skills, including skills, as many students follow random movements in choosing to start teaching se skills, which makes each single Training is a unit in itself that needs special arrangement, and Thompson points out that mind works, as it is known, according to sequence of cognitive and psychological goals in order to learn a new skill. Human mind arranges information that reaches it until it learns it first, and n maintains its retention for as long as possible through its arranged features as if it were a section of kinetic threshold that interacts with it in every retrieval or use. For skill, arrangement is originally work of human mind to make vocabulary and components of human personality, where last goal of Bloom's emotional in physical education ends with concept of organization, which expresses organization of motor singular with its psychomotor, cognitive and emotional dimensions within personality of individual to become a feature of this personality(Arnouf 5: 3) points out that "training is a relatively constant change in behavioral outcome of living organism as a result of its educational experience." (14: 184 Keyon) also asserts, "Process of obtaining and improving initial movement information and initial experiences of performance and improving m, and confirming m is part of general development process of personality. Moreover, training in general is based on what an individual learns can be transferred to different fields." In public life, (8:41).

importance of impact of training transfer appears in process of preparing skills of learners and players alike, as skill performance plays an important role in any sporting game, and is a fundamental pillar of comprehensive preparation of sports, as it aims to teach, develop, refine, mastery, stabilize and accomplish sports motor skills. Skill of individual is extremely important in athletic performance, especially at competitive level. Whatever level of physical fitness of athlete, regardless of his moral and voluntary qualities, he will not achieve desired results unless all of this is related to complete mastery of sports motor skills with specialized activity he is practicing.

1-2 Research Problem

Through researchers following up on teaching athletics and training , especially horizontal jump activities in particular, since y are two teachers specializing in athletics, noticed irregularity by following a specific order for succession of giving special skill education in teaching technical stages of effectiveness of triple jump from easy task too difficult of technical stages, but rare follows teachers traditional approach is to choose to begin with teaching of se skill stages of activity Failure to take into account many factors that may hinder or delay process of training skills, acquiring m and n retaining m due to difficulty of performance. Likewise, time period for process of training skills that could be shortened if we followed a modified or suggested method, such as exploitation of training process of skills that are similar or convergent in performance, and in that some motor skills may be characterized by difficulty through physical and motor capabilities required by motor performance. General and private compared for same stages of motor performance, despite similarity of some of vocabulary of her performance with those skills, As this corresponds to a clear weakness in performance of new learners for technical stages or for novice players in general, refers to " importance of defining vocabulary of educational curriculum on scientific grounds, and taking into account characteristics that characterize learned skills in addition to method of building

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curriculum, which must be flexible according to What dictates training conditions, needs, training and previous experiences, and accordingly, possibility of modifying arrangement of curriculum content or presentation and delay in its contents is a matter that falls within privacy of supervisor of educational process in order to achieve goals he seeks(reform,8:49) researchers consider that it is very important for teacher and trainer to give sufficient importance to method, method and arrangement that is followed in process of scheduling educational and training program for movement activities during educational curriculum or one educational or training unit in order to activate and accelerate teaching of technical stages and develop level

1-3 Research Aim:

1-Recognizing preference for impact of training from easy task of long jump to difficult task of performing triple jump - long jump for students of College of Physical Education and Sports Sciences / University of Basrah.

2- Identifying differences in performance and achievement in horizontal jump activities among students of College of Physical Education and Sports Sciences / University of Basrah.

1-4 Research hypothesis:

1- presence of statistically significant differences in performance and achievement of students of College of Physical Education and Sports Sciences / University of Basrah, training effectiveness of triple jump- long jump.

2- There is a positive transmission effect to start training at level of training technical stages of horizontal jump activities among students of College of Physical Education and Sports Sciences / University of Basrah.

1-5 Fields of Research

1- Human field: Second stage students / College of Physical Education and Sports Sciences / University of .Basrah

2-Spatial field: course of College of Physical Education and Sports Sciences / Basrah University for Athletics

3- Time field: from 11/10/2024 until 12/12/2024.

2-Theoretical studies

process of preparing student or player is closely related to process of planning educational and training programs for learners and players, as it affects process of preparing player, points out that educational and training program is essential in educational and training process in sports field, and primary goal and desired of any educational program or My training is to reach players or learners to best educational and training level that capabilities allow. In order to benefit from transmission of impact of training, teacher and trainer must take this into account when planning educational and training programs, and point out "similarities between new and old learned skills, in addition to explaining mechanical principles in performance of skills provided to learners "(6: 81)

2-1 Training Effects

Formal training: is based on fact that human mind consists of a group of independent faculties and forms such as remembering, willpower and inference, which need training in order to be stringed and refined, meaning that each form has its own training material. It is not important in and of itself, but it helps in training ability associated with it regardless of its value (8:33) similar elements (Thorndike): This based on existence of common and similar elements between previously learned subject and subsequent and new topic, which helps in process of training effect transfer, and transition increases as elements of similarity between previous and subsequent situations increase, while transition decreases if symmetry between two positions decreases (9: 18).

Generalization This is based on fact that individual can transfer experience he acquired in one situation, and generalization occurs to individual's ability to understand common relationship, and to make it between a

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numbers of situations, and n generalize it. (8:780. identical components: This is based on fact that transfer of training from one situation to occurs according to similarities between components of successive situations, regardless of forms (2:39) .

3-Research methodology & field procedures

3-1 Research methodology

Researchers used experimental method as one of research methods to solve research problem, as experimental method is "a deliberate and controlled change of specific conditions of a specific event and observing resulting changes in same event to explain it" (12:46) and by designing two experimental groups and by pre and post testing.

2-3 Research Society & Sample

Research sample consisted of (40) students from College of Physical Education and Sports Sciences / Stage Two / University of Basrah for academic year 2024/2025, sample was divided into two experimental groups, first (18 students), and second (18 students) by a lottery method. About conducting an exploratory experiment (12) students from outside research sample.

Table (1) shows research groups

Groups	Data training skill		number	arithmetic mean age	Arithmetic mean length	arithmetic mean weight
first group Long jump / triple jump	long jump A	triple jump A	18	20,40	174 CM	67,4 Kg
second group Triple / long jump	T triple jump B	long jump B	18	20,81	172 CM	68,00 Kg

3-2-1Group Equalization

Researchers distributed students into two groups by drawing a lot, after identifying variables that affect performance and achievement of activities subject of study from special tests for motor and physical characteristics, where results were recorded on se tests for two groups.

Table (2)

Shows of two groups through arithmetic means, standard deviations, and t-test on pre-tests for physical and motor affecting two research groups.

Tests	Group	SMA	Standard deviation	T test	Indication level
Run 50 meter	First	7,1550	0,31167	0, 3 15	0,782
	second	7,0827	0,50802		
Arm bending and extension (compression)	First	26,2500	6,01702	0, 8 00 -	0,592
	second	29,6364	5,66167		

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Sitting from lying down	First	27,7500	3,64629	1, 2 06 -	0,181
	second	29,2727	2,86674		
Agility	First	9,4925	0,52324	1, 8 24 -	0,129
	second	9,8064	0,31322		
Stability.	First	2,2333	16,96699	0, 9 06	0,329
	second	2,1757	16,33457		

As for se tests necessary scientific transactions were carried out, results of which indicated suitability and ability of specialists to properly evaluate validity and reliability of ability to evaluate parameters
Validity: subjective validity of test was found through reliability factor, which is equal to "square root of stability" and its value was (.0.95)
Stability: by applying test and retest and finding correlation coefficient between m, where value of correlation coefficient reached. (0.92).
Antiquity of content: content of educational program was verified after being presented to a group of judges.

3-3 Training unit

Researchers applied a unified program on two groups, which is an approved program in college in plan of teaching athletics for se activities, as each activity was taught by (6) lectures, each one hour, meaning that educational program for se two activities took a month and a half at rate of (12) educational units for each A group, where educational units applied same to two groups alternately and duration of educational unit was (60 minutes) divided into three main sections:
1- .Preparatory part (15) minutes and includes general and special warm-up -
2 - main part: Its duration is (40) minutes and includes explanation of technical stages, presentation of kinetic model of parts of stage, application of motor skill by teacher, practical application of students, which is represented by sense of performance exercises, and special motor exercises, where skill is taught for each stage according to technical steps of motor skill and in order So that he repeats technical step and its exercises until mastery to move to next step and so on in both activities of long jump and triple jump by applying technical stages of approach stage, hopscotch, ascension and jump.
3 - Closing part: It lasts 5 minutes and includes calming and relaxing

3-3-1- Experimental Design Used: researchers used an experimental design aimed at identifying where training one pre-task facilitates, hinders, or does not affect transfer of training to second task.

3- 4 Field research procedures

Exploratory experience: researchers conducted an exploratory study on 11/10/2024 on a random sample consisting of (12) students from outside research sample before starting research procedures in order to ascertain some aspects related to implementation of educational program and skill tests, and to identify problems that You may encounter researchers while applying search.

3 - 4 – 1 Pre-tests

Pre-tests were conducted at end of first educational period, that is, two weeks after start of program, and on 13/10/2024.

3 - 4 -2- Post-Tests

Post-tests were conducted at end of second educational period, that is, five weeks after start of program on 8/12/2024

3-5 statistical used: researchers used statistical bag SPSS (Version 16)

Table (3)

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Results of test" T "for differences in collection (per formative and achieving) between arithmetic averages of experimental groups

Collection type	skills	measuring unit	Group	Averages For performance	Standard deviation	T test	Indication level
Performance achievement	Long jump	Degree	1st task	3 , 5417	0.51779	2 , 683	moral
		Degree	2nd task	4 , 9545	1,39382		
	Triple jump	Degree	1st task	9, 2523	1,17593	3 , 405	moral
		Degree	2nd task	9, 8500	0,42906		
Achievement collection	long jump	meter	1st task	4, 166	3,01008	3 , 753	moral
		meter	2nd task	4 , 727	2,41209		
	Triple jump	meter	1st task	10 , 272	3,40855	2,254	moral
			2nd task	10 , 500	3,45096		

Value" t "Tabulated at level of(2.080) 0.05

4 -Presenting, Analyzing & Discussing Results

To verify first hypothesis of study, which refers to "existence of statistically significant differences at a level of 0.05 in performance and achievement results of two genders in activities under study when start of teaching is different table.(3) Explain it

Through Table No. (4), which shows arithmetic means, standard deviations, and results of "t" test for two post - test measures for each experimental group, as it is clear that differences in performance and achievement improvement were significant, and performance and achievement improved in triple jump for group that started to learn long jump.

.(4) Table

Shows arithmetic averages and standard deviation of performance in (long jump and triple jump (for experimental groups and values of transition rates of impact of training first section of training

Groups	Missions by start of instruction		Functions		Training transition		Training ratio	
			Average	Standard deviation	Long jump	Triple jump	Long jump	Triple jump
Experimental (1)	**Mission (1)**	**Long jump**	**3, 5417**	**0,5177**	**- 1,5872**	**+ 1,5977**	**- 17, 5817**	**+ 190302**
	Mission (2)	**Triple jump**	**10, 8500**	**0,4290**				
Experimental (2)	**Mission (1)**	**Triple jump**	**10, 2523**	**1,1759**				
	Mission (2)	**Long jump**	**4, 9545**	**1,3938**				

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Researchers believe that second hypothesis of study, which indicates that a positive training effect upon starting to learn easy task for effectiveness of long jump in level of training difficult task for effectiveness of triple jump and achievement with .
That is, transition is negative for performance and achievement by training effectiveness of long jump for those who first learn effectiveness of triple jump, while transition is positive for training effectiveness of triple jump when starting to learn effectiveness of long jump first in two groups. You need a jump event triple to physical features in general and especially more than effectiveness of long jump, and thus transition was positive by moving from simple to more complex, while on contrary, when moving from difficult to easy.
Researchers attribute this to similar technical performance between initial technical stages of performance in terms of stage of approach, n rise, flight and landing, which in turn require converging physical and kinetic specifications, and this led to emergence of a positive transition effect to a large extent in training technical stages of effectiveness of triple jump after training technical stages for effectiveness of long jump. Where results of this study agree with (Thorndike's theory) about importance of similarity elements in transition between learned skills, as it positively affects and facilitates process of transferring effect of previous training to new training, as Thorndike also confirms that transition occurs when internal common components are available, and this means amount of transition is amount in two skills Similar (9: 18), as each of (3: 301) (125: 13) importance of common elements between previous and subsequent motor tasks in subsequent training speed. This agrees with Berliner and Gage, (16:352) y argue that training similar movements in terms of frequency makes re an easy and positive transition with a high degree of training for next skill. (Aqil 11:12) believes that for a positive transition to occur, content of two skills must be similar, which is minimum degree of similarity. Researchers also believe that unified method of education has a positive effect on positive transmission of training between activities, as (1: 288) stresses importance of similarity of training principles in two skills for occurrence of positive transmission, and this is exactly what applies to unified training method used in this study.
Results of this study also agreed with results of all studies conducted in field of transmission of training effect. Agreed with results of Al Bayati study (4:54), which all indicated “positive transmission of training effect in topics that were examined, and which were similar in technical performance. ".

4 - Conclusions and Recommendations

4 -1 Conclusions

1- Methods of training from easy to difficult had a positive effect on training technical stages of both .activities
2- Positive shift in performance and achievement collection on effectiveness of triple jump when training long .jump in two groups
3- Similarity of motor components and conditions and surroundings of game facilitate and accelerate .training of similar skills
4- Arrangement of activities in education in curriculum has a great impact in providing conditions for positive transition, which saves time and effort, improves and accelerates training of motor performance of skills.

4 - 2 Recommendations

1- necessity of applying foundations of positive transfer of training in arranging teaching activities .throughout curriculum in order to save time and accelerate training
2-Applying characteristics of positive effect transmission between vocabularies of teaching lectures from .vocabulary of introduction to end of lesson
3- Paying attention to foundations of positive transition when developing academic curricula for athletics in universities.

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