SELECTING AND EFFECTIVE-EVALUATING OF EXERCISES FOR TECHNIQUES TRAINING IN LONG JUMP - BODY LEAN FOR MALE STUDENT IN ELECTRIC POWER UNIVERSITY

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Abstract:
Through scientific methods, 28 exercises have been selected and divided into 5 groups in order to train long-jump-body-lean technique for Electric Power University students. The application result shows a clear difference in the experiment group compared to the control group in terms of achievement and result evaluation of student's performance in long jump – body lean at Electric Power University.

Keywords: Exercise, training, technique, long jump – body lean, students.

INTRODUCTION

Electric Power University is a multidisciplinary and multi-field-education university, responsible for educating and training scientists for the country's socio-economic development. The structure of PE subject consists of 2 segments for each term. The long jump – body lean is taught in the second semester of the first year, and is used as a testing content in end-of-term test. In curriculum distribution of PE subject, PE teaching will begin from 1st semester to 5th semester of each course.

However, the application of exercises using in training long jump – body lean is not adequate and comprehensive. Therefore, about the result in the end-of-term assessment, the number of students who do not meet the requirements of technique and achievement, is very large; the number of students getting good and excellent grades accounts for a low proportion. Hence it is essential to select suitable exercises.

RESEARCH METHODS

The research uses methods: document analysis and synthesis method, seminar-interview method, pedagogical examination method, pedagogical experiment method, Statistical mathematical methods.

RESULTS AND DISCUSSION

1. Researching on selecting methods and exercises in training long jump – body lean techniques for students at Electric Power University

Through scientific methods, the project has selected 28/34 specialized supplementary exercises applied in training long jump – body lean techniques. The system of exercises consists of 5 groups:

Group of supplementary exercises for running momentum (5 exercises): 60m speed-up running on straight line; 13 - 15 step running and jumping into a sand pit; full-momentum running and jumping into a sand pit; full-momentum running with 4-6 last-step signal bar; full-momentum running with 4-6 last-step signal bar and jumping in to a sand pit.

Group of supplementary jump-stomp exercises (7 exercises): Walking and jump-stomping one by one; walking and jump-stomping one by one with hand; 3-step running and jump-stomping with hands; 5-7-step running and jump-stomping over low fence into the sand pit; 3-5-step running and jump-stomping over continuous low fences on the

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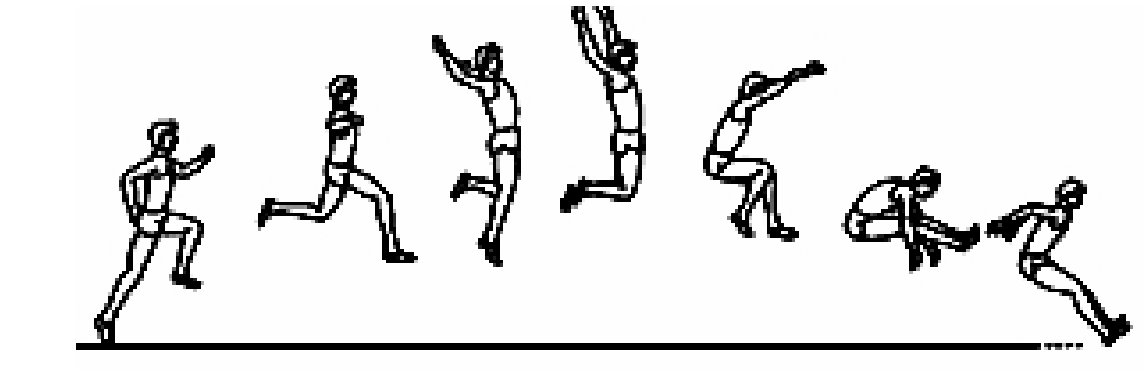

Figure 1. Performing the right technique is the most important way to improve the long-jump achievement for students at all levels

running path; full-momentum running and jump-stomping over the fence (crossbar) from 70 - 90 cm in height with hand shock, landing with the foot.

Group of supplementary in-air and landing exercises (6 exercises): Standing in place to simulate in-air and landing movements; standing on a wooden platform, performing an air-to-ground movement; 3-5-step running, performing an air-to-ground movement and landing on a wooden platform; clinging to a single bar, leaning body; standing, leaning body and jumping into a sand pit; 5-7-step running, leaning body over low fence or 40-50 cm high crossbar.

Group of supplementary combination exercises (5 exercises): 5-7-step running and performing an air-to-ground movement; 9-11-step running and performing an air-to-ground movement; 9-11-step running and performing in-air stomping over obstacles set at 2/3 of the flight trajectory; medium-momentum running and performing all techniques in air-to-ground movement; perform full-momentum with a steady rhythm.

Group of supplementary professional physicality exercises (5 exercises): Exercises for developing professional speed; hopscotch; dumbbell throwing; belly on the ladder.

At the same time, through interviews with 36 coaches, experts and lecturers, and determination of the reliability and notification of long jump – body lean technique assessing contents, the research has selected 05 tests to assess long jump – body lean technique performance of students at Electric Power University. The content belongs to 2 groups of factors: physical and technical.

2. Determining the effectiveness of the exercises applied in training long jump – body lean techniques for students at Electric Power University

Pedagogical experiment

Basing on the school's teaching curriculum, and lesson plans, we develop a long jump – body lean training curriculum for the experimental group in one semester. Training frequency is 02 periods / 1 week. Training time is from 90 minutes - 105 minutes. The total number of long jump – body lean lesson in one semester during the pedagogical experiment is 15 lesson plans. The training time is based on the content and curriculum. Specifically, 28 supplementary exercises are divided according to teaching stages and are arranged 2-3 exercises/plans.

The number of participants includes 150 students in the experiment group (EG) and 150 students in the control group (CG) from D4 course - Electric Power University. These objects are randomly selected.

Experiment results

After 04 months of experiment, the research conducted assessment and comparison between 2 groups in all the test contents. The result is shown in Table 1.

The result shows that: In all the content of technique assessment of the two experimental

Table 1. Results of the long jump – body lean techniques assessment of research subjects after experiment (MaleEG = 150; MaleCG = 150)

TT	Test	Test result ($\bar{x} \pm \delta$)		t	P
		CG	EG		
1	30m high-speed running (s)	4.47±0.27	4.35±0.21	**2.121**	<0.05
2	Dumbbell throwing (m)	8.59±0.51	8.75±0.42	**2.032**	<0.05
3	Long jump (cm)	221.85±18.72	227.87±17.34	**12.278**	<0.05
4	5-7 momentum step and long jump (m)	3.91±0.33	4.08±0.31	**2.603**	<0.05
5	Full-momentum long jump (m)	4.07±0.26	4.19±0.26	**2.038**	<0.05

Table 2. Assessment result comparison about long jump – body lean technique performance of male students in control and experiment groups after experiment

Classification	Technique performance result		Total
	EG (n = 150)	CG (n = 150)	
Pass	135	114	249
	90.00%	76.00%	
Not Pass	15	36	51
	10.00%	24.00%	
Total	150	150	**300**
Comparison	$\chi^2_{calculate} = 24.009 > \chi^2_{0.05} = 5.991$ with $P < 0.05$		

and control groups, there were significant differences, $t_{calculate} > t_{table} = 1.960$; at probability threshold $P < 0.05$.

At the end of the experimental process, the research compares the assessment results between the two groups. The result is shown in Table 2.

The result shows that: when comparing the long jump – body lean technique performance, there is significant difference in terms of result. Regarding to performance result marked as "Pass", the experimental group has much higher rate (90.0%) than the control group (76.0%). The significant difference is $\chi^2_{table} = 24.009 > \chi^2_{table} = 5.991$ at the threshold $P < 0.05$. That once again confirms the effectiveness of supplementary professional exercises applied in teaching long jump – body lean techniques for students at Electric Power University.

CONCLUSION

The research process of the thesis has selected 5 assessment contents and 28 exercises belonging to 05 groups for application in teaching long jump – body lean techniques for the students at Electric Power University. The thesis has clearly identified the effectiveness of professional supplementary exercise system that have been selected to be applied in teaching long jump – body lean techniques for research subjects.

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