

Preparation an instructional program for performing forward roll skill
on parallel bars

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Abstract

The research aims to preparing an instructional program for performing forward roll skill on parallel bars. The study hypothesis that the instructional program is effective in learning forward roll skill on parallel bars for experiment group. The study sample consists of third grade students in college of physical education and sport sciences – Salahaddin university / Erbil for 2020-2021 academic year. The researcher prepared a specific program for teaching the skill using the devices and equipment related to the skill. The application of the program started in 9/2/2021 until 27/3/2021. The post-test was performed after program has been applied. The results show that applying a program using devices and equipment assists students in understanding and learning the technical phases and the details of the skill.

Key words: motor learning, parallel par, forward roll

1- Introduction:

Gymnastics is one of the important sport activities in the field of sport which contains high level of physical fitness in addition to its dangerousness in performing skills. There are six types of gymnastic activities performs by athletes and non-athletes that feature agility and flexibility and thus would not reduce the difficulty level of the skills especially for female students as they lack experience in this activity. That is why it is apparent that male and female students struggle in gymnastics subject and in performing its skills.

Research problem:

The research problem is derived from the researcher's observation in the field of motor learning and gymnastics there are difficulty to perform the forward roll skill on parallel bars therefore the researcher has prepared an instructional program specified for this skill by utilizing learning devices, equipment and trainings.

The study aims to identify the educational program for forward roll skill on parallel bars.

The study hypothesis that the educational program is effective in learning forward roll skill on parallel bars for experiment group.

2- Research curriculum and field procedures:

2-1 Research curriculum:

The researcher has used the experimental approach in the study which appropriates the nature of the research.

2-2 Research population and sample:

Research population consists of third grade female students in college of physical education and sport sciences for 2020-2021 academic year, and the sample was intentionally drawn from the population numbered (20) female students divided into two equal groups (experiment and control), the experimental control of the samples illustrated in the table (1)

Table (1)

The experimental control of the samples

groups	mean	s.d	T value	Error level	sig
experiment	2.3	1.4	0.47	0.728	insignificant
control	2.1	1.12			

2-3 Data collection tools, devices and equipment:

- Laptop (Dell) (1)
- Stop watch (sako)
- Camera (casio) (1)
- Officiating form
- Parallel bar
- Jump board (3)
- Gymnastic mat (6)

2-4 Research field procedures:

2-4-1 Pre-test:

The pre-test applied on both the experimental and control groups at (10:00am) on Sunday 7/2/2021 in gymnastic hall at college of physical education and sport sciences/Diyala university. An introduction section about forward roll skill on parallel bar has been presented for study sample. In addition, the researcher set a camera beside the bar with (1.10m) height and (3.60m) away from the bar then send it to judges in order to evaluate the degree of performance.

2-4-2 Main experiment:

The main experiment of the study conducted at (10:00 am) on Tuesday 9/2/2021 until 27/3/2021 as following:

- 1- The researcher applied (6) instructional units on experimental group in (6) week with (1) unit of (30) minutes per week.
- 2- At the beginning of implementation of the instructional units of the curriculum, the sample was divided into two groups, then the first instructional unit divided on study groups with half-hour for instructional exercises. Assistive devices were used in addition to displaying pictures and videos by using projector, as well as using colored tapes to explain clarify the stages of the skill, and the time of the instructional unit was (45) minutes, started by main section with teaching the technique of skill, then giving exercises prepared by the researcher and giving feedback in the application part of this section.
- 3- The experimental group was distributed into small groups according to their levels, and this helped the teacher to give more repetitions and feedback to the weak group to improve their performance level until they reached the stage of being able to perform the required skill, and to the middle group fewer repetitions and less feedback was given compared to the weak group and more compared to the good group. Repetitions and feedbacks were given according to the division of these groups.
- 4- Assistants were used to control study groups in learning process, correct and address performance mistakes, and bring learners to the required level. This procedure remained until the end of implantation of the instructional curriculum. One of the important situations in the curriculum is the use of good individuals in performance for the purpose of helping the weak students in performance and this factor helps in motivating and encouraging the weak level students to reach a better level among their colleagues, as well as give the good individuals high self-confidence to work more seriously, in addition to using some collective and individual therapeutic methods to raise the level of the weak students, and the rest of the instructional units were completed until all educational group reached a good level and successfully performed the skill in a test run by the teacher.

2-4-3 Post-test:

After completing the application of the instructional units, the post-test was conducted for the experimental and control group at (10:00am) on Sunday 28/3/2021 at Gymnastics Hall in the College of Physical Education and Sports Sciences, Salahaddin University\ Erbil and for the experimental and control groups with the same environment and conditions.

2-5 Statistical tools:

The researcher has used the statistical package of social sciences (SPSS) to analyze the collected data.

3-1 illustrations and analyze of pre and post-test results of forward roll skill on parallel bar for experimental and control group

Table (2)

Shows mean, standard deviation, mean difference, standard error, and (t) values of experimental and control group in pre and post-test

group	test	mean	s.d	Mean difference	s. error	T value	P value	sig
experimental	pre	2.3	1.4	5.1	1.1	11.8	0.00	significant
	post	7.4	2.3					
control	pre	2.1	1.12	3.1	1.4	6.73	0.00	significant
	post	5.2	1.03					

3-2 illustrations and analyze of post-test results of forward roll skill on parallel bar for experimental and control group

Table (3)

Shows mean, standard deviation and (t) values of experimental and control group in post-test

group	mean	s.d	T value	P value	sig
experimental	7.4	2.3	5	0.00	significant
control	5.2	1.03			

Discussion:

Form table (2 and 3) and after performance evaluation of forward roll skill on parallel bars, the results show that there are significant differences between experiment and control groups and in advantage of experimental group which used specified instructional exercises for the skill in addition to assistant devices provided during learning period of the skill for experimental group only and they were not provided for control group. Likewise, the physical trainings had a significant role in performance of forward roll skill on parallel bars as the students required to have an explosive power to hit the jump board and flexibility during applying the skill as well as during complete landing.

These results were conformed and identified by (Layla Zahran, 1997, 40) that physical trainings with specific goal aims to prepare and improve motion skills for various sport activities and it is an assistant factor for player preparation and performance development in practiced activity.

The researcher states that the difference refers to the instructional curriculum that attributed in developing explosive power of legs which led to improvement of the skill in which the skill depends on this important aspect.

Thus, it can be said that the instructional curriculum used by the researcher has made an effective contribution to the students' ability to perform the technical skill through the correct and wide range of working joints.

The researcher also implies that the development is due to the effectiveness of the exercises used in the research in developing flexibility and developing the level of technical performance for this skill because it depends largely on joints flexibility,

especially spine and hip joint flexibility. This helps the students to perform the correct technique and with minimum percentage of errors, which leads to obtain better grades by students and fewer mark deduction. A female student who has high flexibility in body joints helps to perform skills in optimum technical level (Hassan, 2001, 40).

4-1 conclusion:

The researcher concluded the following:

- 1- The implemented instructional curriculum has a positive effect in developing the flexibility of the trunk, and explosive power of the legs for the experimental group.
- 2- The field experiment revealed that the instructional exercises helped in developing the level of technical performance of the skill used in the research for the experimental group when compared to the performance level of the control group.
- 3- The development level of skill performance for research groups in the forward roll on parallel bars was significant, and the assistive devices of the experimental group had an effect on the difference between the two test scores in advantage of the experimental group.

References:

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