DEVELOPMENT AND IMPLEMENTATION OF CONTROL-STANDARD TESTS TO EVALUATE THE BALL BOWLING TECHNIQUE OF YOUNG BOWLERS AGED 15-16

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ABOUT ARTICLE

Abstract: This study develops and conducts control-standard tests to evaluate the ball delivery technique of young bowlers aged 15-16 from the cricket teams of the Uzbekistan Cricket Federation, "Barlos" and "ANFA Cricket Club." The goal is to create and implement an assessment system that measures technical skills and performance consistency, providing coaches with information to improve training methods.

INTRODUCTION

In the Republic of Uzbekistan, reforms in education and upbringing, as in all sectors, are shaping how university students conceptualize choosing a career in physical culture and sport, acquiring the necessary skills, and working effectively. The concept of one's attitude towards their profession is a significant psychological factor that subsequently determines a specialist's effectiveness. The issues of training highly qualified specialists in physical culture and sport, and organizing their work activities in accordance with modern demands, are becoming increasingly important.

In order to implement the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 118 dated February 13, 2019, "On Approval of the Concept for the Development of Physical Culture and Mass Sports in the Republic of Uzbekistan for the Period 2019-2023, measures have been developed to improve sports medicine, promote healthy lifestyles and

nutrition, and engage youth and the general population in physical education and mass sports. Extensive promotional activities are being conducted in this direction.

This work serves, to a certain extent, the implementation of tasks set forth in several regulatory legal acts related to the field of physical culture and sport. These include the Decree of the President of the Republic of Uzbekistan No. PD-5368 dated March 5, 2018, "On Measures for the Radical Improvement of the State Management System in the Field of Physical Culture and Sport," and the Decree of the President of the Republic of Uzbekistan No. PD-5924 dated January 24, 2020, "On Measures to Improve and Ensure the Mass Participation in Physical Culture and Sport in the Republic of Uzbekistan [1; 2].

This research develops control-standard tests to evaluate the bowling techniques of young bowlers aged 15-16, providing coaches and sports scientists with reliable tools for objective measurement and skill enhancement.

The aim of this study is to develop control-standard tests for assessing the bowling technique of young bowlers aged 15-16.

The objective of the research is to develop specific exercises for control-standard tests to assess the bowling technique of young bowlers aged 15-16.

Methods and organization of the research. In this study, a literature review was conducted, followed by video analysis and pedagogical observation of the training process of young bowlers aged 15-16.

Research results and discussion. Based on the structural components of bowling technique, identified through video analysis and pedagogical observation of the training processes of the cricket teams of the Uzbekistan Cricket Federation [3], the control-standard tests we developed for assessing bowling technique allowed for an objective evaluation of the bowling technique of young bowlers aged 15-16 from the cricket teams of the Uzbekistan Cricket Federation. The developed control-standard tests will be presented below in Table 1 [4].

Table 1

Control-standard exercises (number of successful attempts out of 6)	Assessment "Excellent"	Assessment "Good"	Assessment "Poor"
Demonstration of ball-gripping technique	Fingers are correctly positioned on the seams of the ball, wrist is fixed	Fingers are correctly positioned on the seams of the ball, wrist is fixed 3 times out of 6 attempts	Fingers are correctly positioned on the seams of the ball, wrist is fixed 2 or fewer times out of 6 attempts

	4 or more times out of 6 attempts		
Execution of the run-up on an 80 cm wide track	4 or more times out of 6 attempts	3 times out of 6 attempts	2 or fewer times out of 6 attempts
Long jump from a run-up with a one-legged takeoff	Powerful push-off from the front leg, full extension of the leg and body 4 or more times out of 6 attempts	Powerful push-off from the front leg, full extension of the leg and body 3 times out of 6 attempts	Powerful push-off from the front leg, full extension of the leg and body 2 or fewer times out of 6 attempts
Maintaining body balance during the flight phase	The player maintains stable balance, demonstrates correct body position, and appears relaxed and controlled 4 or more times out of 6 attempts	The player maintains stable balance, demonstrates correct body position, and appears relaxed and controlled 3 times out of 6 attempts	The player maintains stable balance, demonstrates correct body position, and appears relaxed and controlled 2 or fewer times out of 6 attempts
Jump from the bench landing on the "back" leg	Soft landing on the ball of the foot, bending the knee, maintaining balance 4 or more times out of 6 attempts	Soft landing on the ball of the foot, bending the knee, maintaining balance 3 times out of 6 attempts	Soft landing on the ball of the foot, bending the knee, maintaining balance 2 or fewer times out of 6 attempts

Continuation of Table 1

Ball bowling with a step forward	Smooth positioning of the front leg after landing, maintaining balance, controlled completion of the movement 4 or more times out of 6 attempts	Smooth positioning of the front leg after landing, maintaining balance, controlled completion of the movement 3 times out of 6 attempts	Smooth positioning of the front leg after landing, maintaining balance, controlled completion of the movement 2 or fewer times out of 6 attempts
"Dry" backswing	Smooth backswing with sufficient height and speed, correct position of arm and body. 4 or more times out of 6 attempts	Smooth backswing with sufficient height and speed, correct position of arm and body 3 times out of 6 attempts	Smooth backswing with sufficient height and speed, correct position of arm and body 2 or fewer times out of 6 attempts
Releasing the ball towards the target	4 or more times out of 6 attempts hitting the target accurately, correct position of arm,	3 times out of 6 attempts hitting the target accurately, minor release technique flaws	2 or fewer times out of 6 attempts hitting the target accurately, significant release technique flaws

	wrist, and fingers during release		
Ball bowling transitioning into walking	Smooth completion of the movement, maintaining balance, controlled transition into walking. 4 or more times out of 6 attempts	Smooth completion of the movement, maintaining balance, controlled transition into walking. 3 times out of 6 attempts	Smooth completion of the movement, maintaining balance, controlled transition into walking. 2 or fewer times out of 6 attempts

Demonstration of ball-gripping technique. Objective: to assess the correct positioning of the fingers on the seams of the ball and the fixation of the wrist when gripping the ball, which affects control and accuracy of the delivery.

Execution of the run-up on an 80 cm wide track. Objective: to assess the bowler's ability to maintain straightness, balance, and control while moving along a narrow track, simulating real game conditions.

Long jumps from a run-up with a one-legged takeoff. Objective: to assess the power of the push-off, which affects the delivery speed.

Maintaining body balance during the flight phase. Objective: to assess the bowler's ability to maintain balance and control of the body during the jump, which affects the accuracy and consistency of the delivery.

Jump from the bench landing on the "back" leg (the leg that remains behind during the ball release). Objective: to assess the bowler's ability to land correctly on the "back" leg, which is important for injury prevention and maintaining balance.

Ball delivery with a step forward. Objective: to assess the smoothness and accuracy of positioning the front leg, which affects the stability and control of the delivery.

"Dry" backswing. Objective: to assess the smoothness, height, and speed of the backswing, which affects the delivery speed and accuracy.

Releasing the ball towards the target. Objective: to assess the accuracy of the bowling and the correctness of the ball release technique.

Ball bowling transitioning into walking. Objective: to assess the smoothness and control of the movement's completion, which affects stability and injury prevention.

The mean values (x̄), standard deviations (σ), and coefficients of variation (V%) of the results obtained after conducting our developed control-standard tests to assess the ball delivery technique level of participants, who were divided into two groups - players of the "Barlos" cricket team (control group) and players of the "ANFA Cricket Club" team

(experimental group) at the beginning of the pedagogical experiment, will be presented in Tables 2 and 3 below.

Table 2

Mean values, standard deviations, and coefficient of variation (x̄, σ, and V) of the control-standard test results for evaluating the ball delivery technique of young bowlers aged 15-16 in the control group at the beginning of the pedagogical experiment (n=15)

Control-standard tests (number of successful attempts out of 6)	x̄	σ	V%
Demonstration of ball-gripping technique	2,8	0,7	25
Execution of the run-up on an 80 cm wide track	2,7	0,6	22
Long jump from a run-up with a one-legged takeoff	2,6	0,6	23
Maintaining body balance during the flight phase	2,5	0,7	28
Jump from the bench landing on the "back" leg	2,6	0,7	27
Ball bowling with a step forward	2,7	0,6	22
"Dry" backswing	2,6	0,6	23
Releasing the ball towards the target	2,7	0,6	22
Ball bowling transitioning into walking	2,5	0,6	24

The mean value, standard deviation, and coefficient of variation for the results of the first control-standard test are: x̄=2.8, σ=0.7, and V=25%.

The mean value, standard deviation, and coefficient of variation for the results of the second control-standard test are: x̄=2.7, σ=0.6, and V=22%.

The mean value, standard deviation, and coefficient of variation for the results of the third control-standard test are: x̄=2.6, σ=0.6, and V=23%.

The mean value, standard deviation, and coefficient of variation for the results of the fourth control-standard test are: x̄=2.5, σ=0.7, and V=28%.

The mean value, standard deviation, and coefficient of variation for the results of the fifth control-standard test are: x̄=2.6, σ=0.7, and V=27%.

The mean value, standard deviation, and coefficient of variation for the results of the sixth control-standard test are: x̄=2.7, σ=0.6, and V=22%.

The mean value, standard deviation, and coefficient of variation for the results of the seventh control-standard test are: x̄=2.6, σ=0.6, and V=23%.

The mean value, standard deviation, and coefficient of variation for the results of the eighth control-standard test are: x̄=2.7, σ=0.6, and V=22%.

The mean value, standard deviation, and coefficient of variation for the results of the ninth control-standard test are: x̄=2.5, σ=0.6, and V=24%.

Table 3

Mean values, standard deviations, and coefficient of variation (x̄, σ, and V) of the control-standard test results for evaluating the ball delivery technique of young bowlers aged 15-16 in the experimental group at the beginning of the pedagogical experiment (n=15)

Control-standard tests (number of successful attempts out of 6)	x̄	σ	V%
Demonstration of ball-gripping technique	2,9	0,96	33
Execution of the run-up on an 80 cm wide track	2,8	0,91	34
Long jump from a run-up with a one-legged takeoff	2,6	0,95	38
Maintaining body balance during the flight phase	2,7	0,85	32
Jump from the bench landing on the "back" leg	2,7	0,85	32
Ball bowling with a step forward	2,9	0,93	33
"Dry" backswing	2,7	0,85	32
Releasing the ball towards the target	2,8	0,91	34
Ball bowling transitioning into walking	2,6	0,95	38

The mean value, standard deviation, and coefficient of variation for the results of the first control-standard test are: x̄=2,9, σ=0,96 and V=33%.

The mean value, standard deviation, and coefficient of variation for the results of the second control-standard test are: x̄=2,8, σ=0,91 and V=34%.

The mean value, standard deviation, and coefficient of variation for the results of the third control-standard test are: x̄=2,6, σ=0,95 and V=38%.

The mean value, standard deviation, and coefficient of variation for the results of the fourth control-standard test are: x̄=2,7, σ=0,85 and V=32%.

The mean value, standard deviation, and coefficient of variation for the results of the fifth control-standard test are: x̄=2,7, σ=0,85 and V=32%.

The mean value, standard deviation, and coefficient of variation for the results of the sixth control-standard test are: x̄=2,9, σ=0,93 and V=33%%.

The mean value, standard deviation, and coefficient of variation for the results of the seventh control-standard test are: x̄=2,7, σ=0,85 and V=32%.

The mean value, standard deviation, and coefficient of variation for the results of the eighth control-standard test are: x̄=2,8, σ=0,91 and V=34%.

The mean value, standard deviation, and coefficient of variation for the results of the ninth control-standard test are: $\bar{x}$=2,6, σ=0,95 and V=38%.

Conclusion. Based on the obtained mean values, standard deviations, and coefficients of variation of the control-standard test results for participants in the control and experimental groups, it was found that the ball delivery technique level of participants in both groups was at an equally poor and satisfactory level. This indicates a need for further improvement through a training program with the most effective methodology for enhancing the ball delivery technique of young bowlers aged 15-16 in cricket.

References

1.   Decree of the President of the Republic of Uzbekistan No. PD-5368 dated March 5, 2018, «On measures for the radical improvement of the state management system in the field of physical culture and sport».

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