

Standardization of Artistic Gymnastic Skill Test on 360 Degree on one Leg for Sub Junior Girls

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Abstract— The purpose of this study was to standardization artistic gymnastic skill test on 360 degree on one leg for sub junior girls. A sample size or design is a definite plan for determining before any data is actually collected for obtaining a sample from a given population. The subjects of this study was girls Gymnastic players who represented minimum state level or 3 year game age (as per certified by coach) with the help of purposive sampling. The age group of the subjects were below 14 years only. To construct the gymnastic skills test battery's face validity was formulated by the researcher. A researcher taken different kinds of gymnastic skills from the FIG rulebook. After that we sent the skills to 13 experts for rating through likert scale. Then the experts rated & gave suggestions. When we finalized the skill by looking at the ratings. Highly rated skill had been considered for skill test battery. It is concluded that the gymnastic skill test ultimately could retain better skill item among the various skill items, which can successfully measure the gymnastic skill ability of the sub-junior gymnastic players with acceptable face validity, highly reliability and objectivity.

Index Terms: Artistic, Gymnastics, Balancing Beam.

INTRODUCTION

Gymnastics is a physical sport that includes exercises that require balance, strength, flexibility, agility, coordination, dedication, and endurance. Gymnastics movements help to develop the arms, legs, shoulders, back, chest, and abdominal muscle groups. Gymnastics involves the performance of exercises done with or without apparatus, or with a partner, requiring flexibility, physical strength, power, coordination, grace, agility, control, and balance. Also, gymnastics is a sport with inclusivity where males as well as females, young as well as old can

play. “Gymnastics is called the mother of all sports” Kamlesh (2006).

Singh (2019) conducted a study on the topic of the Construction of Physical fitness test batteries and skill norms as a predictor of the selection of volleyball players. The investigator chose a sample of 15–30-year-olds from Punjab. A total of 1800 subjects were chosen and divided into four groups. Group A = 800, Group B = 500, Group C = 300, and Group D = 200. The physical fitness test battery consists of ten tests, while the skills test battery consists of three tests. The norm is built on different scales of very good, good, average, poor, and very poor.

Yadav et al. (2011) Created a basketball shot to take a look at in Handball. The 100 male handball players from universities in the South-West zone and the North-East zone (four university groups from each zone) who qualified for the All Asian Country Inter-Zonal University Handball Tournament Command at Banaras Hindu University, Varanasi, Uttar Pradesh, from the fifth to the ninth Gregorian calendar month of 2002, were chosen to be study subjects. The live criterion was the average ability of millions of handball players chosen independently by three handball consultants. The newly developed basketball shot examination in handball met the criterion of scientific credibility, i.e. the examination was reliable, objective, and valid.

Groot et al. (2012) investigated the responsibility and validity of chair basketball field tests. Nineteen chair basketball players performed ten double takes to see the responsibility. The validity of the tests was determined by comparing the results to the players' classification, competition, and coach and player ratings. Six field tests' test-retest showed sensible responsibility (ICC = 0.80-0.97), whereas pass-for-

accuracy, free throws, lay-up, and spot shots showed weak to moderate responsibility ($ICC = 0.26-0.67$). Most tests demonstrated moderate to reasonable validity ($r > 0.60$). The findings suggest that chair basketball field tests are reliable and valid, except for the shooting and spending aspects, which should be thoroughly understood.

SIGNIFICANCE OF THE STUDY

Gymnastics is the mother game of all sports. Indian gymnasts are not achieving a glorious at the Olympic level. So the performance of the Indian women's Gymnasts is very behind in the 2018 Asian games ranking 13 and 16. In the 2016 Olympics, Deepa Karmakar got 4th rank in the vaulting table but failed to achieve a Medal in Olympics so researchers need to assess the standard of female gymnasts at the grass-root level and appropriately upgrade the talent of gymnasts. This instrument may also be used in grading Gymnasts in advance teaching or coaching of Gymnastic or coaching session arranged for competition at various levels. This study will help physical education teachers and coaches in judging the adequacy of achievements of their students in Gymnastic skills and will assist the students in diagnosing their strengths and weakness in Gymnastic. The test will be the latest test which fulfils the present requirement of girls Gymnastic.

STATEMENT OF THE PROBLEM

Gymnastic developments in India reveal that the present status of Gymnastic has neither been understood by the professional nor by the controlling authorities, therefore it has been considered by the researcher to construct standardize and develop norms for the Gymnastic skill test for girls Gymnasts. Hence to achieve this purpose the researcher has undertaken the problem as follows: "standardization artistic gymnastics skill test battery on 360 degree on one leg for sub-junior gymnasts".

OPERATIONAL DEFINITIONS OF THE TERM USED

Gymnastic: Gymnastics is an activity it is the foundation for all sports and physical activity. It teaches sports people or participants how to move,

roll, jump, swing, and turn upside and down. It is an exciting activity and sport for its unique contribution to general fitness, coordination, agility, strength, balance, and speed. It promotes all-around physical development, muscular strength, joint flexibility, balance, coordination, and core strength required for everyday living.

2. Test: A test is an instrument or activity which is utilized to gather information on an individual's capacity to play out a predefined task. It is an instrumental tool that can help the researcher for assessing or measure the specific characteristics of the selected sample of subjects in the research studies.

3. Construction of the Test: Test development or test construction refers to the planning, preparing, administering, scoring, statistically analyzing, and reporting results of tests.

4. Standardization of the Test: Standardized test is a test that is administered and scored in a consistent standard and manner.

5. Norms of the Test: Norms of the test or scale permit conversion from a raw score to a score capable of comparison and interpretation. They represent a benchmark to which an achieved score may be compared. Norms are assumed to be representatives of some larger population.

6. Test Battery: A test battery is refer to a group or series.

OBJECTIVES OF THE STUDY

To standardize the Artistic Gymnastic skill Test on 360 degree on one leg for 10 -12 years.

To standardize the Artistic Gymnastic skill Test on 360 degree on one leg for 12 -14 years.

HYPOTHESES OF THE STUDY

It is hypothesized that the newly constructed skill test battery will be highly reliable for gymnasts.

It is hypothesized that the newly constructed skill test battery will be shows high objectivity for gymnasts.

Research Method

The present study is a type of descriptive research. In this chapter for the sampling design, sampling frame, establishing procedure to construct gymnastic skill test battery, identification of skill items, face validity, establishing the procedure to perform gymnastic

skills, tools used, procedure of establishing scoring, data collection for reliability and objectivity, establishing reliability, establishing objectivity. Administration of the test and statistical techniques applied to standardized and developed norms have been described.

Sampling Technique:

The subjects of this study was 100 girls Gymnastic players of 10 – 12 years and 12 – 14 years who represented minimum state level or 3 years game’s experience (as per certified by coach) with the help of purposive sampling.

Establishing Procedure to construct the gymnastic Skill Test battery.

The procedure of the construction of skill test according to (Waghchoure, M.T 2006) is given below:-

- Identification of skill test items
- Establishing validity
- Establishing the procedure to perform gymnastic skills
- Tools used
- Procedure of establishing scoring
- Establishing reliability.
- Establishing objectivity

Tools Used for the Present Study:

Balancing Beam ,Mats and Powder

Description of Criterion Variable Performing on Balancing Beam

Description of 360 Degree on one leg

Variable	Purpose	Equipment’s/Material/Tools
360 Degree on One Leg	To measure full turn (360 Degree on One Leg) ability	Balancing beam, Mats, and Powder.

Procedure:

First of all, keep the toe of the strong foot forward and the rare foot in a normal position. You will place your hands on the opposite side. Keeping both hands up and applying force on the opposite side, keep your rare foot near the knee of your strong foot, rotate your body (360 degrees) and bring your rare foot forward. How-to-do-a-gymnastics-full-turn (n.d)



This Table Shows the standard score of t-scale, hull-scale, and sigma-scale of 360 Degree on One Leg skill for 10 To 12 Years Gymnasts

T-scale	Sigma scale	Hull scale
5.8	5.08	26.71
5.48	4.88	24.33
5.12	4.68	21.95
4.78	4.48	19.57
4.44	4.28	17.19
4.1	4.08	14.81
3.76	3.88	12.43
3.42	3.68	10.05
3.08	3.48	7.67
2.74	3.28	5.29
2.4	3.08	2.91

This table shows the standard score of the t-scale, sigma and scale hull scale, of 360 Degree on One Leg skill for 10 To 12 Years Gymnasts. The lowest score of t-score, sigma score and hull score of 360 Degree on One Leg skill i.e. 2.4, 3.08, and 2.91 and highest score were found i.e. 5.8, 5.08, and 26.71 respectively. The results show of the Lowest and highest standard scores of t-scale, sigma-scale and hull-scale of 360 Degree on One Leg skill as per norms score, lie in poor and excellent category.

Shows the standard score of t-scale, hull-scale, and sigma-scale of 360 Degree on One Leg skill for 12 To 14 Years Gymnasts

T-scale	Sigma scale	Hull scale
6.02	25.26	28.775
5.65	23.04	26.185
5.28	20.82	23.595
4.91	18.6	21.005
4.54	16.38	18.415
4.17	14.16	15.825
3.8	11.94	13.235
3.43	9.72	10.645
3.06	7.5	8.055
2.69	5.28	5.465
2.32	3.06	2.875

Table 4.2.B Shows the standard score of the t-scale, sigma and scale hull scale, of 360 Degree on One Leg skill for 12 To 14 Years Gymnasts. The lowest score of t-score

sigma score and hull score of 360 Degree on One Leg skill i.e. 2.32, 3.06, and 2.875 and highest score were found i.e. 6.02, 25.26, and 28.775 respectively. The results show of the lowest and highest standard scores of t-scale, sigma-scale and hull-scale of 360 Degree on One Leg skill as per norms score, lie in poor and excellent category.

CONCLUSION OF THE STUDY

The gymnastic skill test ultimately could retain better skill items among the various skill items, which can successful measure the 360 degree on one leg ability of the gymnastic players of sub-junior with acceptable face validity, highly reliability and objectivity.

REFERENCE

- [1] Kamlesh M.L.(2006). Field manual of sports and games. Nageen Prkashan Pvt. Ltd, Second edition, pp 166.
- [2] Singh, P. (2019). Construction of Physical fitness test battery and skill norm as predictor of selection of volleyball players. Available from: <https://shodhganga.inflibnet.ac.in/handle/10603/243113>
- [3] Yadav, S. K., Dudhale, S. Y., & Bhawana. (2011). Construction of jump shot test in hand ball. International Journal of Physical Education, sports and yogic sciences 1(1): pp 30-32.
- [4] Groot S., Balvers I. J., Kouwenhoven, S. M., & Janssen, T. W. (2012). Validity and reliability of tests determining performance-related components of wheelchair basketball. Journal of Sports Sciences, 30(9): ISSN 0264-0414, pp 879-887.