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CONSTRUCTION OF COMPREHENSIVE KNOWLEDGE TEST FOR KHO-KHO PLAYERS



Ranjit Singh Pawar¹ and Deepak Kumar Dubey²

¹Asstt. Prof. Deptt. of Physical Education, Dr. C.V. Raman University, Kota, Bilaspur C.G.

²Research Scholar, Dr. C.V. Raman University, Kota, Bilaspur C.G.

ABSTRACT

The purpose of this study was to construct a comprehensive knowledge test for kho-kho players. To conduct the study, 300 kho-kho players were selected as sample. The selected kho-kho players represent both the sexes and between the age range of 17 to 25 years. The level of participation of the selected players was from district to national level. Convenience sampling method was used for selection of subjects. A 60 items multiple choice test was administered to 50 players to determine the clarity of items and on the basis of responses these items were further modified content-wise. Second trial run of questionnaire was administered to 200 kho-kho players which they answered in one hour time period. The responses then were subjected to item analysis. On the basis of difficulty and

discrimination index 13 items were discarded and the final draft of test contains 43 items. The reliability and validity of the newly constructed comprehensive knowledge test for kho-kho players was found to be satisfactory.

KEYWORDS :Kho-Kho, Comprehensive Knowledge Test, Difficulty Index, Discrimination Index.



INTRODUCTION :

Physical education is similar to other core subjects and follows the same pattern of assessment and evaluation. But unlike other core subjects, a majority of the course work is participated in, rather than studied. The knowledge testing methodology is somewhat different in the field of physical education and sports than the traditional knowledge testing in other fields of education. Knowledge test methodology in physical education is based on construction of specific knowledge tests. A variety

of tests involving specific essay test, true-false items, discrimination test, item analysis testing, multiple choice item testing, matching item testing, objective testing, short answer items and sports knowledge testing etc. Such tests are planned to measure theoretical knowledge ranging from character development, fitness, health and sports skills. This scenario has changed considerably in modern times as more and more students of senior secondary are choosing physical education as elective subjects. Another aspect which is noticeable is inclusion of traditional Indian sports like kabaddi, kho-kho in physical education curriculum.

Although researchers like Vasickova et al. (2010)¹, Yadav et al. (2010)², Singh et al. (2012)³, Mitra et al. (2013)⁴, Serra-Olivares and Garcia-Lopez (2015)⁵ have worked in the area of construction of knowledge test in physical education and sports, so far comprehensive knowledge test regarding history, rules, modern trends etc. has not been constructed for traditional Indian sport kho-kho. Keeping in view, the researcher decided to construct a comprehensive knowledge test for kho-kho players.

METHODOLOGY :-

The main objective of this study was to construct a comprehensive knowledge test for kho-kho players with emphasis on history and development, basic rules and their interpretation, duties and responsibilities of the officials, advanced techniques and tactics involved, modern trends and new laws as adopted by International kho-kho federation.

The following methodological steps were taken to conduct the study -

Sample:

For the present study, 300 kho-kho players were selected as sample. The selected kho-kho players represent both the sexes and between the age range of 17 to 25 years. The level of participation of the selected players was from district to national level. The selection of sample was mainly done from central, northern and western region of India. Convenience sampling method was used for selection of subjects.

Tools:

Since the objective of the present study is to construct a reliable and valid comprehensive knowledge test for kho-kho players, following statistical tools were used.

(I) Difficulty Index :

Item difficulty, commonly known as p-value refers to the proportion of examinees that responded to the item correctly. The p-value is calculated using the following formula:

$$p = R/T$$

where p = item difficulty index

R = the number of correct responses to the test item

T = the total number of responses comprises both correct and incorrect responses

The p-value ranges from 0.0 to 1.00. A high p-value indicates an easy item. The interpretation of p value is such that above 0.90 indicate very easy item, 0.62 ideal value and 0.20 indicates very difficult items.

(ii) Discrimination Index:

Item discrimination index (D) is calculated by

$$D = (UG - LG) / n.$$

Where D = discrimination index,

UG = the number of students in the upper group 27% who responded correctly,

LG = the number of students in the lower group 27% who responded correctly

n = number of students in the upper or lower group.

The items were classified accordingly to their discrimination index with reference to Ebel's (1972)6 guidelines. The norms for discrimination index are as follows: 0.40 and above : Very good items; 0.30 – 0.39 : Reasonably good but subject to improvement; 0.20 – 0.29 : Marginal items usually need and subject to improvement and lastly Below 0.19 means poor items to be rejected or improved by revision

(iii) Reliability :

The split-half (odd-even method) reliability coefficient was used to ascertain reliability of knowledge test.

(iv) Validity :

The construct validity was determined by correlating the total score of the scale with components-wise factors.

Procedure:

The following procedure was adopted for blue print of the knowledge test :

(A) Test Blue Print: The test blue print was prepared keeping in view the content outline and objectives. The items consist of multiple choice questions from different aspects of kho-kho in a definite proportion. Questions related with history and development of kho-kho as International and Olympic sport, new laws, rules and their interpretations as adopted by International kho-kho Federations, techniques and terminology's, modern trends involved, the international and national governing bodies and strategy and tactics were incorporated in the initial draft. All the items in the initial draft were incorporated after consultation of research guide and experts in the field of physical education and sports. The preliminary draft consists of 80 items.

(B) Trial Run: After formulation of the questionnaire with the inclusion of all essential items in an organized manner, the next step was the trial run.

During the trial run, the initial questionnaire was given to 50 kho-kho players. Intensive instructional classes were conducted for the subjects to cover various aspects of kho-kho. This was to make the subjects well acquainted with the subject matter. They were requested to critically evaluate and answer them, return with their suggestions, if any, so that the questions are reframed, made clear, to the point and having no ambiguity.

(C) Rewriting: On the basis of the received suggestions, received by the respondents, necessary changes were made in the questionnaire and finally it was constructed containing 60 items after the approval of the Guide.

(D)After re-writing the comprehensive knowledge test items, the finalised test was administered to 200 kho-kho players as per their availability and convenience in a laboratory like condition.

(G)The degree of difficulty and discrimination index was calculated with the help of formula

(H)On the basis of degree of difficulty and discrimination index test items were retained/deleted. Thus, retained items constituted kho-kho comprehensive knowledge test.

(I)The comprehensive knowledge test with retained items were once again administered to 200 kho-kho player to determine reliability and validity.

RESULTS:

The range of item difficulty of comprehensive knowledge test was found to be 0.84 with minimum value being 0.16 and maximum being 1.00. The mean item difficulty of comprehensive knowledge test was 0.63. 86.66% items were within ideal range of item difficulty while 13.34% items were either too difficult or too easy and did not meet the criteria of ideal range of item difficulty index.

Range of index of discrimination of comprehensive knowledge test was 1.41 with minimum value being -0.41 and maximum being 1.00. The mean discrimination index was 0.46 and the standard deviation was 0.34. 70% items were within ideal range defined in discrimination coefficient while 30% items were either too difficult or too easy and did not meet the criteria of ideal range of item difficulty index.

71.66% items were retained which meet both the criteria of item difficulty and discrimination index while 28.34% items were discarded.

Hence after item analysis a total of 43 items were retained in the comprehensive knowledge test and 17 items were discarded.

The reliability of final test was found to be 0.70 while to calculated validity coefficient was 0.79.

CONCLUSION

On the basis of results, it was concluded newly constructed 43 item comprehensive knowledge test is highly reliable and valid to assess basic know-how about history and development of kho-kho as International and Olympic sport, new laws, rules and their interpretations as adopted by International kho-kho Federations, techniques and terminology's, modern trends involved, the international and national governing bodies and strategy and tactics.

REFERENCES

- 1.Vasickova, J., Neuls, F. and Fromel, K. (2010). Comprehensive test in school physical education at secondary schools in the Czech Republic – standardization and verification. *Acta Univ. Palacki. Olomuc., Gymn.* 2010, Vol. 40, No. 4, 7-14.
- 2.Yadav, S.K., Yadav, H. and Yadav, B. (2010). Construction of knowledge test on history and rules of judo for physical education students. *International Journal of Physical Education*, Vol. 3, No. 1&2 : 34-36.
- 3.Singh, S.K., Singh, V.K. and Amar Kumar (2012). Construction of an objective knowledge test in handball for professional students. *International Journal of Physical Education*, Vol. 5, Issue 1, 79-81.
- 4.Mitra, M., Nigam, Bharti and Das, S. (2013). Construction of knowledge test in gymnastics for university level players. *International Journal of Human Movements, Sports & Allied Sciences*, Vol. 1, No. 1, 7-10.

5.Serra-Olivares, J. Y. and Garcia-Lopez, L.M. (2015). Design and validation of the soccer tactical knowledge test (STKT). *Revista Internacional de Medicina Y Ciencias de la Actividad fisica y el Deporte*, Vol. 1.

6.Ebel, R.L. (1972). *Essentials of Educational Measurement*. 1st ed. New Jersey: Prentice Hall.

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