

Research Paper :

Construction of knowledge test on history and rules of judo for physical education students

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ABSTRACT

The purpose of this study was to construct knowledge test on history and rules of Judo. Fifty students of Master of Physical Education form the School of Physical Education, Devi Ahilya University, Indore in 2005 – 06 session, were selected to serve as subjects. A 100 items objective test was first administered to ten students in order to determine clarity of question items and on that basis the question items were refined and subjected to careful analysis. Then a second trial run of the question items was administrated to 50 students, which they answered in the allotted time of 60 minutes. These sheets were then evaluated. Six items were eliminated on the basis of difficulty rating and 29 items were discarded on the basis of index of discrimination. Thus a total of 30 items were discarded for various reasons and the final test therefore contained seventy questions.

Key words : Judo, Knowledge test, Index of discrimination, Difficulty rating

The various processes of measurement and evaluation more easily and objectively enable the physical educator to make decisions about students and their performances. Tests must be administered, measures must be assigned and every teacher must make evaluations regularly. The objective knowledge test requires brief response to questions encompassing smaller pieces of information. They have certain characteristics as they are quickly, efficiently and objectively graded. They are reliable. They cover intensive amount of subject content. They clearly define the work to be done. Judo provides excitement, satisfaction and also a superb method of keeping fit for all ages. It was a derivative of Jujitsu used by Samurai (warriors) in Japan's violent feudal past, which was later distilled into the sport of Judo by Prof. Jigoro Kano and promoting it by opening a legendary Kodokan Club in 1882. The word "Kodokan" meant a school for studying the way: the "way" being the concept of life.

METHODOLOGY

Main objective of this study was to construct knowledge test on history and rules of Judo. For this purpose fifty students of Master of Physical Education form the School of Physical Education, Devi Ahilya University, Indore in 2005 – 06 session, were selected to serve as subjects. The age of subjects ranged from 17 to 25 years. All the subjects had regular theoretically classes during which different aspects of the game were

theoretically explained together with practical implications. Keeping in view, the learning level of the subjects and the utility of the test, the following objectives were set to see the knowledge pertaining to the history and development of Judo, to develop an understanding of the basic rules of Judo and their interpretations and new rules and their interpretations as adopted by International Judo Federation.

The test consisted of 100 objective type questions from different aspects of the game in a definite proportion. Questions were selected covering various aspects of game *i.e.* history and development of game, new rules and their interpretations as adopted by International Judo Federations and the terminologies.

Before administering the test intensive instructional classes were conducted for the subjects to cover various aspects of the history and rules of Judo. This was to make the subjects well acquainted with the subject matter. Each explanation was taught with due explanation with the help of diagrams (wherever necessary).

A 100 items objective test was first administered to ten students in order to determine clarity of question items and on that basis the question items were refined and subjected to careful analysis. Then a second trial run of the question items was administrated to 50 students, which they answered in the allotted time of 60 minutes. These sheets were then evaluated.

OBSERVATIONS AND DISCUSSION

All the students were given ample directions before administering the test. The answers to be written in the blanks were provided with each question. All questions carried equal marks and maximum marks were 100. One point was awarded for each correct response. The sum of the total number of correct responses was the final score of each subject. The range of scores for fifty examinees was 20 to 91 the means score was 55.18. Item analysis was used to make decisions about individual items within the test as well as the worthiness of the test as a whole. For analyzing this Difficulty Rating and Index of Discrimination were employed. The reliability of the

test was established by using split halves method, correlating between the correct odd and correct even number of items. Spearman Brown prophecy formula was used. The value of coefficient of correlation of odd and even number questions with 100 test items was 0.335, which yielded a reliability coefficient of 0.502 for the entire test. The co-efficient of correlation by test-retest method with selected test items was 0.99.

The findings of the study indicated that the degree of difficulty rating for the knowledge test questions ranged from 0.12 to 0.86. The mean of difficulty rating was 0.559. Those questions which were answered correctly by more than 80 per cent of subjects were judged to be too easy

Table 1 : Items discarded after item analysis

Sr. No.	Q. No.	D.R.	I.D.	Total	Sr. No.	Q. No.	D.R.	I.D.	Total	Sr. No.	Q. No.	D.R.	I.D.	Total
1.	1				35.	35		X	X	69.	69		X	X
2.	2				36.	36				70.	70		X	X
3.	3				37.	37				71.	71			
4.	4				38.	38				72.	72		X	X
5.	5				39.	39				73.	73			
6.	6				40.	40		X	X	74.	74			
7.	7				41.	41				75.	75		X	X
8.	8	X	X	X	42.	42				76.	76			
9.	9				43.	43		X	X	77.	77	X		X
10.	10	X	X	X	44.	44		X	X	78.	78			
11.	11				45.	45				79.	79			
12.	12				46.	46		X	X	80.	80		X	X
13.	13				47.	47		X	X	81.	81			
14.	14				48.	48		X	X	82.	82			
15.	15		X	X	49.	49		X	X	83.	83			
16.	16				50.	50	X	X	X	84.	84			
17.	17				51.	51				85.	85			
18.	18				52.	52				86.	86			
19.	19				53.	53		X	X	87.	87			
20.	20				54.	54		X	X	88.	88			
21.	21				55.	55				89.	89			
22.	22		X	X	56.	56		X	X	90.	90			
23.	23				57.	57				91.	91			
24.	24				58.	58				92.	92			
25.	25				59.	59				93.	93			
26.	26				60.	60		X	X	94.	94			
27.	27				61.	61				95.	95			
28.	28		X	X	62.	62				96.	96			
29.	29				63.	63				97.	97			
30.	30				64.	64	X	X	X	98.	98			
31.	31		X	X	65.	65		X	X	99.	99			
32.	32	X	X	X	66.	66				100.	100			
33.	33		X	X	67.	67								
34.	34				68.	68		X	X					

The final test therefore contained seventy questions

and answered correctly by less than 20 per cent were considered too difficult. A total of six test items were eliminated from the test for this reason.

Index of discrimination indicated those questions in which poor students did well or better than the subjects of the upper group and the value is less than 0.30. Such items were also excluded from the test because such items failed to discriminate the abilities of good and poor subjects. A total of 29 questions were eliminated for this reason.

Thus a total of 30 items were discarded. Items discarded for various reasons are presented in Table 1.

Conclusion:

From the findings of the study it was concluded that:

- Six items were eliminated on the basis of difficulty rating which contained items answered correctly by the students below 20 per cent and above 80 per cent.
- Twenty-nine items were discarded on the basis of index of discrimination in which poor students did well or better than the upper group.
- The revised test contained 70 objective type questions in Judo for students of School of Physical Education, Devi Ahilya University, Indore.

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