Development of Badminton "Wheelchair" Disabled Accuracy Test Instruments

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ABSTRACT: Research This mean to (1) Develop instrument test accuracy in athletes badminton chair wheel . (2) Testing validity and reliability instrument test accuracy badminton chair wheel . Type study This is development (Research and Development). Research design development using the Thiagarajan development model , namely 4D, Define, Design, Development, and Dissemination. (1) Define : do analysis need with trainer and observation field , (2) Design : designing guidelines test , (3) Development (development): developing a test model accuracy hair parry chair wheel , (a) Validity test fill with 2 lecturers experts and 3 trainers hair parry chair wheel , (b) Reliability test with ates trials carried out by 10 athletes and 2 trials . Research result show that : Validity and reliability test : validity fill from (1) backhand service: 0.85-1.00, (2) flick service: 0.85-1.00, (3) backhand netting: 0.85-1.00, (4) forehand netting: 0.85-1.00, (5) dropshot: 0.85-1.00, (6) lob: 0.85-1.00, meaning the whole item has level validity good content , reliability mark significance (1) backhand service: 0.005, (2) flick service: 0.001, (3) backhand netting: 0.000, (4) forehand netting: : 0.000, (5) dropshot: : 0.000, (6) lob: 0.002 value significance <0.05, can concluded that results the own good correlation or own level good reliability between tests 1 and 2.

KEYWORDS: test instrument accuracy, fluff parry, chair wheel

I. INTRODUCTION

Disability is a person's limitation in carrying out daily activities. Physical disabilities are the number 3 physical limitations such as autism and mental retardation (Cooley, 2004). Paralympic participation shows progress in various countries (Rowe, 2019). One of these advances that can be felt is wheelchair badminton. This is in line with what experts say, that badminton is one of the most popular sports that has a fast movement in the world and is a sport that can easily be played by anyone. (Sucharitha, 2014).

According to Seipdanius et al (2019), sports theory and measurement are the basis for balancing training methods and also for determining indicators to improve sports performance. Because in general the realm of theory and sports measurement is to develop theories that are useful for measuring athletes' abilities, performance and achievements in sports (Sepdanius, 2019). Measuring and evaluation tests in sports are not only carried out for normal badminton athletes, but wheelchair badminton is required to carry out tests and measurements to find out weaknesses and strengths as well as to serve as a guideline for designing training programs. This is supported by literature which shows that tests and measurements based on field trials are important sports science and rehabilitation tools in the evaluation of wheelchair users (Vanlandewijck, 2006). The advantages of the field test are that it is more economical and easier to administer (Vanlandewijck, 2006), however there are several problems that need to be studied in depth regarding the field test and measurements in wheelchair athletes.

Based on field observations on 26 October 2022, GOR Rahma Surakarta at the NPCI Java Provincial Championships, remember that wheelchair badminton athletes hit the shuttlecock several times not far from their opponents, so that the shuttlecock's shooting is not good, and points are obtained from shots that move in the same direction as a dropshot. or neitting. Then, in addition, to strengthen the observations above, the research carried out an analysis by completing a questionnaire on 6 wheelchair badminton coaches consisting of coaches from the districts of Banyumas, Peikalongan, Bantul, DIY Province, and 2 coaches from the NPC Indonesia National Training Center.

With the existence of an accuracy thesis that will be created later, it is hoped that it will help athletes and coaches to know to what extent athletes manipulate a shot and to what extent the ability of wheelchair badminton athletes through the results of the accuracy thesis analysis that will later be carried out, can also be carried out through a competition based on the results. Analysis can be an important tool or material in determining a training program. In accordance with Eirdal Tasgin's opinion, Eit All (2020) states that in a performance balance, organizing training programs or materials for evaluating the results of competition analysis

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are materials or tools that really contribute to this balance, so that they can increase or determine changes in an athlete's abilities. (Erdal Tasgin, 2020).

. Based on the background that has been described above, the author will develop an accuracy thesis instrument for wheelchair badminton athletes which aims to make it easier and help coaches to carry out accuracy thesis on wheelchair badminton athletes and later the results of the accuracy thesis can help determine and develop a training program to support performance. The advantages of this theist guideline are that apart from making it easier for coaches to identify their athletes, and simple in implementing and determining results, this thesis guideline can also be used as evaluation material which can certainly be the basis for coaches to know and improve the athlete's performance to achieve achievements.

II. MATERIALS ANDMETHODS

The method used in this research is balancing or concomitant, also called Reiseiarh and Deiveilopmeint. Research and Research are methods used in research which will produce a specific product and to test the effectiveness of that product (Sugiyono, 2014). The research method used in this research is the 4D balancing model. According to Adei Grobi Irawan (2017), the 4D balancing model is a balancing model for balancing learning which consists of four stages, namely (1) Definition stage: front end analysis, student analysis, task analysis, concept analysis, and formulation of learning objectives, (2) Design stage: drafting the thesis. Media selection, format selection, initial design, (3) stage 3 balancing: expert assessment and limited trials, then, stage (4) dissemination: validation testing, screening and adoption (Irawan A.G., 2018).

The subjects used are in accordance with the problem formulation and research design, namely as follows: 1. Research subjects The expert test (content validity test) uses 7 expert subjects consisting of 3 academic experts (3 sports evaluation lecturers) and 4 professional experts (trainers who have national certification or area for disabled badminton athletes).

2. The reliability test subjects used 10 wheelchair athletes who had experience playing wheelchair badminton at regional and national levels)

3. The practicality test subjects were 5 wheelchair badminton coaches and 10 wheelchair badminton athletes.

The data collection technique uses interviews and a list of questions from a questionnaire or questionnaire, the questionnaire is given to material experts, coaches and athletes. The rating scale used is a Likeirt scale with 5 scales, (1) very poor, (2) poor, (3) sufficient, (4) good, and (5) very good. The Likeirt scale is an assessment scale for assessing opinions, attitudes and views.

III. DISCUSSION

Validation results fill

Beirbased results validity fill from some existing indicators _ determined that is indicator For short seirvicei blow which consists of of 5 questions , for blow flick seirvicei 5 questions , for Drop shot 5 questions . For blow Neitting backhand 5 questions , for blow neitting foreihand 5 questions and for lob shot 5 questions , ringing amount question which is 30, in fact all item questions asked _ to five experts contained material _ from 2 lecturers and 3 trainers hair parry chair wheel whole mark validity fill is 0.85-1.00, that is whole item I have level validity good content . _

Reliability results

Pearson Product Moment Test Results Test Reliability Level

Short service

N	r-table	-count (test-1)	Significance	Status
10	0.632	0.803	0.005	R e ilia b e il
N	r-table	-count (test-2)	Significance	Status
10	0.632	0.803	0.005	R e ilia b e il

Based on the Pearson product moment test, it was found that the r-table value was 0.632, r-calculation (theis-1) 0.803 and r-calculation (theis-2) 0.803, then the significance value was 0.005. If the r-calculation is greater than the r-table and the significance value is <0.05, it can be concluded that the results have good correlation or have a level of reliability. Therefore, the thesis on the accuracy of short shots in the results of thesis 1 and 2 has a good level of reliability.

Flick service

N	r-table	-count (test-1)	Significance	Status
10	0.632	0.764	0.010	R e ilia b e il
N	r-table	-count (test-2)	Significance	Status
10	0.632	0.764	0.010	R e ilia b e il

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Based on the Pearson product moment test, it was found that the r-table value was 0.632, r-calculation (theis-1) 0.764 and r-calculation (theis-2) 0764, then the significance value was 0.005. If the r-calculation is greater than the r-table and the significance value is <0.05, it can be concluded that the results have good correlation or have a level of reliability. Therefore, the seirvicei flick shot accuracy thesis in the results of thesis 1 and 2 has a good level of reliability.

Backhand netting

N	r-table	-count (test-1)	Significance	Status
10	0.632	0.976	0,000	R e ilia b e il
N	r-table	-count (test-2)	Significance	Status
10	0.632	0.976	0,000	R e ilia b e il

Based on the Pearson product moment test, it was found that the r-table value was 0.632, r-calculation (theis-1) 0.976 and r-calculation (theis-2) 0976, then the significance value was 0.000. If the r-calculation is greater than the r-table and the significance value is <0.05, it can be concluded that the results have good correlation or have a level of reliability. Therefore, the backhand shooting accuracy test in the results of test 1 and 2 has a good level of reliability.

Forehand Netting

N	r-table	-count (test-1)	Significance	Status
10	0.632	0.961	0,000	R e ilia b e il
N	r-table	-count (test-2)	Significance	Status
10	0.632	0.961	0,000	R e ilia b e il

Based on the Pearson product moment test come on found r- table value is 0.632, r- count (theis-1) 0.961 and r- count (theis-2) 0.961, then mark significance is 0,000. If r- count more big from r- tables and values significance <0.05, can concluded that results mentioned I have good correlation _ or I have level reliability . By kareina That theist accuracy blow neitting foreihand on the result thesis 1 and 2 have level good reliability.

DropShot

N	r-table	-count (test-1)	Significance	Status
10	0.632	0.955	0,000	R e ilia b e il
N	r-table	-count (test-1)	Significance	Status
10	0.632	0.955	0,000	R e ilia b e il

Based on the Pearson product moment test, it was found that the r-table value was 0.632, r-calculation (theis-1) 0.955 and r-calculation (theis-2) 0.955, then the significance value was 0.000. If the r-calculation is greater than the r-table and the significance value is <0.05, it can be concluded that the results have good correlation or have a level of reliability. Therefore, the test of dropshot accuracy in the results of thesis 1 and 2 has a good level of reliability.

Lob

N	r-table	-count (test-1)	Significance	Status
10	0.632	0.844	0.002	R e ilia b e il
N	r-table	-count (test-2)	Significance	Status
10	0.632	0.844	0.002	R e ilia b e il

Based on the Pearson product moment test, it was found that the r-table value was 0.632, r-calculation (theis-1) 0.844 and r-calculation (theis-2) 0.844, then the significance value was 0.002. If the r-calculation is greater than the r-table and the significance value is <0.05, it can be concluded that the results have good correlation or have a level of reliability. Therefore, the lob shot accuracy thesis in the results of thesis 1 and 2 has a good level of reliability.

IV. CONCLUSION

Based on the results of research that has been carried out, it can be concluded that:

1. Research on balancing accuracy strokes for wheelchair badminton athletes which is carried out based on the results of observations, field surveys and the dominant strokes used by wheelchair badminton athletes resulting in special accuracy stroke
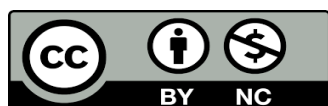
theis guidelines for wheelchair badminton athletes which are realized in the form of guidebook. The special accuracy stroke test for wheelchair badminton athletes includes 6 strokes, namely; 1) shortseirvicei, 2) flickseirvicei, 3) dropshot, 4) foreihand shooting, 5) backhand shooting, and 6) lob.

2. Based on the results of the validity and reliability tests, (1) the results of the content validity of several indicators that have been determined, namely the indicators for the short shot shot which consists of 5 questions, for the flick shot shot 5 questions, for the drop shot shot 5 questions. for the backhand shooting stroke 5 questions, for the foreihand shooting stroke 5 questions and for the lob stroke 5 questions, with the number of questions being 30, in fact all the questions submitted to five subject matter experts consisting of 2 lecturers and 3 wheelchair badminton coaches total value Content validity is 0.85-1.00, meaning that the entire item has a good level of content validity. (2) the reliability results, namely from all the test items, the r-calculation is greater than the r-table and the significance value is <0.05, it can be concluded that these results have good correlation or have a level of reliability. Therefore, the thesis accuracy in 6 strokes in the results of thesis 1 and 2 has a good level of reliability.

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