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Modification Agility Test in Tarung Derajat Sport

Amanda Dara Surya[1, *], Komarudin Komarudin[1], Ucup Yusup[1], Geraldi Novian[2]

[1] Sport Coaching Education Study Program, Faculty of Sport and Health Education, Universitas Pendidikan Indonesia, Dr. Setiabudhi No. 299, Kota Bandung, Jawa Barat, 40154, Indonesia
[2]Sport Physical Coaching Study Program, Faculty of Sport and Health Education, Universitas Pendidikan Indonesia, Dr. Setiabudi No.229, Kota Bandung, Jawa Barat, 40154 Indonesia.
[1]amandadara@upi.edu*; [1]komarudin_pko@upi.edu; [1]ucupyusup@upi.edu [2]geraldi.novian@upi.edu

*corresponding author

ABSTRACT

This study aims to determine the value of validity and reliability of agility test modifications in sport Tarung Derajat. Therefore, researchers made one of the new agility test modification models that are suitable and specific based on the characteristics of the Tarung Derajat sport which will later be tested for validity and reliability under the name 4-Direction Agility Fighting (4-DAF) modification. The research method used is the research and development method (Research and Development). The population in this study was 20 athletes from Pengcab Tarung Derajat in Kuningan regency consisting of 12 male athletes and 8 female athletes. Sampling using saturated sampling technique. The data was collected using modified instruments named 4-Direction Agility Fighting (4-DAF) and Right Boomerang Run as comparison instruments. Analysis of validity test data using pearson correlation and reliability test using Cronbach alpha test with the help of data processing using SPSS Statistics version 21. The results showed a large validity value of 4-Direction Agility Fighting (4-DAF) of 0.838 and a large reliability value of 0.987. The conclusion of this study shows that 4-Direction Agility Fighting (4-DAF) has good validity and reliability values and can be used to measure the agility level of Tarung Derajat athletes .

***Keywords**: Validity,reability, agility fighting*

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Correspondence Address:
Amanda Dara Surya
Sport Coaching Education Study Program.Faculty of Sports and Health Education. Universitas Pendidikan Indonesia.Street Dr. Setiabudhi No. 299, Bandung, Jawa Barat 40154, Indonesia
Email: amandadara@upi.edu

INTRODUCTION

A test is a tool or instrument with the aim of obtaining information or data about a person or object (Gumantan, Mahfud, and Yuliandra 2020). While measurement is a process starting from preparing test kits, then implementation to obtaining test result in the form of quantitative data that can be processed statistically (Sepdanius et al., 2019). Tests and measurements in sports are two things that cannot be separated from each other, because they are interrelated. Where the test or instrument must measure what should be measured, so as to produce data from measurements that are in accordance with the needs and characteristics of the sport (Tauba and HB 2021).

The author sees that to measure the level of agility of athletes in martial arts Tarung Derajat still use the same instruments as other sports such us using shuttle run (Noviatmoko, 2016), agility t-test (Forenza et al., 2020). Of the three instruments the author sees and feels

that the three instruments still have shortcomings and are not in accordance with the characteristics of the Tarung Derajat sport in measuring the agility of athletes especially in the men's and women's free combat categories . The shuttle run and zig-zag run instruments only measure agility (Mawardi and Wahyudi 2021) in one direction and agility t-test only measures three direction while agility requirements in Tarung Derajat require other directions and are balanced with movements that correspond to the real match and the area of the mat arena used when fighting.

The need for agility in Tarung Derajat martial arts is closely related to the speed of footwork when athletes kick, then seeing from the fighting pattern in Tarung Derajat martial arts occurs suddenly with a fast tempo, suddenly moving forward, sideways, and backward when fighting (Jamaludin et al., 2019)(Hardiyono 2019). All of this is done by fighters in the men's and women's free combat categories on a mattress measuring 12 m x 12 m which is divided into 3 arenas (Alnedrlal and Sari 2022). The outermost arena measures 12 m x 12 m, the second arena measures 10 m x 10 m and the middle or core arena used for fighting measures 8 m x 8 m. With match time in the men's free fighting category 3 x 3 minutes and women's 2 x 3 minutes with 1 minute of rest in each round (Putri and Atradinal 2020). So this is very unfortunate if the instrument used to measure the level of agility of athletes in the sport of Tarung Derajat is not specific and does not match its characteristics.

According to literature studies each sport should have a specific agility test (Samsi, 2016). For example in Taekwondo martial arts whose research was conducted the Construction of Agility Tests in Taekwondo Sports. In his research he produced two agility test models to measure the level of agility of athletes in the kyorugi category under the name Taekwondo agility test construction. The movements in the taekwondo agility test construction include lifting the knee of the right leg 10 times, then running towards the middle cone, then raising the knee of the left leg 10 times, step sideways to the right, return to the middle cone with a sideways step, when it reaches the middle cone rotate 360 degrees 2 times to the right then left, then step sideways to the left, right obverse step, left oblique step, right obverse step backward, and left step backward. The construction is made specifically according to the actual match conditions in the kyorugi category with model A having a validity of 0.93 and reliability of 0.92 while for model B it has a validity of 0.86 and reliability of 0.96.

A previous study has also been conducted saying that to measure the agility of Tarung Derajat athletes can use a shuttle run instrument with a distance of 5 meters to see the extent of the athlete's agility ability (Noviatmoko, 2016). Another case according to other studies says

that parameter tests to measure athletes' agility can use instrument agility t-test (Forenza et al., 2020). But the reality in the field, the two tests have not been able to fully measure the level of agility that matches the characteristics of the Tarung Derajat sport because it still only measures a limited direction of motion. Where the characteristics of agility in Tarung Derajat martial arts are very closely related to the speed of footwork when athletes kick, then seeing from the fighting pattern in Tarung Derajat martial arts occurs suddenly with a fast tempo, suddenly moving forward, sideways, and backward when fighting (Jamaludin et al., 2019).

The author is interested and considers it important that in the sport of Tarung Derajat it is necessary to have a specific test model or agility instrument based on the characteristics of Tarung Derajat martial arts. Therefore, the author made a modification of the agility test called 4-Direction Agility Fighting (4-DAF), where the agility test refers to research previously conducted by Samsi (2016). The reason the author modified the agility test from the Taekwondo agility test construction is because the author sees that the construction emphasizes or measures the endurance of the athlete rather than the element of agility. The author sees from the many directions in his research which there are 7 directions where the sequence in carrying out the movement requires high concentration in remembering the location of the cone or the direction to go.

While based on the understanding of agility itself, namely the ability of a person to change direction quickly and precisely without reducing speed and without losing balance and awareness of his body position (Solihin et al. 2016). So novelty from the author in this research is changed the number of directions that were originally seven to four directions according to the needs of the Tarung Derajat sport. In addition to the number of directions that the author modified, the distance between the middle cone and the cone according to the number of directions in the agility test taekwondo construction was also changed. In the construction of the taekwondo agility test a distance of 4 meters is made from the middle point or middle cone to 7 directions of the cone, while the distance that the author makes is 3 meters between the middle cones with a total direction of 4 cones so that the total size of the modification that the author makes is 6 m x 6 m. Finally, the movements carried out in the construction of the taekwondo agility test sequentially include starting with raising the knee of the right leg 10 times on test model A then running towards the middle, when it reaches the middle cone lift the knee of the left leg again 10 times, then continued with the side step to the right back again to the middle doing 2 times rotating 360 degrees, then step sideways, step forward and backward according to the order of direction of the cone made. While the movement modifications made by the author include starting with raising the knee of the right leg 2 times,

then the knee of the left leg 2 times, then the movement of running, turning around and stepping sideways.

Based on the description that has been explained, researchers consider it important to be raised in the form of research especially research on agility test modifications in Tarung Derajat. Because it is very unfortunate if Tarung Derajat athletes continue to use parameter tests to measure the agility of their athletes who are not in accordance with the needs in the field and the characteristics of Tarung Derajat martial arts such as shuttle runs, agility t-tests and zig zag runs. Therefore, researchers made one of the new agility test modification models in accordance with the characteristics of Tarung Derajat which will later be tested for validity and reliability under the name 4-Direction Agility Fighting (4-DAF) test. The hope is that the 4-Direction Agility Fighting (4-DAF) test can be used as a reference for Tarung Derajat coaches to evaluate how agility abilities are possessed by each athlete and as an effort to invite creativity in making agility tests in accordance with the characteristics of Tarung Derajat. So, this study aims to determine the value of validity and reliability of agility test modifications in sport Tarung Derajat.

METHODS

Types of Research

The method that researchers use in this study is the research and development method (Research and Development). Research and development methods are research methods that produce a product or redevelop an existing product and then test the effectiveness of the product (Hidayat and Haryanto 2021). The product resulting from this study is in the form of an agility test called modified 4-Direction Agility Fighting (4-DAF), where 4-Direction Agility Fighting (4-DAF) is the result of collaboration and refers to previous research conducted by (Samsi 2016). The design of the research and development (R&D) method consists of 10 steps (Sugiyono 2023) namely potential and problems, collecting information, product design, design validation, design improvement, product trials, product revision, usage trials, product revisions and product manufacturing. Of the 10 steps proposed by (Sugiyono 2023), because adjusting to research needs the author only took 8 steps including potential and problems, collecting information, product design, design validation, design improvement, product trials, product analysis, and products ready to use. The research design used can be seen in Figure 1.

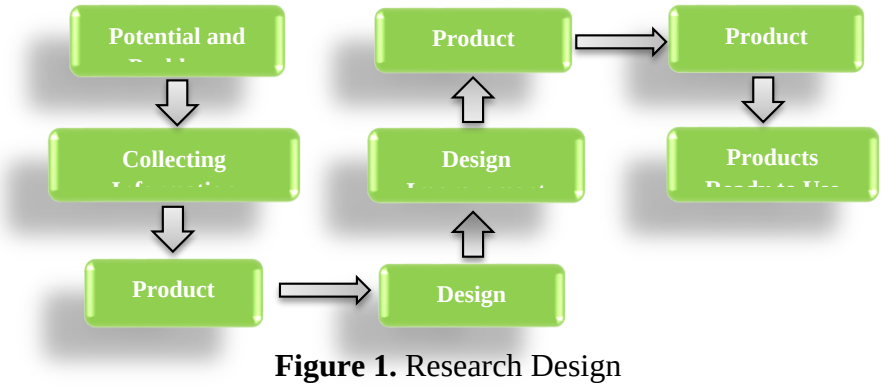

Figure 1. Research Design

(Sugiyono 2023)

Research Subjects

The population in this study is Kuningan Regency Tarung Derajat Cab athletes as many as 20 athletes in the Men's and Women's free Tarung number categories consisting of 12 male athletes and 8 female athletes. The sampling technique used is a saturated sampling technique. The saturated sampling technique is a sampling technique where the entire population is used as a research sample (Anugrah, Permadi, and Sonjaya 2022). The criteria for selecting the selected research sample are athletes in the men's and women's free fighting categories who are still actively training until now with the Kurata IV belt level (blue belt strip one) and already have good agility who will later be given an agility test 4-Direction Agility Fighting (4-DAF) adjusted to the area of the mat arena used when competing in Tarung Derajat martial arts.

Data Collection

The data obtained in this study is the result of research instruments used by researchers namely using modification 4-Direction Agility Fighting (4-DAF) and comparison instruments that have been standardized Right Boomerang Run. Modification can be interpreted as an effort to adjust by making changes both in terms of facilities and equipment as well as methods, styles, approaches, ruler and assessments (Umniyah, Mulyana, and Novian 2020). The modification of 4-Direction Agility Fighting (4-DAF) is the result of collaboration and refers to previous research conducted by (Samsi 2016). Here is the procedure for implementing the 4-Direction Agility Fighting (4-DAF) modification agility test. Modification 4-Direction Agility Fighting (4-DAF) can be seen in Figure 2.

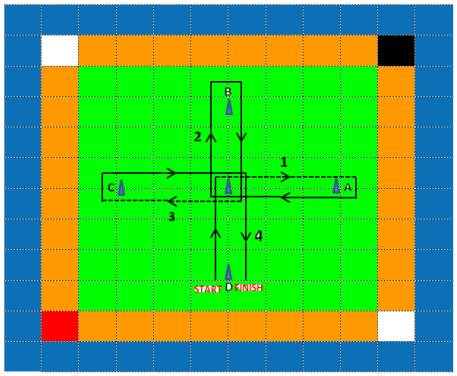

Figure 2. Modification 4-Direction Agility Fighting (4-DAF)

Purpose: the purpose of the modification of 4-Direction Agility Fighting (4-DAF) is to measure the speed, body control, and agility of Tarung Derajat athletes in the men's and women's free combat categories where the meaning of fighting here is that researchers describe according to the area of the mat arena used when competing in Tarung Derajat martial arts. Equipment: 4-Direction Agility Fighting (4-DAF) test print-out image, mattress Tarung Derajat, tape measure, stopwatch, 5-piece cone, black duct tape, test format, and stationery. Implementation: 1) Make a cone as shown above consisting of 5 cones, with a distance between the middle cone to cones A, B, C, and D which is 3 meters, 2) Testee is called, then prepares to stand behind the left D cone (starting line) facing north, 3) the tester gives the signal "willing", "ready", "start" and simultaneously the stopwacth is turned on when the signal "start", 4) Testee first lifts the knee of the right leg 2 times followed by raising the knee of the left leg 2 times. After that the testee run towards the middle cone. When it reaches the middle cone, the testee rotates the body to the left so that the position faces south. Then the testee takes a side step to the direction of cone A. When it reaches cone A, the testee immediately runs back to the next cone namely cone B which previously passed through the middle cone. When it reaches cone B the testee still continues to run until it returns to the middle cone. After reaching the middle cone, the testee rotates to the left so that the position faces north. Followed by the testee doing a side step to the cone C. Finally, when the testee has reached cone C, the testee immediately runs the sprint to the finish (cone D), 5) The testee makes three attempts and the best time is taken, 6) The stopwatch is stopped by the tester when testee has reached the finish line cone (cone D). Then the assistant records the time obtained by testee, and then calls the next testee, exogenous variables (balance, leg muscle explosive power), intervening variables (self-confidence), and endogenous variables (climbing results), it can be stated that all six research questions asked in this study shows that there is a direct influence between the variables being studied.

The difference between the modification of 4-Direction Agility Fighting (4-DAF) with research previously lies in the number of direction, the distance between the middle cone with the number of direction, movements performed, and the sequence of movements performed at the time of the agility test. In the 4-Direction Agility Fighting (4-DAF) modification the number of directions is made as many as four directions there are seven directions with a distance between the middle cones with the number of seven direction namely 4 meters while in the 4-Direction Agility Fighting (4-DAF) modification the distance between the middle cones with the number of four directions is 3 meters. Furthermore, the movements carried out in the 4-Direction Agility Fighting (4-DAF) modification consist of lifting the knee of the right leg twice, raising the knee of the left leg twice, running, turning the body 180 degrees, and side steps. Whereas in the previous study consisted of the movement of lifting the knee of the right leg ten times, raising the knee of the left leg ten times, running, turning the body 360 degrees, side step, right oblique step forward, left oblique step forward, right oblique step back, and left oblique step back. Then the difference in the sequence of movements carried out lies when lifting the knee in the 4-Direction Agility Fighting (4-DAF) modification carried out at the beginning (start) both the knee of the right leg and the knee of the left leg alternately twice while in previous studies raised the knee of the right leg ten times at the beginning (start) then run until the middle cone, when you reach the middle cone lift the knee of the left leg ten times, after that step the side to the right and then return to the middle then rotate the body 360 degrees twice.

Data Analysis

The data analysis techniques used in this study are as follows:

The calculate the validity value it is done by correlating the best time from the first measurement of 4-Direction Agility Fighting (4-DAF) with the best time results of the Right Boomerang Run comparison instrument using the pearson correlation test using SPSS Statistics version 21. This type of validity test is called criterion validity (Syamsuryadin and Wahyuniati 2017). Calculating the reliability value of 4-Direction Agility Fighting (4-DAF) in this study with the test-retest method. That is by correlating between the results of the best first measurement and the second measurement from the results of data collecton obtained by athletes in 3 experiments in each measurement. Data processing using SPSS Statistics versi 21 and reliability tests conducted using the Cronbach Alpha test (Budi 2021).

RESULTS AND DISCUSSION

Result

The results of the first 4-Direction Agility Fighting (4-DAF) measurement data we present can be seen in Table 1.

Table 1. Test Results First Measurement 4-Direction Agility Fighting (4-DAF)

Sample Code	Gender	Age (years)	T1	T2	T3	BT
01	Male	21	14.22	12.52	12.58	12.52
02	Male	16	14.32	12.62	12.79	12.62
03	Male	22	14.34	13.56	12.87	12.87
04	Male	16	15.81	14.62	14.21	14.21
05	Male	17	14.25	12.60	12.66	12.60
06	Female	20	15.72	14.37	14.08	14.08
07	Female	25	15.96	15.23	15.09	15.09
08	Female	21	14.75	13.56	13.04	13.04
09	Female	15	15.00	13.17	13.21	13.17
10	Female	19	15.32	13.61	13.20	13.20
11	Male	15	14.91	13.15	13.19	13.15
12	Female	15	15.50	13.69	13.64	13.64
13	Female	16	15.39	13.82	13.36	13.36
14	Male	17	14.68	13.42	13.47	13.42
15	Male	16	15.22	14.19	14.00	14.00
16	Male	16	14.54	12.92	13.01	12.92
17	Male	20	14.61	12.94	13.00	12.94
18	Male	18	14.19	12.54	12.40	12.40
19	Male	25	15.93	14.66	14.71	14.66
20	Female	18	15.87	14.90	14.25	14.25
Sum			300.53	272.09	268.76	268.14
Mean			15.03	13.60	13.44	13.41
Maximum			15.96	15.23	15.09	15.09
Minimum			14.19	12.52	12.40	12.40
Std. Deviation			0.63	0.83	0.73	0.75

*the value is read in second

Information:

T1 = First try time

T2 = Second try time

T3 = Third try time

BT = Best time

The results of the second 4-Direction Agility Fighting (4-DAF) measurement data we present can be seen in Table 2.

Table 2. Test Results Second Measurement 4-Direction Agility Fighting (4-DAF)

Sample Code	Gender	Age (years)	T1	T2	T3	BT
01	Male	21	13.15	12.50	11.94	11.94
02	Male	16	13.66	12.63	11.97	11.97
03	Male	22	13.93	12.85	12.00	12.00
04	Male	16	15.00	14.22	13.41	13.41
05	Male	17	13.27	12.59	11.96	11.96
06	Female	20	14.90	14.10	13.16	13.16
07	Female	25	15.84	15.09	14.75	14.75
08	Female	21	13.67	13.04	12.38	12.38
09	Female	15	14.56	13.20	12.41	12.41
10	Female	19	14.80	13.19	12.47	12.47
11	Male	15	14.00	13.16	12.39	12.39
12	Female	15	14.70	13.69	13.00	13.00
13	Female	16	14.72	13.38	12.87	12.87
14	Male	17	14.58	13.41	12.94	12.94
15	Male	16	15.00	14.03	13.12	13.12
16	Male	16	13.43	12.90	12.08	12.08
17	Male	20	13.68	12.77	12.16	12.16
18	Male	18	13.06	12.38	11.81	11.81
19	Male	25	15.02	14.37	14.19	14.19
20	Female	18	15.72	14.69	14.00	14.00
	Sum		**286.69**	**268.19**	**255.01**	**255.01**
	Mean		**14.33**	**13.41**	**12.75**	**12.75**
	Maximum		**15.84**	**15.09**	**14.75**	**14.75**
	Minimum		**13.06**	**12.38**	**11.81**	**11.81**
	Std. Deviation		**0.83**	**0.78**	**0.83**	**0.83**

*the value is read in second

Information:

T1 = First try time

T2 = Second try time

T3 = Third try time

BT = Best time

The agility test results based on data processing on the first measurement as well as the second measurement of the 4-Direction Agility Fighting (4-DAF) modification showed average values that were different from each other, can be seen in Table 3.

Table 3. Test Results 4-Direction Agility Fighting (4-DAF)

Measurement	N	Minimum	Maximum	Sum	Mean	Std. Deviation
First	20	12.40	15.09	268.14	13.4070	0.75163
Second	20	11.81	14.75	255.01	12.7505	0.82977

*the value is read in second

The table above shows statistical data taken from the best time of the first measurement and the second measurement of the 4-Direction Agility Fighting (4-DAF) modification of the Kuningan regency Pengcab Tarung Derajat athletes. The data also explains the number of samples that carried out the test as many as 20 athletes. In the first measurement the minimum time obtained was 12.40 second followed by a maximum time gain of 15.09 seconds. The best time obtained from the 20 athletes was 268.14 seconds with the best average time value on the first measurement of 13.41 seconds and a standard deviation of 0.75163. While in the second measurement it can be seen that the minimum time gain achieved is 11.81 seconds and the maximum time achievement is 14.75 seconds. The best time obtained on this second measurement was 255.01 seconds with a best average time value of 12.75 seconds and a standard deviation of 0.82977.

To calculate the validity value it is done by correlating the best time results of 4-Direction Agility Fighting (4-DAF) with the best time results of the Right Boomerang Run comparison instrument using product moment correlation with pearson correlation then using the help of the SPSS Statistics version 21.

Table 4. Validity 4-Direction Agility Fighting (4-DAF)

		4-Direction Agility Fighting (4-DAF)	Right Boomerang Run
4-Direction Agility Fighting (4-DAF)	Pearson Correlation	1	0.838**
	Sig. (2-tailed)		0.000
	N	20	20
Right Boomerang Run	Pearson Correlation	0.838**	1
	Sig. (2-tailed)	0.000	
	N	20	20

**. Correlation is significant at the 0.01 level (2-tailed).

The result of the correlation between 4-Direction Agility Fighting (4-DAF) with the Right Boomerang Run comparison instrument using the help of the program SPSS Statistics version 21 obtained a result of 0.838 for pearson correlation and 0.000 for Sig. (2-tailed).

Data processing using the help of the program SPSS Statistics version 21 and reliability tests carried out using the Cronbach Alpha test. The following table presents the results of the reliability test using the Cronbach Alpha trial, can be seen in Table 5.

Table 5. Reliability 4-Direction Agility Fighting (4-DAF)

Cronbach's Alpha	N of Items
0.987	2

The results of the best time correlation on the first measurement and the second measurement of the 4-Direction Agility Fighting (4-DAF) modification (test-retest) using the help of the SPSS Statistics 21 program obtained a reliability value of 0.987. Judging from the reliability interpretation table the reliability value is included in the very high category (Rahman, 2016). The table of reliability interpretation can be seen in Table 6.

Table 6. Reliability Interpretation

Correlation Coefficient	Reliability Criteria
0.81 – 1.00	Very High
0.61 – 0.80	High
0.41 – 0.60	Enough
0.21 – 0.40	Low
0.00 – 0.20	Very Low

Discussion

A test is a tool or instrument with the aim of obtaining information or data about a person or object (Gumantan et al. 2020) (Sukendra 2020). While measurement is a process starting from preparing test kits, then implementation to obtaining test result in the form of quantitative data that can be processed statistically (Sepdanius et al., 2019). Tests and measurements in sports are two things that cannot be separated from each other, because they are interrelated. Where the test or instrument must measure what should be measured, so as to produce data from measurements that are in accordance with the needs and characteristics of the sport (Tauba and HB 2021). The most important criteria in compiling a new instrument such as the modification of 4-Direction Agility Fighting (4-DAF) are having validity (sahih) and reliability (ajeg) (Indrawan, Rubiana, and Herliana 2020). A measuring instrument or test instrument can be said to have high validity if the measuring instrument has accuracy and accuracy in performing its measuring function. While reliability is the degree of reliability or stability of the measurement results of a test tool obtained from several tests on the same object, the same measuring instrument, and the same test implementation procedure. This means that the level of accuracy or consistency of a measuring instrument in showing data that remains even though it is used several times.

Agility is person's ability to change rapidly without reducing speed and not lose balance and awareness of his body position (Solihin et al. 2016). Agility in the sport of Tarung Derajat is an important element needed by athletes. The role of agility in Tarung Derajat martial arts is

needed when fighting in the men's and women's free fighting categories. Agility in Tarung Derajat martial arts is closely related to the speed of footwork when athletes kick, then seeing from the fighting pattern occurs suddenly with a fast tempo, suddenly moving forward, to the right and left sides, and backward when fighting (Jamaludin et al., 2019). In addition, in fighting movements are always combined both hitting and kicking with continuous flow, by having good agility the ability to fight is also more optimal and varied (Noviatmoko, 2016).

Based on the processing of validity test data obtained by correlating between the best time on the first measurement of 4-Direction Agility Fighting (4-DAF) with the best time of the Right Boomerang Run comparison instrument, the modification of 4-Direction Agility Fighting (4-DAF) has a validity value with very high criteria of 0,838. Then significant value of validity of 0,000 is also obtained, where if the significant value is 0,000 < 0,05 then the modification of 4-Direction Agility Fighting (4-DAF) is said to be valid. The results of obtaining the validity of the 4-Direction Agility Fighting (4-DAF) modification are also in line with the results of previous research testing entitled Construction of Agility Tests in Taekwondo Sports namely making an agility instrument that is specific to how things are fielded or when competing in the kyorugi category with the name of the agility instrument namely the agility taekwondo test. Where the study produced two construction test models A and B with the result showing the validity value of the model A test of 0,93 and model B of 0,86. The acquisition is not much different from the modification of 4-Direction Agility Fighting (4-DAF) made by the researcher which is 0,838 which both have very high criteria.

In addition to being proven by statistical and processing result as well as comparison of results with previous research, this modification is said to be valid because the modification of 4-Direction Agility Fighting (4-DAF) also measures important abilities or movements that are adjusted to the actual state of the Tarung Derajat match. Like raising the knee to start the kick, then to avoid or do an attack can be done by stepping sideways, then there is also a body rotation movement where this movement is a function of training for body balance when doing back kick techniques. This is also in line with previous where the movements in the construction of the taekwondo test agility are adjusted to the actual state of the kyorugi match. So that this modified 4-Direction Agility Fighting (4-DAF) instrument is suitable and can be used to measure the agility of Tarung Derajat martial arts athletes in the male and female combat number categories.

As for the reliability test based on the results of processing reliability test data conducted by researchers namely by correlating the best time from the first measurement and

the second measurement of the 4-Direction Agility Fighting (4-DAF) modification, a reliability value of 0,987 was obtained. The value comes from the calculation of the Cronbach Alpha test, where if the value of Cronbach's Alpha > 0,6 then it can be said that the measuring instrument or instrument is reliable. The results of obtaining the reliability of the 4-Direction Agility Fighting (4-DAF) modification are also where the study produced two construction test models A and B with the results showing the reliability value of model A tests of 0,92 and model B of 0,96. The gain is not much different from the modification of 4-Direction Agility Fighting (4-DAF) made by the researcher which is both included in the very high category.

Apart from the results of statistics and processing as well as comparison of results with prvious research described above, research conducted by researchers also has novelty namely the research method used. The research method used was using descriptive methods, while the research method used in the 4-Direction Agility Fighting (4-DAF) Modification research was a research and development method (Research and Development). Research and Development methods are research methods that produce a product or redevelop an existing product and then test the effectiveness of the product (Hidayat and Haryanto 2021; Sihotang 2023). This method is very suitable with what is done by researchers because it produces a product in the form of a test model that aims to measure the agility ability of athletes in the Tarung Derajat sport with the product name, namely the modification of 4-Direction Agility Fighting (4-DAF).

CONCLUSION

Based on the research that has been carried out, the author can conclude that 4-Direction Agility Fighting (4-DAF), which is a modification of the agility test for Tarung Derajat athletes, can be declared valid and reliable, so this test is suitable for use as a tool to measure the agility of Tarung Derajat athletes. The author suggests to practitioners, especially coaches, to be able to use this test in the training process so that they can have athlete agility data and can provide actual data regarding the agility of Tarung Derajat athletes.

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