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Application of Huld technique software assessment of stance (SEOGI) techniques for male kata Karatedo athletes in Dong da district, Hanoi city

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Abstract

Based on the interview and research process, the thesis has selected 2 new training methods to improve advanced STANCE techniques to put into practice and parallel test for male kata Karatedo athletes.

Keywords: Application, technical assessment, male kata Karatedo athletes

Introduction

Place the problem

Through surveys and practical application of software testing in practice Huld Technique discovered athletes often guilty of stance (dachi) and error while moving stance. As a result, the athletes are not aware of mistakes in their exercise when the exercise contains more slow moves that require aesthetics and faster recovery, which can be a difficult factor for some athletes. It has many slower movements, it requires a practitioner with good stamina.

Through field surveys and testing of Huld Technique software in practice, athletes often have errors in the stance (dachi) and error while moving the stance. On that basis, in combination with finding out the current status of application of Huld Technique software in sports training in many sports such as Tennis, Golf, Karatedo..., there have been successes. So I determined the "Research on applying Huld Technique software to evaluate stance techniques for male kata Karatedo athletes Dong Da district, Hanoi city."

Research Methods

In order to meet the research tasks of the topic using 7 research methods: Methods of document analysis and synthesis, Interviewing methods, Software application methods Huld Technique, Pedagogical observation methods, Methods Experimental method of pedagogy, Method of pedagogical test, Statistical method of mathematics

Results and Discussion

Selecting exercises and using video slowdown technology in training for male kata Karatedo athletes

Video slowdown is no longer a novelty in modern sports. It has been applied in technical analysis in many sports such as tennis, swimming, football, golf,... Karatedo is, too, video recording and slow rewinding are used in both practice and competition. match. With competition, we are no stranger to the technology of television and live video replay in each match. As for practice, video slowdown has many applications and is effective; As follows:

Help the coach to evaluate the athlete's rights more meticulously: as follows:

When the coach observes athletes with their eyes, there is no inevitable lack of movements because the movements are continuous and very fast. But with slow rotation technology, the coach can meticulously observe each move for a more detailed assessment.

The athlete can observe himself entirely rather than observe with a mirror: When practicing with a mirror, athletes can only observe and correct technical errors (accounting for 4.0 points). But when observing with the video, athletes can also observe the power of their speed, charisma and powerful rhythm (accounting for 6.0 points).

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- With the application of Hudl Technique software in practice:
 + The coach can compare the two videos of athletes with different levers through the "Compare" mode to see the differences and errors that exist in athletes.

In addition to the parallel viewing of 2 videos, Hudl Technique's "Compare" mode also allows users to overlap 2 videos for comparison.

+ Coach can directly analyze technique for athletes through drawing tools, circle right and wrong, measure angle,...The coach can also record a video with audio analysis. Save videos and share to your community or social network for athletes or professionals to view, comment on and comment on.

Applying Hudl Technique software to evaluate and correct mistakes often made when using stance techniques for male kata karatedo athletes Dong Da district, Hanoi city.

Experimental organization

Experimental object: The research topic on 8 right athletes does not have the national level of Hanoi Senior Athletics Training Center. We divided into 2 groups to conduct experimental tests in parallel: + Experimental group includes: 4 athletes. This group will perform the practice in combination using Hudl Technique software for a period of 3 months (from the beginning of March to the end of June 2020). + Control group includes: 4 athletes. This group does the normal exercise with the old exercises before.-
 Experimental time: The project of applying HUDL Technique software on the research object on 8 right athletes without

national level of Hanoi Senior Athletics Training Center.
 -The experimental period will be held from early March to June 2020.

Evaluate the efficiency of the Hudl Technique software application through experimental tests

For the purpose of evaluating the effectiveness of Hudl Technique software to improve the technique of stance (Dachi) for athletes, the research topic on 8 right athletes does not have the national level of Hanoi Senior Athletics Training Center. We divided into 2 groups to conduct experimental tests in parallel: Experimental group includes 4 athletes. This group will perform the practice in combination using Hudl Technique software for a period of 3 months (from the beginning of March to the end of June 2020).

+ The control group includes 4 athletes. This group does the normal exercise with the old exercises before.

After dividing the athletes into 2 research groups, we examined and compared the technique before the experiment of the experimental group and the control group to evaluate and compare the professional qualifications of the playes. Test to ensure that there are no differences between study participants as well as ensure the reliability of the Test by:

Observe the standard stability of stance technique (Dachi) of the athletes through the stance technique test when performing 4 rights of KataJion, Nijushiho sho, Bassai Dai and Tekki Nidan. Through observation and reviewing the video tape to sum up the number of errors in stance. The results are in Table 1:

Table 1: Results of the number of stance of errors in the athlete's rights hand Before the experiment:

TT	The experimental group (n=4)					The control group (n=4)				
	Jion	Nijushiho sho	Bassai Dai	Tekki Nidan	Tổng	Jion	Nijushiho sho	Bassai Dai	Tekki Nidan	Total
1	8	11	12	14	45	9	11	12	14	46
2	7	10	11	13	41	8	10	12	14	44
3	7	11	13	15	46	8	11	10	13	42
4	9	9	10	14	42	7	10	11	13	41
Max	21	27	29	32	109	21	27	29	32	109

The topic compares the average error rates of the two groups when performing the exercise according to the formula:

$$T = \frac{\sum (x_1 + x_2 + x_3 + x_4)}{n \cdot \sum x_{max}} \cdot 100\%$$

Inside

+ x1, x2, x3, x4: is the number of mistakes in the 4 rights respectively.

+ n: is the total number of athletes of the group.

+ xmax: is the maximum number of errors in a rights.

From the above formula we calculate:

$$T_1 = \frac{45 + 41 + 46 + 42}{4 \cdot 109} \cdot 100\% = 39,908\%$$

$$T_2 = \frac{46 + 44 + 42 + 41}{4 \cdot 109} \cdot 100\% = 39,679\%$$

Inside

+ T1: Average error rate of the experimental group

+ T2: Average error rate of the control group

Through Table 1 and the difference in error rates of the 2 groups, it can be seen that the stance technical skills of the athletes in both experimental and control groups were almost the same, no difference. significant deviation between the 2 study groups.

To prove that, we used statistical mathematical methods to process the obtained data. From the percentage we calculate the average technical score in the competition of two groups of athletes with 4.0 score scale according to Kata competition rules (6.0 remaining scores are presented). The results are as follows: + Average technical score of the experimental group is calculated as follows:

$$A = 4.0 - (4.0 \cdot T1) = 4.0 - (4.0 \cdot 39,908\%) = 2.4 (p)$$

+ The average technical score of the control group is calculated as follows:

$$B = 4.0 - (4.0 \cdot T2) = 4.0 - (4.0 \cdot 39,679\%) = 2.4 (p)$$

Thus, from the technical score in the competition calculated as above, we can confirm that the 2 groups have the same experimental technical skill level. After ensuring all the conditions, we proceeded to apply the training methods with Hudl Technique software in the experimental group.

Specifically, the experimental group will conduct training 5 days / week, 2 sessions per day. Each week, there will be 3 sessions of using Hudl Technique software to edit stance of

techniques. The other sessions were carried out to practice the content of hand techniques, leg techniques, fitness, and competition according to the coach's
The control group conducted exercise 5 days / week, 2

sessions per day. Practice according to the predetermined plan of the coach. After 3 months of training and competition, we again assess the athletes' performance in the same way as before the experiment. The results are in Table 2:

Table 2: The results of the number of stance errors in the athlete's rights hand after the experiment

TT	The experimental group (n=4)					The control group (n=4)				
	Jion	Nijushiho sho	Bassai Dai	Tekki Nidan	Tổng	Jion	Nijushiho sho	Bassai Dai	Tekki Nidan	total
1	7	8	8	9	32	8	9	10	11	38
2	7	7	8	8	30	7	8	9	10	34
3	7	8	8	9	32	8	8	9	10	35
4	7	7	8	8	30	7	8	9	9	33
Max	21	27	29	32	109	21	27	29	32	109

From the results in Table 2, we proceed to calculate the results as follows:

- The average rate of attack errors of the two groups:

$$T_1 = \frac{32 + 30 + 32 + 30}{4.109} \cdot 100\% = 28,440\%$$

$$T_2 = \frac{38 + 34 + 35 + 33}{4.109} \cdot 100\% = 32,110\%$$

Average technical score of experimental group:

$$A = 4,0 - (4,0 \cdot 28,440\%) = 2,9 \text{ (p)}$$

Average technical score of the control group:

$$B = 4,0 - (4,0 \cdot 32,110\%) = 2,7 \text{ (p)}$$

Based on the statistics that show the technical score test results of 2 groups of subjects have differences, it proves that the methods of applying Hudl Technique software that the topic has studied and applied have highly practical and suitable for research subjects.

After 3 months of experiment, it was shown that the stance technique of experimental group was 0.2 points better than that of the control group. So it can be said that the combination of the Hudl Technique software application methods has been applied to evaluate and consolidate the stance technique for male kata karatedo athletes in Dong Da district, Hanoi city to promote high efficiency. than using only the previous exercises. So through the process of solving task 2, the topic has:

1. Identify the requirements and basic principles in the application of Hudl Technique software to evaluate stance technical skills for the male kata karatedo athletes in Dong Da district, Hanoi city.
2. Through the process of interviews and research, 2 new training methods have been selected to practice and improve tonic techniques to put into experiment.
3. After 3 months of experimentation, the topic has evaluated the effectiveness of the selected methods and reached a final conclusion. From the above research results shows:
4. We have built up methods on the application of Hudl Technique software to evaluate stance techniques with the following steps: Using the camera of a mobile device to record training and competition. Then conducted the evaluation by two methods of analysis directly or indirectly for athletes by Hudl Technique software.

The Hudl Technique software application methods are guaranteed in terms of quality and the method used is

consistent with the training plan of the for the male kata karatedo athletes in Dong Da district, Hanoi city.

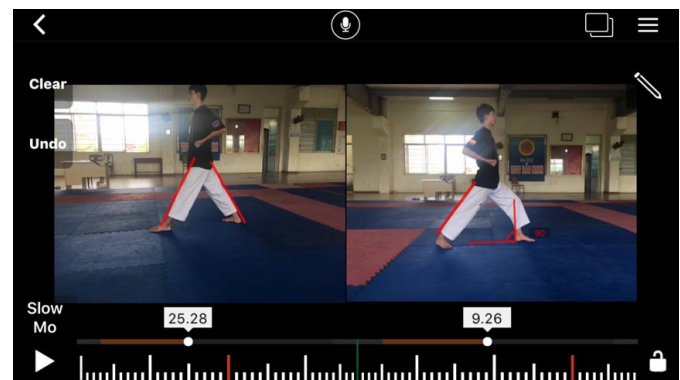
through the number of questionnaires of the The coaches, athletes and received very positive feedback. The topic has researched and gave 2 methods for the coach to apply the software to evaluate and reinforce the stance technique for athletes as follows:

Method 1 - Direct analysis and evaluation: A method of analyzing live video for athletes to watch right after performing the exercise. There are many ways for coaches to analyze and evaluate directly the technique of athletes.

The topic conducts research and chooses the following 3 ways for the coach to evaluate the technical stance (Dachi) of the athlete:

1. Option 1: Let athletes review the video with slow motion combined using drawing tools directly on the video to analyze and evaluate:
2. Using the function "Slow Mo" to play video at a lot of slow speeds to help coaches and athletes easily detect mistakes.
3. After detecting the athlete's error, the coach conducts analysis and evaluation by stopping the picture and using the drawing tools in the "□" pencil icon bar to draw a description of the athlete's stance technique. Also incorporates verbal analysis to evaluate whether technical is right or not.

Example 1: Observe slow motion video to detect athlete's error. Combined using drawing tools for analysis.



Hình 2.1: Phân tích tấn của VĐV

Fig 1: Athlete's stance analysis

Through observing slow motion video, athletes can see technical mistakes Zenkutsu Dachi Zenkutsu Dachi is an stance that puts 70% of your body weight on the foreleg. The forelegs are facing the front, the forearms are set at an angle from 85 ° to 90 °. Hind legs straighten knees, feet bent at an

angle of no more than 30° . The distance from the front heel to the back heel is about 3.5 feet. The heels must not lie in a straight line, but must be separated by about 1 fist. Through the analysis results in Figure 2, it shows the following errors:

- Front legs set slightly diagonal, hind legs open more than 30° .
- The angle between the thigh and lower leg is too large and the angle between the lower leg and the ground is too small, indicating that 70% of the body weight has not been put on the front leg.

So, the coach can conclude: Stance Zenkutsu of athletes still has many mistakes, need to learn from experience and reinforce.

Method 2: Parallel comparison of the same technique with higher level athletes to assess their qualifications:

- Use the function "Compare" to compare technique with another available video of higher level athletes. By allowing 2 technical videos to run in parallel at slow speed.
- After detecting technical errors, stop the video and analyze the technique of 2 players like "way 1" on both videos. From there make comments and reviews.

Example 2: Analysis of technical error KokutsuDachi (back stance) performed by the 1st runner by comparing with the standard technique of the 2nd performer:

Kokutsu Dachi is an stance that puts 70% of his body weight on his hind legs. The shoulders, hips, knees and shins are on a flat surface perpendicular to the ground. The forelegs are facing the front, the front heel and the hind heel are in a straight line and the heels form a 90° angle. The distance between your legs is about 2 feet. Knees bent lower body.



Fig 2: KokutsuDachi technical evaluation by parallel comparison

1. The evaluation results from Figure 2 show that athletes still have the following errors:
2. The shoulders, hips, knees and legs are not on a flat surface perpendicular to the ground.
3. The front heel and back heel of the athletic in the 1st runner-up create an angle too large for the athletic in the 2nd runner by 90° . n 2 là 90° .
4. So, the coach can make a conclusion: Stance Zenkutsu of athletes still has many wrong points, need to learn from experience and reinforce.

Method 3: Use the superposition function for technical evaluation:

1. + Let 1 or 2 videos run in parallel by "Slow Mo" to detect errors.
2. Then use the parallel comparison function of 2 videos like "way 2".
3. Then click on the icon "☐" to overlap 2 videos and conduct analysis and evaluation as done in "way 1".

Example 3: Stance technical evaluation of athletes

In the right standard system, all the player's stance move

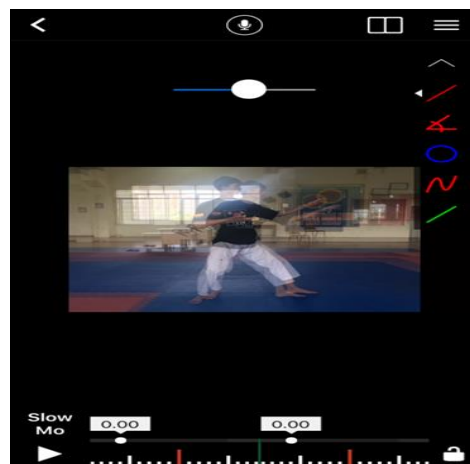


Fig 3: Using the superposition method

The analysis results from Figure 3 show that the athlete was wrong in standing stance. So the standing position was changed about 1 foot and fell slightly forward. Resulting in 2 images when being compared out of position (0.1 to 0.3 points are deducted in the match).

So, the coach can conclude: athletes still have the error of moving stance. Need to correct the stance technical.

Method 2: - Indirect analysis and evaluation:

A method of analyzing video and sharing video on social networks for many viewers.

1. Coach implements method 2 as follows:
2. Select a video to analyze, or choose two videos to compare.
3. Click on the "record icon" to first record the analysis process. Since it has both the function of recording and recording, when the video plays, the coach can directly use the analytical speech there (Figure 4).
4. Use functional tools for analysis like the implementation in method 1.
5. Click on the "record icon" to finish editing and save it as a new video (Figure 4).
6. Share on social networks for everyone to comment and comment. Or just share with a group of athletes or coaches who can watch the video (Figure 4).



Fig 4: Technical analysis video recording

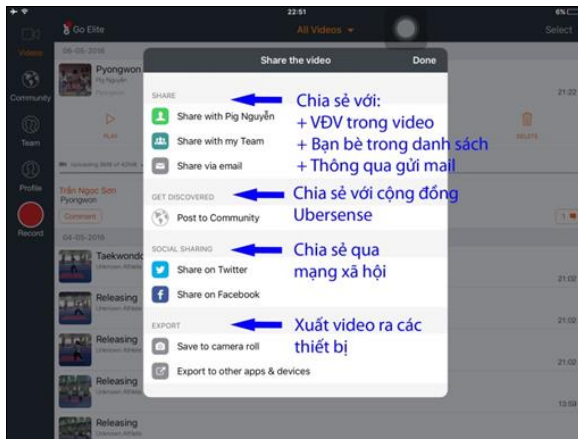


Fig 5: Sharing edited video

4. Conclusion

From the above results, the topic has drawn the following conclusions:- The application of media methods in teaching and training stance Dachi techniques in the practice of Kata athletes in Dong Da district, Hanoi city is limited and does not affect the practice much. of the athletes.

- The topic explored how to use Hudl Technique software and gave two effective video analysis methods to help coaches and athletes evaluate and reinforce techniques.
- The topic applied software to sports training through experimentation. At the same time, the software evaluation has created excitement and efficiency in the practice for the male kata karatedo athletes in Dong Da district, Hanoi city..

References

1. Nguyễn Đương Bắc. Research on selecting exercises to improve the ability to coordinate movement for students specializing in karate martial arts - by University of Sports1 Master's thesis in education.
2. Nguyễn Danh Thái, Trần Tuấn Hiếu, Nguyễn Đương Bắc The Karate-do Curriculum, Hanoi Sports Publishing House, 2001.
3. Dương Nghiệp Chí, Sport measurement, Hanoi Sports Publishing House.
4. Harre-D. Training Theory, (Trương Anh Tuấn, Bùi Thế Hiền traslate), Hanoi Sports Publishing House, 1996.
5. Nguyễn Xuân Sinh, Dương Nghiệp Chí, Lê Văn Lãm, Lưu Quang Hiệp, Phạm Việt Vượng, Lâm Quang Thành, Phạm Ngọc Viên Textbooks Theoretical and scientific research methods of physical training, Hanoi Sports Publishing House, 2012.
6. Nguyễn Đức Văn. Statistical method in sport, Hanoi Sports Publishing House, 2008.
7. Phạm Ngọc Viễn. Sports psychology, Hanoi Sports Publishing House, 1991.