



## **Development of Exercise Variations Instructional Videos Attack Using Punching Pad Taekwondo Beginner Athletes Year 2021**

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*Received:* April 26, 2022; *Reviewed:* May 23, 2022; *Accepted:* June 23, 2022;  
*Published:* June 28, 2022

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### **ABSTRACT**

*This study aims to find out how the feasibility of instructional video variations of attack training using punching pads for taekwondo novice athletes in 2020. The study was conducted on product trials at taekwondo clubs. TVRI Medan. Address on JL. Capt. Sihombing Stone. Comp. TVRI, Club Taekwondo Taruna Nusantara Medan which is located at Jl. Karya Jaya. Comp. Jaya Syafira. Medan Johor and at Taekwondo Club Gaperta Medan. A study subject is a whole object where several sources or informants can provide information about the video instructional attack training product using a punching pad in development research. The research method is the Research and Development (R&D) method. The results of the development of video instructional attack training using punching pad taekwondo novice athletes from the sports aspect have been categorized very well with a percentage of 87.5%, thus the development product can be categorized as viable and can be used. The development of video instructional attack training using punching pad taekwondo novice athletes from taekwondo coaches has been categorized very well with a percentage of 96.6%, thus the development product can be categorized as feasible and usable. The development of video instructional attack training using punching pad taekwondo novice athletes from media experts has been categorized very well with a percentage of 92%, Thus the development product can be categorized as viable and usable. Conclusion of the development of video instructional attack training using punching pad is an instructional video variation of attack training using punching pad in taekwondo novice athletes in 2021 has an excellent category and is worth using.*

**Keywords:** *Training, Attack, Punching Pad, Taekwondo.*

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### **INTRODUCTION**

Taekwondo is a martial arts sport rooted in traditional Korean martial arts. Taekwondo means the art or way of disciplining oneself or martial arts that use the technique of feet and bare hands (Suryadi, 2002). The three most important materials in practicing taekwondo are moves in taekwondo (Taegeuk), hard object breaking techniques in taekwondo (Kyukpa), and fights in taekwondo martial arts (Kyoruki). Mastery of basic taekwondo techniques correctly is needed to become a reliable taekwondo athlete. The

basic technique of taekwondo consists of the easel technique (Seogi), the attack technique (Kyongkyok kisul), the tanking technique (Makki), the target accuracy technique of the opponent's body parts (Keup so), and also the body parts used to attack and defend (Suryadi, 2002).

Taekwondo has several classes in kyorugi matches that are divided according to gender and weight. The class division for the men's category is under 54 kg, under 58 kg, under 63 kg, under 68 kg, under 74 kg, under 80 kg, under 87 kg, and over 87 kg while the class division for princesses is under 46 kg, under 49 kg, under 53 kg, under 57 kg, under 62 kg, under 67 kg, under 73 kg, over 73 kg. In matches kyourugi is limited in the search for points, for example winning Knock Out (KO), winning because the opponent cannot continue due to injury or not being present in the match, winning because Selling points i.e. too many points difference where one of the athletes has outperformed his opponent and cannot catch up and win for Gap points if the athlete who reaches points in the match is limited to maximum points and can also win the full 3 rounds without being limited to the difference between points and maximum points.

The mechanics of the match in the martial art of taekwondo are between two athletes meeting each other with kick and punch techniques, be it counter and attack techniques to get points. To get taekwondoin points, you must hit the allowable target hard, causing an effect on the opponent who is hit by the kick. The allowable part includes the front body, back, and head. Some of the kyorugi kick techniques that are often used include dollyo chagi, idan dollyo chagi, mad badad dollyo chagi, dwi chagi, nare chagi, naryo chagi, dolke chagi, and dwi hureyo chagi.

A kicking technique used is certainly influenced by the type of competition of a taekwondo athlete. There are two types of athletes, namely the counter and attack types. Athletes with a counter-type are more likely to wait for the opponent to attack than athletes with this type will try to avoid counter-attacks, while athletes with an attack-type tend to be more aggressive and attack the opponent first. The type of play of a kyorugi taekwondo athlete certainly affects the strategy in a match. Counter-type athletes certainly prefer to wait and take advantage of the opponent's mistakes to counter attacks and get points, while attack types always make opening attacks to get points. The type of attack athlete always instills a thought of being aggressive and attacking first. The opening attack of an attack-type athlete is certainly a kicking technique that can make the opponent become distracted by his concentration and is effective in generating points. In the comparison of counter and attack type athletes, of course, there are certain advantages and disadvantages, but in the

rules of taekwondo matches that also assess aggressiveness in a match, of course, athletes with attack types benefit more.

In the strategy of athletes with an attack-type, several kicks are used as opening attacks, including dollyo chagi and idan dollyo chagi, these two kicks are types of kicks that are felt to provide advantages and effectiveness in obtaining points and making it easier to compose the next attack. In addition, the dollyo chagi and idan dollyo chagi kick techniques can be applied more easily because these kicks can be varied with various forms of steps to start a kick prefix.

In a match, a proper tactic is needed so that every technique used to attack becomes more effective in giving points. With the existence of two types of techniques that are often used to open the initial attack in taekwondo matches, of course, a coach and athlete must know the level of effectiveness of the kick. By knowing the level of effectiveness of the technique against the points produced, of course, the coach will be able to practice techniques that are considered better and more effective in giving points to the opening attack.

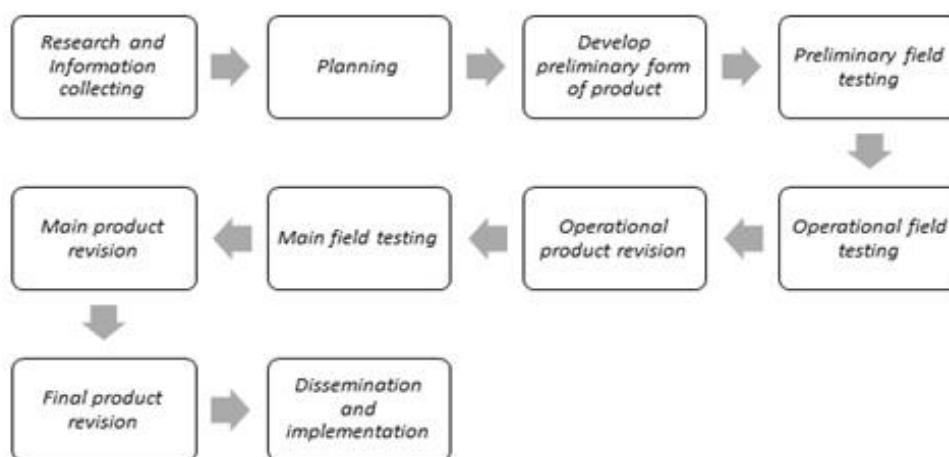
Based on observations made by researchers on January 25, 2020, at Taekwondo Komp. TVRI Medan, Taekwondo Taruna Medan and Club Taekwondo Gaperta obtained the results of interviews with coaches, namely, attack techniques are very important to athletes, currently, we still lack training resources to carry out attacks quickly and precisely. To be able to perform a technique must also be supported by components of physical condition in athletes such as muscle power. To hit quickly, an athlete must have good arm power skills, as well as to make a kick, you must also have good power skills. The form of training that coaches usually use in improving the attacks of taekwondo athletes has been carried out according to the training program. However, currently, coaches are constrained in implementing the form of training due to the condition of athletes' memory which is often forgotten and there is a need for efforts so that athletes can see at home considering the covid conditions that make training hindered for the sake of health to implement health protocols from the government.

Based on the analysis of needs addressed to coaches and athletes of taekwondo comp. TVRI Medan, Taekwondo Taruna Medan, and Club Taekwondo Gaperta obtained that there is a need from coaches and athletes about the lack of knowledge about attack training through instructional video using a punching pad. Of the 1 coach who need to develop instructional video attack training due to difficulties during the COVID-19 pandemic and 9, taekwondo athletes obtained the percentage of needs in the development

of instructional video variations of attack training using punching pads, namely 100% of athletes need instructional video variations of attack training using punching pads. Furthermore, researchers conducted an analysis through the Youtube application about the development of instructional videos of taekwondo attack training using a punching pad still does not exist and there is very little information about attack training videos on taekwondo sports. For this reason, it is necessary to develop videos about knowledge to add references using video media to athletes during the corona pandemic.

## METHOD

This research is a type of research and development or Research and Development (R&D). This study discusses the development of instructional video media for attack training using a punching pad. The development of instructional videos of attack training using punching pads is by making attacking training forms as many as 20 forms of training aimed at coaches and athletes during the COVID-19 pandemic. Therefore this development research resulted in an attack training video product using a punching pad. Researchers set this research step referring to the development research step according to the development step proposed by Borg & Gall (2007). The development research procedure can be seen in the figure below:



**Figure 1.**  
Research and Development (R&D) Steps

The data collection technique of this study is through needs analysis, expert assessment instruments, and responses of trial subjects. The instrument used in this development research is to use a needs analysis questionnaire, product trial subjects, and questionnaires from expert evaluations.

**Table 1.**  
Needs Analysis Grid

| Aspects                 | Indicators                                      | Descriptors         | Grain     |
|-------------------------|-------------------------------------------------|---------------------|-----------|
| The Sport of Taekwondo  | Video Needs Attack Exercises Using Punching Pad | Knowledge On Attack | 1,3,6     |
|                         |                                                 | Drills              |           |
|                         |                                                 | Exercise Needs      | 2,9,10    |
|                         |                                                 | Condition           | 4,5,7,8   |
| <b>Number of Grains</b> |                                                 |                     | <b>10</b> |

**Table 2.**  
Likert Scale Guidelines

| No. | Score | Information                                                                                                                                                     |
|-----|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | 5     | Strongly agree/always/very positive/ very worthy/ very good/ very useful/ very motivating                                                                       |
| 2   | 4     | Agree/good/often/positive/ appropriate/ easy/ worthy/very useful/ very motivating                                                                               |
| 3   | 3     | Undecided/sometimes/neutral/ quite agreed/good enough/ quite appropriate/ fairly easy/ quite interesting/ decent enough/ quite useful/ motivating enough        |
| 4   | 2     | Disagree/ almost never/ negative/ less agree/ not good/ not quite appropriate/ less attractive/ less understanding/ less worthy/ less useful/ less motivating   |
| 5   | 1     | Strongly disagree/ very poor/ very poor/ very unsuitable/ very uninteresting/ very lack of understanding/ very unworthy/ very less useful/ very less motivating |

**Table 3.**  
Achievement Level and Eligibility Quality

| Achievement Level | Quality   | Criterion                                                                     |
|-------------------|-----------|-------------------------------------------------------------------------------|
| 81-100%           | Excellent | very decent, the media is very interesting, and there is no need for revision |
| 61-80%            | Good      | decent, interesting media, and no need for revision                           |
| 41-60%            | Enough    | less viable, less interesting media, and needs to be revised                  |
| 21-40%            | Less      | not worth it, the media is not interesting and needs to be revised            |
| <21%              | Less Once | is very unworthy, and very uninteresting, the media needs to be revised       |

**Table 4.**  
Guttman Scale Assessment Categories

| No. | Score   | Information |
|-----|---------|-------------|
| 1   | Score 1 | Yes         |
| 2   | Score 0 | Not         |

Data analysis from the questionnaire was obtained based on responses from athletes on basketball extracurricular activities, namely:

$$P = \frac{\sum X}{\sum Xi} \times 100\%$$

## RESULTS AND DISCUSSION

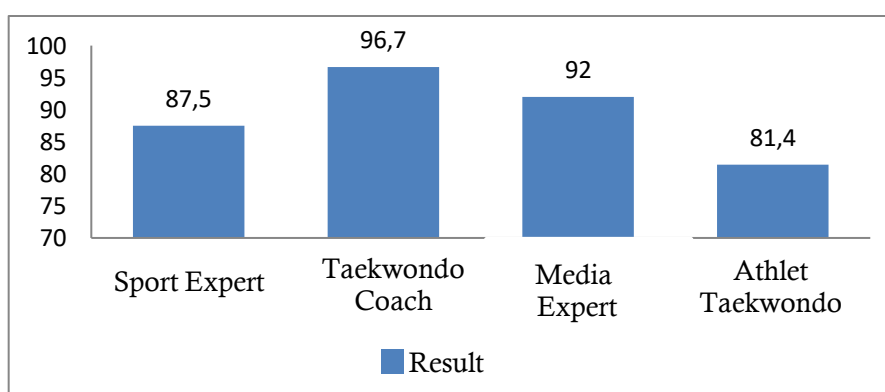
### Research Results

This development research aims to produce taekwondo training products with punching pad media that can be accessed via Youtube to junior taekwondo athletes. The study was conducted at 6 taekwondo training grounds with the research target being junior athletes who were guided to see instructional videos of attack training using the punching pad of taekwondo novice athletes. This research step uses the development research step from Borg & Gall which consists of 9 steps. The following research results can be seen in the table below:

**Table 5.**  
 Feasibility Assessment Results of Instructional Video Product Exercise Attacks Using Punching pads In Beginner Athletes By Experts and User Subjects

| No. | Response/Assessment | Result | Category  | Information |
|-----|---------------------|--------|-----------|-------------|
| 1   | Sports Expert       | 87,5   | Excellent | Used        |
| 2   | Taekwondo Coach     | 96,7   | Excellent | Used        |
| 3   | Media Expert        | 92     | Excellent | Used        |
| 4   | Taekwondo Athletes  | 81,4   | Excellent | Used        |

Based on the table above shows that the assessment of sports experts obtained a result of 87.5% with the category of Excellent and usable. The taekwondo coach's assessment obtained a score of 96.7% with the category of excellent and usable. The media expert assessment obtained a score of 92 with an excellent and usable category. The response of the trial subjects, namely taekwondo athletes, obtained a score of 81.4% with an excellent and usable category.



**Figure 2.**  
 Histogram of Assessment Results and Expert Responses

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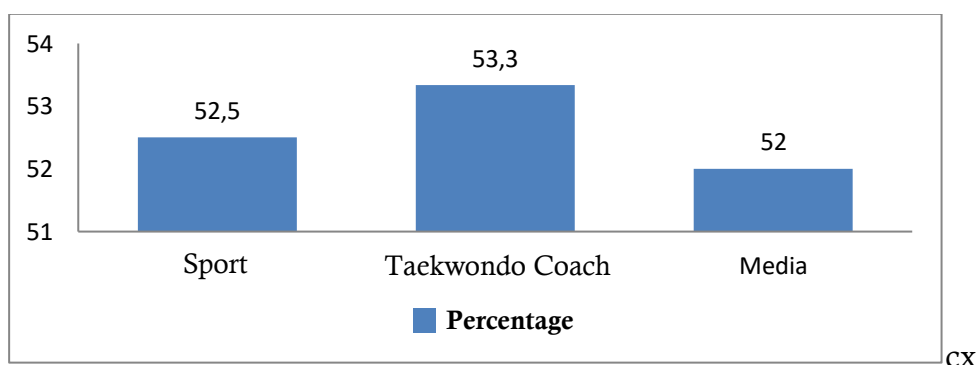


assessment obtained a score of 96.7% with the category of excellent and usable. The media expert assessment obtained a score of 92 with an excellent and usable category. The response of the trial subjects, namely taekwondo athletes, obtained a score of 81.4% with an excellent and usable category.

The draft video of the attack training instructional exercise using a punching pad was originally designed using DVD-RW tapes and a limited feasibility study was conducted to experts and trainers to see the training needs on the instructional video. The following are the results of observations and assessments as well as expert and trainer responses to the form of exercises developed in the form of DVD-RW cassette products as follows:

**Table 6.**  
 Expert Assessment Results on Instructional Video Product Drafts

| No. | Expert          | Percentage | Category |
|-----|-----------------|------------|----------|
| 1   | Sport           | 52,5       | Enough   |
| 2   | Taekwondo Coach | 53,3       | Enough   |
| 3   | Media           | 52         | Enough   |



**Figure 4.**  
 Histogram of expert assessment on products

Based on the table above, the "sufficient" category was obtained in the attack training instructional video product and obtained a lot of advice from experts to improve the product developed.

Make final improvements to the model developed to produce the final product. This research is limited to being a viable exercise video product that can be used after experiments with athletes and coaches and validated by experts. For the Dissemination and implementation step, namely, the step of disseminating the product/model developed,

further research actions can be carried out. This research was limited due to the limitations of researchers in conducting research.

The development of instructional videos of attack training using punching pads has been carried out in flexibility tests and trials for athletes and coaches. development of instructional videos of attack training using punching pads of taekwondo novice athletes from the aspect of sports has been categorized as very good with a percentage of **87.5%**, thus the development products can be categorized as feasible and can be used.

The results of the taekwondo coach's assessment of the product The development of an instructional video of attack training using the punching pad of taekwondo novice athletes from taekwondo coaches has been categorized as very good with a percentage of **96.6%**, thus the development product can be categorized as feasible and usable. The results of the media expert's assessment of the research on the development of video instructional attack training using punching pads, namely in the development of instructional videos of attack training using punching pads of novice taekwondo athletes from media experts have been categorized very well by a percentage of **92%**, thus the development product can be categorized as feasible and usable. The subjects of the broader-scale product trial were 20 novice athletes who watched and understood the video of the development of attack exercises using punching pads. The results of the trial conducted on novice athletes as many as 20 people received a **"Very good"** response with a percentage of 81.4 %.

The above assessment shows that the development of instructional videos of attack exercises using punching pads gained an excellent category and was worth using. For this reason, coaches can take advantage of products developed as auxiliary mediums to convey materials or attack training programs to athletes.

## Discussion

The sport of Taekwondo not only teaches the physical aspect but also emphasizes the teaching of the mental discipline aspect. Thus, Taekwondo will form a strong mental attitude and good ethics for people who are serious about learning it correctly. Taekwondo contains deep philosophical elements so that by studying Taekwondo, the mind, soul, and body as a whole will be able to be developed. If interpreted simply, Taekwondo means an art or way of disciplining oneself or martial arts that uses the technique of bare feet and hands (Suryadi, 2002).



The development of instructional videos of attack training using punching pads has been carried out in feasibility tests and trials for athletes and coaches. development of instructional videos of attack training using punching pads of taekwondo novice athletes from the aspect of sports has been categorized as very good with a percentage of **87.5%**, thus the development products can be categorized as feasible and can be used. The results of the taekwondo coach's assessment of the product The development of an instructional video of attack training using the punching pad of taekwondo novice athletes from taekwondo coaches has been categorized as very good with a percentage of **96.6%**, thus the development product can be categorized as feasible and usable. The results of the media expert's assessment of the research on the development of video instructional attack training using punching pads, namely in the development of instructional videos of attack training using punching pads of novice taekwondo athletes from media experts have been categorized very well by a percentage of **92%**, thus the development product can be categorized as feasible and usable.

The subjects of the broader-scale product trial were 20 novice athletes who watched and understood the video of the development of attack exercises using punching pads. In the results of trials conducted on novice athletes as many as 20 people received "**Excellent**" responses with a percentage of 81.4 %. The above assessment shows that the development of instructional videos of attack exercises using punching pads gained an excellent category and was worth using. For this reason, coaches can take advantage of products developed as auxiliary mediums to convey materials or attack training programs to athletes.

## CONCLUSIONS AND SUGGESTIONS

From the discussion of the results of the study, it can be concluded that the development of an attack training instructional video using a punching pad, namely an instructional video of a variation of attack training using a punching pad in Taekwondo novice athletes in 2021 has an excellent category and is suitable for use.

The implications of this research and development are: (1) This attack training instructional video is the result of development that can be used for training during a pandemic, (2) an Instructional video of attack training using a punching pad can help directly in improving the attack ability of taekwondo athletes, and (3) Instructional video of attack training using a punching pad can assist athletes in understanding taekwondo attack movements.

## REFERENCES

- Akdeniz, C. (2016). Mind mapping (Ebook ed): IntroBooks.
- Anto Dajan, (1986). Introduction to Statistical Methods II, LP3ES Publishers, Jakarta
- Arikunto, Suharsimi. (2016). Research Procedures: A Practical Approach. Jakarta: Rineka Cipta
- Arsyad, Azhar. (2011). Learning Media. Jakarta: PT. King Grafindo Persada.
- Basuki Wibawa and Farida Mukti. (1991). Teaching Media. Jakarta: Ministry of Education and Culture.
- Borg, W.R. & Gall, M.D. Gall. (1983). Educational Research: An Introduction, Fifth Edition. New York: Longman.
- Ekawati, et.al. (2017). Development of Video Tutorials as a Medium for Self-Learning of Sound Material for Junior High School Students. Physics Education, FKIP, UNS.
- Fadhli, Muhibuddin, (2015). Development of Video-Based Learning Media for Grade Iv Elementary School. Lecturer at the University of Muhammadiyah Ponorogo. Journal of Dimensions of Education and Learning Vol 3. No. 1 January 2015.
- Handika, R, et al. (2019). Development of An Instructional Video Of The Dribble Exercise Model Live Jump Shoot on Basketball Sports. Thesis. Medan: Sports Education Study Program, Postgraduate Program, Medan State University.
- Harsono (2017). Physical Condition Training. Bandung. Senerai Pustaka.
- J. Supranto M. A. (2000). Theoretical Statistics and Applications Volume 1, Keenam Edition. Erlangga, Jakarta.
- Khoiril Anam, (2013). Development of Kick Accuracy Training in Football for Kelompok Children Aged 13-14 Years. Semarang State University. Media Journal of Indonesian Sports Science Volume 3. Number 2. December 2013 issue. ISSN: 2088-6802
- Kim Jong-Young. (2009). The Taekwondo Text Book Of Poomsae. Yeongdeungpo-gu, Seoul, Korea: O-sung Publishing Company.
- Kusnadi, Nanang, Herdi Hatadji (2014). Basic Coaching Science. Tasikmalaya : PJKR FKIP UNSIL
- Nanda, P, et.al. (2019). Development of Physical Freshness Gymnastics Based on Traditional Sports Silek Tuo. Thesis. Terrain. Postgraduate Program of Medan State University.

- Sagala, Syaiful., (2011), The Concept and Meaning of Learning, Bandung: Alfabeta.
- Sukadiyanto. (2002). Introduction to the Theory and Methodology of Physical Training. Yogyakarta: PKO FIK UNY
- Suryadi, V. Yoyok. (2002). Taekwondo Poomsae Taegeuk. Jakarta: PT. Gramedia Main Library
- Sukmadinata, Nana Syaodih, (2006). Educational Research Methods. Bandung: PT. Juvenile Rosdakarya, second cet.
- Sugiyono. (2013). Educational Research Methods Quantitative, Qualitative, and R&D Approaches. London: Alfabeta.
- The World Taekwondo Federation. (2004). "Competition Rules&interpretation". Jakarta: PBTI Supervisory Commission.
- The World Taekwondo Federation. (2005). Educational research: an introduction, Fourth Edition. New York: Longman. Inc.
- The World Taekwondo Federation. (2001). Physical Condition Training. Bandung: Senerai Pustaka.