Improving the results of triple jump exercise using image and video media

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Abstract

The purpose of the study was to determine the effectiveness of triple jump exercises using pictures and videos. This research uses the sports action method adopted from the Class Action Research approach. The research subjects are triple jump athletes at PON XX West Kalimantan in 2021, totaling 10 athletes. Data analysis using data reduction in the form of image and video stimulation, then there is data presentation and conclusions from observations through 2 cycles using percentage techniques. The results obtained are overall from the initial cycle before the treatment obtained an average result of 46.42%, then the average value after the second treatment got the final result of 76.42%. It means that there is a percentage increase from the initial value of 30.00%. The conclusion that can be drawn is that the use of image and video media can provide higher motivation to athletes in training and at the same time can improve training results, both technical quality and achievement in jumps. Then it is expected to be input for coaches and athletes to determine the appropriate training method.

Keywords: *Media images, Videos, Achievements, Triple jumps.*

INTRODUCTION

According to studies, the superior sports map of the West Kalimantan area. There are five (five) mainstay sports: 1) weightlifting / weightlifting, 2) fencing, 3) athletics, 4) bicycle racing, and 5) rowing. If the geographical and historical location of the five most popular sports is researched in depth. Athletics is a popular sport that has a good chance of winning gold at the PON XX in 2021. This is the potential of the people in the area based on their everyday habits or actions, such as walking, running, and jumping.

According to field observations and surveys, the jump number is one of the numbers that has the potential to perform better for the West Kalimantan region. His successes are growing by the day, and he has demonstrated that he is capable of following the pre-PON. Furthermore, even though jumping is always fought at every sports tournament, including regional, national, regional, and international levels, athletes who are interested in this triple jump number are classed as scarce.

The findings of these preliminary observations should be investigated further through study in the expectation that the findings may aid in overcoming hurdles that may obstruct efforts to achieve peak

performance. Such as, according to (Fikri, 2017), improving fitness in order to achieve peak performance necessitates a regular and planned training approach. Assuming that different aspects of the training process still need to be improved, one of which is the method or pattern of exercise, the research question for this study is "Can employing picture and video media increase jumping achievement in PON XX in 2021 as a leading sport in West Kalimantan?".

The triple jump is sometimes known as the "triple hop" or "triple jump." Jumping is referred to as "jumping three" because there are three different forms of jump movements: hop, step, and jump. The concept of triple jumping, according to (Sugiyanto, 2017), is one of the jump numbers in athletics that strives to accomplish the farthest jump by employing the prefix three jumps. While (Sunaryadi, 2009), Jumping is a number in athletics or track and field, the race is almost the same as the long jump, but involves the movement of the jingkat (hop), step (step) and jump (jump) where the jumper runs down the prefix track and does one jingkatan, one step and then jumps in the sandbox. In jumping, you need more power and stamina than long jump. This is because in the long jump the athlete only does one reses to gain distance as far as possible, while in jumping the athlete does three reses to get the distance as far as possible. Thus in jumping cricket the athlete must have more stamina and power so that he is able to do three re res on effectively. Jumping requires speed, power, rhytm, balance, flexibility and body awareness jumping is also referred to as powerballet.

Media is a tool that carries messages to attain learning goals, and the plural word media derives from Latin meaning intercesser or introduction. Media is a useful communication medium for learning, according to (Tafonao, 2018), Media is a useful communication tool for learning. Images, movies, maps, posters, audio tapes, video tapes, VCDs, and other media can be used to convey learning messages. The following are some of the benefits of the learning message: it clarifies the message; it overcomes the limitations of space, time, energy, and sensory power; it

fosters multi-directional interaction; it allows athletes to learn independently; it equalizes perceptions, experiences, and stimuli; it allows for standardized delivery of materials; it makes the interaction process more interesting; it improves the quality of training; improve the athlete's favorable attitude toward training processes and materials; and the coach's role improves for the better. Furthermore, as (Purwono, 2018), Media has an important role that serves as a support for the learning and training process. According to (Suri, 2019), Media is a means of obtaining information from electronic media that can be used as a reference in the delivery of information.

There are different ways and points of view to classify media types. According to (Stoicescu & Stănescu, 2018), defines media kinds based on three elements: sound, vision, and motion. Bretsz divides audio, print, and motion visual audio media into eight categories based on these three elements: 1) audio, 2) print, 3) silent visual media, 4) motion visual media, 5) semi-motion audio media, 6) semi-motion media, 7) silent audio visual media, and 8) motion visual audio media. Media in learning is very helpful for teachers to convey the material used so that students can understand the lesson (Silmi, 2018). The delivery of media used by teachers in providing learning materials is a way that can be used as a student in the learning process (Ren, 2017).

Motivation, according to (Emda, 2018), is a sequence of attempts involving the presentation of particular conditions that if individuals want and want to, they will endeavor to obtain. Motivation, according to (Umam, 2012) encompasses a variety of factors of human conduct or behavior that can urge someone to behave. Defining motivation, according to (Oktiani, 2017), is an internal element of a desire that inspires people to perform something. (Suliwati, 2016) explains media conclusions and motivation, concluding that media, in addition to improving motivation in sports learning, can also improve performance as intended.

Based on the above-mentioned expert perspectives, it can be determined that the motivation in this study is to move toward a desired

objective in a person characterized by feelings and reactions in attaining goals. Motivation is a type of human behavior that is primarily goal-oriented and driven by a desire to accomplish a specific outcome (Spray et al., 2006). Behavior, desire, and motivation are all linked; first, behavior comes from a desire, then behavior occurs because it is oriented toward a goal, and finally behavior has motivation (Đurović et al., 2020).

The first urgency in this research is that repetitious training methods will stifle the growth of athletic activities, particularly jumping. The second urgency need is for a better mapping of exercise approaches in order to improve the efficacy of jumping workouts. The third urgency need is that the results of this training approach will provide an overview for coaches and athletes in selecting the amount of training they should do. Furthermore, in order to address the aforementioned urgency, greater discussion regarding appropriate training methods for athletes is required, as well as problem-solving. The researchers anticipate that the findings of this study will eventually provide an answer to the problem and provide guidance to coaches and athletes in the development of abilities.

METHOD

Type of Reseacrh

In general, the research design is qualitative, with a qualitative technique utilized to understand and interpret the study's findings. Qualitative research, as defined by (Adhimah, 2020) Qualitative research is a study that has the nature of the data that is then described. Qualitative explanations are also reinforced by (Subandi, 2011), Which explains that qualitative research is motivated by the natural state of society with the steps of observation, interview and study of research results.

The procedure in this research follows the basic principles of sports action research adopted from Classroom Action Research is an alternative research application that is easy to do during the teaching and learning process (Purohman, 2018). Classroom Action Research will hone teachers' skills in teaching with simple methodological research

applications. Operationally the research procedure can be described as follows: (a) provide initial reflection to the athlete with the aim of knowing the initial condition; (b) confirmation of observations/observations with the team; (c) make an agreement between the research team and the coach to discuss matters relating to the design of the study (Mettetal, 2002).

Subjects of Study

The athletes in this study were PON XX athletes in athletics, with a study sample of 10 athletes. The study will take held at Tanjungpura University Stadium and will last for one month.

Techniques for Data Collection

Data is gathered through numerous stages, including preliminary tests, observations, exams, and the last stage, observation. At the time of the initial observation and interview with the coach, data can be gathered indicating that at this period, only the coach's method of demonstration and verbal instructions were used in training and correction. Researchers suggest approaches employing images and videos that they feel can be used in training and that are also considered to boost the motivation of athletes in training by paying attention to the findings.

The focus of observation is on the technique for transitioning from the beginning phase to the landing phase, as well as achievement (jump distance). Because the posture of the body (togok) and the footstool are of primary significance during this time. The implementation of research can take up to two cycles to complete until the problem is solved and the training process is improved.

Data Analyze

After the required data has been gathered, the data must be processed by analyzing it based on the findings of observations and interviews as specified in the calculation, which includes a percentage comparison of activities or implementation between cycles. This study's data will be analyzed using both qualitative and quantitative methods. Qualitative analysis, according to (Junaid, 2018), is a principle that contributes to the field of research.

The formula for calculating the percentage for each phase as stated below:

$$\text{Percentage} = \frac{\text{Number of Scores Obtained}}{\text{Maximum Number of Scores Each Phase}} \text{ X } 100\%$$

Maximum score/value of each phase :

a. Prefix Phase = 25 (consisting of 5 indicators)
b. Hop Phase = 25 (consisting of 5 indicators)
c. Step Phase = 30 (consisting of 6 indicators)
d. Jump Phase = 30 (consisting of 6 indicators)
e. Landing Phase = 30 (consisting of 6 indicators)

While the percentage calculation formula for all phases (combined from prefix, hop, step, jump and landing) is:

$$\text{Percentage} = \frac{\text{Number of Scores Obtained}}{\text{Maximum Number of Scores Each Phase}} \text{ X } 100\%$$

Maximum score for each phase and all phases (number of prefix, hop, step, jump, and landing phases) as table 1. and table 2. Here showing :

Table 1: Each Category of Phase Assessment

Description of Each Technique's Phase / Scoring Range					Percentage	Category
Starting	Hop	Step	Starting	Hop	Step	Starting
21 – 25	21 – 25	25 – 30	21 – 25	21 – 25	25 – 30	21 – 25
16 – 20	16 – 20	19 – 24	16 – 20	16 – 20	19 – 24	16 – 20
11 – 15	11 – 15	13 – 18	11 – 15	11 – 15	13 – 18	11 – 15
6 – 10	6 – 10	7 – 12	6 – 10	6 – 10	7 – 12	6 – 10
0 – 5	0 – 5	0 – 6	0 – 5	0 – 5	0 – 6	0 – 5

Table 2. Assessment Categories of All Phases

Score Range	Percentage	Category
111 - 140	81 - 100 (%)	Very Good
85 - 112	61 - 80 (%)	Good
57 - 84	41 - 60 (%)	Enough
27 - 56	21 - 40 (%)	Less
0 - 28	0 - 20 (%)	Very Less

Table 3. Guidelines for Scoring in the Technique of Each Phase

Scor	Category	Description
1	Very Good	The technique is done very perfectly
2	Good	Technique done perfectly
3	Enough	The technique is done almost perfectly
4	Less	The technique is done less than perfect
5	Very Less	The technique is done very imperfectly

Data analysis is carried out in the manner outlined by (Mulia & Mustadi, 2019), with three flows running concurrently: data reduction, data display, and inference or verification.

Quantitative and qualitative data were acquired as a result of this investigation. Quantitative data in the form of athlete ability scores collected after each cycle of action (cycles I and II). The data is analyzed using a percentage descriptive analysis method. The researchers chose accuracy, validity, and validity when studying the findings of interviews and observations of photos and videos utilizing qualitative methodologies.

The acquired data is examined after the data is obtained from the outcomes of observations on the beginning conditions, cycle I and cycle II.

RESULT

Initial Condition Analysis

Coaches always employ traditional methods while presenting workouts. Training remains boring in the absence of other means of variation, the athlete's motivation to train appears to be low, and researchers discovered various flaws / drawbacks in each phase / stage of the methodology, including : a) In the early stages of fast-tracking, running speed is still erratic (frequently changing) and there is no evidence of progressive frequency, b) in the phase of the thighs of the free leg (swing legs), the position of the body is slightly leaning backwards (not yet upright), c) in the step phase, the length of time and height is not the same as at the time of tiptoe, this is due, among other things, to the fact that the position of the body is not yet upright. d) If a double arm swing is not performed during the jumping phase (while floating in the air), the opposite

leg is still overly bent, and the torso is still too inclined, e) During the landing phase, both legs are not fully straightened, the heel is not aligned, the body is sometimes upright (not leaning forward), both arms are straightened forward with a downward view, and the butt always touches the sand behind both legs, while the landing position frequently falls backwards.

Table 4 and graphic image 1 show the level of mastery of the technique in the initial condition.

Table 4. Phenomena in Initial Conditions (before treatment)

Observational aspect	Description	Value/Score	Percentage	Category
Successfully perform the basic triple jump technique	Start/Aproach	12	52.00%	Enough
	Hop	13	52.00%	Enough
	Step	14	51.67%	Enough
	Jump	14	52.67%	Enough
	Landing	12	42.00%	Less
	Totally	65	50.06%	Enough

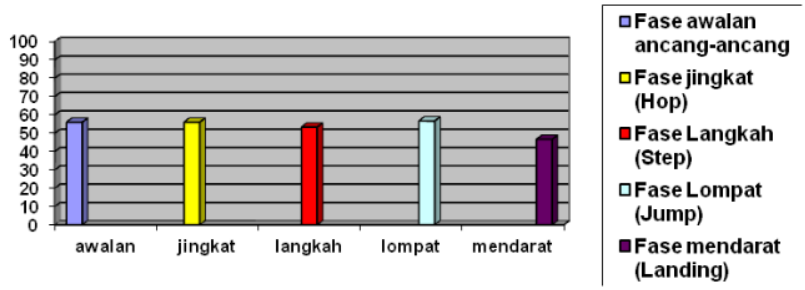

Figure 1. Phenomena in Initial Conditions

Analysis of Cycle Data II

The preparation of the action plan is not clear enough in this cycle, the provision of research tools and equipment is not optimal, the prepared planning has been implemented but has not been able to provide answers to the problems studied, the use of images/photos has not been responded to optimally by athletes and coaches, and traditional training activities are still dominant, as seen in this cycle, athletes' attention is occasionally disrupted when shooting, although there has been no major change in technique or jump height.

Table 5 and image 2 below show the level of competence of the skill in cycle I :

Table 5. Phenomena in Cycle I

Observational aspect	Description	Value/Score	Percentage	Category
Successfully perform the basic triple jump technique	Start/Aproach	14	56.00 %	Enough
	Hop	14	56.00 %	Enough
	Step	16	53.33 %	Enough
	Jump	17	56.67 %	Enough
	Landing	14	46.67 %	Enough
	Totally	75	53.57 %	Enough

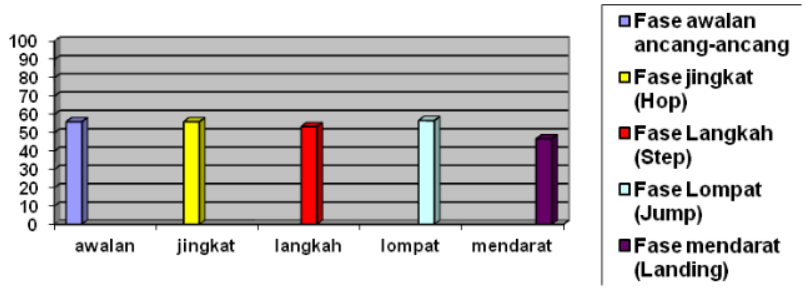

Figure 2. Phenomena in Cycle I

Analysis of Cycle Data II

The preparation of the action plan is quite clear and detailed, the preparation of research tools and equipment is quite good and complete, the use of media prepared by researchers has been used properly and maximally by athletes and coaches in training, and the results of exercises performed repeatedly by viewing replays of training results through videos has motivated athletes to exercise. Athletes are no longer distracted by the actions of researchers when filming with a handycam camera during training.

Table 6 and figure 3 below show the level of knowledge of the skill in cycle II:

Table 6. Phenomena in Cycle II

Observational aspect	Description	Value/Score	Percentage	Category
Successfully perform the	Start/Aproach	19	76.00 %	Good
	Hop	19	76.00 %	Good

basic triple jump technique	Step	23	76.67 %	Good
	Jum	23	76.67 %	Good
	Landing	23	76.67 %	Good
	Totally	107	76.42 %	Good

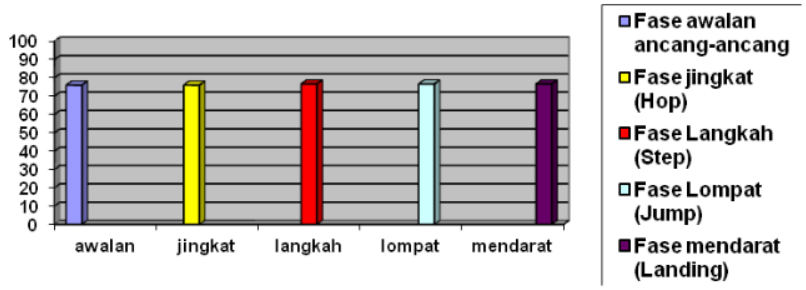

Figure 3. Phenomena in Cycle II

Table 7. Comparison of Phenomena Result Scores in Initial Conditions to Cycle II

Observational aspect	Description	Value/Score			From Initial Conditions to Cycle II, Increase
		Initial Condition	Cycle I	Cycle II	
Successfully perform the basic triple jump technique	*Start/Aproach*	12 (48,00%)	14 (56,00%)	19 (76.00%)	Up 28,00 %
	Ho	13 (52,00%)	14 (56,00%)	19 (76,00%)	Up 24,00 %
	Step	14 (46,67%)	16 (53,33%)	23 (76,67%)	Up 30,00 %
	Jump	14 (46,67%)	17 (56,67%)	23 (76,67%)	Up 30,00 %
	Landing	12 (40,00%)	14 (46,67%)	23 (76,67%)	Up 36,67 %
	Totally	65 (46.42%)	75 (53,57%)	107 (76,42%)	Up 30,00 %

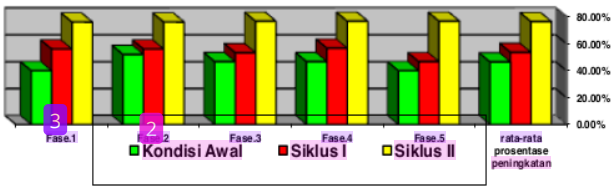

Figure 5. Comparison of Phenomenon Results Scores in Initial Conditions, Cycle I to Cycle II

DISCUSSION

In the implementation of research starting from the stages of planning, action / action, observation to reflection, researchers found several findings related to the problem being studied. It is sufficient to acquire an overview of the capacity of athletes in performing jumping techniques from the first phase to the leap phase based on initial observation and reflection. However, the technique is still not / less ideal during the landing phase, especially when both feet are already in / touching the sand tub, as the butt always meets the sand on the rear of both feet.

The jump distance is shortened in this configuration. Following the workouts and improvements made during cycles I and II, the technique in the landing phase experiences significant modifications that can be classified into useful categories. Athletes may already accomplish the landing method appropriately and correctly, which is to rotate the body to the left side when both feet strike the sand tub, such that the athlete's buttocks are near to where both feet fall. With such a falling position, it also has an effect on the distance of the jump, which has increased significantly.

The results of the jump treatment had not yet reached the maximum distance. The achievement (jump distance) increased significantly from the usual distance of 13.25 meters to 13.55 meters after a modification in landing method in cycle I and cycle II. Cycle II sees a huge rise in jump distance.

Athletes only execute exercises in accordance with the coach's aims before treatment, and after treatment, the athlete's readiness to train beyond the coach's targets indicates improvement, as evidenced by the athlete's willingness to train beyond the coach's targets. Furthermore, when researchers collaborate with coaches and research participants, they must have mutual trust, respect, and understanding so that any problems that arise can be resolved as quickly as feasible.

Although it is not easily administered, the training media employed is extremely beneficial to athletes and coaches, as proven by a large

improvement in results obtained in cycle II when compared to results acquired in cycle I.

The following is a description of the level of expertise of the technique as shown in table 7 and picture 4 above :

1. In the initial condition, the prefix phase had an average value of 48.00 percent, which increased to 56.00% in cycle I, and to 76.00% in cycle II, indicating a 28.00% rise from the initial condition to cycle II.
2. The hop phase had an average value of 52.00 percent in the initial condition, 56.00% in cycle I, and 76.00% in cycle II, indicating a 24.00% rise from the initial condition to cycle II.
3. The step phase at the initial condition of cycle I obtained an average value of 46.76%, rising to 53.33% and in cycle II the number of average values reached 76.67%, thus there was an increase from the initial condition to cycle II by 30.00%.
4. The jump phase at the initial condition of cycle I obtained an average value of 46.67%, rising to 56.67% and in cycle II the number of average values reached 76.67%, thus there was an increase from the initial condition to cycle II by 30.00%.
5. The landing phase at the initial condition of cycle I obtained an average value of 40.00%, rising to 46.67% and in cycle II the number of average values reached 76.67%, thus there was an increase from the initial condition to cycle II by 36.67%.

The overall average number at the initial condition of cycle I obtained an average value of 46.42%, rose to 53.57% and in cycle II the average value reached 76.42%, thus there was an increase from the initial condition to the second cycle of 30.00% or from the average category quite into a good category.

Theoretically with these results provide great hope for the sport of jumping crickets that do require the right training methods for improving the skills of athletes. It is proven by results that show a high improvement from the initial results at the time before the treatment. Then the method

that has been done is to make the coach always pay attention to the needs of athletes in providing training materials.

This study is supported up by a number of additional studies, including one published in 2013 by (Kresnapati, 2018) It is clear that there is a significant influence between the jumping of antelope on the results of jumping the jangkit of PJKR UPGRIS men's students in the even semester. Research conducted by (Sobarna et al., 2019), that there is an increased impact in the form of increases such as increased physical activity of students from the effectiveness of the use of media or tools used in learning. Moreover (Suh, 2011) by utilizing a creation in training in athletes can improve the ability possessed. Therefore, it is very important in utilizing media.tools in improving the ability of students in improving their performance.

CONCLUSION

Based on data analysis, it can be determined that using image and video media in training can increase athlete motivation while also improving training results in terms of both technical quality and achievement (jump distance). Coaches and athletes will be able to use this information to build new training methods based on the results.

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