

# Learning Result of Mawashi Geri Karate

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**Abstract - The purpose of this study was to know the effect of learning approach and motor educability toward the learning result of Mawashi-geri karate in Physical Education Program, Teacher Training and Education Faculty, Tanjungpura University. The research method applied in this study was experimental design. The sample of this research involved 44 people and were chosen through cluster random sampling. The data analysis was done by using analysis of variance. The results of the research are: (1) there is an interaction between learning approach and motor educability toward learning result of mawashi geri karate, (2) overall, learning approach with stages is better than the direct learning approach, (3) for people with high motor educability, the learning approach with stages is better than the direct learning approach, (4) for those with low motor educability, the direct learning approach is better than learning approach with stages.**

**Key words:** *Learning result, Mawashi Geri, Learning approach, Motor educability.*

## I. INTRODUCTION

As one of the popular sports, Karate is well-known all over the world. It has even become one of the favorite sports. Its development is evidenced by the establishment of a number of karate clubs / branches, and Karate Dojo. Based on its purpose and function, Karate is grouped into three parts: spiritual building, martial arts, and sports. Karate as a sport has been competed in various events ranging from regional, national to international levels. A student-level Karate competition is in forms of a national student sports olympiad (olimpiade olahraga siswa nasional/O2SN), which is held from sub-district, district / city up to national level. Meanwhile, for university student level, it is held in forms of a regional student sports week (pekan olahraga mahasiswa daerah/POMDA) and national student sports week (pekan olahraga mahasiswa nasional/POMNAS) and many other events. These events encourage people to have high interest and motivation to learn karate.

In relation to Karate coaching, the physical, psychological, intelligence and attitude aspects are done through a motoric skill learning approach. This learning approach emphasizes on the mastery of basic techniques of good Karate. For that reasons, in the effort of achieve learning objectives, various ways, and approaches / methods should be done according to the students' age, their growth level and the environment where the students learn. If an

educator lacks pedagogic competence and applies poor teaching approaches, the learning objectives will not be achieved. This will make both the quality of education and students' interests low. Conversely, if an educator uses an appropriate approach with various methods and has adequate pedagogic competence, the students will be interested in learning. This will certainly improve the quality of learning outcomes.

Karate plays an important role in achieving motoric development as a whole, in which there are elements of motion as an effort to achieve cardiovascular performance in obtaining a good level of physical fitness. In order to master karate, one is required to perform all the techniques of punching, deflecting, and kicking in displaying kihon (basic technique) movement, kumite (fight), and kata (jurus) well [7]. One of the basic techniques of karate is the mawashi-geri kick (circular kick) that is needed to deceive the opponent. Therefore, in order to obtain the quality of mawashi geri motion, it is necessary to continuously use appropriate teaching approaches that are based on students' ability, capacity, needs, and prioritize its effectiveness and efficiency [3].

In relation to teaching Mawashi geri karate kicks, the results of learning mawashi geri in various training places such as clubs, branchess, and dojo in Pontianak, in general, has not met the expectations because of various impending factors. One of the factors is that Mawashi geri technique has high level of difficulties. Another factor is that the teacher or coach has low pedagogical knowledge. Additionally, the direct teaching approach lacks attention to the growth and development of the learners. Besides that, the various learners' characteristics, including motor educability also influence the result of learning. For example, some learners are agile and able to practice or perform activities in a long time with a heavy load. Conversely, there are some learners who are not agile, and unable to do exercises which have heavy intensity. They are only able to perform physical activities with a short time period.

From the aforementioned facts, there seem to be some obstacles in teaching and learning Mawashi Karate kicks. To overcome the obstacles, the teacher or coach as the key player in teaching and learning Mawashigeri Karate kicks need to have adequate pedagogic competence in choosing

teaching methods in order to enable learners do Mawahsigeri well. For that reason, the writer does research in the sports study program of teacher training and education faculty by applying two teaching approaches. They are direct and stage methods. Both methods are assumed to be appropriate with the characteristics of the Karate learners.

#### A. Learning result

If talking about the learning result, action is always connected to human efforts to change behaviors through learning process. The efforts involve all the potentials within the framework of learning process in both inside and outside the classrooms. The changes of behaviors as the result of learning process is the the goal of learning process and this is called learning result. Someone's learning result cannot be seen if one has not made any changes, including changes in cognition, affection, and psycho motor in forms of observable behaviors [8].

At the cognitive stage, it is required to remember, analyze what is contained in the material being studied. In the affective phase, one is expected to master attitudes, interests and other positive values after going through the learning process. While understanding, comprehending, and being able to do conversation and being skillful in the materials learned is at the psychomotor stage. In karate, psychomotor learning outcomes is a fundamental part although it should include both cognitive and affective goals simultaneously. Therefore, teaching methods in karate learning should combine the three stages of learning into one.

Learning is a behavioral change of potential that occur as the result of past practice and experience to do a particular task [11]. Changes in behavior will only be obtained through learning or practice. Through practice, one will get a very meaningful experience. As [10] suggests, learning is a relatively permanent change as a result of practice and experience. The behaviors obtained will become permanent when the exercise is performed in accordance with the intended purpose so as to produce a certain experience.

Considering that someone's motor ability from simple to complex and perfect can be obtained through the learning process, each individual has the same learning potential. The only thing that makes it different is his/her willingness and opportunities. This is what makses a person's ability to master movements different from each other. This shows that the function of motor educability is very important in achieving good learning outcomes in learning karate mawashi-geri movement.

Learning is a process marked by changes as a result of the learning process, and this can be demonstrated in various forms as changes such as in knowledge, understanding, attitudes, behaviors, skills, and abilities as well as changes in other aspects that exist in each individual learner [13].

#### B. Mawashi-geri

In karate, kicking techniques are as important as hand techniques. In fact, kicks have more power than punches. One type of kicks found in karate is the mawashi-geri

(circular / twisted kick), an integral part of basic karate skills, and an attempt to trick an opponent that is aimed at the target body and / or head. Therefore, in learning karate, it is not complete if one can not master the technique of mawashi-geri well. Thus, mawashi-geri is one of the most important techniques for a person to have. This is because a person can the highest score of shanbon (3 scores) compared to the ippon (1 score) or mae geri (straight kick forward) only nihon (2 scores). This shows that good quality of mawashi-geri will be able to contribute greatly in the effort to win a match.

At kicking time, a good balance is very important, not only because weight only rests on one leg, but also because a returned shock-power at the moment of collision with the opponent is strong. Thus, to maintain balance, the entire surface of the sole of the foot should firmly place to the ground, while the ankle muscles must be completely tightened [1].

When kicking, one must feel that all the power of his/her body is channeled into the kick, which is accompanied by the use of hip power. Then, as quick as possible, one must pull back to the origin of the kicking leg and prepare for the next technique again. Otherwise, it will make it easier for the opponent to catch the kicking foot. The length of the curved line (like a bow) through which the legs, speed and power of the knee grip, greatly determine the strength of the kick. The use of muscle strength when straightening the knee is very important [4].

According to [6], to master the technique of kick mawashi-geri well, it is necessary to practice continuously and systematically accompanied by understanding of some of the following factors: 1) Lifting the knee of the foot that will kick at hip level. In this state, the knee will be fully flexed and the weight of the foot moves to the hips. The mastery of this movement must be done quickly and smoothly to produce a strong and sharp kick. 2) Rebounding, bending and straightening of the knee. There are two ways of kicking: to use the knee-spring power that is fully diluted and to quickly straighten the bent knees. 3) After the knee is lifted, the kneecap becomes the center of the semicircle movement.

Speed is basic and fundamental. This is because without speed a sharp kick and a stable balance will not be produced. In order to make a powerful kick, the hips should be rotated strongly, quickly and smoothly. The technique of kicking the target that is in the front but slightly on the side, done by using the front foot or hind legs by throwing a kicking leg in a path of curved motion like an outward bow, and utilizing the power from the rebounding knee. The path of motion of the foot is almost parallel to the floor. The edge of the foot sole or the back of the foot is used on the target to hit the face, neck, chest, back and side / side of the opponent body. According to [16] , there are 4 (four) stages in doing mawashi-geri: 1) carrying the knees up parallel to the floor, 2) at the moment of kicking, the foot is pushed forward and accompanied by a push of the hips forward and inwards so that the pivot's legs rotate 90 °, 3) after kicking, the foot must be pulled as quick as possible, and 4) before the kicking leg is

placed on the floor, it must be first pulled or folded to the thigh. Then, it must be dropped onto the floor forming the zenkutsu dachi position.

Mawashi-geri is the ability of a person to do a kick by using the back or the sole of the foot, and it is done by turning the body and foot pivot and throwing the legs to the front or side with a target on the head, neck, abdomen, chest, back and side of the opponent body.

### C. The stage method

In the stage method, learners are first taught about the cognitive ability in order for their motor programs to be formed before they perform motion skills. As stated by [15], the method of stages is a way of training and practice that goes from a passage to the whole that begins by giving a specific explanation before it is put into practice. Stage method is given through the adjustment of the aspects of cognition or mastery of the correct movement of mawashi-geri techniques. The sequence of movements contained in the mawashi geri technique is very complex, therefore, the skill starts from the initial kicking, kicking, and controlling kicks, until the final movement after kicking. Meanwhile, according to [9] the stage method is a way of training that begins by giving explanation in advance through some media in order to make learners understand and comprehend the concept of movement skills cognitively. The implementation of motion skills comes soon after the understanding of the concept.

The understanding of the movements in the stage method can be done through various media or tools such as in print, electronic, books, magazines, pictures, videos, projector films. Because the given movements must be understood and are able to be analyzed, the movements should be given gradually given, which is started by giving its theory. The stage method is a way of learning by first giving a verbal explanation to fill the cognitive area during several meetings through the display of video images of mawashi-geri movement before the practices are done.

### D. The Direct Method

The direct method is the traditional method because all activities are centered on the teacher or the trainer. According to [9], a coach-centered approach, which is also known as the command method commonly consists of four parts. The first is giving explanation to the learners. Second, demonstrating the movements. The third is letting the learners to practice, and the fourth part is fixing learners' errors or mistakes. The traditional model is described as: 1) emphasis on message presentation, especially through explanation and demonstration, 2) efficient organization, 3) command and uniformity, 4) discipline and control, 5) little emphasis on motion analysis.

With the direct method, a person is given the material by practicing mawashi-geri motion techniques repeatedly. The description of this method is sometimes not preceded by explanation, rather learners directly observe the

demonstration of motion skills and practice them. This method emphasizes the mastery of concepts and / or behavioral changes by prioritizing deductive approaches with the following characteristics: 1) direct transformation and skill, 2) objective-oriented learning, 3) learning materials that have been structured, 4) the environment learning that has been structured. The teacher acts as a transmitter of information, and in this case the teacher should use appropriate media, such as film, tape recorders, pictures, demonstrations, and so on [2].

Basically, the direct method emphasizes on the exercises given holistically without going through the stages of motions. Learners are only provided by a brief a cognitive picture of the sequences of movements and then do the movements repeatedly to get the expected results in accordance with what is taught. In this study, the direct method refers to a way of training or teaching by giving a verbal cognitive explanation and demonstrating a brief movement about the sequence of motions, and let learners immediately practice the movements.

### E. Motor Educability

A person's ability to learn motions is called motor educability. This is the motoric ability to show the capacity of a person to learn new motion skills within a short time period with good quality. For that reason, motor educability is also known as general motor intelligence. The the process of motion learning is influenced by the motoric ability that involves the main parts of the body, namely: blood circulation, respiration and muscles [12].

Motoric ability is also known as the capacity of a person related to the implementation and demonstration of a relatively inherent skill, defined as the capacity and achievement skills that can be measured directly by a particular test. Meanwhile, capacity is one's potential capability that can be measured indirectly through measuring individual skills, which is a blend of motor educatilty with practice and experience [5].

According to [14] motor educability is one's ability to learn a new skill. The pace of someone in acquiring new skills depends on the motor educability he/she has. The motor educability can not be separated from intelligence in connection with how one learns skills. it shows a person's capacity to learn new skills within a short time period with good quality.

Motor educability is a motion skill with good quality that a person has, and it has a very close relationship with the level of intelligence. Thus, it can be said that the ability of one's motor is a benchmark of his/her intelligence.

Each individual has the same learning potential, yet, he/she has different opportunities and willingness. This is what makes person's skill in mastering different moving skills different.

**II. METHOD**

The approach used in this research is quantitative descriptive with experimental method. The population is all students of Physical Education (Penjas) of FKIP UNTAN who took karate courses in even semester of 2017/2018 school year. The total number of the students is 82. The sample is taken based on the percentage IOWA Brace-Test results. The percentage of high group motor educability is 27% (22 people), and the low motor educability group is 27% (22 persons). In total, there were 44 people. Data collection was done by using mawashi-geri skills test and measurement.

**III. RESULTS AND DISCUSSION**

**A. Research results**

The overall research result can be presented in Table 4.1.

**TABLE I. THE SUMMARY OF MAWASHI-GERI LEARNING RESULTS OF DIRECT AND STAGE METHOD GROUP**

Variable		Learning Approach	
		Stage Method	Direct Method
Motor Educability	High	n = 11	n = 11
		$\bar{x}$ = 39,73	$\bar{x}$ = 33,91
	$\sum x$ = 437	$\sum x$ = 373	
	$\sum x^2$ = 17475	$\sum x^2$ = 12827	
	SD = 3,38	SD = 4,23	
Low	Low	n = 11	n = 11
		$\bar{x}$ = 34,36	$\bar{x}$ = 35,36
	$\sum x$ = 378	$\sum x$ = 389	
	$\sum x^2$ = 13046	$\sum x^2$ = 13841	
	SD = 2,38	SD = 2,91	
Total		N = 22	N = 22
		$\bar{x}$ = 37,05	$\bar{x}$ = 34,64
		$\sum x$ = 815	$\sum x$ = 762
		$\sum x^2$ = 30521	$\sum x^2$ = 26668
		SD = 3,96	SD = 3,62

The average score of learning outcomes of mawashi-geri group with stage learning approach is 37.05 and the standard deviation is 3.96. On the other hand, the mean score of the direct method is 34.64 and its standard deviation is 3.62.

The average score of mawashi-geri of high motor educability group with the learning stage approach is 39,73 and the standard deviation is 3,38. Whereas, the learning outcomes of mawashi-geri of low motor educability group with the learning stage approach is 34.36 and the standard deviation is 2.38.

The obtained mean score of mawashi-geri for the high motor educability group with direct method learning approach is 33.91 and its standard deviation is 4.23. Meanwhile, the average learning outcomes of mawashi-geri for the low motor educability group with direct method learning approach is 35.36 and the standard deviation is 2.91.

To test the hypothesis, the technique of analysis of variance (ANOVA) with two lines is used, and the summary of the result can be seen in table 4.2.

**TABLE II. TWO-WAY ANOVA CALCULATION RESULTS**

Source variations	dk	JK	KT	F <sub>h</sub>	F <sub>t</sub>	Conclusion
Average Treatment	1	56521,1	56521,1			
A	1	1	1	6,33*	4,0	Significant t
B	1	63,845	63,845	4,17*	7	Significant t
AB (Interaction)	1	42,028	42,028	23,18*	4,0	Significant t
Error (E)	39	233,71	233,71		7	Significant t
		434,18	10,08		4,0	Significant t
					7	

Notes :

\* = significant at the real level a = 0,05

dk = degrees of freedom

JK = sum of squares

KT = average number of square

F<sub>h</sub> = calculated F value

F<sub>t</sub> = F table value

The difference of learning outcomes between the stage method and the direct method is obtained from F<sub>h</sub> = 6.33 > F<sub>t</sub> = 4.07. This means that overall, the learning outcomes of mawashi-geri with the step method is better than the direct method.

The difference between high motor educability with the stage method shows its mean score = 39.73, while with the direct method shows the mean score = 33.91. Followed by tukey test, it is obtained Q<sub>h</sub> = 12.65 and Q<sub>t</sub> = 2.23. Thus, it shows that Q<sub>h</sub> > Q<sub>t</sub>, which can be interpreted that the learning result of mawashi-geri motor educability with the stage method is higher and better than the direct method.

The difference between students in low motor educability group with the stage method shows the mean score = 35,36 while with the direct method shows the mean score = 34.36. Followed by tukey test, it is obtained Q<sub>h</sub> = 2,17 and Q<sub>t</sub> = 2,23. Thus, it shows that Q<sub>h</sub> < Q<sub>t</sub>, which can be interpreted that the learning result of mawashi-geri motor educability with the stage method is lower than with the direct

The interaction between learning approach with motor educability and the result of learning mawashi-geri is shown by F<sub>h</sub> = 23.18 > F<sub>t</sub> = 4.07. this can be concluded that there is an interaction between learning approach and motor educability toward learning outcome of

A learning approach can influence learning outcomes. Because of that, a variety of learning methods is needed. A learning approach with the stage and the direct methods is an alternative method that can be used to improve learning outcomes of mawashi-geri.

To improve the learning outcomes of mawashi-geri, overall, the learning approach with stages has a better effect

than the direct learning approach. Therefore, for those who have high motor educability they need to be taught by using stage learning approach. Meanwhile, for those with low motor educability, there is no statistically significant difference whether to use the stage or direct learning approaches. As indicated by the average score, the direct learning approach has higher score for this group.

This suggests that the two forms of learning have an equal or balanced effect on the improvement of learning outcomes of mawashi-geri. However, there is a tendency to be better if using a step/stage learning approach. The possible cause why it happened was: students were still doing other sports activities outside the treatment given. For example, they were still joining other lectures such as gymnastics, volleyball and others. This condition could not be controlled during the study was undertaken. Additionally, the uncontrolled motivation factors were suspected to have an effect on the learning process because interest is one of the driving forces of a person to have a certain activity. If someone has an interest in an activity, he/she will be more serious to perform the activity.

#### IV. CONCLUSIONS

Based on the results of the research, the following conclusions are obtained: (1) there is a significant difference between stage method and direct method of learning result of mawashi-geri; (2) for learners with high motor educability, mawashi-geri learning with step method is better than with direct method; (3) for those with low motor educability, there is no difference in learning outcomes between learning with the stage and the direct methods; (4) there is an interaction between learning approach with motor educability toward learning result of mawashi-geri.

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