Literasi Nusantara
vol.1 no. 2, March – June 2021
https://journal.citradharma.org/index.php/literasinusantara/index
ISSN 2746-8208 (Online)
ISSN 2746-3575 (Print)

ANALYSIS AND MASTER LEARNING MOTOR SKILLS

Siti Hafsoh [1*], Neviyarni[1]
[1*]FIP Guidance and Counseling, Padang State University, Padang, Indonesia

*[1]*siti.hafsoh7@gmail.com; [1]neviyarni.suhaili911@gmail.com*

Received: December 03, 2020
Revised: January 09, 2021
Accepted: January 29, 2021

Abstract

Learning can be defined as a mental activity that occurs due to active interactions between individuals and their environment that produce change. Learning is also said to be a process of activity that takes place in a person that changes his behavior both in thinking, behaving, and doing (W.Gulo, 2002: 23). Learning as an activity is actually an individual stimulus to acquire a skill, one of which is motor skills. Motor skills are the ability to learn to result in maximum defined movements. Motor learning is a relatively permanent change in the ability to perform a skill as a result of practice or experience. The goal of motor skills is to optimize the ability to perform these skills at a level of success, accuracy, and to reduce the energy consumption required for performance.

Keywords– Learn, Motor, Skillls

1. Introduction

Learning is a process of a relatively permanent change in behavior as a result of training and experience in the past. Learning can also be said to be a psychological activity that occurs because of changes caused by positive interactions between individuals and their environment. Annarino (1980) argues that learning is the occurrence of changes in human organizational behavior. Based on this, I can conclude that learning is the process of changing thoughts or behaviors to be better than anything we have never learned before. Through learning we can see a person's learning ability, one of which is motor learning skills. Motor learning is a learning process carried out by humans through training, as an experience of obtaining permanent changes in motor skills, carried out in three stages, namely the cognitive stage, the correlation stage and the automation stage.

Learning motor or motor skills is very important. motion is one of the core activities in human life. Since human birth, mankind has continued to move forward. In everyday life, motion has two main parts, namely motion as a goal and motion as a tool or means to achieve a goal. In real life, the facts have proven that humans are very dependent on movement, especially through sports to achieve their goals, so it is necessary to carry out research and sports coaching so that the exercise that is carried out becomes efficient, effective and productive.

2. Method

This article discusses learning motor skills. With analysis using literature review (literature research). As for this article, we will discuss several things about learning motor skills, namely: definition of learning motor skills, learning motor skills studies, learning characteristics of motor skills, learning phases of motor skills, factors that affect learning motor skills, learning theories motor skills and some practical principles in motor skills. In the end, there will be a conclusion to the discussion.

Literasi Nusantara. vol.1 no. 2, March – June 2021
ISSN 2746-8208 (Online) and ISSN 2746-3575 (Print)

3. Result and Discussion

A. Definition of Learning Motor Skills

Drowaztky (1981) suggests that motor learning is learning that is manifested by a muscle response, and muscle response is usually expressed in the form of body movements or body parts. Schmidt (1988) suggests that motor learning is a series of processes related to practice or experience that lead to permanent changes in skill behavior.

Motor skills can be defined as the movement skills of a person from learning outcomes. Many motor skills are innate. The learning of motor skills has played an important role in human history. Learning motor skills (motor skill learning) refers to any activity that requires a series of motor response (gestures) in the learning process. Sometimes the term perceptual motor skills is used to describe the fact that this learning requires coordination of the stimuli that accompany motor responses. The most obvious example for this is driving a car, when driving a car we have to coordinate between what is seen and what is done. The contents of motor skills and perceptual motor skills are often used interchangeably, because their meanings are often considered the same. The study of learning motor skills (motor skills) distinguishes these skills into two types. The first is motor skills that require continuous response, and the second is skills that are performed at intervals or distances between each response.

Motor skills is a skill in doing / implement (execute), which shows an arrangement of high skills in the sense of the students act specifically, smoothly and efficiently as (such as driving a car, riding a bicycle), this indicates that the setting is very skilled. The existence of this kind of motor skill requires the ability to combine many physical movements so that they are complete and can be done with courage and flexibility without having to rethink what and why it was done. Learning motor skills will prioritize the movement of muscles, tendons and joints in the body, but it needs to be equipped through sensory tools and cognitive processes that involve knowledge and understanding. Because of this complexity, many

psychologists learn to study motor skills as perceptual motor skills or psychomotor skills.

B. Study of Learning Motor

Skills There are two types of motor skills, namely:

1. Continuous response motor skills, namely motor skills that require continuous motion.
2. Discrete response motor skills, namely motor skills performed intervals between each response.

The development of motor skills is a very important factor for overall personal development. Elizabeth Hurlock (1956) in Syamsu Yusuf LN explained, noting several reasons about the function of motor development for the constellation of individual development, namely:

1. Through motor skills, children can entertain themselves and feel happy. When the child is satisfied with the skills of owning a doll, throwing and catching a ball, or playing with cutlery.
2. Through skills, a child's motor skills can be changed from a "helpless" (helpless) state in the first few months of life to a "independent" state (free, independent).
3. Through motor skills children can adjust to the school environment (heatstroke adjustment). At preschool (kindergarten) or early elementary school, children can be trained in writing, drawing, painting and marching.
4. Through normal motor development, it allows children to play or socialize with their peers, while abnormal activities will prevent children from associating with their peers, even if they are isolated or become "finger" (marginal) children.
5. Development of "self-concept" or the child's personality. (Syamsu Yusuf LN, 2014: 104-105).

Along with this motoric development, it is appropriate for pre-school (kindergarten) or low-grade elementary school children to be taught or trained on the following:

Literasi Nusantara. vol.1 no. 2, March – June 2021
ISSN 2746-8208 (Online) and ISSN 2746-3575 (Print)

1. Basic writing skills (Arabic and Latin alphabets) and drawing.
2. Motor skills (such as gymnastics) or use of sports equipment.
3. Game actions, such as jumping, climbing and running.
4. Queuing up is simply to develop a habit of discipline and order.
5. Worship Movement. (Syamsu Yusuf LN, 2014: 105)

C. Characteristics of Learning Motor Skills

There are four main elements of the display of skills, including:

1. Response sequences: Motor skills involve sequential reactions and tend to form chains, so one reaction leads to the next. For example, wearing shoelaces. As a sequence, the response becomes organized, not only a sequence of responses, but also a sequence with a structured pattern, such as swimming, running, etc.
2. Perceptual motor coordination: In skills that require motor perception coordination, all actions are carried out by coordinating the incoming stimuli. For example, in a volleyball game, when the ball bounces near the net, the player's reaction is to hit the ball. Motor skills usually involve the coordination of sensory input and motor responses. In this case, all movements are coordinated with incoming stimuli.
3. Response organization: skill is performed by arranging and organizing responses in a pattern such as when someone is swimming. . We can divide the form of training into several forms, then into several sub-sports. Each movement has a particular emphasis on hand movements. Inhalation, leg movements are sub-movements, a series of reactions, regulated in a certain way, and thus a swimming process. The mode measures and masters motor skills from time factors and movement specifics.
4. Feedback: In motor skills that require feedback and rely on intrinsic feedback, intrinsic feedback is the fact that the reaction produces stimuli, which in turn lead to subsequent reactions. In other words, intrinsic feedback refers to the fact that the response to a stimulus has an impact

on subsequent responses. It can be concluded that intrinsic feedback is a basic feature of learning motor skills

D. Learning phases for motor skillsphases

There are threein learning motor skills, namely: the initial or cognitive phase, the fixation or associative phase, and the final orphase autonomous.

1. Cognitive Phase

At this stage, a person tries to understand what is expected of him. In terms of conceptualizing the components of the task, he tries to understand, verbalize and intellectualize. It can be concluded that at the initial stage of skills learning, the main effort devoted to students is the basic component of the learning task, first by describing the components, then practicing each section by asking students to respond .

2. Associative

In the association phase, the learned response becomes a very effective chain. This stage is very similar to the association stage in speech learning, because in essence it is an association, for example in a typing job, people who type must look at the keyboard.

3. The final orphase autonomous.

At this stage the display of motor skills becomes more efficient so that it can be done automatically. The speed of motor skills increases, thereby continuously increasing new response patterns, not only because of repeating the same response. In the final stages of skill, motor skills are less and less affected by distractions that interfere with these skills. For example, typists are not affected by broadcast sounds or other sounds, and can even type while talking to other people

E. Factors Affecting Learning Motor Skills

Important factors that can affect motor skills are:

1. Feedback (Feedback). One of the factors affecting motor skills is feedback, and feedback includes two types: (a) Intrinsic feedback, namely intrinsic feedback, which is performing motor skills in certain exercises to display the information received. Gained directly from our

Literasi Nusantara. vol.1 no. 2, March – June 2021
ISSN 2746-8208 (Online) and ISSN 2746-3575 (Print)

experiences and actions. (B) External feedback, which is the result of knowledge, emphasizes the informal nature of feedback. In other words, it is information given or tools used by other people. This could be in the form of qualitative information, telling the subject that he or she is doing something right or wrong. It can also be in the form of quantitative information, being told how well the subject performs the skill correctly, or what is the distance between the right answer and the wrong answer.

a. The importance of feedback

Feedback is very important for the learning of motor skills, feedback is needed to affect the performance of motor skills. If there is no feedback, students will think that they have mastered motor skills without success. Feedback is also useful for influencing student progress in learning. In addition, there is feedback that is quantitative in nature. It can be said that a student has better motor skills than others.

b. Withdrawal of Feedback and Subjective Reinforcement

Removing or restoring the feedback will affect the appearance of motor skills, but the effect is unlike the removal of reinforcement in instrumental learning. Removing this can result in a gradual decline in performance, but not at the display level ongoing. If the training level is low or moderate, omitting the feedback has a degraded effect on the display. However, after retraining, skill levels usually didn't decrease.

c. Delay of feedback

Is the feedback provided with a time delay between the response of the subject (the student) and the informative feedback. This delay did not in fact affect the acquisition of several forms of motor skills. However, it causes a serious decrease in the implementation of exercises such as continuous tracking, because motor skills are continuous. The feedback is very good with a minimum delay.

2. Distribution of Practice (Distribution Exercise)

Distribution of exercises helps the acquisition of motor skills. The response that is distributed is the remaining interval during the process of acquiring motor skills continuously or continuously.

3. Stress and Fatigue (Stress and Fatigue)

Stress can be defined in two ways, namely (1) the organism (person) is in a motivational or emotional state which is also called emotional stress, (2) as a request for a task / job to someone, if you are required to follow several events while you have to complete a task / other work, then you will experience heavier stress. These two definitions are known as information overload. If the stress increases, the display of motor skills increases to a normal point and the decrease in stress reduces the display

F. Learning theories of motor skills

There are two learning theories that specifically discuss the learning mechanism of motor skills, namely:

1. Adams theory

Adams (1971) developed a motor learning theory called the closed path theory. This theory states that the motor learning process takes place in a closed path, meaning that feedback from the limbs is continuous during exercise is the main source of correction for the correctness of a movement (Schmidt, l988). In other words it can be explained, when a person makes a movement it will generate intrinsic feedback which is useful for directing limb movement and the use of the right timing. To get the right movement, the role of perceptual trace is the most determining factor. This means that every time people try, the stronger the perceptual footprint they have, and the smaller the probability of error. Directing motion towards the desired target can produce changes due to feedback that occurs continuously so that it leaves a perceptual trail. Movement errors that occur during training have a negative effect. This is because if a motion error occurs, the feedback obtained will be different from the

Literasi Nusantara. vol.1 no. 2, March – June 2021
ISSN 2746-8208 (Online) and ISSN 2746-3575 (Print)

correct movement, because of these conditions, the perceptual trail takes over as.

Controlling the motion that occurs by controlling the perceptual footprint, results in the motion being carried out to the desired target. According to Adams (1979) knowledge of results is not a tool for reinforcement, but only a reward. This is because students are not recipients of prizes passively, but students are actively involved, both verbally and predict the tasks being learned. So knowledge of the results is only information that can help solve the problem. A person when making a movement is also able to detect errors, the intrinsic feedback received is compared to perceptual traces, the difference between these two things is the error that is responded to. In this way there is subjective reinforcement to form a movement towards a target, without using knowledge of the results. However, errors that occur continuously during practice are very dangerous, because there is a link between correction and perceptual traces.

2. Schema Theory (Schema Theory)

Schmidt (1988) has developed a schema theory which has the basic concept that the motor learning process takes place in an open path, but still recognizes the closed path control process (Adams Theory). Some of Adams' theories that are still relevant to schema theory include:

a) Emphasis on subjective reinforcement,
b) Also applies to slow motion, the
c) need for memory to produce and evaluate motion. The two memory conditions that schema theory has are: (a) memory memory (recall memory), which is responsible for producing movement, and (b) recognition memory, which is responsible for evaluating responses (Schmidt, l988). Memory memory is involved in motor programs and carries various parameters for movement. The recognition sensory system is able to evaluate the response produced based on feedback after the movement has been made.

In the process of learning motor skills, Schmidt (l988) explained, after a movement is made, the individual will briefly save four things, namely:

a. initial conditions, for example: body position, weight point shift and so on, which existed before the movement;
b. the parameters given for the general motor program are stored;
c. the results of the movement in the sense that the knowledge of the results is stored; and
d. the sensory consequences of movement, namely how the movement is felt, heard and so on are also stored.

The application of Adams theory and schema theory in motor learning is as follows:

a. To learn motor skills slow and easy to organize can take place in a closed path (Adams theory), while schema theory applies to motor skills slow and fast.
b. Students can be given the freedom to move with rhythm independently, especially for closed skills.
c. For motor skills that require fast movement, knowledge of the results is an important factor as material for motor planning of the next movement
d. In students, it is necessary to instill the correct movement memory, because if the memory is lost it will reduce the quality of the next movement.
e. To learn complex motor skills, students need to have a memory about the form of a complete (whole) skill before learning part by section, so that there is no misperception in combining the parts that have been mastered in a whole form.

Errors that occur continuously will endanger students, therefore in the motor learning process direction and guidance is needed.

G. Some Practical Principles Practical

Principles that can be drawn from this discussion are:

Literasi Nusantara. vol.1 no. 2, March – June 2021
ISSN 2746-8208 (Online) and ISSN 2746-3575 (Print)

1) Understand the task, the task of teaching skills and trying to determine its components, for example someone who has the ability to act as a "dance" instructor can show the components of dancing, a series complete answers, and immediately teach and show what it teaches.
2) Doing exercises on certain components (Practice on specific components), When the complexity of the task increases, we will focus on the specific components of a particular task ..
3) Obtain feedback, both intrinsic and extrinsic, because feedback is a factor important in acquiring motor skills to show results. Feedback is very useful for assessing displays of motor skills and comparing them with standard displays.
4) Doing training under varied conditions (Practice under varied conditions), Training under different conditions, different stimuli are important factors in memory, and training under different conditions can also help gain athletic ability. Therefore, a change in background in this achievement adjustment exercise may change into the underlying environment.
5) Sustain practice, keep practicing, because smooth motor skills require constant practice.

4. Conclusion

Motor development is one of the most important factors in a person's life in the development of a whole person. Motor skill is an implementation-implementation skill, seen from the point of view of specific, subtle and effective actions taken by students, it shows a very skilled arrangement. Learning motor skills will prioritize the movement of muscles, tendons and joints in the body, but it needs to be equipped through sensory tools and cognitive processes that involve knowledge and understanding

In motor skills, there are two types of motor skills, namely continuous response and discrete response. Characteristics of learning motor skills There are four main elements of the skill display, namely: sequential response, perceptual

motor coordination, response and feedback settings. Furthermore, there are 3 phases of learning motor skills, namely: cognitive, associative and autonomous phases. Important factors that can affect motor skills are: feedback, distribution of exercise and stress and fatigue. For the theory of learning motor skills, motor learning can be said to be a problem solving process, a theory that contains elements of S - R (stimulus – response) and cognitive learning. And finally for the practical principles there are five namely: Understanding the task, doing exercises on certain components, getting feedback, doing exercises under varying conditions and maintaining training

References

Annarino, Anthony, A. & Cowel. (1980). *Curriculum Theory and Design in Physical Education*. St. Louis: CV. Mosby Company.

Drowatzky, John, N. (1981). *Motor Learning Princples And Practice*. Minneapolis: Burger Publishing Company.

Ellis, Henry C. 1978. *Foundamentals Of Human Learning, Memory and Cognition (2nd Edition).* Iowa: Wm. C. Brown Company Publisher.

Djamarah, Syaiful Bahri. 2002. *Psikologi Belajar.* Rineka Cipta.

Lutan, Rusli. 1988. *Belajar Keterampilan Motorik Pengantar Teori dan Metode*. Jakarta: P2LPTK Dirjen Dikti Depdikbud.

Ni Kadek Novia Purnamasari dkk. 2014. *Penerapan Metode Demonstrasi Melalui Kegiatan Melipat Kertas (Origami) untuk Meningkatkan Perkembangan Motorik Halus A.* **(**e-Journal PG-PAUD Universitas Pendidikan Ganesha Jurusan Pendidikan Guru Pendidikan Anak Usia Dini (Volume 2 No 1 Tahun 2014).

Syah, Muhibbin. 1997. *Psikologi Pendidikan Dengan Pendekatan Baru.* edisi Revisi. Suryabrata: Remaja Rosdakarya

Syamsu Yusuf LN, 2014. *Psikologi Perkembangan Anak & Remaja.* Bandung: PT Remaja Rosdakarya.

Schmidt, Richard, A. (1988). *Motor Control And Learning. Second Edition*. Illinois: Human Kineticks Publisher Inc.