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Profile of The Psychomotoric Abilities of Elementary School Students in Science Subjects Viewed from Learning Styles

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ABSTRACT

Objective: *This study aims to describe the profile of elementary students' psychomotor abilities in science learning based on their learning styles.* ***Method:*** *A qualitative research method with a phenomenological approach was employed. The subjects consisted of six students from Muhammadiyah 1 Krian Elementary School, comprising two students each with visual, auditory, and kinesthetic learning styles. Data were collected through observation and interviews, utilizing observation sheets and interview guides as instruments. Source triangulation was applied to ensure data validity. Data were analyzed through data collection, condensation, presentation, and conclusion drawing.* ***Results:*** *The findings reveal that students with a visual learning style demonstrated three psychomotor indicators: imitation, manipulation, and experience. Auditory learners also exhibited three indicators: imitation, experience, and articulation. Kinesthetic learners showed all five psychomotor indicators, although some aspects did not fully emerge.* ***Novelty:*** *This study provides new insights into the variations of psychomotor ability profiles based on learning styles, offering a foundation for developing learning tools that effectively enhance all psychomotor indicators among elementary students.*

INTRODUCTION

In the world of education, there are three aspects regarding the learning abilities possessed by each student to understand their learning achievements. There are 3 aspects of learning achievements according to Bloom's taxonomy, which include: affective, cognitive, and psychomotor [1]. The three aspects are interrelated and are aimed to function in balance to achieve the educational goals. These three aspects must also unite to become an integral part of the learning materials and must reflect the learning process and learning outcome criteria so that they can be achieved by the students [2]. The criteria for learning outcomes according to Gagne include: intellectual skills, attitudes, cognitive abilities, verbal information skills, and psychomotor skills. From these criteria, they can serve as benchmarks for meeting children's needs. The need for understanding the developmental milestones of children becomes a consideration for educators to meet the needs of students as they progress to the next level of education [3].

At the elementary school age, it is an important period of child development in the process of forming self-potential. The period of elementary school students is a fundamental time for a child's future development, as this period determines the formation and development of an individual's character [4]. The age of students in elementary school is the age for processing the formation of a child's personality, starting from attitudes, behaviors, intelligence, and so on, to be further honed. In school learning outcomes, these three aspects—cognitive, affective, and psychomotor—are already complex in the effort to develop students during their developmental age. In addition to the cognitive and affective development emphasized in schools for students, the

development of psychomotor skills is equally important for children's growth and development. The psychomotor domain is one of the aspects of a child's development that is related to physical movement, based on the processing of cognition and affection, which can result in physical movement in the form of behavior [5].

Psychomotor skills are related to aspects of learning outcomes such as skills and actions, for example, jumping, painting, running, and so on. Psychomotor skills in the field of education are found in subjects whose implementation involves practice. Learning activities have a correlation with the psychomotor domain and learning outcomes that manipulate physical and muscular abilities [6]. Psychomotor skills cannot be separated from affective and cognitive abilities. Conversely, psychomotor skills cannot function independently in a child's learning process. In the learning activities, it starts with the cognitive stage (thinking) to understand the theory, then the affective stage (attitude) to learn how to apply the theory well, and finally the psychomotor stage (doing) to directly practice the theory in life. In psychology, the development of children's psychomotor skills is no longer unfamiliar. Many experts have extensively discussed various aspects of children's psychomotor development. In this increasingly advanced era of globalization, there are many changes for children to adapt to in order to develop their interests and skills. According to an expert named Hurlock, the development of children's psychomotor skills results in coordinated physical movement control through the activities of the nervous system, nerves, and muscles [7]. So, psychomotor skills are needed in school learning activities to train children's abilities to move all parts of their bodies in accordance with the theory provided by the teacher.

The child's psychomotor skills must always be monitored, starting from the earliest stages of their growth and development, entering the golden age (0-6 years) by monitoring the child's development in controlling all their body movements, which are stimulated through coordinated activities involving the nervous system, muscles, brain, and spinal cord that must be continuously honed, as motor skills are also an important stage in a child's development [8]. Monitoring also continues until the child enters the elementary school education level. In the research by Riyanto & Kristiyanto, it was found that learning emphasizing the development of students' psychomotor skills in elementary school has started to be given attention to highlight the importance of psychomotor skills for elementary school children [9]. Elementary school students are in the middle and late stages of child development, typically aged 6-11 years, characterized by the beginning of their ability to master basic daily skills such as reading, writing, and arithmetic, as well as the introduction to the culture of their surrounding environment learned from their home environment. This process helps shape children's behavior through verbal reinforcement, identification, and modeling.

A child's psychomotor skills can develop influenced by two factors. First, internal factors (factors that originate from within the individual) include traits and physical conditions inherited from parents. Second, external factors (factors that come from outside the child) include the role of parental involvement, health, nutrition, and environmental stimulation [10]. These factors serve as parameters to observe how children's psychomotor skills respond to what they are facing and doing, enabling them to skillfully imitate what they have learned from observing and practicing. There are two

groups of psychomotor skills, namely gross psychomotor skills, which include the ability to move large muscle groups such as the legs, arms, and torso in activities like running, walking, and jumping. Second, fine psychomotor skills are located in the small muscles found throughout the body, involved in activities such as holding, touching, drawing, and writing [11].

Learning activities become a process that has a significant impact on shaping students' psychomotor skills, therefore, emphasis must be placed on every training of psychomotor abilities and their assessment. With that, students can skillfully apply simple psychomotor movements in daily activities, which will certainly make the learning process easier for them. In the learning process, of course, each ability has different and distinct indicators for the assessment standard. Teachers use indicators as benchmarks to assess whether students have succeeded or not in each area of competence.

The observed teaching and learning activities of Science at SD Muhammadiyah 1 Krian revealed that Science education has become an integral part of thematic learning units that harmoniously blend with other subject units. The school system implements full-day learning hours from Monday to Thursday, requiring students to participate in school activities from 07:15 AM to 03:00 PM to support the delivery of material and the achievement of learning outcomes comprehensively. The school environment and the scheduled activities also support students to be active and interact with their peers. Moreover, on Fridays, there are various extracurricular activities that support the development of children's psychomotor skills, such as drawing, martial arts, soccer, and so on. By participating in the activities facilitated by the school, students can demonstrate their psychomotor skills, although some children have not yet been able to meet the indicators.

In psychomotor skills, there are five levels of motor skills. Dave's psychomotor taxonomy represents different levels of competence in performing a skill, namely imitation, manipulation, precision, articulation, and naturalization. Imitation is the ability to mimic the behavior patterns of others. Learning involves observing a skill and trying to replicate it, or looking at a finished product and attempting to imitate it while paying attention to the example. Manipulation is the ability to perform certain tasks from memory or by following instructions. The psychomotor activities that the students are focused on involve performing skills by following general instructions from their teacher. Precision is the ability to perform certain tasks without assistance or intervention from others. Students independently perform skills or produce products with accuracy, proportion, and precision according to the given instructions. Articulation is the ability to adapt and integrate skills to create products or demonstrate abilities in new forms. Students are able to combine more than one skill in sequence correctly. Naturalization is the ability to use skills automatically, intuitively, or even instantly and correctly. Dave's five levels of psychomotor skills represent different levels of competence in performing a skill. These five aspects can capture the level of competence in the stages of learning from the initial stage to the final mastery. In addition, Dave's psychomotor taxonomy is more appropriately used for children at the elementary school level compared to the other two [12].

The achievement of psychomotor skills in science learning affects the learning process. Teachers can see the results of learning activities through the assessment stage. The process of teaching science in elementary school prioritizes how to develop students' curiosity in proving a theory related to the material of objects and changes in their properties through observation or simple experiments, so that students' critical thinking skills will develop [13]. Science learning using practicals aims to make the teaching and learning process a discovery process [14]. In this practical activity, the process of science learning that focuses on learning outcomes in the form of psychomotor development can be achieved well [15].

Observation is a method used to obtain an assessment of the psychomotor domain. The observation method is used as an assessment tool to measure individual behavior or to observe the process of an activity occurring, whether in real situations or simulated ones. Observation can also be used to measure or assess a process and learning outcomes from psychomotor skills. For example, the behavior of students during practical activities, participation, discussions, and simulations [16]. Behavior is an external factor from outside the child that can be shaped by learning outcomes; another factor is learning style. Learning style becomes one of the supporting factors that need to be considered, as it is an effort made by an individual to receive and carry out the learning process and achieve good learning outcomes [17].

Learning styles are one way for an individual to optimally receive learning outcomes from the learning process compared to using other methods. Each individual certainly has different learning styles. There are three main types, namely visual learning style, auditory learning style, and kinesthetic learning style [18]. Introducing the learning styles of each student is very important, especially for teachers. By understanding the different learning styles of their students, teachers can apply appropriate strategies for personal development and learning activities. The application of strategies according to the appropriate levels will result in a higher success rate. Each individual must understand what learning style they possess. Thus, learners can have a better self-recognition ability and understand the needs they require. The recognition of each student's learning style by the teacher will facilitate the provision of the necessary services and should be provided to ensure the learning process runs optimally [19]. Therefore, the educator's task is to help guide students in recognizing their own learning styles so that their activities and learning outcomes can be maximized [17]. An educator who imparts knowledge must understand the learning styles of each student, the tendencies that enable them to receive and process information so that the learning process becomes easier, and the educator can apply effective teaching methods for each student. So that the learning outcomes of each student can achieve maximum results.

Based on previous research, it was concluded that the learning outcomes of students, which include cognitive, affective, and psychomotor aspects in the 4th-grade IPA subject at Madrasah Ibtidaiyah Ma'had Islami Palembang, were assessed using the topic of sound. Data collection using a posttest was conducted to determine the learning styles of students. The visual learning style of 5 students had a mean score of 77, the auditory learning style of 4 students had a mean score of 60, and the kinesthetic learning style of 1 student had a mean score of 25. Additionally, 4 students with a mixed visual

and kinesthetic learning style had a mean score of 50, and 4 other students with a mixed auditory and kinesthetic learning style had a mean score of 34. We can see that the learning styles and academic performance of the fourth-grade students have different tendencies. The results of the study indicate that during the learning of science, students show a significant correlation between learning styles and learning outcomes. This includes the psychomotor aspects of fourth-grade students in science subjects at Madrasah Ibtidaiyah Ma'had Islami Palembang. However, the focus is not solely on the psychomotor aspects to better understand the psychomotor abilities of each student.

Based on the results of joint observations with the fifth-grade teacher at SD Muhammadiyah 1 Krian, the psychomotor phenomenon in the IPA learning process can be seen when there are practical activities on certain materials being conducted. There are students who prefer when the teacher explains by demonstrating directly. There are some students who can focus on the material, while others seem to lose concentration. There are students who take notes on what the teacher says, and there are also those who focus on drawing in their books. There are students who always run back and forth without stopping to move at their desks, and then always approach the teacher if they want to ask a question. There are some students who can complete their assignments on time, while others are not focused on their tasks and disturb their classmates. When the teacher asks questions about the material that has been studied, some students eagerly come forward to answer, while others, who seemed to be paying attention from the beginning, are unable to answer the questions given. The students are very enthusiastic when the lessons include media or direct practice of the material they receive. They will happily imitate every procedure as the activities take place.

Based on the observations that have been made, the researcher is interested in uncovering the profile of the psychomotor abilities of elementary school students in terms of their learning styles. This research was conducted to determine the profile of the psychomotor abilities of elementary school students in science learning when viewed from their learning styles.

RESEARCH METHOD

The method used in this research is qualitative, not using statistical data, but through data collection activities, analysis, and then interpretation [20]. The approach used based on the problem is the phenomenological approach, which is a study of knowledge derived from understanding an object or event by experiencing it consciously. This research focuses on the realm of psychomotor skills of elementary school students without making changes, manipulations, or additions to the existing data. Source triangulation was chosen in this research to seek the credibility of the data from the research results by matching the data using different techniques from the same source, namely conducting observations and interviews. Conducted at SD Muhammadiyah 1 Krian with research subjects being fifth-grade students who have visual, auditory, and kinesthetic learning styles. The subjects for data collection were 6 students with different learning styles, namely 2 students with visual learning styles, 2 students with auditory learning styles, and 2 students with kinesthetic learning styles. The selection of subjects in this study used a learning style questionnaire, from which the researchers could determine the research subjects to be conducted, namely six fifth-grade

students, consisting of 2 students with visual learning styles, 2 students with auditory learning styles, and 2 students with kinesthetic learning styles. The validity of the data in this study was examined using credibility testing with triangulation. Data triangulation is a method of checking data from various sources to examine the validity of data or information from different perspectives, which I have conducted as a researcher in this study. This step is taken to enhance the trustworthiness of the research data obtained. This research uses data collection in the form of observations and interviews. This data collection technique is used to obtain strong and valid data. The process of data collection used is through observation and interviews. The observation conducted by the researcher was a direct observation at SD Muhammadiyah 1 Krian in the fifth grade, where the researcher observed the events that occurred, specifically the students' psychomotor skills. The observation sheet used has two answer options, namely yes or no, by marking a check (√) on one of the available answers. Documentation is a data collection process that results in records related to the problem being researched, so the obtained data is valid and complete. The documentation in this research consists of photo documents and research reports. An interview is a data collection method involving questions and answers conducted by two people. This research uses an instrument in the form of an interview guide that is asked directly to the respondents. The interview instrument sheet contains 15 statements from 5 levels of psychomotor skills, namely Imitation, Manipulation, Precision, Articulation, and Naturalization. Dave, 1970. The indicators of each point explain the characteristics of science learning in elementary schools.

Table 1. Skill Framework Psychomotor

No.	The ability being assessed	Indicator
1.	Imitating	a. Observing and conducting experiments according to the experimental guidelines and behavior patterns provided by the teacher.
		b. Obtaining the product from the experiment according to the instructions, theory, and experimental guidelines, and being able to repeat it.
2.	Manipulate	a. Preparing tools and materials to perform tasks in the experiment according to the instructions and being able to modify them.
		b. Comparing and discussing the results of the tasks performed by the group with the results of other groups
3.	Experience	a. Identifying the ability to use skills that align with the truth of existing theories from experimental results.
		b. Using skills automatically to accurately find the essence of experimental activities.
4.	Articulation	a. Integrating the results from capabilities and product trials can be done clearly and systematically.

No.	The ability being assessed	Indicator
		b. Able to answer questions and explain sequentially related to the results of experiments and discussions instantly and correctly.
5.	Determination/Precision	a. Carrying out written instructions or guidelines smoothly, evenly, and accurately.
		b. Able to follow and execute written instructions in a structured manner independently without assistance from others.

Source: Hendarni (2013: 46) and modification

The data analysis technique uses the Miles and Huberman model, which is carried out in 4 stages: data collection, condensation, data presentation, and conclusion. Data collection is the process of systematically gathering observations and measurements. Data condensation is the process of selecting, simplifying, or transforming data from the entire part of the research process [21]. Presentation of data in the form of narrative descriptions or explanations. Drawing conclusions is the extraction of the essence that can answer the problem formulation in the research [22].

RESULTS AND DISCUSSION

The results are the main part of a scientific article, containing: raw results without data analysis, hypothesis testing results. The results can be presented in tables or graphs to clarify the results verbally. The results of the research conducted are in the form of observations and interviews regarding the psychomotor ability profiles of elementary school students viewed from learning styles, sourced from 6 students, namely 2 students with visual learning styles, 2 students with auditory learning styles, and 2 students with kinesthetic learning styles. The research data can be presented as follows:

1. Profile of psychomotor skills of students with visual learning styles

Here are the results of the observations conducted in the fifth-grade class over three meetings with two students who have a visual learning style, namely:

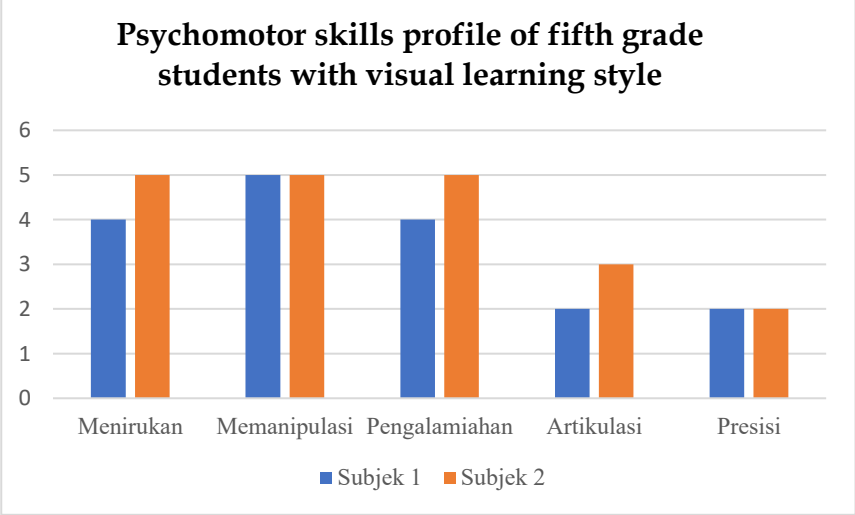

Figure 1. Diagram of psychomotor ability profile with visual learning style

Based on diagram 1, it shows that the psychomotor ability profile of fifth-grade students with a visual learning style includes 3 indicators of psychomotor abilities, namely the indicators of imitating, manipulating, and experiencing. This is also supported by the results of interviews conducted with two students who have a visual learning style. The results of the interviews with two students who have a visual learning style are as follows:

Subject 1 said, "During the science learning process in class, I always pay attention to the teacher when explaining, then immediately do what the teacher has done. I can also remember and repeat what the teacher practiced without having to look at the example again." But I am embarrassed to ask and answer the teacher's questions about what I did during the practical session.

Subject 2 said, "I really enjoy watching the teacher explain the material; if the teacher conducts a practical session, I can directly imitate it." I take notes and enjoy reading the practical steps in the book. I am not ashamed to ask questions if I am having difficulty. I can do the practical work that the teacher explained, but I still need help from the teacher or a friend to do it.

The results of the interviews with both students show that the psychomotor ability profile of students with a visual learning style includes only three indicators of psychomotor ability, namely the indicators of imitating, manipulating, and experiencing. The psychomotor skills of students with a visual learning style are quite good during the learning process. They pay attention and take notes on what the teacher conveys, have no trouble when asked to perform or try assembling the practical materials and tools directly, but still need assistance from others due to a lack of confidence. It appears that both students have the same learning style, but they seem to receive the lessons differently. This is evidenced by the results of observations and interviews that show during the learning process, students with a visual learning style did not exhibit several indicators of psychomotor skills.

Students who have a visual learning style tend to grasp what they see immediately without being disturbed by the noise from their surroundings. Therefore, the key to students' success in learning is by using the appropriate learning style [23]. Visual learning styles tend to involve the ability of the visual sense to observe and process visual coverage according to other senses [24]. The visual learning style possessed by students has main characteristics, namely the modality in which they use the power of their sense of sight while learning. So that students understand, it is necessary to first pay attention to the presence of concrete evidence [25]. Both students with a visual learning style tend to be interested in paying attention when the teacher is explaining and looking at direct examples found in the book. This is in line with the research by Nurul, Sella, and Winanda, which states that students with a visual learning style mostly prefer reading activities, thus this tendency in visual learning styles prioritizes the sense of sight [26].

2. Profile of psychomotor skills of students with auditory learning style

Here are the results of the observations conducted in the fifth-grade class over three meetings with two students who have an auditory learning style:

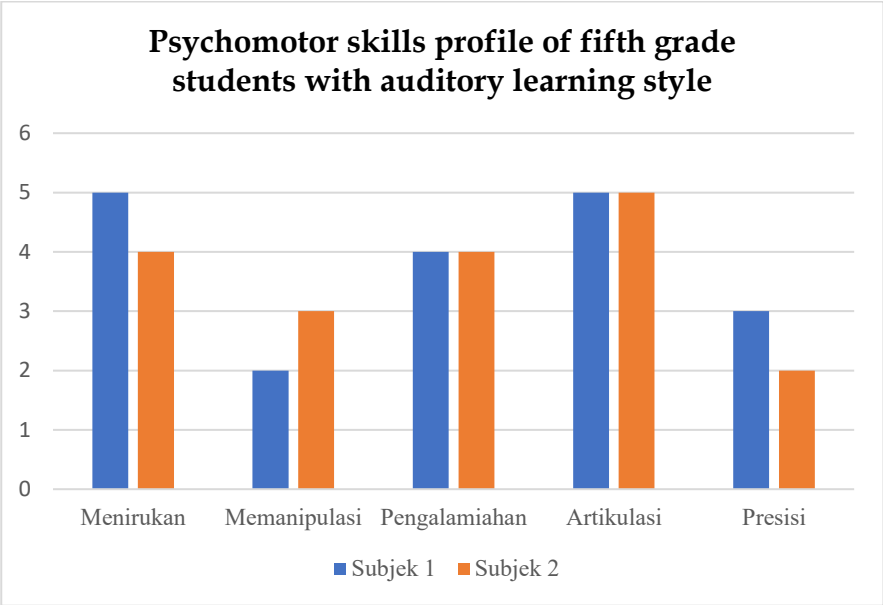

Figure 2. Diagram of psychomotor ability profile with auditory learning style

Based on the diagram in Figure 2, it shows that the psychomotor ability profile of students with an auditory learning style includes three indicators of psychomotor ability, namely imitation, experience, and articulation or arrangement. Where both indicators of psychomotor skills were observed during the IPA learning activities in the classroom. This is also supported by the results of interviews conducted with two students who have an auditory learning style. The results of the interviews with two students who have an auditory learning style are as follows:

Subject 1 said, "I like listening to the teacher when explaining and I like drawing." I sometimes can't immediately replicate what the teacher has demonstrated in front of the class. I like to ask questions if I can't or have difficulty doing the practical work. I sometimes get distracted if the class is noisy because I can't hear the teacher's explanation.

Subject 2 said, "I can directly imitate what the teacher explains, I like to listen to the teacher's explanation first." I prefer it when the teacher conducts practical sessions. I don't ask the teacher again because I always understand what the teacher explains. I can also arrange the materials and practical tools well in order by listening to the teacher's explanation.

Based on the interview results from both students, it shows that the profile of psychomotor skills with an auditory learning style includes three indicators of psychomotor skills, namely imitation, adaptation, and articulation. The psychomotor skills of students with an auditory learning style can be observed in that they prefer to listen to the material while engaging in other activities such as writing and drawing. The focus they use allows them to do two activities at once: listening to what the teacher is saying while directly writing down what they have heard. Both students had no difficulty in practicing again what the teacher had conveyed, even though they were focused on listening and writing.

The characteristic of students with an auditory learning style is that they rely on their hearing to understand and remember what they learn. It's difficult to remember lessons if there is noise in the classroom. Listening to the teacher's explanation is a way

for students to understand the lesson; they will be able to concentrate and verbally remember the lesson by listening [27]. The listening activity becomes a habit for a student with an auditory learning style. Because the learning style creates study habits that enable an individual to easily interact with their learning environment, receive, and process the information obtained [28]. Controlling learning success through hearing is a characteristic of students with an auditory learning style, so teachers must pay attention to the needs of students, including hearing aids. This learning style quickly grasps lessons by listening to the teacher's explanations and oral discussions. Students with an auditory learning style will be able to grasp the meaning of learning through listening, conveyed through speech, speaking speed, and the pitch and volume of speech [29]. This is in line with the research conducted by Sitti, Khaerul, and Haslinda that in the application of the auditory learning style, the teacher explains or presents the material during the learning process, and the students pay attention and listen to what the teacher explains when explaining the given material [30].

3. Profile of psychomotor skills of students with kinesthetic learning style

Here are the results of the observations conducted in the fifth-grade class over three meetings with two students who have a kinesthetic learning style, namely:

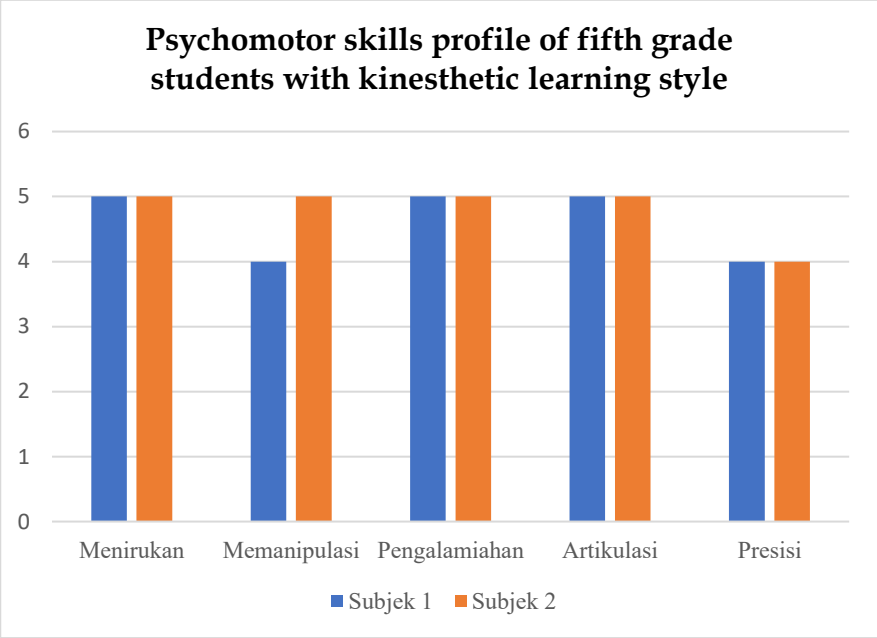

Figure 3. Diagram of psychomotor ability profile with kinesthetic learning style

Based on the diagram in Figure 3, it shows that the psychomotor ability profile of students with a kinesthetic learning style has all psychomotor ability indicators observed, but on the precision or accuracy indicator, they will still require indirect assistance from their teacher or peers. This is also supported by the results of interviews conducted with two students who have a kinesthetic learning style. The results of the interviews with two students who have a kinesthetic learning style are as follows:

Subject 1 said, "I can easily perform the practical work explained by the teacher." I don't have any trouble repeating the practical work without anyone else's help. I like to

ask questions directly in front of the class if I have difficulty understanding. I like to discuss with my friends.

Subject 2 said, "I like it when the teacher gives practical activities during science lessons, I like to ask questions if I don't understand." I like it when I imitate the teacher during practical activities. I don't have trouble following along, but sometimes I still need help from the teacher to correct my practical work results.

Based on interviews with both students, it was concluded that the psychomotor ability profile of students with a kinesthetic learning style is that all indicators are observed, although some aspects have not yet been met, such as their still needing help from friends or teachers when conducting practical activities in class. They appeared to be the most active among students with visual and auditory learning styles. Both children showed similarities in responding to the teacher's instruction by immediately following the teacher's directions. They continue to move as if they are not paying attention to the teacher while delivering the material, but they are the quickest to respond by systematically imitating the activities performed by the teacher. Dare to ask if you don't understand and are able to quickly answer the questions given by the teacher.

Both students with a kinesthetic learning style showed active learning interactions when they received instruction related to motor skills, specifically the practical exercise of making a telephone from plastic cups. Learning can also be defined as the process of behavioral change resulting from an individual's interaction with their environment [31]. Moving and touching are movements produced by the kinesthetic learning style during lessons. Students with this learning style will be very active and enjoy activities that require them to move their body parts. Students with this learning style are more inclined to use their sense of touch to imitate, touch, and feel the learning activities conducted by the teacher. This kinesthetic learning style trains students' motor skills because they move all parts of their bodies while learning. Active learners usually have a kinesthetic learning style because they get bored with learning activities if they only engage in seeing and hearing the learning material [32]. Similarly, students with a kinesthetic learning style can achieve good grades when educators use kinesthetic learning methods in the material being taught, which can help improve students' learning outcomes, especially in science subjects [33]. This is in line with the research conducted by Widya, Candra, and Erdhita, which found that 52.12% of students with a kinesthetic learning style were higher and dominated during practical sessions in science education, where students conducted an experiment by making a balloon inflator with vinegar and baking soda [34].

Based on the results of observations and interviews regarding the psychomotor ability profiles of fifth-grade students at SD Muhammadiyah 1 Krian in science lessons, viewed from visual, auditory, and kinesthetic learning styles, it can be concluded that: 1). The profile of the psychomotor abilities of students with a visual learning style includes three indicators of psychomotor abilities, namely imitation, manipulation, and experiential learning. 2). The profile of students' psychomotor abilities with an auditory learning style includes three indicators of psychomotor abilities: imitation, experiential learning, and articulation. The profile of psychomotor skills of students with an auditory learning style includes three indicators of psychomotor skills, namely imitation, experience, and articulation. 3). The profile of psychomotor skills of students with a

kinesthetic learning style is that all indicators of psychomotor skills are observed. The presence of students categorized according to their learning style does not mean they only possess characteristics of that one learning style; each individual also has characteristics of other learning styles. Categorizing students serves as a guide that each individual has a prominent tendency towards one of these learning styles. The tendency of a student's learning style, when receiving appropriate stimuli in learning activities, will tend to absorb it better [35]. Differences in learning styles among students can explain the variations in each individual's learning experience, even when they have the same learning conditions [36].

CONCLUSION

Fundamental Finding : This study concludes that the psychomotor abilities of fifth-grade students at SD Muhammadiyah 1 Krian in science learning vary according to their learning styles. Visual learners demonstrate abilities in imitating, manipulating, and experiencing; auditory learners exhibit imitating, experiencing, and articulating; while kinesthetic learners show all indicators, albeit with some incomplete aspects. **Implication :** These findings suggest that differentiated instructional strategies based on learning styles could enhance the development of students' psychomotor skills more effectively. Tailoring learning activities to align with students' learning preferences may optimize their engagement and performance in science education. **Limitation :** However, this study is limited by its small sample size and specific focus on a single school context, which may affect the generalizability of the results. **Future Research :** Further studies are recommended to design and implement targeted learning tools aimed at fostering comprehensive psychomotor development across diverse learning styles, with larger and more varied populations to validate and extend these findings.

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