



MAPPING STUDENT LEARNING STYLES AS A FORM OF COMMUNITY ENGAGEMENT AT ELEMENTARY SCHOOL KAMPUNG BENDANG VII KOTO SUNGAI SARIK

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ABSTRACT

This study focuses on identifying and mapping students' learning styles at Elementary School Kampung Bendang VII Koto Sungai Sarik, a public elementary school in Padang Pariaman Regency, West Sumatera. With the implementation of the Merdeka Curriculum, adaptive and student-centered learning approaches have become essential, emphasizing the need for recognizing students' learning styles to improve learning outcomes. The study utilizes to assess learning styles, which helps tailor instruction to students' individual preferences. The data collected from 79 students revealed that 48.9% preferred auditory learning, 39.7% visual learning, and 11.4% kinesthetic learning. These findings highlight the importance of differentiated instruction that adapts to various learning styles, ensuring a more inclusive, engaging, and effective classroom environment. This study underscores the significance of understanding learning styles in enhancing student motivation and preventing disengagement, ultimately contributing to improved academic performance. By addressing these differences, teachers can foster a supportive learning atmosphere that helps students achieve their full potential.

Keywords: Learning styles, Merdeka Curriculum, Educational assessment.

ABSTRAK

Penelitian ini bertujuan untuk mengidentifikasi dan memetakan gaya belajar siswa di Sekolah Dasar Kampung Bendang VII Koto Sungai Sarik, sebuah sekolah dasar negeri di Kabupaten Padang Pariaman, Sumatera Barat. Dengan diterapkannya Kurikulum Merdeka, pendekatan pembelajaran yang adaptif dan berpusat pada siswa semakin penting, menekankan perlunya pengenalan gaya belajar siswa untuk meningkatkan hasil pembelajaran. Penelitian ini untuk mengidentifikasi gaya belajar, yang membantu menyesuaikan pengajaran dengan preferensi individu siswa. Data yang dikumpulkan dari 79 siswa menunjukkan bahwa 48,9% lebih memilih gaya belajar auditori, 39,7% gaya belajar visual, dan 11,4% gaya belajar kinestetik. Temuan ini menyoroti pentingnya pengajaran yang terdiferensiasi yang menyesuaikan dengan berbagai gaya belajar, memastikan terciptanya lingkungan kelas yang lebih inklusif, menarik, dan efektif. Penelitian ini menekankan pentingnya pemahaman gaya belajar dalam meningkatkan motivasi siswa dan mencegah kejenuhan, yang pada akhirnya berkontribusi pada peningkatan kinerja akademik. Dengan memahami perbedaan ini, guru dapat menciptakan suasana belajar yang mendukung yang membantu siswa mencapai potensi mereka sepenuhnya. Kata kunci: Gaya belajar, Kurikulum merdeka, Asesmen pendidikan

INTRODUCTION

SD Negeri 35 dan 12 VII Koto Sei.Sarik is a public elementary school located in the Kampung Bendang VII Koto Sungai Sarik subdistrict, Padang Pariaman Regency, West Sumatra. Established on January 1, 1970, and operating under the Ministry of Education and Culture, the school plays an active role in developing students' academic and non-academic potential. In line with the implementation of the *Merdeka Curriculum*, which emphasizes freedom in learning based on students' interests and potential, adaptive and student-centered learning approaches have become increasingly vital.

One crucial component of adaptive learning is the recognition of students' learning styles. Learning style refers to an individual's consistent way of receiving, processing, remembering, and applying information (Widayanti, 2013; Alhafiz, 2022; Angyanur et al., 2022). Previous studies have shown that aligning learning methods with students' preferred styles can significantly enhance learning outcomes (Cholifah et al., 2018; Silitonga & Magdalena, 2020; Nasution et al., 2023). The

VARK model (Visual, Auditory, Reading/Writing, Kinesthetic) by Fleming provides a framework to understand these differences and guides teachers in designing effective instruction.

The *Merdeka Curriculum* explicitly encourages the implementation of differentiated instruction, which adapts learning to the unique characteristics of each student—including learning styles (Wijaya et al., 2022; Fauzia & Ramadan, 2023). Therefore, teachers' ability to identify and map learning styles is essential for realizing effective differentiated learning practices.

However, based on field observations at SDN 35 VII Koto Sei.Sarik, a major issue has been identified: teachers struggle to identify and map students' learning styles due to the lack of appropriate instruments. This limitation hinders the school's ability to implement learning strategies tailored to students' needs and learning preferences.

Numerous previous studies have highlighted the importance of learning styles in shaping effective learning processes and outcomes (Angyanur et al., 2022; Lestariwati et al., 2021; Nasution et al., 2023). Nonetheless, most of these studies remain theoretical and have not been translated into practical tools for direct implementation in public elementary schools, particularly those with limited resources such as SDN 35 VII Koto Sungai Sarik. Moreover, existing learning style instruments are often generic and not contextually tailored to the needs of elementary school teachers.

The identified gap lies in the absence of practical and context-specific implementation of learning style mapping in schools. While the theoretical importance of learning styles is well-documented, many schools-especially at the elementary level-lack concrete tools and strategies to translate these theories into classroom practice.

This gap is particularly evident in under-resourced public schools, where limited access to educational instruments and professional development opportunities hampers efforts to implement differentiated learning. As a result, teachers struggle to tailor instruction to meet diverse student needs, making the mapping of learning styles a critical yet unmet necessity.

This program introduces a novel approach through a Community Service initiative, which emphasizes participatory action to directly assist schools. The focus is on supporting educators in identifying and mapping students' learning styles using a learning style instrument that is adapted to the local school context and educational environment.

The identification process involves not only the administration of the instrument but also active collaboration with teachers to ensure that the data collected is relevant and accurately reflects students' learning preferences. This participatory method increases teacher engagement and builds their capacity in recognizing learning differences within their classrooms.

Beyond the identification phase, the program provides support in interpreting assessment results and formulating instructional recommendations based on the mapped learning styles. These recommendations help teachers design more effective and differentiated learning strategies, ultimately offering a comprehensive and practical solution for improving classroom learning in alignment with the principles of the *Merdeka Curriculum*.

Addressing the issue of identifying and mapping students' learning styles is a shared responsibility involving various stakeholders—schools, parents, education practitioners, and competent experts. This collaboration can be viewed as a system, where each component or *subsystem* plays a vital role in achieving a common goal. When all parts function cohesively, they contribute meaningfully toward the realization of improved and personalized learning outcomes.

To resolve the issue, a collaborative partnership was established between the school and the Guidance and Counseling Faculty Team from Universitas PGRI Sumatera Barat through a community service initiative. The proposed solution includes: first, conducting an assessment of students' learning styles using a specialized instrument; second, analyzing and mapping the results to understand each student's learning characteristics. The final step involves presenting the findings to the school, enabling teachers to design and implement differentiated learning strategies tailored to individual learning styles.

A crucial part of this process is the accurate identification and mapping of students' learning style characteristics. This step ensures that each student's unique way of processing and absorbing information is clearly understood, forming the foundation for planning effective instruction. Without this understanding, educators may overlook important differences that impact how students engage with learning materials.

Learning styles should be recognized as fundamental factors that influence both the learning process and long-term academic success. By understanding how students learn best, teachers are empowered to design instructional strategies that are not only more effective but also more engaging and inclusive. This creates an equitable learning environment where all students have the opportunity to thrive according to their individual strengths.

METHOD

The implementation of Community Service Program (PKM) at Elementary School Negeri 35 and Elementary School SD 12 VII Koto Sei.Sarik is carried out with participatory principles and collaboration with the Guidance and Counseling teachers. The planned methods for the PKM activities are as follows: First, providing an explanation about the importance of learning styles through a lecture method, using storytelling in simple and easy-to-understand language. Next, a learning style instrument is given to the students as a step to identify the characteristics of their learning styles, then process and map these characteristics. There are two main outcomes for this PKM program, as follows:

Table 1. Outcomes and Achievement Methods

Outcome	Activity Method	Achievement Indicators
Students understand and sincerely fill out the learning style instrument	Administration (providing explanations about the importance, goals, and benefits) of the learning style instrument to students	Students can explain the importance of learning styles. Students fill out the learning style instrument seriously.
Learning styles are identified and mapped	Systematic processing of the collected and filled learning style instruments	Learning styles of students are identified and mapped, and the results are communicated to the students.

Table 1 above outlines the achievements and methods in this PKM program, addressing the fundamental issues faced by the partner school. In achieving these outcomes, the PKM team is supported by qualified human resources and experience in the fields of empowerment and research related to this area. Below is the list of the PKM team who will directly contribute:

Table 2. Team Expertise and Contributions to PKM

No	Name	Experience	Contribution to PKM
1	Triyono, M.Pd	Master's degree in Guidance and Counseling, with a focus on IT and Media in Guidance, as well as psychological assessments, art therapy for trauma recovery, and ice-breaking techniques to increase student motivation. He teaches IT and Media as well as Psychological Assessment.	Contributing as the head of the PKM activity and as a facilitator in the identification and mapping of students' learning styles in the implementation of the <i>Merdeka Curriculum</i> at SD N 35 and 12 VII Koto Sungai Sarik.



2	Dra. Hj. Fitria Kasih, M.Pd., Kons	Master's degree in Guidance and Counseling with a focus on counseling studies.	Contribution to PKM activities at the school.
3	Ulfa Nofutri	Student who has taken courses in Psychological Assessment and IT Media in Guidance.	Assisting faculty in supporting PKM activities.
4	Isabel Intan Pandini	Student who has taken courses in Psychological Assessment and IT Media in Guidance.	Assisting faculty in supporting PKM activities.

Based on Table 2, it can be concluded that the PKM team will serve as facilitators in the implementation of the program, and they will be responsible for carrying out the PKM activities. Addressing these issues, an action plan has been jointly developed to achieve and resolve the identified challenges. This method will be applied throughout all stages of the activity to achieve the objectives of the PKM program.

RESULTS AND DISCUSSION

The data collection and processing results through the learning style instrument from a total sample of 79 students (respondents) are shown in The data collection and processing results through the learning style instrument from a total sample of 79 students (respondents) are shown in Table 3.

Table 3. Frequency Distribution and Percentage of Students' Learning Styles

Learning Style Category	Frequency	%
Audio	69	48.9
Visual	56	39.7
Kinesthetic	16	11.4

Table 3 above shows that students have a variety of learning styles. Among the respondents, 69 students (48.9%) have an audio learning style (based on listening), 56 students (39.7%) have a visual learning style, and 16 students (11.4%) have a kinesthetic learning style.

Understanding students' learning styles is a critical factor in creating an effective and inclusive learning environment. The results of the data collection and processing from Table 3 show that students exhibit a wide range of learning preferences. These learning styles audio, visual, and kinesthetic demonstrate the need for teachers to recognize and accommodate these differences in order to maximize student engagement and success. With 48.9% of students favoring audio learning, 39.7% visual, and 11.4% kinesthetic, it is clear that students have distinct ways of processing information. This variability emphasizes the importance of adapting teaching methods to align with these preferences.

One of the most significant reasons for understanding the differences in learning styles is that it enables educators to tailor their teaching strategies to meet the individual needs of each student. In a traditional, one-size-fits-all approach, students who do not align with the dominant teaching method may struggle to grasp the material, leading to disengagement and underperformance. For example, students who excel in auditory learning may thrive when information is delivered through lectures or discussions, while visual learners might benefit from diagrams, charts, and videos. Kinesthetic learners, on the other hand, may need more hands-on activities to effectively understand and apply the concepts being taught.

The data indicates a larger percentage of audio and visual learners, which highlights the significance of incorporating a variety of teaching methods in the classroom. Audio learners, who make up nearly half of the sample group (48.9%), require instruction that involves listening. This could include lectures, discussions, or audio recordings of relevant materials. On the other hand,



visual learners, making up 39.7% of the group, benefit from visual aids, such as slideshows, videos, diagrams, and written instructions. Both groups can be supported through multimodal teaching strategies that incorporate both auditory and visual elements. These methods can help create a more balanced and inclusive learning environment.

The small percentage of kinesthetic learners (11.4%) also underscores the importance of integrating movement and tactile activities into the curriculum. Kinesthetic learners engage more effectively with content when they can physically interact with the material, such as through experiments, role-playing, or other hands-on activities. While these learners may be in the minority in the sample group, it is crucial not to overlook their needs. Providing opportunities for all students to learn in ways that align with their individual styles can help ensure that every student reaches their full potential.

Moreover, understanding learning styles is essential for fostering a more inclusive classroom. Each student brings unique strengths to the table, and recognizing these differences can lead to more personalized learning experiences. For example, audio learners may be better at remembering spoken instructions, while visual learners may excel in recalling information presented in images or text. Kinesthetic learners may demonstrate better problem-solving skills when engaged in activities that require them to manipulate objects or perform physical tasks. By acknowledging and valuing these differences, teachers can create a more welcoming and supportive learning environment that accommodates all students.

Incorporating learning style-based methods into the classroom also increases student motivation. When students are taught in ways that suit their learning preferences, they are more likely to feel confident and engaged in their learning. Motivation is a key factor in academic success, and students who feel that their learning needs are being met are more likely to be invested in their education. For instance, an audio learner might be more motivated to participate in class discussions, while a kinesthetic learner may be more enthusiastic about participating in hands-on activities. The result is a more dynamic and participatory classroom atmosphere.

Furthermore, the ability to differentiate instruction based on learning styles can help prevent frustration and disengagement. When students struggle to understand the material because it is presented in a way that does not match their learning style, they may become discouraged. This can lead to decreased self-esteem, lower achievement, and a lack of interest in school. However, when teachers are aware of their students' learning preferences and adjust their teaching strategies accordingly, they are more likely to prevent these negative outcomes and foster a positive learning experience for all students.

An important aspect of this understanding is the implementation of differentiated instruction, which involves tailoring lessons, activities, and assessments to suit the diverse learning styles within the classroom. Differentiated instruction allows teachers to provide multiple pathways for students to access the material, making learning more flexible and accessible. For example, a teacher might provide a mix of oral explanations, written content, and physical activities to ensure that all students can engage with the lesson in the way that works best for them. This approach not only supports students with different learning styles but also encourages collaboration and mutual respect among classmates with diverse abilities and preferences.

In addition to improving individual learning outcomes, addressing learning styles helps prepare students for the future. As students progress through their education and eventually enter the workforce, they will need to interact with different forms of information and collaborate with diverse groups of people. By helping students understand their own learning preferences and develop strategies for adapting to different learning environments, teachers are equipping them with valuable life skills. These skills-such as adaptability, self-awareness, and the ability to work collaboratively-are essential for success in both academic and professional settings.

Finally, it is essential for schools to provide ongoing professional development for teachers to help them effectively identify and address students' learning styles. Teachers need the knowledge and resources to assess students' learning preferences and implement appropriate strategies. This can include providing teachers with training on learning style assessments, differentiated instruction techniques, and methods for incorporating multimodal teaching strategies into their classrooms. By investing in teacher development, schools can ensure that all students have the opportunity to succeed and that their learning experiences are both meaningful and effective.

In conclusion, understanding students' learning styles is not just a matter of identifying preferences it is an essential practice that directly impacts student achievement, motivation, and long-term success. The results from the data collection clearly show that students have diverse learning needs that require careful attention and adaptation. By tailoring instruction to match these styles, teachers can create a more inclusive, engaging, and effective learning environment that supports all students in achieving their academic goals.

CONCLUSION

In conclusion, the data analysis reveals that students exhibit a variety of learning styles, with 48.9% favoring an audio learning style, 39.7% a visual learning style, and 11.4% a kinesthetic learning style. This diversity underscores the importance of recognizing and adapting teaching methods to cater to the individual needs of students. By understanding students' learning preferences, teachers can create a more inclusive and engaging classroom environment that helps maximize each student's potential. Tailoring instruction based on these learning styles not only improves academic performance but also boosts student motivation, as students are more likely to feel confident and engaged when taught in a manner that suits their learning preferences.

Moreover, differentiating instruction according to learning styles prevents frustration and disengagement, ensuring that all students can succeed. Implementing strategies such as multimodal teaching and differentiated instruction can provide varied pathways for students to access and process information. This approach not only addresses the diverse needs of students but also fosters a more collaborative and respectful classroom environment. As students progress in their education and future careers, understanding their learning styles and developing strategies to adapt to different learning environments will equip them with crucial life skills. Therefore, understanding and adapting to students' learning styles is a vital component in achieving better educational outcomes and preparing them for long-term success.

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