



Nurkholis  
nurkholis@umc.ac.id  
FKIP, PPG PGSD Teacher  
Candidates, Muhammadiyah  
Cirebon University, Cirebon,  
Indonesia.

Agnita Prihandini  
Aggnita09@gmail.com  
FKIP, PPG PGSD Teacher  
Candidates, Muhammadiyah  
Cirebon University, Cirebon,  
Indonesia.



Ainun Husna  
ainunhusna887@gmail.com  
FKIP, PPG PGSD Teacher  
Candidates, Muhammadiyah  
Cirebon University, Cirebon,  
Indonesia.

Anggi Eka Pratiwi  
anggiekhap24@gmail.com  
FKIP, PPG PGSD Teacher  
Candidates, Muhammadiyah  
Cirebon University, Cirebon,  
Indonesia.



Graceful Conscience  
anggunnurani33@gmail.com  
FKIP, PPG PGSD Teacher  
Candidates, Muhammadiyah  
Cirebon University, Cirebon,  
Indonesia.

Anita Pipit Aziz  
anitapipit55@gmail.com  
FKIP, PPG Prospective Teachers  
PGSD, Muhammadiyah  
Cirebon University,  
Cirebon, Indonesia.



## IMPROVING TEACHERS' COMPETENCE IN IDENTIFYING STUDENTS' *LEARNING STYLES*

Nurkholis <sup>1</sup>, Agnita Prihandini <sup>2</sup>, Ainun Husna <sup>3</sup>, Anggi Eka Pratiwi <sup>4</sup>, Anggun Nurani <sup>5</sup>, Anita Pipit Aziz <sup>6</sup>

<sup>123456</sup> FKIP, PPG PGSD Teacher Candidates, Muhammadiyah Cirebon University, Cirebon, Indonesia.

**Corresponding Author:** nurkholis@umc.ac.id

### Abstract

#### Background.

One key factor determining the success of learning is the teacher's ability to identify students' learning styles. Each individual has a unique learning style—such as visual, auditory, or kinesthetic—which

influences how they absorb, process, and understand information. However, many teachers, especially at the elementary school level, still face challenges in recognizing and adapting their teaching methods to meet students' learning needs.

**Aims.** The training program for enhancing teachers' competence in identifying students' learning styles aims to improve teachers' understanding and ability to implement teaching strategies that align with students' individual needs. The training materials introduced four types of learning styles (visual, auditory, kinesthetic, and verbal) and effective methods for identifying these styles, including diagnostic assessments and direct observation.

**Result.** The evaluation results indicated a significant improvement in participants' understanding and skills, supported by questionnaire data and direct observations. This training provided new insights and practical strategies for teachers to create more effective and adaptive learning experiences tailored to students' needs.

**Conclusion.** This training provided new insights and practical strategies for teachers to create more effective and adaptive learning experiences tailored to students' needs.

**Implementation.**

This training was conducted at SDN Pelandakan 1, targeting teachers from SDN Pelandakan 1 and SDN Pelandakan 2. It involved 45 to 50 participants. The training methods included interactive lectures, practical simulations, and reflection-based evaluations.

**Keywords:** Diagnostic Assessment, Teacher Competency Improvement, Learning Style.

## INTRODUCTION

In the classroom, students show differences in intelligence, social, and emotional aspects, which are reflected through their learning habits. Some students are able to process information quickly, while others take longer. This difference is due to the unique characteristics of each student, namely diverse learning styles.

In education, teachers have a central role in creating a practical and meaningful learning experience for students. One of the critical factors that determines the success of learning is the teacher's ability to identify students' learning styles. Each individual has unique learning styles, such as visual, auditory, or kinesthetic, that affect how they absorb, process, and understand information. However, there are still many teachers, especially at the elementary school level, who face challenges in recognizing and adapting their teaching methods to the learning needs of students. This can have an impact on less-than-optimal learning outcomes and student potential.

This problem is also felt by some teachers at SDN Pelandakan 1 and SDN Pelandakan 2, Cirebon City. In the daily learning process, teachers often use a uniform approach without considering individual student differences. Ignorance or lack of skills in identifying students' learning styles is the main obstacle that needs to be overcome immediately. Therefore, concrete efforts are needed to improve teachers' competence in this field, so that they can provide more effective and adaptive learning.

This training not only discusses commonly known learning styles, such as visual, auditory, and kinesthetic, but also adds a discussion of verbal learning styles. Verbal learning styles refer to an individual's preference for using words, both spoken and written, as the primary way to understand and remember information. According to research conducted by Sternberg and Zhang (2001), students with verbal learning styles tend to excel in processing information conveyed through text or verbal discussions and can express their ideas verbally. This suggests that verbal learning styles can be an important aspect often overlooked in learning management.

In response to these needs, training was held to improve teacher competence in identifying students' learning styles. This training aims to provide an in-depth understanding of students' different learning styles, including verbal ones, and how to identify them effectively. In addition, this training is designed to train teachers in implementing learning strategies that suit each student's learning style, also known as learning style differentiated learning, to create a more productive, effective, and fun learning environment.

## LITERATURE REVIEW

### Learning Style

Learning Style is the most effective and efficient method that individuals have in receiving, processing, organizing, and managing information. In the study Rhadhiah *et al.* (2024), Willing explained that learning style is a learning habit that is preferred by learners. Keefe describes learning style as how a person understands, interacts, and interprets his or her environment. Meanwhile, according to Bobbi De Porter and Mike Hernacki, learning styles are generally divided into three main categories: visual, auditory, and kinesthetic. Based on the survey results, 29% of individuals have visual learning styles, 34% auditory, and 37% kinesthetic.

Learning style is an important modality in the learning process. Some students can understand the material very well through observation, for example, by watching others do it. They tend to like information that is presented in a structured way. During learning, students with visual learning styles usually write down what the educator is saying. This shows their

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<sup>1</sup> Radhiah, S., *et al.* (2024). Understanding Student Learning Styles for Students as a Foundation in the Application of Learning Media. *Community Development Journal*, 5(6), 11630-11634. <http://dx.doi.org/10.47134/jtp.v1i2.74>

<sup>2</sup> Zhang, L. (2022). The Role of Verbal Learning Styles in Language Acquisition: A Meta-Analysis. *Educational Research Review*, Vol. 31, 150-167.

preference for visual learning styles. In contrast, students with an auditory learning style rely more on listening skills to understand information. Meanwhile, kinesthetic students prefer learning methods that involve direct activities or real practice (Sari, 2014).

### **Differentiated Learning**

Differentiated learning in the era of Independent Learning allows teachers to provide teaching with various methods according to the needs and preferences of students' learning styles. Among the students in the class, some individuals tend to learn with a kinesthetic learning style. According to Dariyani *et al.* (2022), in Suwidhagdo *et al.* (2024), stated that students will be able to develop well if they are given the freedom to learn that involves physical activities such as live demonstrations and activities that require direct student participation. On the other hand, some students may be more suitable if they use a visual learning style, where they will be able to develop. In addition, some students are learners with an auditory learning style who will get maximum results by listening to explanations from teachers or engaging in discussions (Jimola & Ofodu, 2021). With this training, it is hoped that teachers at SDN Pelandakan 1 and SDN Pelandakan 2 will be able to optimize their role as professional and adaptive educators to the needs of their students.

### **METHODS**

The training to improve teacher competency in identifying students' learning styles was held on Thursday, December 12, 2024, at SDN Pelandakan 1. The selection of this location is based on its strategic location and adequate facilities to support training activities. The implementation is carried out in one day with a schedule that has been systematically arranged, so that it can cover all stages of training optimally.

This training was attended by teachers and educators from SDN Pelandakan 1 and SDN Pelandakan 2, with the number of participants ranging from 45 to 50 people. Participants consist of various educational backgrounds and experiences, so the training is designed to be able to

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<sup>3</sup> Sari, K. (2014). Analysis of VAK Learning Style Characteristics (Visual, Auditorial, Kinesthetic). *Educic Scientific Journal*, 1(1). <https://doi.org/10.21107/educic.v1i1.395>

<sup>4</sup> Dariyani, N. M. (2022). Journal of Science and Science Learning. *Learning Style Analysis for Differentiated New Paradigm Learning in Public Senior High School 1 Semendawai Suku III East Oku*. doi: [10.24815/jipi.v6i3.25704](https://doi.org/10.24815/jipi.v6i3.25704)

<sup>5</sup> Suwidagdo, D. I. (2024). Smart Strategies: Learning Style Mapping Training for Learning. *SELAPARANG: Journal of Progressive Community Service*, 2231-2238.

<sup>6</sup> Jimola, F., *et al.* (2021). Sustaining Learning During COVID-19 Seismic Shift: The Need to Develop Flexible Pedagogy. *Interdisciplinary Journal of Education Research*.

accommodate the needs and challenges faced by each individual. The enthusiasm of the participants is expected to make a positive contribution to the success of this training. The training method involves a systematic approach consisting of four main stages: preparation, material delivery, simulation, and evaluation.

1. **In the Preparation Stage**, the organizing committee coordinates with the school to ensure the availability of places, facilities, and training materials. In addition, participants are provided with advanced information about the objectives and benefits of the training through formal invitations and brief introductions.
2. **The stage of delivering material is the core of the training**, where the speaker provides an in-depth explanation of the concept of learning styles, including visual, auditory, kinesthetic, and verbal learning styles. The presentation was done with interactive lectures, multimedia presentations, and discussions to improve participants' understanding. During this session, participants were also introduced to practical tools and methods to identify students' learning styles in the classroom.
3. **In the simulation stage**, the presenter provides an opportunity for participants to practice the skills that have been learned. In this simulation, the audience was asked to simulate how to identify students' learning styles using diagnostic assessments and then create learning scenarios that suit various learning styles. Presenters provide direct guidance and feedback to ensure proper strategy implementation.
4. **The final stage is evaluation**, where participants are asked to fill out a questionnaire to assess the effectiveness of the training. In addition, a joint reflection session was held to discuss the experiences during the training, the challenges faced, and the plan to apply the knowledge gained in their respective classes.

With this structured method, it is hoped that the training can have a real and sustainable impact on improving the quality of education at SDN Pelandakan 1 and SDN Pelandakan 2.

## DISCUSSION

### Training Results

The results of teacher competency improvement training in identifying students' learning styles were evaluated using a measurement tool designed to assess the level of achievement and success of training activities. These measures consist of descriptive and qualitative approaches, each providing a comprehensive perspective on the impact of training.

Descriptively, data was collected through questionnaires distributed to participants after the training. The questionnaire includes a number of closed-ended and open-ended questions to measure participants' understanding of the material presented, the relevance of the training to their needs, and their level of satisfaction with the implementation of the training.

Qualitative assessment is done through direct observation during training, especially in simulation sessions. Presenters and facilitators record participants' responses and active participation in simulation activities, such as their ability to apply learning style concepts to learning scenarios.

The success of the training was also measured through a final reflection involving group discussions. Participants were asked to convey their impressions, key learnings, and implementation plans in this session. The feedback provided is an important indicator of the training's success, especially in terms of its impact on participants' mindsets and readiness to adopt new strategies in the learning process.

With this thorough evaluation approach, the training focuses on knowledge transfer and real changes in teachers' teaching practices. The evaluation results showed that the majority of participants found this training practical and relevant, with a significant improvement in their understanding and skills. This is proof of the training's success in supporting efforts to improve the quality of education at SDN Pelandakan 1 and SDN Pelandakan 2.

The material is delivered with a combination of interactive lectures, multimedia presentations, and discussions to improve the audience's understanding. The resource person in this training is an Active Lecturer at the University of Muhammadiyah Cirebon Elementary School Teacher Education Study Program (PGSD), especially in charge of Educational Psychology, namely Mr. Dr. Nurkholis, M.Pd. During the presentation of the material, the resource person provided an in-depth explanation of the concept of learning styles, including visual, auditory, kinesthetic, and verbal learning styles. During this session, participants were also introduced to practical tools and methods to identify students' learning styles in the classroom.

**Table 1.** Training Materials for Teacher Competency Improvement in Identifying Student Learning Styles.

<b>Yes</b>	<b>Material</b>	<b>Method</b>
1	Purpose of Knowing Students' Learning Styles	Interactive talks, and discussions
2	5 (Five) Student Learning Styles	
3	Effective Ways to Identify Students' Learning Styles	

Table 1 details the training activities. After the material was presented, structured assignments were followed to apply the skills and understanding gained during the material presentation session, namely assignments that compile diagnostic assessments to learn students' learning styles and create learning scenarios that suit these styles.



**Figure 1.** Organizing Team and Training Participants



**Figure 2.** Presentation of Material by Resource Persons



**Figure 3.** Simulation Stage with the Audience

## DISCUSSION

The training to improve teacher competence in identifying students' learning styles has resulted in new insights for teachers at SDN Pelandakan 1 and SDN Pelandakan 2 related to an in-depth understanding of the four types of learning styles and techniques for effectively identifying student learning styles. Presenters integrate the latest research results to provide a solid scientific basis for each topic presented.

The presenter explained the four main types of learning styles: visual, auditory, kinesthetic, and verbal. This explanation is supported by the latest research to provide a relevant and data-driven understanding.

**Visual learning style** refers to a student's preference for understanding information through images, diagrams, graphs, or videos. Research by Aufar et al. (2023) found that students with visual learning styles showed a better understanding of concepts conveyed through graphic media. For example, students can easily understand math subject matter through flowcharts, color images, or other visual representations.

Students with **an auditory learning style** can easily understand verbal information through discussions, lectures, or audio recordings. Research by Masela and Subekti (2020), shows that voice-based learning, such as interactive discussions, can improve information retention in auditory students. For example, these students understand history material faster through narrative stories or teacher lectures.

**Kinesthetic learning styles** refer to a student's preference for learning through physical activity, such as experimentation, hands-on practice, or using manipulative tools. According to research by Hapsari *et al.* (2019), kinesthetic students understand science material better by conducting direct experiments rather than reading textbooks. For example, these students tend to prefer project-based or simulation-based learning.

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<sup>7</sup> Aufar, A. *et al.* (2023). Mathematical Literacy Ability Reviewed from Visual Learning Styles. *Imaginary: Journal of Mathematics and Mathematics Education*, 5(6), 423-430. <https://doi.org/10.26877/imajiner.v5i6.16794>

<sup>8</sup> Masela, M., & Subekti, A. S. (2020). Indonesian University Students' Visual Learning Style: Learners' and Teachers' Perspectives. *ETERNAL (English, Teaching, Learning, and Research Journal)*, 6(2), 259-274. <https://doi.org/10.24252/Eternal.V62.2020.A6>

As for one of the interesting things about this training, the presenter not only explained the three types of learning styles, but also 4 (four) types of learning styles, where the last type is not widely known by the audience, namely **the verbal learning style**. Verbal learning styles involve a preference for words, both spoken and written. Research by Zhang *et al.* (2022) found that students with verbal learning styles showed better learning outcomes in reading, writing, and discussing activities. For example, these students can understand Indonesian material by writing a summary or essay.

The presenter also explained techniques for identifying students' learning styles, which involve diagnostic assessments and direct observation, and how they are mapped.

Diagnostic assessments involve using questionnaires or quizzes to identify students' learning styles. Research by Dunn and Griggs (2019) states that learning style questionnaires, such as the "*VARK Learning Styles Questionnaire*," are effective in helping teachers recognize individual student learning preferences. Teachers can ask students to fill out questionnaires that contain questions about how they understand and absorb information.

As for the observation technique, direct observation is carried out by paying attention to student behavior during the learning process. The presentation delivered by the presenter about this technique is in line with that delivered by Ahmad *et al.* (2020) in their research, which confirms that behavioral observations, such as how students respond to assignments or subject matter, provide important information about their learning styles. For example, visual students draw or make color notes, while kinesthetic students seem more active during learning.

The results of this discussion confirm that the combination of diagnostic assessment and direct observation provides a more comprehensive picture of students' learning styles. With this understanding, teachers can design learning strategies that are more suited to students' individual needs, thereby creating an inclusive and effective learning environment.

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<sup>9</sup> Hapsari, D. E. (2019). The Effectiveness of Kinesthetic Learning Strategies in STEM Education. *Journal of Innovative Education*, 15(1), 45-58.

<sup>10</sup> Zhang, L. (2022). The Role of Verbal Learning Styles in Language Acquisition: A Meta-Analysis. *Educational Research Review*, Vol. 31, 150-167.

<sup>11</sup> Dunn, R. *et al.* (2019). Learning Styles: Diagnosing Preferences for Effective Instruction. *Educational Leadership*, 45(5), 38-44.

<sup>12</sup> Ahmad, S. E. (2020). Observational Methods in Identifying Learning Styles: A Practical Approach. *Journal of Teacher Education*, 12(2), 85-100.

## CONCLUSION

Teacher competency improvement training in identifying student learning styles successfully provides teachers with an in-depth understanding of various student learning styles, including visual, auditory, kinesthetic, and verbal. This training also equips teachers with diagnostic assessment techniques and direct observation to identify students' learning styles effectively.

The evaluation results showed that participants felt that this training was relevant and able to improve their competence in designing learning that suits the individual needs of students (differentiated learning). Thus, this training positively improves the quality of learning at SDN Pelandakan 1 and SDN Pelandakan 2. Furthermore, in the future, implementing the results of this training is expected to strengthen the effectiveness of a more student-centered learning process.

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