

Learning Styles of Students at Pattimura University Laboratory High School

Emma Rumahlewang¹, Ainun Diana Lating², Runawati Ellis³, Sawal Mahaly⁴

Universitas Pattimura Ambon^{1,3,4}, IAIN Ambon²

Received: 1 April 2025
Revised: 12 April 2025
Accepted: 29 April 2025

Abstract

Learning styles greatly influence the quality of learning, so teachers must first know whether the students' learning styles are in accordance with their characteristics. The selection of professional teachers is very important to support the achievement of learning quality. One way to improve the quality of learning is to know the learning style. The purpose of the study was to analyze students' learning styles to improve teachers' understanding of students' learning needs. This study used a descriptive quantitative approach. The sample in this study was 30 grade XI students and the sample collection technique used *total sampling*. The results of the study provide an overview that the highest student learning styles are first, kinesthetic learning style (30.59%), second mixed learning style (28.24%), third visual learning style (24.71%) and fourth audio learning style (16.47%). In other words, the most dominant learning style in students of SMA Laboratorium Universitas Pattimura class XI is Kinesthetic.

Keywords: Learning, Styles, of Students

(*) Corresponding Author: emmarumahlewang02@gmail.com

How to Cite: Rumahlewang, E., Lating, A., Ellis, R., & Mahaly, S. (2025). Learning Styles of Students at Pattimura University Laboratory High School. *International Journal of Education, Information Technology, and Others*, 8(2), 110-118. Retrieved from <https://jurnal.peneliti.net/index.php/IJEIT/article/view/12113>

INTRODUCTION

Effective learning in schools depends not only on the curriculum and materials delivered, but also on the teacher's ability to understand the learning needs of each student. Each student has a different learning style, which affects how they receive, process, and understand information. These learning styles can include visual, auditory, kinesthetic, or even a combination of several learning styles.

Learning styles are closely related to concepts in psychology, especially those related to cognitive development, personality, and individual learning processes. In psychology, each individual is seen as having a unique way of absorbing, processing, and remembering information, which is greatly influenced by cognitive, emotional, and even social factors. Understanding learning styles is rooted in psychological theories that highlight individual differences in thinking processes and interacting with the environment. For example, Piaget's theory of cognitive development suggests that children go through different stages of cognitive development, which affect how they process information at different ages. Children who are still in the concrete operational stage may find it easier to learn through activities involving physical or visual objects, while children in the formal operational stage can understand abstract concepts and think logically. This shows that learning styles also develop according to a person's cognitive level, so it is important for educators to understand which stage a student is at in order to adjust their learning approach (Agoes Soejanto, 2005).

Sukadi stated that learning style is a combination of how someone absorbs, organizes, and processes information. Meanwhile, Nasution stated that learning style is a consistent way that students remember, think, and solve problems (Papilaya & Huliselan, 2016). In addition, Slamento explained that learning style shows students' tendency to use a particular learning approach. Students are responsible for choosing the learning approach that best suits the needs of the class or school and the subject (Jatikusumo et al., 2017). This view illustrates that learning style is an important aspect in the learning process that can help teachers understand students' learning patterns and adjust teaching approaches to suit the individual needs of students. By understanding students' learning styles, teachers can provide more targeted support in teaching and learning activities. Students who have a visual learning style, for example, will find it easier to understand material through visual aids such as pictures, diagrams, or videos. Meanwhile, students with an auditory learning style are more likely to absorb information through listening to explanations, discussions, or lectures. As for students with a kinesthetic learning style, they usually need physical activity or practical experience to help them process information. In other words, a person's learning ability is key to developing performance at work, at school and in interpersonal situations (Marpaung, 2016).

This learning style according to Marpaung is in accordance with Gilakjani's statement that students can be more responsible for their own learning activities by knowing their current learning style. They can also learn more effectively (Widodo et al., 2020). By knowing the most appropriate learning strategy, students can be more independent in managing the way they learn and try to be more active in the learning process. They not only follow the teacher's instructions but are also involved in choosing learning methods or resources that support their understanding. When students understand their learning style, they have the opportunity to optimize their learning methods to be more effective. For example, students with an auditory learning style will tend to look for learning materials in audio form, such as explanation recordings or podcasts, while students with a visual learning style may prefer diagrams, mind maps, or videos as additional sources of information. There are many factors that influence students' learning styles towards academic achievement, one of which is... One of them is learning activities. If a child or student receives lessons according to his/her learning style, then the lesson will be easier to understand (Supit et al., 2023).

The reality that we find in food is that many teachers still do not have a deep understanding of the variations in students' learning styles. This causes the teaching approach that is carried out to tend to be general and less attention to the specific needs of students. Therefore, a teacher must be able to detect each student early with their learning style to facilitate the learning process. The application of learning style tests is one solution that can be taken to identify and understand the differences in students' learning needs. Through learning style tests, teachers can recognize each student's learning style and adjust their teaching methods to better suit different learning characteristics. Lack of understanding and The mismatch between the student's learning style and the educator's teaching method will cause

failure in the learning process. Therefore, an educator must know the learning style of the student (Hasanah & Kharismawati, 2020)

It is very important for a teacher to recognize early before the teaching and learning process begins the learning style of each student. By conducting a learning style test, teachers can identify the learning characteristics of each individual and design more varied learning strategies. For example, a teacher can combine visual, auditory, and kinesthetic approaches in one learning session to ensure that each student gets the opportunity to learn in the way that is most effective for them. In other words, teachers must be able to plan learning plans in advance. However, to implement the plan To learn effectively, teachers must first understand the characteristics of students, so that learning can be adjusted to their needs and learning abilities (Azizah et al., 2023). This is because all students have different learning styles, so teachers must teach according to the student's learning style so that students can absorb the lesson more easily (Azzahrah Putri et al., 2021; Prasetya et al., 2022)

Learning styles essentially also affect the quality of learning, so teachers must first know whether the students' learning styles are in accordance with their characteristics. The selection of professional teachers is very important to support the achievement of learning quality. One way to improve the quality of learning is to know the learning style (Cholifah, 2018). The types of learning styles according to De Porter & Hernacki (Cholifah, 2018) include visual (learning by seeing), auditory (learning by hearing), and kinesthetic (learning by moving, working, and giving orders). The characteristics of students who have a visual learning style are 18, namely (1) neat and orderly; (2) speak quickly; (3) good long-term planners and organizers; (4) careful about details; (5) prioritize appearance, both in terms of clothing and attendance; (6) good spellers and can see the actual words in their minds; (7) remember what is seen, rather than what is heard; (8) remember with visual associations; (9) are usually not disturbed by noise; (10) has trouble remembering verbal instructions unless they are written down, and often asks others to repeat them; (11) is a fast and diligent reader; (12) prefers to read rather than be read to; (13) needs a comprehensive view and purpose and is alert before becoming mentally certain about a problem or project; (14) scribbles meaninglessly during telephone conversations and meetings; (15) forgets to convey verbal messages to others; (16) often answers questions with short yes or no answers; (17) prefers to demonstrate rather than give speeches; (18) lastly, prefers art to music.

There are 14 characteristics of students who have an auditory learning style, namely (1) talking to themselves while working; (2) easily distracted by noise; (3) moving their lips by saying the writing in a book while reading; (4) enjoying reading out loud and listening; (5) repeating and imitating the tone, rhythm, and color of the voice; (6) having difficulty writing, but being great at telling stories; (7) speaking in a patterned rhythm; (8) being a fluent speaker; (9) preferring music to art; (10) learning by listening and remembering what is discussed rather than what is seen; (11) liking to talk, discussing, and explaining things at length; (12) having problems with jobs that involve visuals, such as cutting parts so that they fit together; (13) being good at spelling out loud rather than writing it down; (14) preferring verbal jokes to reading comics.

The characteristics of students who have a kinesthetic learning style are 11, namely (1) speaking slowly; (2) responding to physical attention; (3) holding people to get attention; (4) standing close when talking to people; (5) being physically oriented and moving around a lot; (6) having early development of large muscles; (7) learning to start manipulating and practicing; (8) memorizing by walking and looking; (9) often using fingers as pointers when reading; (10) always using body gestures; (11) not being able to sit still for a long time.

Teachers as educators must have the ability to help students achieve their learning goals optimally. Achieving these goals will encourage students to continue learning and make it easier to achieve goals in the next stage. Students are considered successful in learning if they can achieve all learning goals, although there are still some students who fail to achieve learning goals optimally. This is not only due to differences in learning styles but also because of the different levels of comprehension of each student. External factors, or factors that come from outside, include family, school, community, and the student's environment. Other internal factors that influence students' success in achieving learning goals are students' health, interests, and motivation, and how they learn, therefore identification needs to be carried out.

Through learning style identification, teachers must have the ability to help students achieve their learning goals. Achieving goals will encourage students to continue learning and make it easier to achieve goals at the next stage. Students are considered successful in learning if they can achieve all learning goals. However, some students fail to achieve learning goals. This is because each student's comprehension is different. External factors, or factors that come from outside, include the student's family, school, community, and environment. Other internal factors that influence students' success in achieving learning goals are students' health, their interests, and motivation, and how they learn (Fitrilia et al., 2021).

Achieving a teacher's learning objectives cannot be achieved by working alone but requires cooperation or collaboration with other teachers. In this context, the role of the BK teacher is very much needed in working together with subject teachers to design an appropriate approach for each student, especially for those who have learning difficulties (Emma Rumahlewang, Sawal Mahaly, 2023). BK teachers can use the results of learning style tests as a tool to assess and understand the uniqueness of each student in receiving and processing information. BK teachers can provide appropriate direction or advice regarding learning strategies that are appropriate to the individual characteristics of students. For example, for students who have a kinesthetic learning style and have difficulty in theoretical learning, BK teachers can provide recommendations to teachers to involve more physical activity or practicums in the learning process. In addition, BK teachers can also provide learning skills training for students, for example by helping them develop independent learning strategies that are tailored to their learning styles. For example, BK teachers can teach mind mapping techniques for visual students or provide listening exercises for students with an auditory learning style. By understanding their learning styles, students can learn more effectively, increase their self-confidence, and reduce stress when facing academic tasks.

This is in accordance with Arfin's statement that basic guidance patterns must be adjusted to the developmental and maturity needs of students towards maturity. Therefore, it is important for guidance and counseling teachers to identify what students need at school to improve their abilities (Mahaly Sawal, Papilaya O Jeanete, 2024). Guidance patterns that are adjusted to learning styles allow BK teachers to provide more personal and targeted guidance. BK teachers can help develop more effective independent learning skills for students. For this reason, the results of learning style tests carried out by BK teachers can discuss the results with subject teachers to provide insight into the most effective approach for each student. Subject teachers can then use this information to develop diverse and dynamic teaching methods. For students with a visual learning style, teachers can add visual elements such as presentations, pictures, and mind mapping in learning. Meanwhile, for students with a kinesthetic learning style, teachers can involve more practical activities, simulations, or projects that involve motor skills.

Each student's learning style is different from one another and indeed varies greatly, this shows that a one-size-fits-all approach is not effective in education. Therefore, in the learning process, a teacher must be able to apply varied actions, adjust methods and strategies to the needs and learning styles of each student (Himmah & Nugraheni, 2023). By knowing the distribution of these learning styles, teachers can design learning strategies that are more effective and in accordance with student needs. For students with a kinesthetic learning style, for example, teachers can include more practical activities, experiments, or role-play in learning. With an adapted approach, it is hoped that learning will be more interesting and improve students' understanding of the material being taught. In addition, this diversity leads to the creation of a more inclusive learning environment, where each student feels valued and given the opportunity to learn in the way they consider most effective.

The diverse learning styles of students are closely related to theories in learning psychology. Each theory, whether cognitive, behaviorist, constructivist, or motivational, helps explain why students have different learning styles and how they process information. By understanding this learning psychology, teachers can design more effective learning strategies, pay attention to students' individual needs, and create a learning environment that supports their optimal development. In this case, understanding diverse learning styles helps teachers not only adapt materials but also create a more personal and relevant approach for each student. As a result, students can learn in a more effective and meaningful way, which supports their holistic development both academically, socially, and emotionally.

According to Jean Piaget's theory of cognitive development, children are in different stages of development that affect how they understand the world. For example, in the concrete operational stage (lasting approximately 7 to 11 years of age), children are better able to think logically about concrete objects, but they may have difficulty understanding abstract concepts. Conversely, in the formal operational stage (ages 11 and up), children are able to think more abstractly and logically. With this understanding, teachers can adjust teaching strategies based on students' stages of cognitive development, such as using practical activities for students who have not yet mastered abstract thinking (Lating, 2018).

RESEARCH METHOD

This study uses a descriptive quantitative approach to describe the Learning Styles of Students of Pattimura University Laboratory High School. The sample in this study was 30 students in grade XI, including grade X¹ number 16 people and X² totaling 15 people. Sample collection techniques use *total sampling*.

RESULTS AND DISCUSSION

Based on the data obtained regarding the application of learning style tests to improve teachers' understanding of students' needs in general, it can be seen from the analysis data of the learning style tests of students at Pattimura University Laboratory High School which can be seen in the following table:

Table 1. Results of Learning Styles of Grade XI Students¹Unpatti Lab High School

No	Gaya Belajar	F	%
1	Audio	8	17,78
2	Visual	12	26,67
3	Kinestetik	12	26,67
4	Campuran	13	28,89

Based on table 1 about the summary of the results of student learning styles, it provides information for teachers for student needs in the learning process, including; audio learning styles are 8 people (17.78%), visual learning styles are 12 people (26.67%), kinesthetic learning styles are 12 people (26.67%) and mixed learning styles are 13 people (28.89%). This can illustrate that in class XI¹ the most dominant learning style is the mixed learning style which amounts to 13 people (28.29%).

Table 2. Results of Learning Styles of Grade XI Students²Unpatti Lab High School

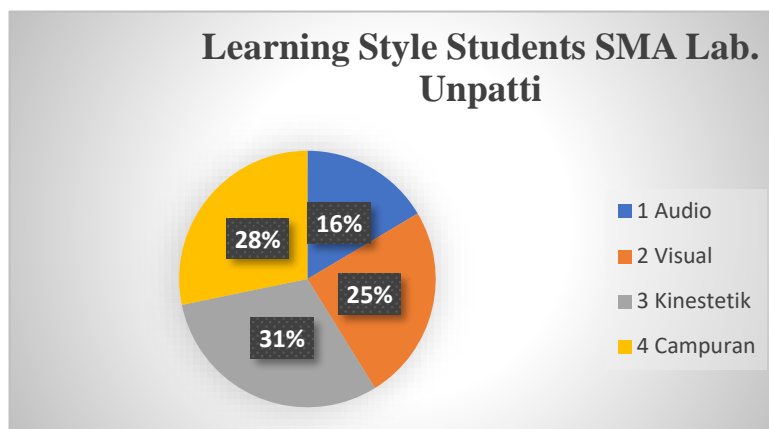
No	Gaya Belajar	F	%
1	Audio	6	15
2	Visual	9	22,5
3	Kinestetik	14	35
4	Campuran	11	27,5

Based on table 2. regarding the summary of the results of student learning styles, it provides information for teachers for student needs in the learning process, including; audio learning styles are 6 people (15%), visual learning styles are 9 people (22.5%), kinesthetic learning styles are 14 people (35%) and mixed learning styles are 11 people (27.5%). From these results, it can be seen that the learning style in class XI² the most dominant is the Kinesthetic learning style.

Table. 3. Results of Learning Styles of Grade XI Students of SMA Lab. Unpatti

No	Gaya Belajar	F	%
1	Audio	14	16,47
2	Visual	21	24,71
3	Kinestetik	26	30,59
4	Campuran	24	28,24

Based on table 3. about the summary of the results of student learning styles provides information for teachers for student needs in the learning process, including; audio learning style there are 14 people (16.47%), visual learning style there are 21 people (24.71), kinesthetic learning style there are 26 people (30.59%) and mixed learning style 24 people (28.24%). Thus it can be described that students of SMA Laboratorium Unpatti in class XI are more dominant in the Kinesthetic learning style as seen in the following student learning style diagram.



Learning Style Diagram of High School Students Lab.Unpatti

Based on the results of the questionnaire that has been distributed to students of class XI SMA Laboratorium Unpatti, data obtained that the kinesthetic learning style is the most dominant learning style among the other three learning styles, namely visual and auditory. This shows that most students find it easier to understand the material through physical activities, direct practice, and real experiences. This finding is reinforced by the learning style distribution diagram which shows the highest percentage in the kinesthetic category compared to other learning styles. Thus, a learning approach that involves physical activity and direct involvement is highly recommended in the teaching and learning process for class XI students at this school. Students with a kinesthetic learning style have unique characteristics that distinguish them from students with other learning styles. They tend to learn more effectively through physical activity, direct experience, and motor involvement. One of the main characteristics is discomfort when having to stay still for a long time. Kinesthetic students usually feel restless or uncomfortable if the learning process takes place passively without activities involving movement. Therefore, they lose focus more easily if they just sit and

listen to the teacher's explanation without active involvement. This learning style requires an interactive learning approach and involves direct practice, so that students can absorb information optimally through real actions (Ermiyanto et al., 2023)

CONCLUSION

Based on the findings obtained from the research results, it can be concluded that the most dominant learning style in SMA Laboratorium Universitas Pattimura class XI students is kinesthetic, with a percentage of 30.59%. This shows that most students in the class learn more easily through physical activities or direct experiences, such as conversations, simulations, or direct practice involving body movements. In second place, the mixed learning style (28.24%) shows that some students have a tendency to combine various learning styles, utilizing a combination of visual, auditory, and kinesthetic methods. This shows that they can adjust their learning methods based on the situation or material being taught. Furthermore, the visual learning style (24.71%) shows that a number of students tend to understand the material better through pictures, diagrams, and other visualizations, while the auditory learning style is in last place with a percentage of 16.47%, which means that a small number of students prefer hearing-based learning, such as lectures, discussions, or sound recordings. Thus, as a teacher, it is highly expected to be able to know the learning style of each student before continuing the teaching and learning process further.

BIBLIOGRAPHY

- Agoes Soejanto. (2005). *Psikologi Perkembangan*. Reneka Cipta.
- Azizah, S. A., Usman, A., Fauzi, M. A. R., & Rosita, E. (2023). Analisis Gaya Belajar Siswa dalam Menerapkan Pembelajaran Berdeferensiasi. *Jurnal Teknologi Pendidikan*, 1(2), 12. <https://doi.org/10.47134/jtp.v1i2.74>
- Azzahrah Putri, R., Magdalena, I., Fauziah, A., & Nur Azizah, F. (2021). Pengaruh Gaya Belajar terhadap Pembelajaran Siswa Sekolah Dasar. *Cerdika: Jurnal Ilmiah Indonesia*, 1(2), 157–163. <https://doi.org/10.59141/cerdika.v1i2.26>
- Cholifah, T. N. (2018). Analisis Gaya Belajar Siswa Untuk Peningkatan Kualitas Pembelajaran. *Indonesian Journal of Natural Science Education (IJNSE)*, 01(02), 65–74.
- Emma Rumahlewang, Sawal Mahaly, J. P. (2023). Analysis of Student Needs in Implementing Counseling Services at SMP Negeri 94 Central Maluku. *International Journal of Education, Information Technology and Others (IJEIT)*, 6(2), 303–314. <https://doi.org/10.3176/chem.geol.1975.2.10>
- Ermiyanto, E., B.S, I. A., & Ilyas, A. (2023). Asesmen Diagnostik Gaya Belajar Siswa Kelas VII di SMPN 4 Padang Panjang. *Manazhim*, 5(1), 166–177. <https://doi.org/10.36088/manazhim.v5i1.2845>
- Fitrilia, R. D., Purnamasari, R., & Rustandi, Y. (2021). Analisis Gaya Belajar Siswa Berprestasi. *Pedagogia: Jurnal Ilmiah Pendidikan*, 13(2), 75–80. <https://doi.org/10.55215/pedagogia.v13i2.4499>
- Hasanah, U., & Kharismawati, M. (2020). Penggunaan Budaya Pop Korea dalam

- Proses Pembelajaran Bahasa Korea bagi Mahasiswa dengan Gaya Belajar Campuran. *JLA (Jurnal Lingua Applicata)*, 3(1), 10. <https://doi.org/10.22146/jla.52060>
- Himmah, F. I., & Nugraheni, N. (2023). Analisis Gaya Belajar Siswa untuk Pembelajaran Berdiferensiasi. *Jurnal Riset Pendidikan Dasar (JRPD)*, 4(1), 31. <https://doi.org/10.30595/jrpd.v4i1.16045>
- Jatikusumo, G. A., Mayangsari, T., & Kurniadi, E. (2017). Analisis Gaya Belajar Siswa Sekolah Menengah Pertama Negeri 5 Kota Madiun. *Seminar Nasional Pendidikan Fisika III 2017, 2008*, 213–217.
- Lating, A. D. (2018). Kekerasan Kognitif Dan Hate Crime Pada Anak Usia Dini Di Tk/Paud Kota Ambon Cognitive Violence and Hate Crime in Early Children in TK/PAUD Ambon City. *Jurnal Pemikiran Islam Dan Ilmu Sosial* /, 11(02), 33–49.
- Mahaly Sawal, Papilaya O Jeanete, J. J. (2024). Analisis Pemilihan Minat Mata Pelajaran Pilihan Siswa Sma Laboratorium Universitas Pattimura. *Pedagogika: Jurnal Pedagogik Dan Dinamika Pendidikan*, 12(1), 101–108. <https://media.neliti.com/media/publications/519363-survei-minat-belajar-peserta-didik-terha-fe6d974c.pdf>
- Marpaung, J. (2016). Pengaruh Gaya Belajar Terhadap Prestasi Belajar Siswa. *KOPASTA: Jurnal Program Studi Bimbingan Konseling*, 2(2), 13–17. <https://doi.org/10.33373/kop.v2i2.302>
- Papilaya, J. O., & Huliselan, N. (2016). Identifikasi Gaya Belajar Mahasiswa. *Jurnal Psikologi Undip*, 15(1). <https://doi.org/10.14710/jpu.15.1.56-63>
- Prasetya, C. Y. A., Tindangen, M., & Fendiyanto, P. (2022). Analisis Gaya Belajar Siswa Kelas X Sma Negeri 2 Samarinda. *Seminar Nasional Pendidikan Profesi Guru Tahun 2022*, 1(2), 61–64.
- Supit, D., Melianti, M., Lasut, E. M. M., & Tumbel, N. J. (2023). Gaya Belajar Visual, Auditori, Kinestetik terhadap Hasil Belajar Siswa. *Journal on Education*, 5(3), 6994–7003. <https://doi.org/10.31004/joe.v5i3.1487>
- Widodo, A., Rahmatih, A. N., Novitasari, S., & Nursaptini, N. (2020). Analisis Gaya Belajar Siswa ADHD (Attention Deficit Hyperactivity Disorder) di Madrasah Inklusi Lombok Barat. *Jurnal Bidang Pendidikan Dasar*, 4(2), 145–154. <https://doi.org/10.21067/jbpd.v4i2.4434>