APPLICATION: Applied science in Learning Research
Vol. 3 No. 3 June 2024, Page. 7- 12
E-ISSN: 2797-0655

Analysis of Learning Styles of Phase E Students at MAN 1 Jombang

Ayuni Eka Cahyati[1*], Mucharommah Sartika Ami[2]
[1,2]Biologi Education, Universitas KH. A. Wahab Hasbullah
*Email: ayunieka12@gmail.com

ABSTRACT
Students' learning styles are considered very important for the learning process and results learning, besides that, teachers also have an important role in implementing the learning process to students who have adapted to their learning styles. From the research that has been done The aim was to identify and analyze the learning styles of phase E students at Madrasah Aliyah Negeri 1 Jombang. In this research This is called descriptive research. This research was carried out by interviewing teachers and then providing information questionnaire/questionnaire to students, which is the questionnaire contains several statements that have been adapted to learning style theory, namely visual, kinesthetic and auditory. In this study there were 47 students who filled out the questionnaire and The results obtained were that of the 47 students, 12 of them had different learning styles visual, 16 of them have an auditory learning style, and 16 students have a learning style kinesthetic learning, apart from that, there were also 3 students who had more than one learning style, namely visual and kinesthetic and 1 student had the visual auditory kinesthetic learning style at the same time. It can be seen that the kinesthetic learning style dominates the learning style other. Because basically, students have characteristic ways of receiving more than one piece of information, but still only one way will stand out more in each student. Based on these results, it is stated that the way of learning that each person has Students will of course be different.

***Keywords**: Learning styles; Visual; Auditory; Kinesthetic.*

INTRODUCTION
Education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble morals and skills. needed by himself, society, nation and state (Depdiknas, 2003). Education is organized as a process of acculturating and empowering students that lasts throughout life, democratically and fairly and non-discriminatorily (Sujana, 2019). The government, through the Ministry of Education and Culture, launched the Independent Curriculum to serve as a guide for implementing education in educational units.

Learning in the Merdeka Curriculum is designed by considering the current stage of development and level of achievement of students, in accordance with learning needs, and reflects the characteristics and development of diverse students so that learning becomes meaningful andfun (Anggraena et al., 2022). Learner characteristics are one of the considerations in learning planning (Hajjar & Nanning, 2022). At the beginning of the school year, teachers should try to find out the characteristics of students. Efforts that can be made include dialogue with students, small group discussions, filling out surveys or questionnaires, and other appropriate methods.

One of the characteristics of students is learning style (Azrina & Prasetyo, 2023). Learning style can be interpreted as a certain way that students learn (Azizah et al., 2023). There are three types of learning styles that students generally have, namely visual, auditory and kinesthetic (Kurniati et al., 2023). Each student's learning style can be different, so teachers need to understand these differences and organize learning that accommodates their students' learning needs.

The results of interviews conducted by researchers with Biology subject teachers at Madrasah Aliyah Negeri (MAN) 1 Jombang in February 2024 revealed that teachers had never conducted a survey of students' learning styles, especially phase E students. Therefore, researchers conducted a learning style survey among phase E students at MAN 1 Jombang with the teacher's permission. Survey results show that the majority of students have a kinesthetic learning style.

Learning styles are known to have a relationship with learning outcomes (Djara et al., 2023; Maulidia et al., 2024; Simbolon & Harahap, 2022). This research aims to analyze the learning styles of phase E students at MAN 1 Jombang, especially on biological technology innovation material. Biological technology innovation material is material that integrates biological principles and the use of technology. The concepts studied in biological technology innovation material are biotechnology. Biotechnology concepts are concepts that are difficult for students to understand, so a learning process that suits students' needs is very appropriate for increasing students' understanding of concepts (Gusti et al., 2023).

METHOD

This research is a descriptive study with the population in the research being all phase E students at Madrasah Aliyah Negeri 1 Jombang in the 2023/2024 academic year, totaling 516 people. The sample used in this research was 47 students from class X-B and X-E, with details of 28 girls and 19 boys. Data collection was carried out through interviews and questionnaires. Interviews were conducted with biology subject teachers at Madrasah Aliyah Negeri 1 Jombang to find out whether the type of learning style of phase E students had been identified and a questionnaire was used to identify the type of learning style of phase E students at Madrasah Aliyah Negeri 1 Jombang. Interview data were analyzed descriptively to support research needs analysis. Data from the student learning style questionnaire were analyzed descriptively by calculating the frequency distribution of the respondents' visual, auditory and kinesthetic learning style types.

RESULT AND DISCUSSION

Result

The results of interviews with biology subject teachers at Madrasah Aliyah Negeri 1 Jombang in February 2024 revealed that phase E students had never identified their learning style type. This research identifies the type of learning style of these students through a learning style questionnaire. Table 1 shows the percentage of the number of phase E students at Madrasah Aliyah Negeri 1 Jombang based on their type of learning style.

Table 1 Types of Learning Styles of Phase E Students at Madrasah Aliyah Negeri 1 Jombang

Type of Learning Styles	Number of Students	Percentage of Number (%)
Visual	12	25,53
Auditory	15	31,91
Kinesthetic	16	34,04
Visual- Kinesthetic	3	6,39
Visual-Auditory-Kinesthetic	1	2,13

Discussion

The research results show that the majority of phase E students MAN 1 Jombang has a kinesthetic type learning style (34.04%). Students with a kinesthetic learning style. The kinesthetic learning style is learning by doing physical activities and direct involvement, which can be in the form of "handling", moving, touching, and feeling/experiencing for yourself. Students who have a kinesthetic learning style cannot stand sitting for too long while listening to lessons and feel they can learn better if the process is accompanied by physical activity. The advantage is that they have the ability to coordinate a team as well as the ability to control body movements (Lestari & Widda Djuhan, 2021). The kinesthetic learning style is a way of receiving information that is closely related to the body's organs, for example the hands and feet. This learning style is more in the process of receiving information through movement, touch and actions. From these things, owners of a kinesthetic learning style will be able to remember information using these things (Rahmawati & Gumiandari, 2021). This learning style is the true definition of the term "learning by doing". Children with kinesthetic learning styles tend to be more aggressive than children with visual and auditory learning styles. If children with other learning styles are good at absorbing information through the senses of sight and hearing, then the akinesthetic learning style can absorb information well through direct experimentation. Children will touch, disassemble and arrange objects which will then help them build thinking concepts. Children with this style don't just need to see and hear, but they need to reach the object, either just to touch it or to take it apart. Providing material that involves lots of supporting

media is recommended in children's learning activities. Generally, children with a kinesthetic learning model are very active in moving. His hands and feet will continue to actively move towards and reach for things. He will be interested in touching objects that attract his attention. Usually he conveys his emotions through active movements of his body parts. Providing balanced nutrition needs to be considered, especially for children with a kinesthetic learning style. Because he needs more energy to absorb the information around him (Nafi'ah, 2021). The appropriate learning method for kinesthetics is direct practice because the kinesthetic learning style is learning through physical activity and direct involvement, in the form of "handling", moving, touching, and feeling or experiencing for yourself. For students with a kinesthetic learning style, physical condition is one of the factors that plays an important role, because they will directly take physical action in learning activities. Ula (2013) explains that if you study in a healthy physical condition, the learning process and results will be optimal, but if you study in a poor or even unhealthy physical condition, the learning process and results will be disrupted. From the definition above, it can be concluded that people who use the kinesthetic learning style obtain information by prioritizing their sense of taste and physical movements. Individuals who have a kinesthetic learning style easily grasp lessons when moving, feeling, or taking action so that learning practice or experience can be found directly (Supit et al., 2023).

The auditory learning style type is owned by 31.91% of phase E students at MAN 1 Jombang. Students with this type of auditory learning style are someone who tends to search for information using their sense of hearing. Children with this style focus more on listening to what their ears show rather than what their sense of sight brings them. The auditory learning style tends to be disturbed by noisy and busy classroom conditions. Therefore, learning assistance with a smaller number of students is recommended in order to provide children with learning comfort. In learning activities, children will remember the information they hear and store it for a longer period. An effective way of learning for children with this learning style can be presented through stories, lectures and question and answer discussions. The more sounds he makes, the more information he gets. He listens better to information in the form of music, speech and verbal communication (Nafi'ah, 2021). The auditory learning style is a process of receiving information that is closely related to the sense of hearing. Students who have this learning style will easily transmit information if they listen to the information. Apart from that, people who have an auditory learning style will tend to be someone who is more interested in conversation, one of which can be in the form of discussions with other people (Rahmawati & Gumiandari, 2021). The appropriate learning method for auditory learning is verbal discussion, where students who use hearing or auditory learning are more likely to be active in verbal discussion learning. because an auditory person digests meaning through tone of voice. Sukadi (2008) explains that "Auditory learning style is a style of learning by listening. People with this learning style are more dominant in using the sense of hearing to carry out learning activities" (Page 98). Ula (2013) further explained that learning through hearing something can be done by listening to audio cassettes, lectures, discussions, debates and verbal instructions (commands). Furthermore, Roebyarto (2009) said that the characteristics of auditory learning are that they prefer to talk to themselves, move their lips and pronounce what is written in a book when reading, are good at spelling out loud rather than writing it down. The strategy for facilitating the learning process of auditory children according to Putranti (2007) is to provide opportunities to participate in discussions both in class and within the family and express ideas verbally so that the information is easier to understand. Roestiyah (2008) said that "With discussion students are encouraged to use their knowledge and experience to solve problems, without always relying on other people's opinions" (Supit et al., 2023). There are also other ways, namely: (1) learning by discussing together, (2) learning while listening to music (Lestari & Widda Djuhan, 2021).

The visual learning style type is owned by 25.53% of Phase E students at MAN 1 Jombang. Students with the visual type have a visual learning style, namely a process of receiving information related to the sense of sight (eyes). Because for someone who has a visual

learning style, they will understand better when learning if they can see it directly, or will remember the lesson better if they see interesting pictures, or with striking colors (Rahmawati & Gumiandari, 2021). The visual learning style is one of the student learning styles which basically places more emphasis on how it is easier for a student to learn the subject matter through seeing, looking at, or observing the learning object (Rambe & Yarni, 2019). The teaching methods used by teachers should focus more on moving demonstrations and on objects related to the lesson. Putranti (2007) emphasized that the teaching aids should be directed directly at the students, then they should be depicted on a screen, LCD or whiteboard. Students who have a visual learning style must see the teacher's body language and facial expressions to understand the lesson material. Furthermore, the visual learning style helps focus attention and concentrate on the material being studied by looking at, looking at or observing the subject matter. Ahmadi and Supriyono (2004) say that a visual person will quickly learn material that is presented in writing, charts, graphs or pictures. Nini (2012) further said that "A person uses a visual learning style to obtain information such as looking at pictures of maps, posters, graphs and seeing text data such as writing and letters (p. 118). In other words, they are younger in learning material that can be seen with their visual aids. Providing information through pictures or diagrams is a stimulus in the visual learning style as a response to receiving information. Mulyono, et al., (2007) said that the visual learning style helps students remember lesson material that is directly seen so that this has a positive relationship to the learning achievement obtained (Supit et al., 2023). Other learning methods can also be (1) learning using a whiteboard and LCD, (2) learning by summarizing the material that has been presented, (3) learning by watching videos (Lestari & Widda Djuhan, 2021).

There are also students who have a visual-kinesthetic learning style (6.39%). Students with a visual-kinesthetic learning style have the characteristics of a visual-kinesthetic type at the same time.

The results of research on the types of learning styles of Phase E students at MAN 1 Jombang also found one student who had a visual-auditory-kinesthetic learning style.

CONCLUSIONS

Based on the analysis results obtained from the research results, it shows that there are 25.53% of students who have a visual learning style type, 31.91% of students who have an auditory learning style type, 34.04% of students who have a kinesthetic learning style type and there are 6.39%the type of learning style includes two learning styles, namely visual and kinesthetic and there is 1 student who has all types of learning styles, namely visual, auditory and kinesthetic.

REFERENCES

Amdani, D., Novaliyosi, Nindiasari, H., & Yuhana, Y. (2023). Implementasi Kurikulum Merdeka terhadap Hasil Belajar Peserta Didik: Studi Literatur. *JIIP (Jurnal Ilmiah Ilmu Pendidikan)*, *6*(6), 4126–4131.

Anggraena, Y., Ginanto, D., Felicia, N., Andiarti, A., Herutami, I., Alhapip, L., Iswoyo, S., Hartini, Y., & Mahardika, R. L. (2022). *Panduan Pembelajaran dan Asesmen Pendidikan Anak Usia Dini, Pendidikan Dasar, dan Menengah*. Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi.

Anshari, M. R., Noorhidayati, & Amintarti, S. (2023). Hasil Belajar Peserta Didik Kelas XI MIPA SMAN 4 Banjarmasin pada Pembelajaran Konsep Sistem Koordinasi pada Manusia. *BIOEDUKASI: Jurnal Pendidikan Biologi*, *14*(2), 192–201.

Aulia, R., & Paramita, P. P. (2023). Pengukuran Ranah Kognitif Menggunakan HOTs pada Pelajaran Bahasa Indonesia Kelas VII SMP Iskandar Said. *Jurnal Psikologi Islam Al-Qalb*, *14*(1), 68–83.

Auw, D. N., Hafizah, S., Leki, A. M., Makalbani, A., & Loban, J. M. (2023). Analisis Korelasi Faktor – Faktor Yang Mempengaruhi Tingkat Pendapatan Kepala Keluarga. *Jurnal Ilmiah Matematika Dan Terapan*, *20*(2), 165–180.

https://doi.org/10.22487/2540766x.2023.v20.i2.16546
Azahrotunnafi, & M., M. S. (2018). Pengaruh Metode Pembelajaran dan Gaya Belajar Siswa terhadap Hasil Belajar IPS SMP. *Socia: Jurnal Ilmu-Ilmu Sosial*, *15*(1), 79–93.
Azizah, S., Usman, A., Fauzi, M., & Rosita, E. (2023). Analisis Gaya Belajar Siswa dalam Menerapkan Pembelajaran Berdeferensiasi. *Jurnal Teknologi Pendidikan*, *1*(2), 1–12. https://doi.org/10.47134/jtp.v1i2.74
Azrina, N., & Prasetyo, A. (2023). Profiling Karakteristik Peserta Didik sebagai Acuan Perencanaan Pembelajaran Berdiferensiasi di SMAN Mumbulsari Jember. *Jurnal Parenting Dan Anak*, *1*(1), 1–13. https://doi.org/10.47134/jpa.v1i1.43
Cahayu, S. A., Sampurna, R., Nadira, & Risnita. (2023). Instrument evaluasi non-tes ranah afektif dan psikomotorik pembelajaran IPA sinkronisasi berbasis keterampilan abad 21 di SMP negeri 6 sungai penuh. *EDU-BIO Jurnal Pendidikan Biologi*, *6*(2), 1–13.
Dari, D. W., Imron, A., & Basri, M. (2019). Hubungan Sikap Sosial dengan Hasil Belajar Sejarah Siswa Kelas XI IPS SMAN 1 Natar. *(PESAGI), Jurnal Pendidikan Dan Penelitian Sejarah*, *7*(4), 1–12.
Depdiknas. (2003). *Undang-Undang Republik Indonesia Nomor 20 Tahun 2003 tentang Sistem Pendidikan Nasional*.
Dewi, S., Shari, A., Purba, R. E., & Susilowarno, R. G. (2022). *Buku Panduan Guru Biologi untuk SMA/MA Kelas XII*. Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi.
Djara, J. I., Imaniar, M., Sae, E., & Anin, S. (2023). Pengaruh Gaya Belajar terhadap Hasil Belajar Siswa. *Jurnal Pendidikan Dan Kebudayaan (JURDIKBUD)*, *3*(2), 226–233. https://doi.org/10.55606/jurdikbud.v3i2.1907
Dwikurnia, D. S., Komala, C., & Sugilar, H. (2023). Analisis Hasil Belajar Peserta Didik Kelas X pada Materi Fungsi Kuadrat Ditinjau Melalui Ranah Kognitif Revisi Taksonomi Bloom. *The 4th Conference Series Learning Class: Religious Study, Language, and Education*, 39–46.
Gusti, U. A., Rahmi, A. S., Sunandar, A., Rahmat, A., Kusnadi, & Riandi. (2023). Analisis tpack (technological, pedagogical, and content knowlodge) pada materi bioteknologi SMA/MA. *Biology and Education Journal*, *3*(1), 65–75.
Hajjar, S., & Nanning. (2022). Pentingnya Pendidik untuk Memahami Karakteristik Peserta Didik sebagai Acuan dalam Melaksanakan Perencanaan Konsep Pembelajaran. *DIALEKTIKA : Jurnal Pendidikan Agama Islam*, *1*(2), 10–18.
Kemdikbudristek. (2022). *Keputusan Kepala BSKAP No. 008/H/KR/2022 tentang Capaian Pembelajaran pada Pendidikan Anak Usia Dini, Jenjang Pendidikan Dasar, dan Jenjang Pendidikan Menengah pada Kurikulum Merdeka*. Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi.
Kurniati, A., Yuniati, S., Rahmi, D., & Risnawati, R. (2023). Gaya Belajar: Identifikasi dan Pengelompokan Mahasiswa. *Suska Journal of Mathematics Education*, *9*(1), 53–60. https://doi.org/10.24014/sjme.v9i1.21512
Lestari, S., & Widda Djuhan, M. (1970). Analisis Gaya Belajar Visual, Audiotori dan Kinestetik dalam Pengembangan Prestasi Belajar Siswa. *JIIPSI: Jurnal Ilmiah Ilmu Pengetahuan Sosial Indonesia*, *1*(2), 79–90. https://doi.org/10.21154/jiipsi.v1i2.250
Maelani, S., Salsabila, R., & Azzahra, M. (2023). Pentingnya Mengenali Gaya Belajar Siswa Sekolah Dasar dalam Kegiatan Pembelajaran. *Jurnal Abdi Nusa*, *3*(3), 157–163. https://doi.org/10.52005/abdinusa.v3i3.104
Magdalena, I., Hidayah, A., & Safitri, T. (2021). Analisis Kemampuan Peserta Didik pada Ranah Kognitif, Afektif, Psikomotorik Siswa Kelas II B SDN Kunciran 5 Tangerang. *Jurnal Pendidikan Dan Ilmu Sosial*, *3*(1), 48–62.
Maulidia, F. R., Prafitasari, A. N., & Wulandari, F. (2024). Hubungan antara Gaya Belajar, Kemandirian Belajar, dan Minat Belajar dengan Hasil Belajar Strategi Pembelajaran Berdiferensiasi Berdasarkan Profil Belajar Peserta Didik pada Materi Sistem Imun Biologi

SMA. *Jurnal Biologi*, *1*(4), 1–11. https://doi.org/10.47134/biology.v1i4.1996

Mulyawati, M. S., & Us, S. (2023). Pengaruh Gaya Belajar terhadap Kemampuan Berpikir Kritis Siswa. *STRATEGY : Jurnal Inovasi Strategi Dan Model Pembelajaran*, *3*(3), 243–249. https://doi.org/10.51878/strategi.v3i3.2425

Nafi'ah, Q. N. (2021). Penerapan Model Pembelajaran Berdasarkan Gaya Belajar. *Anak Usia Dini Holistik Integratif Era Covid 19*, *September*, 15–22. https://ejurnal.pps.ung.ac.id/index.php/paudhi/article/download/879/634

Nafisah, J., Nuroso, H., Rasiman, R., & Suwarto, A. (2023). Analisis Penerapan Gaya Belajar dalam Pembelajaran Berdiferensiasi Peserta Didik Kelas III SDN Pedurungan Lor 02 Semarang. *Jurnal Pendidikan Dan Konseling (JPDK)*, *5*(2), 4749–4755. https://doi.org/10.31004/jpdk.v5i2.13549

Nasution. (2022). Hakikat Gaya Belajar Auditori dalam Pandangan Filsafat. *At-Tazakki*, *6*(2), 255–270. https://doi.org/10.47006/attazakki.v6i2.13462

Patmawati, S., Windyariani, S., & Juhanda, A. (2023). Hubungan Hasil Belajar Kognitif dengan Kreativitas Menggunakan Model Project Based Learning (PjBL) Berbantuan Media Assemblr Edu Berdasarkan Gender. *Jurnal Pendidikan MIPA*, *13*(4), 903–910. https://doi.org/10.37630/jpm.v13i4.1119

Phafiandita, A. N., Permadani, A., Pradani, A. S., & Wahyudi, M. I. (2022). Urgensi Evaluasi Pembelajaran di Kelas. *Jira: Jurnal Inovasi Dan Riset Akademik*, *3*(2), 111–121. https://doi.org/10.47387/jira.v3i2.262

Rahmawati, L., & Gumiandari, S. (2021). Identifikasi Gaya Belajar (Visual, Auditorial Dan Kinestetik) Mahasiswa Tadris Bahasa Inggris Kelas 3F IAIN Syekh Nurjati Cirebon. *Pedagogik: Jurnal Pendidikan*, *16*(1), 54–61. https://doi.org/10.33084/pedagogik.v16i1.1876

Rambe, M. S., & Yarni, N. (2019). Pengaruh Gaya Belajar Visual, Auditorial, Dan Kinestetik Terhadap Prestasi Belajar Siswa Sma Dian Andalas Padang. *Jurnal Review Pendidikan Dan Pengajaran*, *2*(2), 291–296. https://doi.org/10.31004/jrpp.v2i2.486

Simbolon, P., & Harahap, H. S. (2022). Korelasi Gaya Belajar dengan Hasil Belajar Biologi pada Kelas X SMA Negeri 1 Sei Kanan. *Lectura: Jurnal Pendidikan*, *13*(2), 273–287.

Siregar, A. N. (2023). Pengaruh Motivasi Belajar terhadap Hasil Belajar Peserta Didik di Kelas XI SMA Negeri 1 Sipirok Tahun Pelajaran 2022-2023. *PRIMER: Jurnal Ilmiah Multidisiplin*, *1*(2), 55–59. https://doi.org/10.55681/primer.v1i2.48

Sugiyono. (2012). *Metode Penelitian Pendidikan (Pendekatan Kuantitatif, Kualitatif, dan R&D)*. Alfabeta.

Sujana, I. (2019). Fungsi dan Tujuan Pendidikan Indonesia. *Adi Widya: Jurnal Pendidikan Dasar*, *4*(1), 29. https://doi.org/10.25078/aw.v4i1.927

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

Telaumbanua, E. D. P., & Harefa, A. R. (2024). Pengaruh Gaya Belajar terhadap Hasil Belajar Siswa. *Journal of Education Research*, *5*(1), 691–697.

Widiyanti, A. S., Susilaningsih, E., Haryani, S., & Nurhayati, S. (2023). Desain Tes Pilihan Ganda Kompleks Bermuatan Analytical Thinking pada Materi Asam-Basa untuk Identifikasi Pencapaian Kompetensi Minimum Siswa. *Chemistry in Education*, *12*(2), 153–161.

Wiedarti, P. (2018). Pentingnya Memahami Gaya Belajar. In *Seri Manual Gls Pentingnya Memahami Gaya Belajar*.