



Analysis of VAK Learning Styles of VIII Grade Students in Science

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Received: June, 12th 2023

Revised: September, 23th 2023

Accepted: October, 25th 2023

ABSTRACT

Science learning is a process that is intentionally designed to facilitate the process of learning science. Based on initial observations made by researchers, it is known that MTs Nahjatus Sholihin students need help understanding their respective learning styles, so students have been unable to maximize them in the science learning process. This study aims to analyze the VAK (Visual, auditory, Kinesthetic) learning styles of VIII-grade students in science subjects at MTs Nahjatus Sholihin, Rembang Regency. This research is quantitative descriptive research. The subjects of this study were all VIII-grade students at MTs Nahjatus Sholihin, with a total of 86 students. This study used the total sampling technique. Data collection methods were carried out through observation, questionnaires, and documentation. Based on the observation data, it is known that from each class VIII analyzed for learning styles, the highest percentage of students have a kinesthetic learning style, with a rate of 45% in class VIIIA. In the lowest percentage, students have a visual learning style, with a percentage of 22% in class VIIIA.

Keywords: auditory, kinesthetic, learning styles, visual

INTRODUCTION

Science learning is a process that is intentionally designed to facilitate the process of learning science. Science is the study of natural phenomena and everything in nature (Tumanggor, 2017). Science is objective and rational knowledge about the universe and everything we must learn (Irawati et al., 2021). Learning is a process that occurs in everyone throughout life. Learning is the effort of each individual to change behavior in the form of knowledge, attitudes, skills, and positive values obtained in the learning process. This process will run effectively when learning is well-planned in the field (Azzahrah Putri et al., 2021).

Learning is a process that individuals do to bring about changes in themselves. These changes include cognitive (understanding), affective (attitude and

mental), and psychomotor (behavior). The learning process is influenced by several factors, namely internal factors (physical and psychological factors) and external factors (family, school, and community factors). Learning success is influenced by many factors, such as the educational environment, student learning styles, and many other factors. This research focuses on students' learning styles.

Learning style is the easiest way for individuals to absorb, organize, and process information that students receive (Adawiyah et al., 2020). The right learning style is the key to a student's learning success. Through understanding learning styles, students can receive and process information and facilitate learning through their learning styles. A learning style limited to one form only, especially the verbal or auditory pathway, can undoubtedly lead to uneven information.

Therefore, in learning activities, students must be supported and guided to find a learning style to effectively achieve learning objectives (Rambe & Yarni, 2019).

Each student's learning style is different, depending on the internal and external aspects of each student; the tendency is that each student has a more prominent learning style. With the help of knowledge about learning styles, each student is more familiar with their self-knowledge and knows their needs. By understanding each student's learning style, teachers can apply the proper techniques and strategies in the learning and self-development (Siswa & Negeri, 2022). Teachers must be able to use approaches according to the learning style abilities possessed by students (Cahnia, 2016).

A person can understand and absorb science lessons at different levels. They are fast, medium, and slow. Each student learns at different speeds and absorbs information in different ways (Isnanto, 2022). Learning styles are classified into three types, namely, visual, auditory, and kinesthetic learning styles. Based on these three learning styles, some individuals tend to have one learning style, and others tend to have all, so teachers must be able to prepare appropriate learning media and methods for students (Putri et al., 2021). The right learning style makes learning more accessible and improves learning outcomes (Basuki, 2019).

Based on initial observations made by researchers in April 2023, it is known that MTs Nahjatus Sholihin students do not understand their respective learning styles, so students have been unable to maximize them in the science learning process. In addition, it was also found that students' learning styles were diverse. Therefore,

this study aims to analyze the VAK (Visual, auditory, Kinesthetic) learning styles of VIII-grade students in science subjects at MTs Nahjatus Sholihin, Rembang Regency.

RESEARCH METHOD

a. Method

This research is a type of quantitative descriptive research using survey methods. This research analyzes the learning styles of class VIII students at MTs Nahjatus Sholihin.

b. Procedure

Student learning styles were analyzed by giving questionnaires to students with a processing time of 30 minutes.

c. Participant

This research used a total sampling technique so that the participants in this research were all class VIII students at MTs Nahjatus Sholihin with a total of 86 students, consisting of 30 students in class VIIIA, 26 students in class VIIIB, and 26 students in class VIIIC.

d. Instrument

The student learning style questionnaire instrument refers to indicators from Deporter & Hernacki (2016), while the instrument's content refers to Janah (2023) by adapting it. The instrument has been tested for validity and reliability. The questionnaire consists of 15 statements with 12 indicators, as shown in **Table 1**.

Table 1. Aspects, Indicators, and Statements of Student Learning Styles

Aspects	Indicators	Statements
Visual learning style	Prefer to read rather than be read to	You prefer reading to yourself rather than being read to
	Remembering by visual association	You remember more easily when looking at pictures than when listening
	Has trouble remembering verbal instructions	You have difficulty remembering verbal commands unless they are written down and often ask others to repeat themselves
Auditory learning style	Great at talking	You are a fast talker You have difficulty writing but are good at telling stories
	Talk to yourself while studying	You often talk to yourself while studying
	Moving lips while reading	You often move your lips when reading
	Easily distracted by noise	You are easily distracted by noise
	You are easily distracted by noise	You like to read aloud
Kinesthetic learning style	Always oriented towards physicality and lots of movement	You like to doodle while studying You like to learn by doing You like tapping your pen and moving your fingers or toes while listening
	Use your finger as a pointer when reading.	You use your finger to point when reading
	Can't sit still for long	You can't sit still for a long time
	Expressing feelings through physical means	You use body signals a lot when studying

(Source: Adapted from Janah, 2023)

RESULT AND DISCUSSION

Based on the research conducted, the data obtained from the analysis of learning styles in class VIII are depicted in the pie chart as follows:

a. Learning Style of Class VIIIA Students

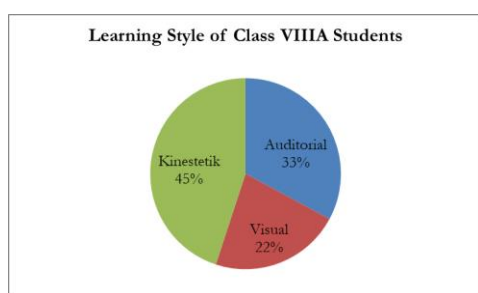


Figure 1. Learning Style of Class VIIIA Students

Based on the pie chart, it is known that 22% of students in class VIIIA have a visual learning style, 33% of students have an auditory learning style, and 45% of students have a kinesthetic learning style. In the diagram, class VIIIA students

predominantly have a kinesthetic learning style with a percentage of 45%.

b. Learning Styles of Class VIIIB Students

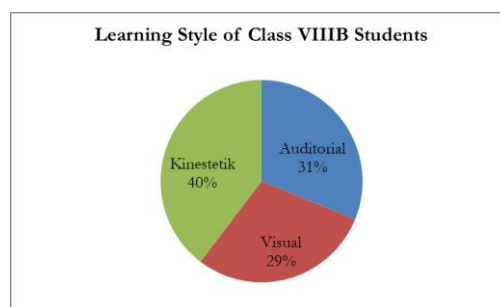


Figure 2. Learning Style of Class VIIIB Students

Based on the pie chart, it is known that 29% of students in class VIIIB have a visual learning style, 31% of students have an auditory learning style, and 40% of students have a kinesthetic learning style. In the diagram, the kinesthetic learning style is the more dominant learning style owned by students, with a percentage of 40%.

c. Learning Styles of Class VIII C Students

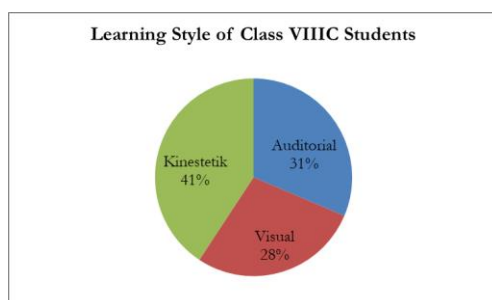


Figure 3. Learning Style of Class VIII C Students

Based on the pie chart, it is known that 28% of students in class VIII C have a visual learning style, 31% of students have an auditory learning style, and 41% of students have a kinesthetic learning style. In the diagram, the kinesthetic learning style is the dominant or occupies the highest percentage of learning styles in class VIII C, which is 41% of students.

Based on the observation data, it is known that from each class VIII analyzed for learning styles, the highest percentage of students have a kinesthetic learning style, with a percentage of 45% in class VIIIA, 40% in class VIIIB, and 41% in class VIII C. In comparison, the lowest percentage of students have a visual learning style, with 22% in class VIIIA, 29% in class VIIIB, and 28% in class VIII C.

Learning style is how students understand information to be readily accepted (Steviana et al., 2022). Learning style is how a person uses learning, including how the information received is collected, organized, and processed to make learning effective (Astari, 2018). In addition, learning styles will improve student achievement (Cahya Ritonga & Fitriah Rahma, 2021). Learning achievement is the mastery of knowledge in science subjects as indicated by the test scores given by the teacher (Fenny Rezki et al., 2022). To achieve good results, students must understand their learning

styles (Mulyani & Solihah, 2018). Learning style is a basic form of learning with its characteristics (Prasetya et al., 2022).

Learning style characteristics refer to the characteristics of each learning style. Teachers who understand the peculiarities or unique characteristics of their students' learning styles will know how to use learning materials and strategies suitable for their learning styles in science subjects (Retno et al., 2019). Learning strategies must be designed systematically to direct students' learning styles according to scientific learning fields (Dwi Mulyani & Ali, 2021). Students who know their learning style can determine essential learning steps more quickly, precisely, and efficiently according to their ability to absorb information (Labu, 2021).

Students can understand and absorb information or lessons at various levels. Some are fast, some are medium, and some are slow (Labu, 2021). Students learn at different speeds and process information differently, so they often must take different paths to understand the same information or lesson (Wati & Muzakkir, 2020). There are three learning styles: visual learning style, auditory learning style, and kinesthetic learning style (Azzahrah Putri et al., 2021).

Visual learning style is learning by seeing, observing, watching, and the like (Azzahrah Putri et al., 2021). The teacher's teaching method should emphasize demonstrations and media in this case. The visual learning style uses the ability to see, characterized by students preferring to receive learning through pictures, charts, films, and demonstrations (Fatmawati et al., 2020). The characteristics of students with a visual learning style are that they remember what they see rather than what they hear and quickly receive information through books and writing (Aini, 2022).

The advantages of a visual learning style are that students can read, write,

remember classes well, remember details and colors well, and remember faces well but often forget their names. The weaknesses of the visual learning style are that students have difficulty learning in busy, noisy, and distracting environments, have difficulty understanding teacher explanations without pictures or diagrams, and have difficulty concentrating when looking at uninteresting or bad information (Azis et al., 2020).

The auditory learning style is learning by listening. Students with auditory learning styles can use their ears to achieve learning success; teachers should also pay attention to students' hearing aids (Aini, 2022). Students with an auditory learning style can learn faster by listening to conversations and words spoken by the teacher. Students' hearing can digest the meaning conveyed through expressions, high and low speaking ability, and speaking speed (Hasanah et al., 2018). The characteristics of the auditory learning style are that they like to talk to themselves while studying, learn to listen, learn to remember what is spoken rather than see, like to read aloud, move their lips while reading, and talk while reading books (Azis et al., 2020).

The advantages of the auditory learning style are that it can imitate other people's words quickly and has good grammar when communicating with friends. The areas for improvement of the auditory learning style are that students find it difficult to remember information in written form and are easily distracted by noise (Azis et al., 2020).

The kinesthetic learning style involves motion and touch (Rahman & Firman, 2019). Students with a kinesthetic learning style will find sitting still for long periods challenging due to their strong need for activity and exploration. The characteristics of the kinesthetic learning style are not easily distracted by chaos, remembering by exploring and seeing,

learning by manipulating and practicing and using fingers as cues when reading (Azis et al., 2020).

The advantages of the kinesthetic learning style are that students have excellent hand and eye coordination skills, and sports look good. The weakness of the kinesthetic learning style is that if students sit and listen for a long time, it makes them nervous, easily frustrated, and not good at spelling (Azis et al., 2020). There is a positive and significant relationship between visual, auditory, and kinesthetic learning styles with science learning outcomes, meaning that the more students understand and use their learning styles appropriately, the more student achievement in science learning will increase (Prabanitha et al., 2020).

CONCLUSION

Based on the observation data, it is known that from each class VIII analyzed for learning styles, the highest percentage of students have a kinesthetic learning style, with a percentage of 45% in class VIIB, 40% in class VIIB, and 41% in class VIIC. In comparison, the lowest percentage of students have a visual learning style, with 22% in class VIIB, 29% in class VIIB, and 28% in class VIIC. There is a positive and significant relationship between visual, auditory, and kinesthetic learning styles and science learning outcomes, meaning that the more students understand and use their learning styles appropriately, the more student achievement in science learning will increase.

ACKNOWLEDGEMENT

Thanks to MTs Nahjatus Sholihin for permitting us to conduct this research so that this research can run smoothly. Thanks also to those who have helped discuss and prepare this article.

REFERENCES

- Adawiyah, T. A., Harso, A., & Nassar, A. (2020). Hasil Belajar IPA Berdasarkan Gaya Belajar Siswa. *Science, and Physics Education Journal (SPEJ)*, 4(1), 1–8. <https://doi.org/10.31539/spej.v4i1.1636>
- Aini, W. N. (2022). Analisis Tipe Gaya Belajar Siswa dalam Pembelajaran IPA di Kelas IV SD Negeri Cikokol 4 Kota Tangerang. *Jurnal Pendidikan Dan Konseling*, 105(2), 79. <https://core.ac.uk/download/pdf/322599509.pdf>
- Azis, F. R. N., Pamujo, & Yuwono, P. H. (2020). Analisis Gaya Belajar Visual, Auditorial, Kinestetik Siswa Berprestasi di SD Negeri Ajibarang Wetan. *Jurnal Mahasiswa BK An-Nur: Berbeda, Bermakna, Mulia*, 6(1), 26–31. <https://ojs.uniska-bjm.ac.id/index.php/AN-NUR/article/view/2658>
- 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/10.36418/cerdika.v1i2.26>
- Basuki, K. (2019). Gaya Belajar. In *ISSN 2502-3632 (Online) ISSN 2356-0304 (Paper) Jurnal Online Internasional & Nasional Vol. 7 No.1, Januari – Juni 2019 Universitas 17 Agustus 1945 Jakarta* (Vol. 53, Issue 9, pp. 1689–1699). www.journal.uta45jakarta.ac.id
- Bobbi De Porter & Mike Hernacki. 2016. *Quantum Learning : Membiasakan Belajar Nyaman dan Menyenangkan*. Bandung: Kaifa Learning.
- Cahya Ritonga, N., & Fitriah Rahma, I. (2021). Analisis gaya belajar VAK pada pembelajaran daring terhadap minat belajar siswa. *Jurnal Analisa*, 7(1), 76–86. <http://journal.uinsgd.ac.id/index.php/analisa/index>
- Dwi Mulyani, I., & Ali, M. (2021). *Korelasi Antara Gaya Belajar Dan Hasil Belajar Pada Mata Pelajaran Biologi Di Kelas Xi Mipa Di Sman Tasikmalaya*. 8(2), 245–252. <https://jurnal.unigal.ac.id/index.php/jwp/article/view/4583>
- Fatmawati, F., Hidayat, M. Y., Damayanti, E., & Rasyid, M. R. (2020). Gaya Belajar Peserta Didik Ditinjau Dari Perbedaan Jenis Kelamin. *Al Asma : Journal of Islamic Education*, 2(1), 23. <https://doi.org/10.24252/asma.v2i1.13472>
- Fenny Rezki, Cyntia Cyntia, Ana Seftiana Zuhel, Akpal Pangestu, & Halwizal Zulkifli. (2022). Hubungan Gaya Belajar Visual, Auditori dan Kinestetik Terhadap Peningkatan Kecerdasan Verbal-Linguistik. *Inspirasi Dunia: Jurnal Riset Pendidikan Dan Bahasa*, 2(1), 01–08. <https://doi.org/10.58192/insdun.v2i1.401>
- Hasanah, I., Kantun, S., & Djaja, S. (2018). Pengaruh Gaya Belajar Terhadap Hasil Belajar Siswa Kelas Xi Jurusan Akuntansi Pada Kompetensi Dasar Jurnal Khusus Di Smk Negeri 1 Jember Semester Genap Tahun Ajaran 2017/2018. *Jurnal Pendidikan Ekonomi: Jurnal Ilmiah Ilmu Pendidikan, Ilmu Ekonomi, Dan Ilmu Sosial*, 12(2), 277–282. <https://doi.org/10.19184/jpe.v12i2.8572>
- Irawati, I., Ilhamdi, M. L., & Nasruddin, N. (2021). Pengaruh Gaya Belajar Terhadap Hasil Belajar IPA. *Jurnal Pijar Mipa*, 16(1), 44–48. <https://doi.org/10.29303/jpm.v16i1.2202>
- Isnanto, I. (2022). Hasil Belajar Siswa Ditinjau Dari Gaya Belajar. *Aksara: Jurnal Ilmu Pendidikan Nonformal*,

- 8(1), 547.
<https://doi.org/10.37905/aksara.8.1.547-562.2022>
- Janah. 2023. *Pengaruh Gaya Belajar Visual, Auditori, Kinestetik terhadap Hasil Belajar Maharah Istima untuk Siswa Kelas 8 di MTsN 1 Banjar*. Skripsi, Sekolah Sarjana. Banjarmasin: Universitas Islam Negeri Antasari Banjarmasin.
- Labu, N. (2021). Analisis Karakteristik Gaya Belajar Vak (Visual, Auditorial, Kinestetik) Siswa Kelas X SMAK St. Petrus Ende Tahun Ajaran 2019/2020. *Jurnal Penelitian Pendidikan Agama Katolik*, 1(1), 1–21. <https://doi.org/10.52110/jppak.v1i1.3>
- Mulyani, L. S., & Solihah, S. (2018). Analisis tentang gaya belajar siswa berdasarkan visual, auditori, kinestetik pada mata pelajaran biologi man 1 garut analysis of student learning style based on visual, auditory, kinesthetic in biology man 1 garut. 1–11.
- Prabanitha, M. I., Sudarma, I. K., & Dibia, I. K. (2020). Korelasi Antara Gaya Belajar dengan Hasil Belajar IPA. *Mimbar Ilmu*, 25(2), 51. <https://doi.org/10.23887/mi.v25i2.25650>
- 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.
- Putri, D. A., Nurlyan, M. R., Tharistya, B. C., Utami, R. D., Wulandari, K. S., Nuraini, L., & Supriadi, B. (2021). Analisis Gaya Belajar Siswa SMA/MA/AMK di Wilayah Mataraman Jawa Timur. *Edukatif: Jurnal Ilmu Pendidikan*, 3(5), 2607–2619. <https://edukatif.org/index.php/edukatif/article/view/678>
- Rahman, S. R., & . F. (2019). Identifikasi Gaya Belajar Mahasiswa Pendidikan Biologi Universitas Sulawesi Barat. *Jambura Edu Biosfer Journal*, 1(1), 1. <https://doi.org/10.34312/jebj.v1i1.2040>
- Rambe, M. S., & Yarni, N. (2019). Pengaruh Gaya Belajar Visual , Auditorial , Dan Kinestetik Terhadap. *Jurnal Review Pendidikan Dan Pengajaran*, 2(2), 291–296.
- Retno, R. S., Marlina, D., & Setiyani, R. (2019). Analisis Gaya Belajar Siswa Pada Pembelajaran IPA Kelas V Di SDN 1 Nglurup Kabupaten Ponorogo. *Seminar Nasional Hasil Penelitian Dan Pengabdian Kepada Masyarakat UNIPMA, 2008*, 336–342.
- Steviana, A., . M., Kurniawan, D. A., & Gustria, A. (2022). Analisis Pengaruh Gaya Belajar Terhadap Keaktifan Belajar Fisika Pada Siswa Kelas X Ipa Sman 11 Muaro Jambi. *Sainstech: Jurnal Penelitian Dan Pengkajian Sains Dan Teknologi*, 32(2), 7–15. <https://doi.org/10.37277/stch.v32i2.1289>
- Tumanggor, N. E. (2017). Pengaruh Metode Pembelajaran Dan Gaya Belajar Terhadap Hasil Belajar Pendidikan Kewarganegaraan. *Jurnal Teknologi Pendidikan (JTP)*, 10(2), 189. <https://doi.org/10.24114/jtp.v10i2.8731>
- Wati, C., & Muzakkir, M. (2020). Meningkatkan Kemampuan Belajar Melalui Gaya Belajar Siswa Pada Pembelajaran Matematika. *Lentera Sriwijaya : Jurnal Ilmiah Pendidikan Matematika*, 2(2), 25–37. <https://doi.org/10.36706/jls.v2i2.12716>