

Analysis of the Differences in VAK Learning Styles and Learning Motivation in Terms of Active and Inactive Organizational Membership

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Abstract

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Adolescents often feel pressured to conform to their peers, particularly in terms of physical appearance, behavior, and social values. The current phenomenon of adolescent problems is diverse, encompassing psychological, social, and educational challenges. Education is an activity that is inseparable from the learning process, both inside and outside the classroom. The Student Council (*OSIS*) serves as a forum for student development aimed at developing students' interests, talents, and potential holistically. Learning styles are preferred ways of thinking, processing, and understanding information. The root of the educational crisis is ineffective learning. Learning motivation is defined as a change in energy within an individual characterized by the emergence of affective feelings and reactions directed toward achieving goals. This study aims to analyze the differences in learning styles (VAK: visual, auditory, and kinesthetic) and learning motivation in terms of active and inactive organizational membership. The data collection method used was a questionnaire on learning styles (VAK) and learning motivation. Overall, the Spearman correlation coefficient ($\rho = 0.284$) indicates a weak positive relationship between learning styles and learning motivation. A p-value of 0.002 indicates that this relationship is statistically significant ($p < 0.05$). This means that, although the relationship is not strong, there is a tendency for certain learning styles, particularly kinesthetic learning, to be associated with higher levels of learning motivation. This finding underscores the importance of learning approaches that support active and enjoyable learning styles in maintaining or enhancing students' learning motivation.

INTRODUCTION

The development of the adolescent generation is currently undergoing significant changes (Burgess et al., 2022; Haidt, 2024; Manwell et al., 2022; Woolfolk & Perry, 2024). The term Generation Z (often referred to as Gen Z) refers to a group of individuals born between 1997 and 2012 (Pew Research Center, 2020). They are the first generation to grow up with internet access and digital technology from an early age and are heavily influenced by social media, technological developments, and rapidly changing global culture. Members of Generation Z tend to be more virtually connected, more focused on social values and environmental awareness, and to have a more pragmatic view of the future than previous generations. Generation Z adolescents, who grew up with social media as part of their daily

lives, are often exposed to social comparison, pressure to appear perfect, and cyberbullying, which can affect their mental health (Twenge, 2017).

Teens often feel pressured to fit in with their peers, especially when it comes to physical appearance, behavior, and social values. The phenomenon of adolescent problems today is very diverse, including challenges in psychological, social, and educational domains. Education is an activity that cannot be separated from the learning process, whether learning is carried out inside or outside the classroom (Cahyono, Rahmawati, & Mashuri, 2023). Learning is the most important moment in education because it is through learning that social interaction between students and teachers occurs, along with discussions among students and the exchange of ideas. One forum in which the exchange of ideas among students often occurs is the student council organization.

The Intra-School Student Organization (Organisasi Siswa Intra Sekolah [OSIS]) is an official organization found in schools in Indonesia, especially at the junior high school (Sekolah Menengah Pertama [SMP]) and senior high school (Sekolah Menengah Atas [SMA]) levels. The student council functions as a forum for student development that aims to develop students' interests, talents, and potential in a holistic manner. This organization is also a means for students to actively participate in various school activities and to actualize their ideas for the advancement of the school (Reksa, 2021).

Students who are active in organizations often face challenges related to their learning styles. Involvement in organizational activities can affect concentration and the time available for studying, thereby influencing the effectiveness of their learning styles. Factors that affect students' concentration in learning include individual differences such as intelligence, disposition, and student background, as well as problems experienced by students at school and outside of school. These factors can influence students' concentration in learning and, in turn, affect their learning styles (Wilda, 2017). To understand the learning concentration of students who have different learning styles, several learning-style categories can be considered, which are often abbreviated as VAK (Visual, Auditory, Kinesthetic) learning styles. Differences in learning styles refer to differences in how students absorb information and the learning models that best suit them. In addition to issues related to learning styles, students who are active in organizations often face challenges related to their learning motivation. Involvement in organizational activities can influence students' motivation to learn, both positively and negatively.

Involvement in organizations can increase students' motivation to learn, which is an important factor influencing academic achievement. Students with high learning motivation tend to put more effort into achieving their academic goals (Rahmat, Askolani, & Rahwana, 2023). However, activeness in organizations can also reduce learning motivation when students become too focused on organizational activities and neglect their academic obligations, which can ultimately decrease their motivation to study (Mas'uda, Paryontri, & Fahmawati, 2024). Participation in intra-school student organizations (Organisasi Siswa Intra Sekolah [OSIS]) can affect students' learning outcomes. Students who are active in the student council may experience decreased motivation to study because their time and energy are divided between organizational activities and academic obligations.

Several studies have examined learning styles and motivation in the context of school activities. For instance, research by Sari and Hidayat (2021) found that most high school students prefer kinesthetic learning styles, aligning with the findings of Yunita (2019), who emphasized the increasing preference for activity-based learning. Additionally, Rahmat, Askolani, and Rahwana (2023) explored how organizational activity can enhance learning motivation, although the results were inconclusive for students overwhelmed by extracurricular commitments.

Academic achievement is considered effective when the formulated teaching goals can be achieved. Students must be able to consider their academic interests and outcomes while also balancing participation in school organizational activities, which are likewise important for their development. Therefore, it is necessary to pay attention to various factors that can affect learning achievement so that all the potentials within students can optimally support the achievement of learning goals. The purpose of this study is to examine the differences in VAK learning styles and learning motivation between students who are active in organizations and those who are not.

While previous studies have examined individual factors such as learning styles and motivation, few have focused on how active participation in organizations influences these factors. Furthermore, there is limited research on how these dynamics vary across different learning styles (Visual, Auditory, Kinesthetic [VAK]) in the context of organizational membership. This study seeks to fill this gap by exploring the differences in VAK learning styles and learning motivation among students who are active and inactive in organizations. The novelty of this research lies in its focus on understanding how extracurricular involvement shapes the learning preferences and motivations of adolescents, particularly in the Indonesian context.

This study aims to analyze the differences in VAK learning styles and learning motivation between students who are actively engaged in organizational activities (such as Organisasi Siswa Intra Sekolah [OSIS]) and those who are not. By examining these factors, the study intends to provide insights into how involvement in student organizations affects academic motivation and learning preferences. The findings from this research can benefit educators by providing a deeper understanding of how to tailor teaching strategies to accommodate diverse learning styles and motivations. Additionally, the study may inform school policies on balancing academic and extracurricular activities to support holistic student development. Students may also benefit by gaining a better understanding of how their organizational participation impacts their learning strategies and academic motivation.

METHOD

The design of this study used a quantitative approach. The type of quantitative research was descriptive and comparative, employing t-tests to examine the variables of VAK learning styles and learning motivation among students at SMA N 3 Banda Aceh.

The population in this study consisted of students of SMA N 3 Banda Aceh. Based on Dapodik data, the total number of students at SMA N 3 Banda Aceh was 1,077, with a teaching staff of 76 teachers (Dapodik, 2025). The sampling technique used in this study was simple

random sampling, in which samples were determined based on random selection. The sample in this study consisted of 119 students.

Data collection was carried out using instruments measuring the VAK learning style variable, based on the VAK learning style theory and adapted from the Sugianto scale (2021). The learning motivation variable was measured using an instrument based on several aspects adapted from the Anugraheni scale (2019).

Data analysis techniques referred to the procedures used to process and analyze quantitative data. All collected data were analyzed using descriptive statistics and t-test statistical analysis with the SPSS for Windows 25.00 software.

RESULT AND DISCUSSION

Description of learning style data

The subjects in this study were 119 students of SMA 3 Banda Aceh. The distribution of students' learning styles can be seen in the form of a table.

Learning Style	Quantity	Percentage
Visual	18	15.1%
Auditory	20	16.8%
Kinesthetic	81	68.1%

Source: Data from SMA N 3 Banda Aceh Study, 2023

The table above shows the number and percentage of students based on their dominant learning style. Visual learning style Only 18 students (15.1%) were dominant with this style. They prefer to learn through pictures, diagrams, and visuals. Auditory A total of 20 students (16.8%) learned more effectively through listening to explanations, discussions, or voice recordings. Kinesthetic The majority of respondents, namely 81 students (68.1%), preferred hands-on, manipulative, or physical activity-based learning. In conclusion, learning style most dominant kinesthetics among the students of SMA N 3 Banda Aceh.

Description of Motivation Score data by Learning Style

Learning Style	Average Motivation
Visual	3.1
Auditory	3.0
Kinesthetic	3.2

Source: Data from SMA N 3 Banda Aceh Study, 2023

The table above presents the average learning motivation score for each learning style group. The motivation score uses a scale of 1–4, where the higher the score, the higher the motivation. Students with Kinesthetic learning style have an average score 3.2, among other groups, despite differences between groups not statistically significant. The visual and auditory styles have a score of 3.1 and 3.0, respectively, which means Their motivation is also relatively

high. It can be concluded that the learning motivation of SMA N 3 Banda Aceh students is quite high.

Differences in Learning Motivation Reviewed from Gender

Table 3: Gender Comparison in Learning Motivation

Gender	Average Motivation
Male	3.0
Women	3.1

Source: Data from SMA N 3 Banda Aceh Study, 2023

The table above compares the average motivation scores between male and female students. Women have a slight advantage (3.1) over men (3.0), but the difference is very small and not statistically significant ($p > 0.05$). This means that both male and female students at SMA N 3 Banda Aceh in this study have relatively similar and high learning motivation.

Differences in Learning Motivation reviewed from Organizational Status

Table 4: Organizational Activity and Learning Motivation

Organizational Status	Average Motivation
Active	3.05
Inactive	3.10

Source: Data from SMA N 3 Banda Aceh Study, 2023

The table above shows the comparison of motivation scores between students who Actively Organizing and the Inactive. Interestingly, students who inactive actually has a slightly higher motivation score (3.10) compared to active (3.05). However, as before, this difference is not significant ($p > 0.05$). This shows that Activeness in the organization does not necessarily increase motivation to learn. It could be that students who are inactive actually have more time and focus on academic activities.

The Relationship of Learning Style with Students' Learning Motivation

Table 5: Spearman Coefficient for Learning Style and Motivation

Variable Pairs	Spearman Coefficient (ρ)	P-value	Interpretation
Learning Style (VAK) vs Motivation	0.284	0.002	Significant (weak-positive relationship)

Source: Data from SMA N 3 Banda Aceh Study, 2023

The table above explains the value of the Spearman coefficient ($\rho = 0.284$) indicates that There is a weak positive relationship between learning style and level of motivation to learn, p-value 0.002 shows that this relationship statistically significant ($p < 0.05$). This means that, even though it is not strong, there is a tendency that certain learning styles (especially kinesthetic) related to higher levels of learning motivation.

The descriptive results in this study showed that of the 119 students, the majority had kinesthetic learning styles (68.1%), followed by auditory (16.8%) and visual (15.1%). These findings suggest that students tend to learn more effectively through physical activities and hands-on experiences, such as practice, experiments, or simulations. These findings are in line with the research of Sari and Hidayat (2021) which found that most high school students in Bandung show a preference for kinesthetic learning styles. They explain that the current educational environment has not fully accommodated visual or auditory approaches, so students naturally develop an active and physical learning style. Likewise, Yunita (2019) stated that kinesthetic learning styles are more dominant in secondary school students because activity-based learning methods, experiments, and thematic learning have become part of the curriculum that is widely applied in Indonesian schools.

From the descriptive results, it is known that the average overall student learning motivation score is relatively high (average 3.1 out of a scale of 4). This shows that students have a strong awareness and drive to achieve academic goals, even without noticeable differences based on gender or organizational activeness. This finding is strengthened by a study from Herlina and Suryadi (2020) which states that the learning motivation of high school students is generally at a high level due to academic pressure, class competition, and encouragement from parents. They also note that even though learning methods are different, most students still show a desire to excel.

Latifah and Mulyani (2018) also support this finding by stating that the average learning motivation of grade XI students in Semarang City is in the high category, and tends to be influenced by internal factors (learning interests and goals) as well as environmental factors such as teachers' teaching styles and classroom atmosphere.

However, on the difference in learning motivation of male and female students, the results showed that there was no significant difference between the learning motivation of male and female students (mean male = 3.0; female = 3.1; $p > 0.05$). This shows that learning motivation is universal and does not depend on gender, but is influenced by internal factors such as goals, learning interests, and external factors such as social support and learning environment. These findings are consistent with the research of Kurniawan & Rahayu (2018) which also found no significant difference between the learning motivation of male and female students in State Junior High School in Yogyakarta. The study concluded that learning motivation is determined more by personal factors such as self-awareness and academic aspirations than gender identity. The same thing was also stated by Handayani (2020) in his study which stated that gender differences only affect aspects of learning behavior, not the basic motivation. Thus, motivation enhancement strategies should be aimed evenly, regardless of the gender of students.

Learning motivation between students who are active and inactive in school organizations shows that there is no significant difference in learning motivation between students who are active and inactive in school organizations. The average motivation of active students of organization = 3.05 and inactive = 3.10, this difference was not significant ($p > 0.05$). This finding is supported by research by Susanti (2022) who shows that organizational activeness does not necessarily increase academic motivation. Under certain conditions,

organizational activities can actually take up learning time if it is not balanced with good time management. He mentioned that some students who are not active in the organization are more focused on formal learning because they have fewer social distractions. In addition, Putra and Fitria (2021) also stated that participation in organizations has more impact on social skills and leadership, not on learning motivation itself. This means that organizational activity is a factor in character development, not the main factor in increasing academic motivation.

The results of the analysis showed that there was a significant positive relationship between VAK learning style and the level of students' learning motivation ($\rho = 0.284$, $p = 0.002$). Although the strength of the correlation is relatively weak, the association suggests that certain types of learning styles tend to be related to higher levels of motivation to learn.

In particular, students with kinesthetic learning styles have higher average motivation than visual and auditory ones. This shows that physical involvement and hands-on experience in the learning process can increase students' motivation to learn. This finding is also in line with the research of Fitriyani (2019) which found that kinesthetic learning styles have a positive and significant relationship with the intrinsic motivation of junior high school students. Fitriyani emphasized that students who learn through hands-on practice feel more satisfied and engaged in learning, which ultimately has an impact on increased motivation.

Meanwhile, Rahmawati and Subandi (2020) in their research revealed that learning style does not always directly affect learning motivation, but will be affected if the learning environment supports the preference of this style. The results of this study support this view, because the correlation found is weak, which shows that there are other factors outside of learning style that play a role, such as the classroom atmosphere, teacher methods, and social support.

In addition, Susanti (2022) also found that the effectiveness of learning styles in increasing motivation is highly dependent on the suitability of teachers' teaching strategies with students' learning styles. If the learning approach is not varied, then students with certain learning styles can feel unmotivated. Thus, although the relationship between learning style and motivation is significant, teachers and educational institutions need to ensure that learning is differentiated and adaptive to various learning styles in order to optimize students' learning motivation as a whole.

Differences in motivation by gender were also not significant in this study. These results are consistent with the study of Kurniawan and Rahayu (2018) which stated that there was no significant difference between male and female learning motivation in junior high school students. In addition, in the context of organizational activeness, although much of the literature states that organizational activities can train discipline and responsibility, the results of this study contradict this opinion, since active students of organizations actually have slightly lower, although not significant, motivation. This is in line with Susanti (2022) who stated that activeness in an organization can be a distraction if it is not balanced with good time management.

The weakness in this study occurs in the subject that must be determined by the school as the research subject, and the time given is quite short so that it does not really delve into the

activities and learning methods of students at school, and also for the researcher to further explore and educate the learning method according to the learning style.

CONCLUSION

Based on this study, it can be concluded that although there is a significant positive relationship between learning style (VAK) and student learning motivation ($\rho = 0.284$, $p = 0.002$), this relationship tends to be weak. Kinesthetic learning styles show a higher tendency in learning motivation compared to visual or auditory learning styles. No significant differences were found between the learning motivation of active and inactive students in the organization, with an average score of almost the same (3.05 vs. 3.10). This shows that internal factors, such as learning interests and goals, affect learning motivation more than organizational activity. This study suggests that educators pay more attention to students' learning styles and apply varied learning approaches. For further research, it is recommended to explore other factors, such as family support and social environment, as well as examine the impact of time spent on organizational activities on students' academic performance.

REFERENCES

- Anugraheni, A. R., Separina, C. A., Paramitasari, S. P., Vionita, V. K., & Husna, A. N. (2019). Learning motivation scale: Psychometric construction and analysis. In *Proceedings of the University Research Colloquium* (pp. 66–69).
- Burgess, A., Yeomans, H., & Fenton, L. (2022). 'More options... less time' in the 'hustle culture' of 'generation sensible': Individualization and drinking decline among twenty-first century young adults. *The British Journal of Sociology*, 73(4), 903–918.
- Cahyono, W., Rahmawati, A. D., & Mashuri, A. (2023). Analysis of mathematical communication skills based on learning styles on number pattern material. *Journal of Mathematical Engineering*, 1(2), 57–62.
- Fitriyani, R. (2019). The relationship between VAK learning style and learning motivation of state junior high school students in the city of Bandung. *Journal of Educational Psychology*, 10(1), 45–53.
- Haidt, J. (2024). *The anxious generation: How the great rewiring of childhood is causing an epidemic of mental illness*. Penguin.
- Handayani, R. (2020). Differences in learning motivation between male and female students in distance learning. *Journal of Education*, 28(2), 101–109.
- Herlina, S., & Suryadi, T. (2020). Analysis of the level of learning motivation of high school students and factors influencing it. *Journal of Character Education*, 11(1), 43–52.
- Kurniawan, A., & Rahayu, S. (2018). Differences in learning motivation based on gender in junior high school students. *Journal of Educational Psychology and Counseling*, 5(1), 45–53.
- Latifah, N., & Mulyani, E. (2018). Factors affecting learning motivation in grade XI high school students in Semarang city. *Journal of Educational Psychology and Counseling*, 4(2), 88–97.
- Manwell, L. A., Tadros, M., Ciccarelli, T. M., & Eikelboom, R. (2022). Digital dementia in the

- internet generation: Excessive screen time during brain development will increase the risk of Alzheimer's disease and related dementias in adulthood. *Journal of Integrative Neuroscience*, 21(1), 28.
- Mas'uda, N. A., Paryontri, R. A., & Fahmawati, Z. N. (2024). The relationship between organizational activity and student learning motivation with academic achievement in vocational high school. *G-Couns: Journal of Guidance and Counseling*, 9(1), 574–587.
- Pew Research Center. (2020). *The state of Gen Z: Trends in social media and technology*. Pew Research Center.
- Putra, M. I., & Fitria, T. N. (2021). The influence of organizational activity on social skills and learning motivation of high school students. *Journal of Counseling Guidance*, 10(1), 15–22.
- Rahmat, A., Askolani, A., & Rahwana, K. A. (2023). The influence of organizational activeness and learning motivation on academic achievement. *Center for Management Science Publications*, 1(4), 137–150.
- Rahmawati, L., & Subandi, M. (2020). Factors influencing learning motivation in junior high school students. *Psychodimensional*, 19(1), 34–41.
- Sari, D. P., & Hidayat, T. (2021). Distribution of VAK learning style in SMA Negeri 2 Bandung students. *Journal of Educational Research*, 28(1), 55–63.
- Sugianto, A. (2021). *Student learning style questionnaire*. Repo-Lecturers. Ulm.ac.id.
- Susanti, N. (2022). The effect of organizational activeness on academic achievement and student learning motivation. *Journal of Educational Management*, 5(2), 88–97.
- Twenge, J. M. (2017). *iGen: Why today's super-connected kids are growing up less rebellious, more tolerant, less happy—and completely unprepared for adulthood*. Atria Books.
- Wilda, A. (2017). *Teachers' efforts in overcoming differences in students' learning styles in fiqh subjects (Case study at MAN 2 Ponorogo)* (Dissertation). IAIN Ponorogo.
- Woolfolk, A., & Perry, N. E. (2024). *Child and adolescent development*. BoD—Books on Demand.
- Yunita, L. (2019). High school students' learning style preferences and their implications for teaching strategies. *Humanities Education*, 11(2), 134–142.