

ANALYSIS OF THE RELATIONSHIP BETWEEN INTERPERSONAL INTELLIGENCE AND THE LEARNING STYLES OF YPK HEDAM MIDDLE SCHOOL STUDENTS IN JAYAPURA CITY

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ABSTRACT

This study aims to examine the relationship between interpersonal intelligence and student learning styles (VARK model). The study was conducted at YPK Hedam Junior High School, Jayapura City, with 39 respondents. The research method used was a quantitative-correlational method with data collection using questionnaires on interpersonal intelligence and learning styles. In general, student preferences were more dominant in visual learning styles (71.79%) compared to auditory (17.95%) and kinesthetic (10.26%). A statistical technique called the Chi-Square test (X^2 test) was used to determine the link between the learning style and interpersonal intelligence variables. A non-parametric statistical test called the Chi-Square test is used to assess if two categorical variables in a contingency table have a significant link or association. At $df = 6$ (12,592), the computed Chi-Square value is less than the Chi-Square table value. Furthermore, the p-value is significantly higher than 0.05. Thus, learning styles and interpersonal intelligence do not significantly correlate. This indicates that the degree of interpersonal intelligence in this data has no discernible impact on differences in student learning styles. Furthermore, to determine whether the results of this study can be generalized, future research may consider increasing the sample size.

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INTRODUCTION

The ability to understand, analyze, and effectively react to the feelings, intentions, and actions of others is known as interpersonal intelligence. This concept is placed within the larger field of social-emotional competences in contemporary literature, which highlights abilities including interpersonal communication, social cognition, and empathic accuracy. These capabilities enable people to negotiate social situations, form positive connections, and control their emotions when interacting with others. According to Kurniawan (2017), intelligence can be defined as

the pinnacle of a person's intellect, which shows itself as the capacity to learn specific skills and handle difficulties or concerns in life in a genuine and accurate way. Good interpersonal skills greatly aid students in teamwork, communication, and conflict resolution in the classroom, according to a study by Zhou et al. (2022). Positive social interactions with professors and classmates are more likely to be formed by students with high interpersonal intelligence, which boosts their interest in the learning process.

A number of fundamental aspects of interpersonal intelligence are highlighted by recent research. First, identifying and correctly understanding the emotional states of others is a necessary component of empathic accuracy. The ability to comprehend social information, such as intentions, beliefs, and situational clues, is the second aspect of social cognition. Third, effective interpersonal involvement requires both verbal and nonverbal communication abilities, which are included in communication competence. Lastly, the capacity to control one's own emotions as well as those of others in interpersonal contexts is known as interpersonal emotional regulation. When combined, these elements support relational efficacy and general social functioning (Merlin, 2024; Lin et al., 2024).

Interpersonal intelligence is essential for kids' classroom engagement, peer interactions, and social adaption in educational contexts. Research indicates that interpersonal competency is greatly improved by communication-focused therapies, focused social-emotional learning (SEL) programs, and collaborative learning structures. Particularly in language-learning environments, improvements in these abilities are linked to more prosocial behavior, increased classroom involvement, and less social anxiety (Susanti, 2022).

Numerous important aspects of interpersonal intelligence are consistently identified by recent empirical research conducted in Indonesia. These include the capacity for cooperative problem-solving, social cognition, verbal and nonverbal communication, and empathetic awareness (Karim, 2023). Empathic conduct and the capacity to negotiate play roles develop early and can be reinforced through guided interaction, according to observational studies in early childhood education (Ilahi, 2024). Interpersonal intelligence and students' capacity to collaborate in the classroom and work well in groups are closely related in the primary and secondary levels.

Education is one of the many facets of a person's life that are intimately linked to their interpersonal intelligence. A person's learning style and interpersonal IQ have been linked in a number of earlier research. While person's method of receiving, processing, comprehending, and remembering information is known as their learning style. Everybody has different learning styles, such as whether they prefer reading, visual aids, audio, or hands-on practice. A person's learning style is a habit or preference that makes them feel more at ease when learning, not their aptitude.

Peyman, H. et al. (2014) said the VARK Model and the Kolb Model are two of the most popular learning style models. The VARK Model divides learning styles into four primary categories: kinesthetic, visual, auditory, and read/write. In addition to VARK, the Kolb paradigm, also referred to as Experiential Learning Theory, is another popular learning style paradigm. According to this approach, learning happens in four primary phases: active exploration, abstract conceptualization, reflective observation, and concrete experience. However, the VARK learning style model was the main focus of this study. Information provided through pictures, diagrams, graphs, colors, or concept maps is typically easy for visual learners to comprehend. To make the connections between concepts clear, they require visual displays. Several previous studies have used the VARK model in learning style analysis, such as Kiswanto *et al* (2024) study on mapping student learning styles based on the VARK model. Research on implementing the VARK model in classroom management to improve student achievement (Rizki *et al.*, 2024). Based on the background and explanation above, the researcher aims to see the relationship between interpersonal intelligence and the learning style preferences (VARK model) of students at YPK Hedam Middle School, Jayapura City.

METHOD

The research methodology used in this study was a quantitative correlational method. In this study, the researchers examined the relationship between interpersonal intelligence and learning style variables. In order to

answer questions like "Is variable A related to variable B?" and "How strong is the relationship?" the correlational quantitative research method is a non-experimental design that attempts to measure the presence or absence of a relationship (association) between two or more variables and determine the direction and strength of the relationship without manipulating the treatment. (Creswell, 2014; Sugiyono, 2017). This is consistent with Iting, Ondeng, and Mustami's (2025) assertion that the correlational quantitative research method is a kind of quantitative research that measures the relationship (association) between two or more variables without altering or modifying the variables. This research is non-experimental (no intervention or treatment) and places more emphasis on measuring the degree or strength of the relationship between variables through correlation statistics.

In this approach, researchers use instruments in the form of questionnaires to collect numerical data from the sample, then calculate the correlation coefficient to determine how closely two variables are related to each other. Table 1 below shows the interpersonal intelligence questionnaire grid, which is a direct derivative of Howard Gardner's concept of interpersonal intelligence standards commonly used in multiple intelligence theory (Gardner, 2011).

Table 1. Blueprint of the Interpersonal Intelligence Questionnaire Instrument

Dimension	Indicator	Descriptor
Social Sensitivity	1. Empathy Attitude	Does the subject have and understand the feelings of others?
	2. Prosocial Attitude	Is the subject able to share, cooperate, and help one another?
Social Awareness	1. Self-Awareness	How the subject becomes aware of their internal and external aspects during the learning process?
	2. Understanding of Social Situations and Social Ethics	How the subject builds social relationships in learning according to applicable social norms?
	3. Problem-Solving Skills	How the subject's ability to solve problems effectively?
Social Communication	1. Effective Listening	How the subject is able to listen and provide feedback during the process?
	2. Effective Communication	How the subject is able to communicate during the learning process according to applicable ethics?

Meanwhile, to collect data on learning styles, researchers used a questionnaire adapted from the learning style questionnaire by Akhmad Sugianto (2021) which contains multiple-choice questions containing indicators of the learning style aspects of the VARK model as shown in **Table 2** below.

Table 2. Student Learning Style Instrument Grid (VARK Model)

No.	Aspect	Indicators	Answer choice
1.	Visual Learning Style	1. Learns by reading 2. Likes taking notes 3. Reads quickly and diligently 4. Easily remembers what is seen rather than what is heard 5. Not easily distracted by noise 6. Often answers questions with yes/no 7. Speaks quickly 8. Works by following visual instructions and has good long-term planning 9. Communicates directly/likes to see facial expressions	A

2.	Auditory Learning Style	10. Prefers demonstration activities	B
		11. Prefers art over music	
2.	Auditory Learning Style	1. Learns by listening	B
		2. Has difficulty writing/taking notes but is good at storytelling	
		3. Reads aloud	
		4. Easily remembers what is discussed/explained rather than what is seen	
		5. Easily distracted by noise	
		6. Often answers questions in long explanations	
		7. Speaks rhythmically	
		8. Works while talking and can imitate changes in voice	
		9. Communicates comfortably by phone	
		10. Prefers discussion/talking activities	
		11. Prefers music over art	
3.	Kinesthetic Learning Style	1. Learns through hands-on practice	C
		2. Rarely rereads written material	
		3. Likes using fingers or physical objects as guides	
		4. Remembers by writing information repeatedly	
		5. Cannot sit still for a long time	
		6. Often answers questions accompanied by body movements	

RESULT AND DISCUSSION

The collected research data were then analyzed in depth. Based on the analysis of the interpersonal intelligence questionnaire, the average student has a moderate interpersonal intelligence category, as most answers for each item fall within the "sometimes" category. The questionnaire questions are structured in a structured manner, indicating that when students choose the "very often" option, their interpersonal intelligence is higher. Similarly, if they choose the "very rarely" option, their interpersonal intelligence is lower. The results of the interpersonal intelligence data analysis for 39 students can be seen in **Table 3** below.

Table 3. Frequency Category Distribution

No.	Answer Category	Average Count	Percentage (%)
1	Very Often	6	15.38
2	Often	11	28.20
3	Sometimes	12	30.77
4	Rarely	8	20.51
5	Very Rarely	3	7.69

Furthermore, learning style data obtained from student questionnaires showed that students were predominantly visual, followed by auditory, and least likely kinesthetic. Data analysis revealed that most students had a mixed visual and auditory learning style. Average student learning style data can be seen in Table 4 below.

Table 4. Frequency of learning styles

No.	Learning Style	Frequency	Percentage (%)
1.	Visual	28	71.79
2.	Auditory	7	17.95
3.	Kinesthetic	4	10.26

Based on the table, it can be seen that students tend to be more dominant with a visual learning style, with most students having a combination of visual and auditory learning styles. Students favor visual learning approaches because they find it easier to comprehend information presented in the form of pictures, graphs, diagrams, colors, and other visual representations. Because they make it easier for pupils to see patterns, structures, and connections between ideas, visual presentations aid with memory recall. Additionally, representations help pupils swiftly and methodically arrange information, which aids in the comprehension of abstract ideas. According to research by Fleming & Mills (2019), visual learners are highly interested in content that is presented visually since they are more likely to recall what they see than what they hear. Similar results were also found by Sari & Prasetyo (2021), who claimed that through a more ordered content organization, visual presentations enhance student focus and aid in reducing distractions throughout the learning process.

Additionally, children who often understand knowledge through listening activities including talks, oral explanations, stories, and audio recordings favor the auditory learning approach. Because of their strong verbal memory, auditory learners find it simpler to retain knowledge that is presented verbally. Additionally, through discourse or questions and answers, the listening process enables pupils to assimilate knowledge and reflect at the same time. According to Fleming (2020), auditory learners are more receptive to language structure, rhythm, and intonation, which makes audio-based learning more successful. According to research by Wahyuni (2022), students with an auditory learning style are more motivated to study through verbal contact since the conversation environment allows them to gain a deeper understanding of the subject matter through idea sharing.

According to this survey, respondents often have greater visual learning preferences. A number of related research have also produced pertinent findings. For example, Handini (2013) discovered that most students with moderate inadequate interpersonal intelligence favored a visual learning approach. Students in this category depend more on their ability to observe, read, and take notes than on their ability to communicate verbally or engage in physical activity. According to this pattern, students who have low interpersonal intelligence may be less confident in their ability to collaborate and communicate, which may make them feel more at ease learning alone (Handini, 2013). This result is in line with other educational research that claims differences in interpersonal intelligence influence the selection of particular learning strategies (Manuaba and Sujana, 2020).

A statistical technique called the Chi-Square test (X^2 test) was used to determine the link between the learning style and interpersonal intelligence variables. A non-parametric statistical test called the Chi-Square test is used to assess if two categorical variables in a contingency table have a significant link or association. The Chi-Square test is used to determine whether the observed frequency distribution differs considerably from the population's predicted distribution, according to McHugh (2013). Table 5 below illustrates the combination table of the two variables that is created in order to perform the Chi-Square test. Next, the expected value table for each cell is displayed in table 6. Meanwhile, **Table 7** shows the results of the recap of all cells.

Table 5. Relationship between Interpersonal Intelligence and Learning Styles

Interpersonal Intelligence	Auditory	Visual	Kinesthetic	Total
Very Often	3	12	1	16
Often	3	10	1	14
Sometimes	1	5	1	7
Rarely	0	1	1	2
Very Rarely	0	0	0	0
Total	7	28	4	39

Tabel 6. Expected value for each cell

Interpersonal category	Auditory	Visual	Kinesthetic
Very Often	2.87	11.51	1.61
Often	2.51	10.09	1.41
Sometimes	1.26	5.06	0.71
Rarely	0.36	1.44	0.20

Tabel 7. The results of the recap of all cells

Interpersonal Intelligence	Auditory	Visual	Kinesthetic
Very Often	0.0059	0.0208	0.2312
Often	0.0967	0.0008	0.1179
Sometimes	0.0538	0.0008	0.1219
Rarely	0.3600	0.1290	3.1010
Total (X²)		4.241	

At $df = 6$ (12,592), the computed Chi-Square value is less than the Chi-Square table value. Furthermore, the p-value is significantly higher than 0.05. Thus, learning styles and interpersonal intelligence do not significantly correlate. This indicates that the degree of interpersonal intelligence in this data has no discernible impact on differences in student learning styles. Rare-Kinesthetic is the cell that contributes the most (3.1010). This indicates that although the disparity is the biggest, it is still negligible overall.

CONCLUSION

Interpersonal intelligence and learning modes (auditory, visual, and kinesthetic) did not significantly correlate, according to the study's respondents. This indicates that there were no appreciable differences in the distribution of learning styles among the interpersonal IQ categories. According to this findings, students' preferred learning styles did not seem to be impacted by their interpersonal intelligence. The trends that were seen, such visual dominance, happened statistically by accident. These findings suggest that the respondents' learning preferences are arbitrary. The choice of respondents for visual, auditory, or kinesthetic learning styles varies depending on particular circumstances (e.g., learning time, subject matter type), however this was unrelated to their interpersonal intelligence. Furthermore, to determine whether the results of this study can be generalized, future research may consider increasing the sample size.

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