

Analysis of Learning Styles in Vocational Education in Grade 12 Students at SMK Negeri in Surakarta

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ABSTRACT

Vocational education, especially in Vocational High Schools (SMK), plays a crucial role in preparing students for the world of work. Understanding student learning styles is an important aspect in the context of learning, because it affects the effectiveness of the learning process. Learning styles reflect students' preferences in receiving and processing information, becoming the foundation for developing more effective learning strategies. Each individual has unique ways of learning, such as visual, auditorial, and kinesthetic, which affect the understanding and retention of information. This study aims to analyze the learning styles of vocational students in the context of vocational education using qualitative research methods. The formulation of this research problem is how the characteristics of the learning style of vocational students in the vocational learning process. A qualitative approach is used to gain a deep understanding of students' preferences and tendencies in receiving and processing information. The data collection method involves interviews and observation to explore students' learning styles holistically. The results of this study are expected to provide insight into learning strategies that are more responsive and inclusive in accordance with the learning styles of vocational students, so as to increase their motivation, participation, and academic achievement in the vocational education environment.

Keywords: Learning style, Learning style of vocational students, Vocational education

1. INTRODUCTION

Vocational education, particularly in Vocational High Schools (SMK), has a central role in preparing learners to enter the workforce with relevant skills. Educational institutions must strive to carry out educational innovation steps with professional management, so that educational institutions can produce reliable graduates, both intellectually, skills, and spiritually who are ready to plunge into the midst of society (Harliansyah & Amon, 2022). One crucial aspect in the context of learning is understanding student learning styles, because this can have a significant impact on the effectiveness of the learning process. Learning styles reflect students' preferences and tendencies in receiving and processing information, and a deep understanding of learning styles can be a fundamental foundation for the development of more effective learning strategies (Gustiati, 2016).

In educational literature, (Mardlatillah et al., 2022) it is said that each individual has a unique and interesting way of learning, which can affect the process of understanding and retention of information. Understanding of student learning styles such as visual, auditorial and kinesthetics become important in the context of learning. Teachers have a difficult task, which must be able to improve and develop their competencies and have a comprehensive understanding of fun learning concepts, models, and strategies (Mulyati, 2019).

Previous research has highlighted variations in learning styles among vocational students and their implications for academic achievement and practical skills. In this context, this study aims to conduct an in-depth analysis of the learning styles of vocational students, understanding their preferences in accessing, processing, and storing information (Mardikawati et al., 2023). Through a better understanding of student learning styles, it is hoped that learning strategies that are more differential and responsive to the specific needs of each student can be formulated (Priatmoko, 2018).

This research not only contributes to the theoretical understanding of learning styles in the context of vocational education, but also provides an empirical foundation for the development of more effective and inclusive learning practices in vocational secondary schools (Syahmaidi et al., 2021). By actively involving students in the learning process that suits their learning style, it is expected to increase their motivation, participation, and academic achievement in vocational programs, especially in the vocational field of software and game development (Mustikaningrum et al., 2017).

2. RESEARCH METHOD

This study uses a qualitative approach to gain an in-depth understanding of the learning styles of vocational students. The qualitative approach allows researchers to understand the context and complexity of student learning styles holistically, supported by data obtained through interviews with resource persons and observations using observation checklists (Ilman et al., 2022). The method of collecting interview and observation data was chosen because it allows researchers to gain immediate insights as well as helps in gathering more in-depth and accurate data (Thalib, 2022).

The participants of this study came from students of SMK Negeri in Surakarta class XII A software and game development expertise program and were selected because of the participation of students in database subjects by purposive sampling by considering students' expertise and experience regarding learning styles (Lenaini, 2021).

Table 1. Details of the Participants

Gender	Sum
Man	7
Woman	3
Total Amount	10

Research data were collected through observation, interviews, and documentation. The research data is then analyzed using data reduction techniques, data presentation, and conclusions. The presence of researchers in this study is as a participant observer (Ardiansyah et al., 2023). Data collection techniques carried out are through interviews and observations. Data analysis uses data collection, data condensation, data presentation and conclusions that aim to provide an overview of student learning styles based on the results of observations of learning practices that have been carried out in the field directly (Ulandari & Rapita, 2023).

2.1. RESEARCH PROCEDURE

Data collection was carried out simultaneously after the teacher carried out learning practices on database subjects at SMK Negeri in Surakarta. Details of data collection using several methods to obtain complete data. The methods used to collect data in this study were interviews and observations (Ilman et al., 2022). The instrument in this study was taken by an interview conducted directly with one of the maple teachers at SMK Negeri in Surakarta, the interview process was carried out for approximately 15-20 minutes.

Table 2. Teacher Interview Sheet

No	Interview Question Indicators
1	What preparations do you and students do before starting learning?
2	Are students able to take classes well?
3	Do students prefer visual, auditory, or kinesthetic learning?
4	Is it more effective presentation, discussion, or reading in terms of students understanding the subject matter?
5	What are the benchmarks or references that you use to find out that the student already understands the material you provide?
6	What is the type of learning style of class XII PPLG A students?

The observation instrument was taken directly to 10 grade 12 PPLG A students with a duration of observation of 4 hours of instruction and 2 direct meetings. The total observation time is 360 minutes with the following instrument items.

Table 3. Student Observation Sheet

No	Observation Indicators
1	Students take notes neatly and orderly
2	Students prefer to read books rather than listen to explanations from teachers
3	Students complete assignments a few days before assignments are submitted
4	Students are meticulous in doing questions and researching the answers to the questions before they are collected
5	Students record the material given by the teacher in the form of written notes
6	Students learn by listening to and remembering what is discussed rather than what is seen
7	Students love to discuss and like to explain at length
8	Students prefer telling stories rather than writing
9	Students are easily distracted by commotion
10	Students read by moving their lips
11	Students learn by doing practice questions
12	Students cannot be silent for a long time
13	Students explain things to others slowly
14	Students do more than one activity at a time
15	Students use fingers as clues when reading

In this instrument, the diagnostic classification presented in indicators 1-5 is categorized as having a visual learning style. In indicators 6-10 identified as having an auditory learning style. Meanwhile, indicators 11-15 are considered to have a kinesthetic learning style.

3. RESULT AND ANALYSIS

Learning style is a method that is typically applied by a student to understand and absorb the information he acquires during the learning process, using the senses he has. When a student optimally applies his learning style and feels comfortable in the process, then he will achieve learning goals effectively (Munif Chatib, 2011). The method of learning through lectures, although commonly used, has a number of disadvantages because it does not suit the learning style of some students (Ananto, 2020).

Based on observations of the characteristics of PPLG students' learning styles, there are several learning styles of State Vocational School students in Surakarta, including auditory, visual and kinesthetic. The implementation of active learning can be used as a learning activity that involves students in doing something and thinking about what they do in following learning in class, so that the implementation of learning can be carried out optimally to manage students' abilities in order to achieve goals according to student learning styles (Hatta et al., 2020). Based on the results of data collection using interviews and observations, the learning styles of students at one of SMK Negeri in Surakarta have several types such:

a. Auditory Learning Style

Auditorial learning style is a learning style that emphasizes sound rather than writing. This learning style can be done by just listening without having to take notes or write information.

b. Visual Learning Style

Visual learning style is a learning style that prioritizes vision to observe and study an object such as pictures, writing. There are so many learning styles. Interest is even so easy to do by just observing without having to practice it. When someone gets information like information on a notice board, they just need to look at it without having to put it into practice.

c. Kinesthetic Learning Style

Kinesthetic learning style is a learning style that refers to visual but more detailed in the form of movement. This learning style involves a person to perform a movement to be practiced. Hands-on practice activities and Minds-on activities are most effective when used to focus and encourage students to be physically engaged while learning (Fadhila et al., 2021).

Students tend to learn according to their learning style and personality, some learn independently by watching video tutorials, some discuss with friends, and there are students who directly practice the material given by the teacher. Based on the results of observations made to 10 students selected by purposive sampling obtained the following results:

Table 4. Results

Kind	Number of Students
Hearing	3
From Kines	3
Visual	4

Of the three none are dominant, so they tend to understand learning with their own learning styles. This is also supported by observational data where the learning styles of students in class XII PPLG A at SMK Negeri in Surakarta do vary depending on the characteristics of each student. All students have their own learning style when participating in ongoing learning in class. To absorb the information provided by the teacher, the students use their own style to more quickly understand the material delivered by the teacher.

4. CONCLUSION

This study presents an overview of the learning styles of grade 12 students at SMK Negeri in Surakarta, by identifying and analyzing data obtained from teacher interviews and direct observation. Learning styles, such as visual, auditorial, and kinesthetic, are the focus of research to understand how learning styles can affect learning effectiveness. The findings highlight that students' learning styles have an important role in achieving learning goals optimally. Students who can make good use of their learning styles tend to achieve better results and feel comfortable in the learning process. This conclusion contributes to vocational education practitioners by emphasizing the importance of understanding student learning styles in designing more responsive learning strategies. By considering learning style preferences, educators can improve the quality of learning, motivation, and academic achievement of students. These research-finding-based recommendations can help improve learning approaches in SMK Negeri in Surakarta and similar vocational schools, ensuring that every student gets a learning experience that suits their needs.

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