Optimizing Science Learning Motivation Through Structured and Aesthetic Recording Strategies: A Descriptive Study on Students of SMPN 1 Purwakarta

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Sections Info	ABSTRACT
	Objective: This qualitative descriptive study aims to describe the process and impact of implementing a structured and aesthetic note-taking strategy to optimize students' motivation to learn science. Learning motivation is a crucial factor that often declines due to monotonous learning methods. **Method:** *This study focuses on the experiences of eighth-grade students at SMPN 1 Purwakarta in adopting more organized and visually appealing note-taking habits. Data collection was conducted through three methods: participatory classroom observation, document analysis of student notebooks, and in-depth interviews with 15 students selected through purposive sampling. The collected data were analyzed using the Miles and Huberman interactive analysis model, which includes data reduction, data presentation, and conclusion drawing.* **Results:** *The results show that students who implemented a structured and aesthetic note-taking strategy demonstrated positive changes in learning behavior. They became more active in processing information, rather than simply copying. Analysis of the notes revealed the use of information hierarchies, color coding, and simple diagrams that helped clarify complex science concepts. Interviews revealed that this strategy increased student interest because the note-taking process became more creative and personal. Students feel more confident and motivated to revisit their notes, which ultimately increases their persistence and engagement in science learning.* **Novelty:** *This study highlights the potential of structured and aesthetically enhanced note-taking strategies in improving student motivation and engagement in science, offering a creative and personalized approach to traditional note-taking methods.*

INTRODUCTION

Natural Sciences (IPA) is an essential subject to build the foundation of scientific thinking for students of [1], [2], [3], [4], [5], [6]. However, the consistent challenge faced by educators is to maintain and increase students' motivation to learn science. Many shivas view science as a subject that is material-dense, abstract and demanding of memorization, thus causing boredom and decreased interest [7]. As a result, students tend to be passive and less involved in the learning process.

One of the fundamental activities is taking notes. However, the practice of note-taking among students is often ineffective' just in the form of linear copying from a textbook or whiteboard. This kind of note fails to be a powerful learning tool because it does not involve deep cognitive processes. Good notes should be the result of information processing, where students actively organize, simplify and visualize the material [8].

Structured (using a logical framework) and aesthetic (visually appealing) note-taking strategy is believed to be able to change the paradigm of note-taking from a boring task to a creative and meaningful activity [9], [10]. This approach has the potential to increase student personnel engagement which is at the core of intrinsic motivation.

Different from experimental research that measures impact, this study aims to describe richly and deeply how the process of implementing this recording strategy takes place in the actual classroom environment. The research question asked was: "How can the application of a structured and aesthetic recording strategy describe the optimization of science learning motivation in SMPN 1 Purwakarta students?"

1. Motivation to Learn in a Qualitative Perspective

Motivation, according to [11], is the driving force that encourages behavior. In qualitative research, motivation is not seen as a score of numbers, but rather as a process that is reflected in the behavior, speech and artifacts produced by students. Motivation indicators observed included enthusiasm in class (attention), persistence when facing difficult material, initiative to ask questions, and pride and satisfaction with the results of work (note).

2. Recording as a Cognitive and Personal Process

Taking notes is not just a motor activity of writing, it is a cognitive process. [12] with his MIND Mapping concept emphasizes the importance of non-linear organization and the use of visuals to reflect how the brain works. Structured notes help students build mental schemas, while aesthetic elements such as colors and images, according to dual-coding theory [13], can reinforce the emotional trail making the learning process more enjoyable.

RESEARCH METHOD

a. Research Approach and Type: This study uses a qualitative approach with descriptive study research. The goal is to provide a systematic, factual and accurate picture of the facts and characteristics of the phenomenon being studied.

b. Subject and Location: The subject of this study is grade VIII students of SMPN 1 Purwakarta. The key informants consisted of 15 students who were selected by purposive sampling with the criteria of representation of academic ability (high, medium, low) and gender.

c. Data Collection Techniques
    - Participatory Observation: Researchers engage in science learning activities over the course of a semester to observe firsthand how students take notes, their interactions with the material and motivational expressions (e.g., focus, enthusiasm).
    - Document Analysis: The researcher collects, photographs and analyzes students' science notebooks. The analysis is focused on structural elements (headings, subheadings, bullet points) and aesthetics (use of color, spaces, digrams).

- In-depth interviews: Semi-structured interviews, conducted with 15 informants to explore their perceptions, feelings and experiences regarding the note-taking process and its impact on motivation to learn science.

d. Data Analysis Techniques: Data were analyzed using an interactive model from Milles [14], which included 3 stages:
   - Data Reduction: Summarize, select key points and focus data from field notes, interview transcripts and photo notes.
   - Data Presentation: Presenting data that has been reduced in the form of descriptive narratives, matrices and interview excerpts to facilitate understanding.
   - Drawing conclusions (Verification): Making initial conclusions that are then verified continuously with the data in the field to get credible findings.

RESULTS AND DISCUSSION

Description of Implementation of Recording Strategy

Observations in class show that after being introduced and accustomed to it, students begin to abandon the habit of taking linear notes. They began to actively use color markers to distinguish between main concepts and sub-concepts. Analysis in notebooks showed that the majority of students (about 12 out of 15 informants) consistently applied the information hierarchy. For example, in the chapter "Respiratory System" the title is written in large numbers, followed by the sub-headings "Respiratory Organs" and "Respiratory Mechanisms" with explanatory points underneath.

A student (Waffy Informant Mikhayla Syavana) stated in an interview:

"I used to write the original script, and then I read it. Now wear colors, to know which ones are important. When I want to take the test, it's nice to see it, so it's the enthusiasm to learn."

This quote shows that there is a change in perception from taking notes as a burden to a helpful and motivating activity.

Linkage with Learning Motivation Optimization.

The findings of the study describe the existence of three forms of motivation optimization:

a. Increased Interest and Attention: The creative and colorful note-taking process has been proven to attract students' attention. They seem to be more focused when the teacher explains because they simultaneously think about how best to pour the information into their notes.

b. Growing Persistence: Neat and easy-to-read notes become effective study companions. Students are no longer reluctant to open their records. When faced with difficult concepts, they can easily retrace the key points they have marked. This fosters persistence to understand the material.

c. Increased confidence: Students show pride in the notes they produce. Some students even showed each other their notes. This sense of accomplishment is a

form of strong intrinsic motivation, where satisfaction comes from their own processes and results.

As revealed by informant Eva Fauzirina S:

"It's nice to see your own records neatly. Like your own work. So understanding more is also the same as learning because you write while thinking."

This phenomenon is in line with [15] theory that motivation will grow if students feel appreciated and see real results from the efforts they make. In this context, structured and aesthetic records are a tangible manifestation of their efforts.

CONCLUSION

Fundamental Finding : This descriptive research concludes that the application of structured and aesthetic recording strategies in SMPN 1 Purwakarta students contributes to the optimization of science learning motivation. This process occurs through the transformation of note-taking activities from just copying to an active, creative and personal cognitive process. Motivation optimization is reflected in students' increased interest and attention during learning, growing persistence in relearning the material, and the emergence of a sense of achievement and pride in their learning results. **Implication :** Teachers are advised not only to focus on delivering material, but also on fostering students' learning skills, one of which is effective note-taking techniques. Schools can facilitate workshops or sharing sessions on creative learning methods for students to support more independent and motivated learning. **Limitation :** This descriptive research focuses on the experiences of SMPN 1 Purwakarta students, which may limit the generalizability of the findings to broader or more diverse student populations. The results are drawn from a specific context of structured and aesthetic note-taking implementation and may not reflect varied learning environments or differing teaching approaches. **Future Research :** Future studies could explore the impact of structured and aesthetic note-taking strategies across different subjects, educational levels, or cultural settings. Longitudinal research might also examine how sustained use of these techniques influences academic performance and intrinsic motivation over time.

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