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INFLUENCE OF MASTERY LEARNING STRATEGIES AND STUDENT MOTIVATION ON ARGUMENTATIVE WRITING OUTCOMES IN 11TH GRADE AT SMK NEGERI 5 MAUK

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ABSTRACT

This study aims to (1) explore the difference in argumentative writing outcomes among students with high learning motivation taught using mastery learning strategy compared to expository strategy; (2) investigate the difference in argumentative writing outcomes among students with low learning motivation taught using mastery learning strategy versus expository strategy; (3) analyze the interaction between mastery learning strategy and students' learning motivation on argumentative writing outcomes.

Conducted at SMK Negeri 5 Mauk, Tangerang Regency, Banten Province, during the 2010-2011 academic year, the research included 160 11th-grade students majoring in Computer Engineering. The study selected a sample of 48 students using a gradual random sampling method. Data collection involved questionnaires to assess learning motivation, validated through the Person Product Moment formula, and reliability evaluated using Cronbach's Alpha. Out of 40 questionnaire items, 30 were deemed valid with a reliability coefficient of 0.915. Additionally, a writing test assessed argumentative writing outcomes, with 30 out of 40 items showing good validity and a reliability coefficient of 0.9625. These research findings hold significant implications for educational policy development, particularly concerning the enhancement of students' learning outcomes.

KEYWORDS: Mastery Learning Strategies, Student Motivation, Argumentative Writing Outcomes

1. INTRODUCTION

Education serves as a crucial foundation in shaping the future of the younger generation. Within the realm of education, students' learning outcomes stand as the primary indicator of the success of the learning process. As an integral part of the curriculum, argumentative writing is a vital skill that enables students to develop their critical, analytical, and persuasive thinking abilities [1].

However, students' argumentative writing outcomes are not solely determined by their abilities. Other factors such as the teaching strategies employed by teachers and students' learning motivation also play significant roles [2]. One teaching strategy that has garnered educators' attention is Mastery

Learning, where each student is given the opportunity to thoroughly understand concepts before moving on to the next material [3]. On the other hand, students' learning motivation plays a crucial role in igniting their enthusiasm for learning diligently [4].

In this context, this research aims to investigate the Influence of Mastery Learning Strategies and Students' Learning Motivation on Argumentative Writing Outcomes [5]. A profound understanding of how these two factors interact and influence students' learning outcomes can provide valuable insights for educators and educational stakeholders.

This study not only explores the impact of these factors separately but also examines how they synergize in the context of argumentative writing instruction. Through a deep understanding of the interaction between Mastery Learning and students' learning motivation, effective teaching strategies can be identified to enhance students' argumentative writing outcomes [6]. Consequently, this research is expected to make a positive contribution to the development of more effective teaching methods, motivating students to succeed in mastering this crucial writing skill.

2. RESEARCH METHOD

2.1. Research Design:

This study employs a quantitative approach to explore the relationship between Mastery Learning strategies, students' learning motivation, and students' argumentative writing outcomes. The research design utilized is correlational research, aiming to determine whether there is a relationship between the variables under investigation. The research design is presented in the following table:

Table 1. Research Design

Teaching strategies (A)	Mastery learning (A1)	expositor y(A2)	Σ (B)
High Learning motivation (B1)	A1 B1	A2 B1	
Low Learning motivation (B2)	A1 B2	A2 B2	
Σ (K)			

2.2. Research Participants:

The participants in this study are students selected randomly from several classes at SMK Negeri 2 Kabupaten Tangerang. The number of participants will be determined statistically to ensure the validity of the research results.

2.3. Research Variables:

2.3.1. Independent Variables: Mastery Learning Strategy (measured through observation of teachers' use of the Mastery Learning method during the learning process). Student Learning Motivation (measured through a questionnaire assessing students' levels of learning motivation).

2.3.2. Dependent Variable: Student Argumentative Writing Outcomes (measured through an objectively assessed argumentative writing test).

2.4. Research Instruments:

2.4.1. Student Learning Motivation Questionnaire: The questionnaire, developed based on learning motivation theories, includes questions measuring students' levels of intrinsic and extrinsic motivation towards learning argumentative writing.

2.4.2. Mastery Learning Strategy Observation: The research team will directly observe the implementation of Mastery Learning strategies by teachers during the learning process. An observation checklist will be used to note the elements of Mastery Learning present in the teacher's instruction.

2.4.3. Argumentative Writing Test: This test, designed by experts in the field of argumentative writing, will assess students' abilities to construct logical, relevant, and persuasive arguments.

2.5. Research Procedures:

2.5.1. Data Collection: The student learning motivation questionnaire will be distributed to participants for independent completion. Observations of the Mastery Learning strategy implementation will be conducted over several learning sessions. The argumentative writing test will be administered after students have undergone a specific period of argumentative writing instruction.

2.5.2. Data Analysis: Data from the student learning motivation questionnaire will be analyzed using descriptive and inferential statistical methods. Data from observations of the Mastery Learning strategy will be analyzed to determine the extent to which the strategy is implemented by teachers. Results from the argumentative writing test will be analyzed using correlation statistical methods to identify the relationship between Mastery Learning, student learning motivation, and students' argumentative writing outcomes.

2.6. Evaluation and Interpretation of Results:

The data analysis results will be utilized to identify the relationship between Mastery Learning strategies, student learning motivation, and students' argumentative writing outcomes. The implications of these findings will be evaluated within the context of developing more effective

teaching strategies and will be recommended to educators to enhance students' argumentative writing outcomes.

3. FINDINGS AND DISCUSSION

3.1. Results

This study employed a 2 x 2 factorial analysis experimental design. Therefore, based on this design, the data descriptions presented here include: (1) Argumentative writing outcomes of students given the Mastery Learning strategy (A1). (2) Argumentative writing outcomes of students given the Expository strategy (A2).

(3) Argumentative writing outcomes of students with high learning motivation (B1). (4) Argumentative writing outcomes of students with low learning motivation (B2). (5) Argumentative writing outcomes of students given the Mastery Learning strategy and high learning motivation (A1B1). (6) Argumentative writing outcomes of students given the Mastery Learning strategy and low learning motivation (A1B2). (7) Argumentative writing outcomes of students given the Expository strategy and high learning motivation (A2B1), and (8) Argumentative writing outcomes of students given the Expository strategy and low learning motivation (A2B2).

3.1.1. Students' Argumentative Writing Outcomes Based on Teaching Strategy (A).

(a). Argumentative Writing Outcomes of Students Given the Mastery Learning Strategy (A1).

Based on the collected research data, for the scores of students' argumentative writing outcomes given the Mastery Learning strategy (A1), the lowest score recorded was 66, and the highest was 80, with a score range of 14. The data analysis resulted in a mean of 72.875, a standard deviation of 3.591, a median of 73, and a mode of 70.

Using a class interval of 6 and a class width of 3, a frequency distribution table for students' argumentative writing outcomes given the Mastery Learning strategy was created, as shown in Table 2. Frequency Distribution of Students' Argumentative Writing Outcomes Given the Mastery Learning Strategy.

Table 2. Frequency Distribution of Students' Argumentative Writing Outcomes Given the Mastery Learning Strategy

Interval Class	Absolute frequency (f)	Cumulative Frequency	Relative Frequency (%)
64 – 66	1	1	4,17
67 – 69	3	4	12,5
70 – 72	7	11	29,17
73 – 75	6	17	25
76 – 78	6	23	25
79 – 81	1	24	4,17
Total	24	-	100.00

For a clearer presentation, the argumentative writing outcomes of students given the Mastery Learning strategy (A1) are depicted in the form of a histogram, as shown in Figure 1.

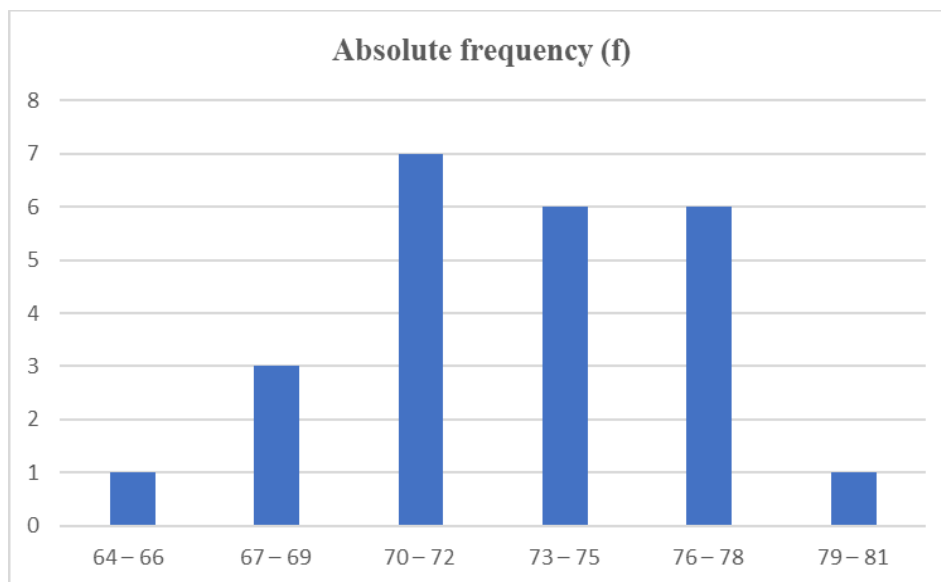


Figure 1. Argumentative Writing Outcomes of Students Given the Mastery Learning Strategy (A1)

(b). Argumentative Writing Outcomes of Students Given the Expository Strategy (A2)

Based on the collected research data, the scores of students' argumentative writing outcomes given the Expository teaching strategy (A2) ranged from a minimum of 66 to a maximum of 75, with a score range of

9. The data analysis resulted in a mean of 70.96, a standard deviation of 2.136, a median of 71, and a mode of 71.

Using a class interval of 6 and a class width of 2, a frequency distribution table for students' argumentative writing outcomes given the Expository teaching strategy was created, as shown in Table 3.

Table 3. Frequency Distribution of Students' Argumentative Writing Outcomes Given the Expository Strategy

Interval Class	Absolute frequency (f)	Cumulative Frequency	Relative Frequency (%)
65 – 66	1	1	4,17
67 – 68	2	3	8,33
69 – 70	6	9	25
71 – 72	10	19	41,67
73 – 74	4	23	16,67
75 – 76	1	24	4,17
Total	24	-	100.00

For a clearer presentation, the argumentative writing outcomes of students given the Expository teaching strategy (A2) are depicted in the form of a histogram, as shown in Figure 2.

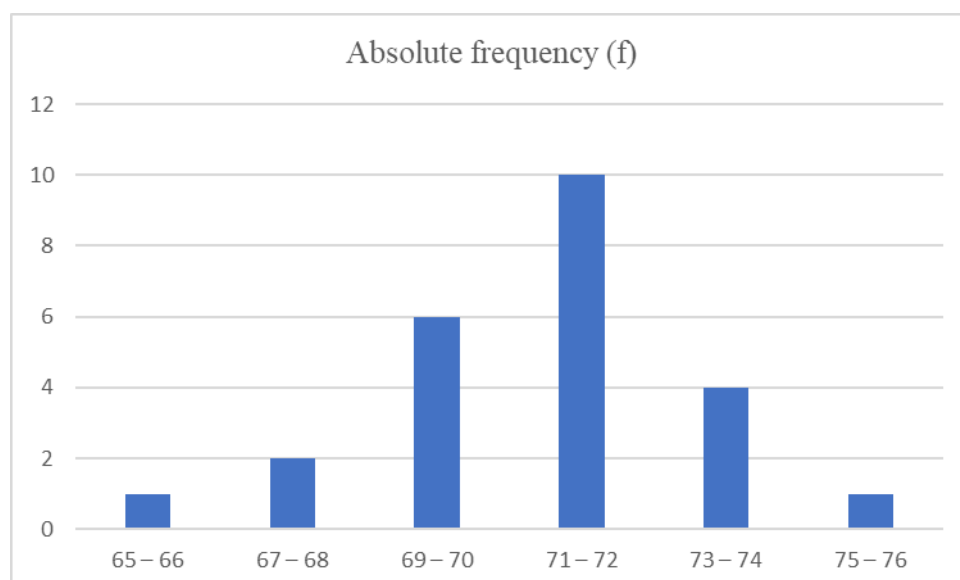


Figure 2. Argumentative Writing Outcomes of Students Given the Expository Strategy (A2)

3.1.2. Students' Argumentative Writing Outcomes Based on Learning Motivation (B). (a). Argumentative Writing Outcomes of Students with High Learning Motivation (B1).

Based on the collected research data, the scores of students' argumentative writing outcomes with high learning motivation (B1) ranged from a minimum of 66 to a maximum of 80, with a score range of 14. The data analysis resulted in a mean of 73.042, a standard deviation of 3.420, a median of 73, and a mode of 72. Using a class interval of 6 and a class width of 3, a frequency distribution table for students' argumentative writing outcomes with high learning motivation was created, as shown in Table 4.

Table 4. Frequency Distribution of Students' Argumentative Writing Outcomes with High Learning Motivation

Interval Class	Absolute frequency (f)	Cumulative Frequency	Relative Frequency (%)
64 – 66	1	1	4,17
67 – 69	3	4	12,5
70 – 72	7	11	29,17
73 – 75	6	17	25
76 – 78	6	23	25
79 – 81	1	24	4,17
Total	24	-	100.00

For a clearer presentation, the argumentative writing outcomes of students with high learning motivation (B1) are depicted in the form of a histogram, as shown in Figure 3.

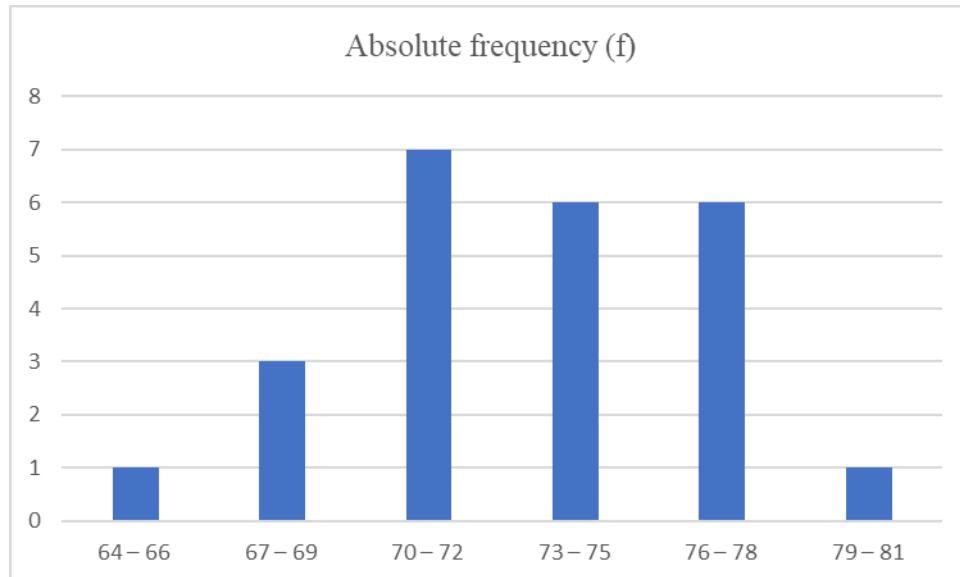


Figure 3. Argumentative Writing Outcomes of Students with High Learning Motivation (B1)

(b). Argumentative Writing Outcomes of Students with Low Learning Motivation (B2).

Based on the collected research data, the scores of students' argumentative writing outcomes with low learning motivation (B2) ranged from a minimum of 66 to a maximum of 75, with a score range of 9. The data analysis resulted in a mean of 70.79, a standard deviation of 2.245, a median of 71, and a mode of 71.

Using a class interval of 6 and a class width of 2, a frequency distribution table for students' argumentative writing outcomes with low learning motivation was created, as shown in Table 5.

Table 5. Frequency Distribution of Students' Argumentative Writing Outcomes with Low Learning Motivation

Interval Class	Absolute frequency (f)	Cumulative Frequency	Relative Frequency (%)
65 – 66	1	1	4,17
67 – 68	3	4	12,5
69 – 70	6	10	25
71 – 72	9	19	37,5
73 – 74	4	23	16,67
75 – 76	1	24	4,17

Total	24	-	100.00
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For a clearer presentation, the argumentative writing outcomes of students with low learning motivation (B2) are depicted in the form of a histogram, as shown in Figure 4.

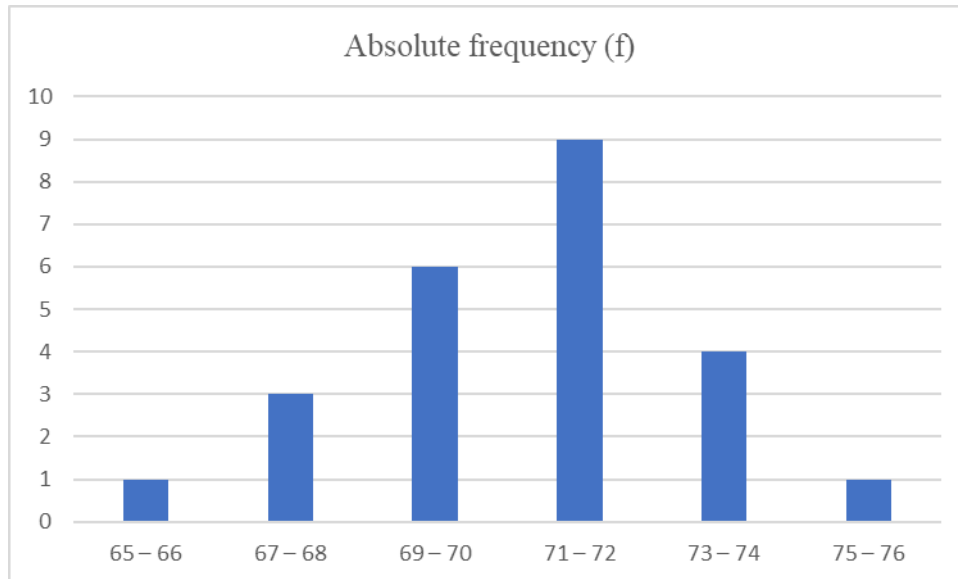


Figure 4. Argumentative Writing Outcomes of Students with Low Learning Motivation (B2)

3.1.3. Students' Argumentative Writing Outcomes Based on Mastery Learning Strategy with Learning Motivation.

(a) Argumentative Writing Outcomes of Students Given the Mastery Learning Strategy and High Learning Motivation (A1B1).

Based on the collected research data, the scores of students' argumentative writing outcomes given the Mastery Learning strategy and high learning motivation (A1B1) ranged from a minimum of 72 to a maximum of 80, with a score range of 8. The data analysis resulted in a mean of 75.67, a standard deviation of 2.103, a median of 76, and a mode of 76.

Using a class interval of 5 and a class width of 2, a frequency distribution table for students' argumentative writing outcomes given the Mastery Learning strategy and high learning motivation was created, as shown in Table 6.

Table 6. Frequency Distribution of Students' Argumentative Writing Outcomes Given the Mastery Learning Strategy and High Learning Motivation

Interval Class	Absolute frequency (f)	Cumulative Frequency	Relative Frequency (%)
71 – 72	1	1	8,33
73 – 74	2	3	16,67
75 – 76	5	8	41,67
77 – 78	3	11	25
79 – 80	1	12	8,33
Total	12	-	100.00

For a clearer presentation, the argumentative writing outcomes of students given the Mastery Learning strategy and high learning motivation (A1B1) are depicted in the form of a histogram, as shown in Figure 5.

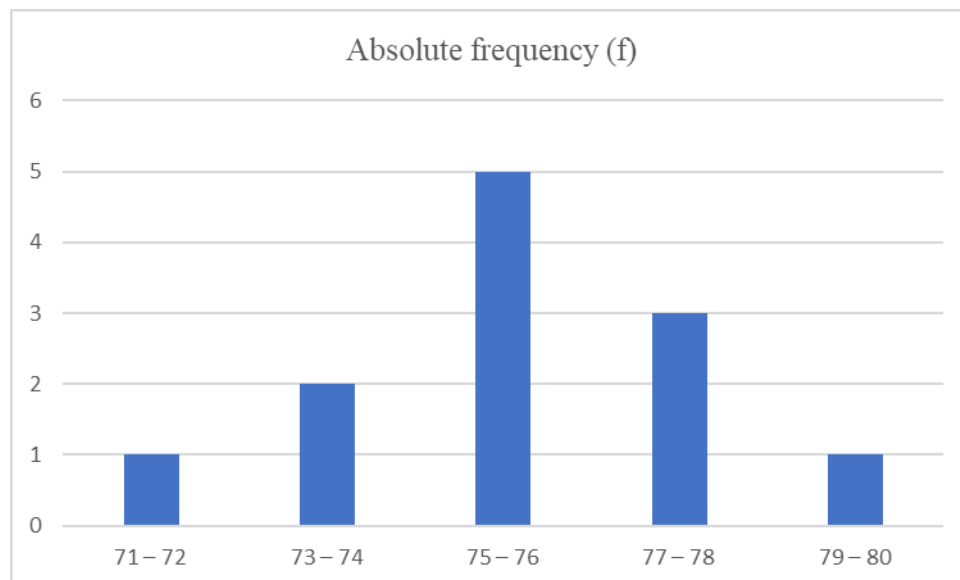


Figure 5. Argumentative Writing Outcomes of Students Given the Mastery Learning Strategy and High Learning Motivation (A1B1)

(b). Argumentative Writing Outcomes of Students Given the Mastery Learning Strategy and Low Learning Motivation (A1B2).

Based on the collected research data, the scores of students' argumentative writing outcomes given the Mastery Learning strategy and low learning motivation (A1B2) ranged from a minimum of 66 to a maximum of 74, with a score range of 8. The data analysis resulted in a mean of 70.08, a standard deviation of 2.353, a median of 70, and a mode of 70.

Using a class interval of 5 and a class width of 2, a frequency distribution table for students' argumentative writing outcomes given the Mastery Learning strategy and low learning motivation was created, as shown in Table 7.

Table 7. Frequency Distribution of Students' Argumentative Writing Outcomes Given the Mastery Learning Strategy and Low Learning Motivation.

Interval Class	Absolute frequency (f)	Cumulative Frequency	Relative Frequency (%)
66 – 67	2	2	16,67
68 – 69	2	4	16,67
70 – 71	5	9	41,67
72 – 73	2	11	16,67
74 – 75	1	12	8,33
Total	12	-	100.00

For a clearer presentation, the argumentative writing outcomes of students given the Mastery Learning strategy and low learning motivation (A1B2) are depicted in the form of a histogram, as shown in Figure 6.

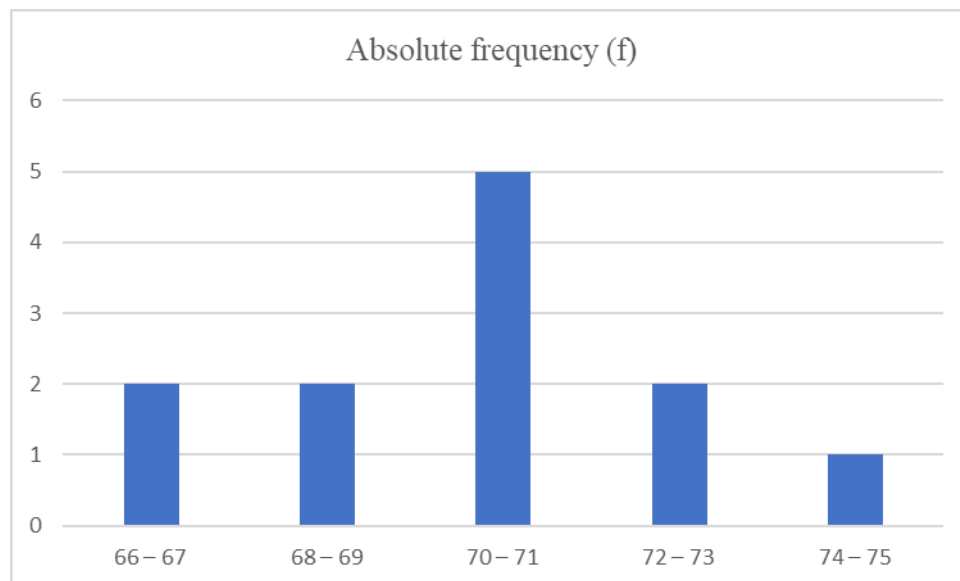


Figure 6. Argumentative Writing Outcomes of Students Given the Mastery Learning Strategy and Low Learning Motivation (A1B2)

3.1.4. Students' Argumentative Writing Outcomes Based on Expository Strategy with Learning Motivation. (a). Argumentative Writing Outcomes of Students Given the Expository Strategy and High Learning Motivation (A2B1).

Based on the collected research data, the scores of students' argumentative writing outcomes given the Expository Learning strategy and high learning motivation (A2B1) ranged from a minimum of 66 to a maximum of 74, with a score range of 8. The data analysis resulted in a mean of 70.42, a standard deviation of 2.234, a median of 70.50, and a mode of 69.

Using a class interval of 5 and a class width of 2, a frequency distribution table for students' argumentative writing outcomes given the Expository Learning strategy and high learning motivation was created, as shown in Table 8.

Table 8. Frequency Distribution of Students' Argumentative Writing Outcomes Given the Expository Learning Strategy and High Learning Motivation

Interval Class	Absolute frequency (f)	Cumulative Frequency	Relative Frequency (%)
66 – 67	1	1	8,33
68 – 69	3	4	25
70 – 71	4	8	33,33
72 – 73	3	11	25
74 – 75	1	12	8,33
Total	12	-	100.00

For a clearer presentation, the argumentative writing outcomes of students given the Expository Learning strategy and high learning motivation (A2B1) are depicted in the form of a histogram, as shown in Figure 7.

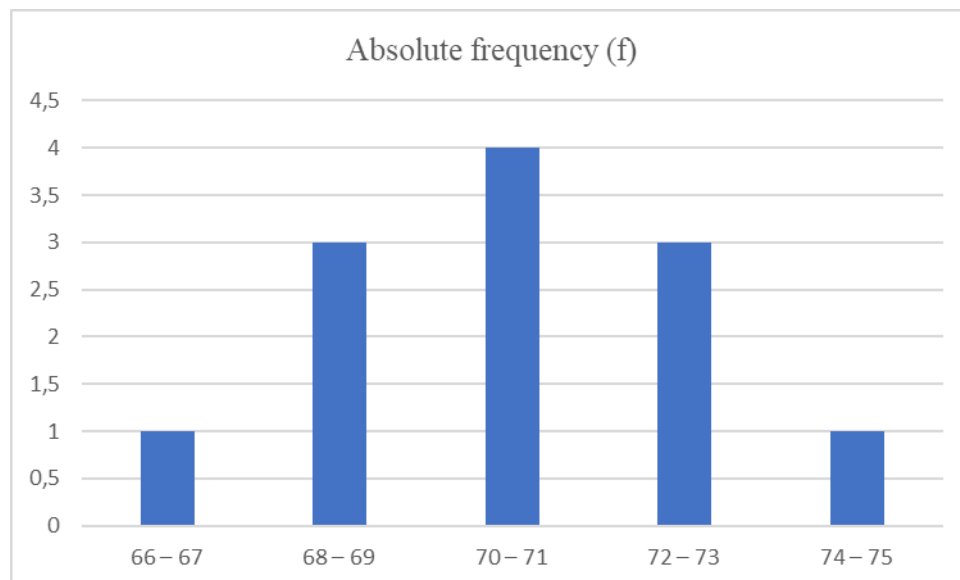


Figure 7. Argumentative Writing Outcomes of Students Given the Expository Strategy and High Learning Motivation (A2B1)

(b). Argumentative Writing Outcomes of Students Given the Expository Strategy and Low Learning Motivation (A2B2).

Based on the collected research data, the scores of students' argumentative writing outcomes given the Expository Learning strategy and low learning motivation (A2B2) ranged from a minimum of 68 to a maximum of 75, with a score range of 7. The data analysis resulted in a mean of 71.50, a standard deviation of 1.977, a median of 71.50, and a mode of 71.

Using a class interval of 5 and a class width of 2, a frequency distribution table for students' argumentative writing outcomes given the Expository Learning strategy and low learning motivation was created, as shown in Table 9.

Table 9. Frequency Distribution of Students' Argumentative Writing Outcomes Given the Expository Learning Strategy and Low Learning Motivation

Interval Class	Absolute frequency (f)	Cumulative Frequency	Relative Frequency (%)
67 – 68	1	1	8,33
69 – 70	2	3	16,67
71 – 72	6	9	50
73 – 74	2	11	16,67
75 – 76	1	12	8,33
Total	12	-	100.00

For a clearer presentation, the argumentative writing outcomes of students given the Expository Learning strategy and low learning motivation (A2B2) are depicted in the form of a histogram, as shown in Figure 8.

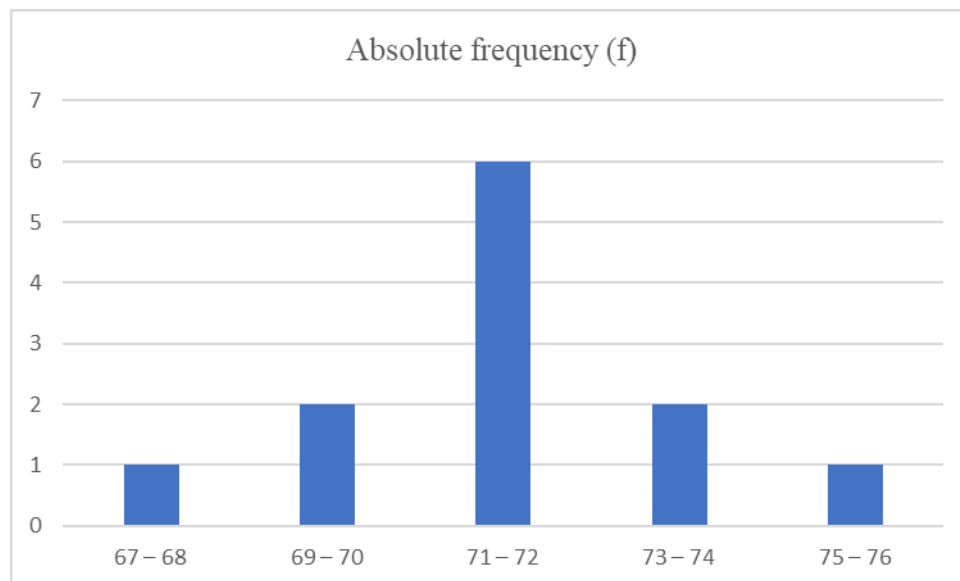


Figure 8. Argumentative Writing Outcomes of Students Taught with the Expository Strategy and Low Learning Motivation (A2B2)

3.2. Discussion

3.2.1. Influence of Mastery Learning Strategy on Argumentative Writing Outcomes:

The study clearly demonstrates that the implementation of the Mastery Learning strategy significantly influences the argumentative writing outcomes of 11th-grade students at SMK Negeri 5 Mauk, Kabupaten Tangerang. Mastery Learning serves as an essential teaching approach that allows students to deeply grasp the concepts of argumentation before moving on to subsequent topics. These findings are consistent with prior research indicating that Mastery Learning enhances students' understanding of the subject matter.

3.2.2. Impact of Student Learning Motivation on Argumentative Writing Outcomes:

The research findings also indicate that students' learning motivation significantly affects their argumentative writing outcomes. Students with high intrinsic motivation, driven by internal desires to learn, tend to achieve better learning outcomes. This underscores the importance of nurturing students' internal motivation, stimulating their interest in argumentative writing, and strengthening the connection between the curriculum and their experiences and desires.

3.2.3. Interaction Between Mastery Learning Strategy and Student Learning Motivation:

It is crucial to note the significant interaction between the Mastery Learning strategy and students' learning motivation concerning argumentative writing outcomes. Students exposed to the Mastery Learning approach and possessing high learning motivation exhibit notably greater improvements in their learning outcomes compared to students with only one of these factors. This highlights that the

combination of a structured teaching approach like Mastery Learning and students' learning motivation mutually complements and reinforces students' learning outcomes.

3.2.4. Implications and Recommendations:

These findings bear substantial implications for classroom teaching practices. Teachers should consider incorporating the Mastery Learning strategy as part of their teaching approach, while understanding and responding to students' learning motivation. Structured approaches such as Mastery Learning must be integrated with efforts to internally motivate students. This can be achieved through engaging teaching methods, positive feedback, and aligning the curriculum with students' interests and experiences.

Additionally, schools and educators should create an environment supportive of students' learning motivation. This could be achieved through the development of relevant and engaging curricula, as well as motivational and personal development programs for students. By integrating the Mastery Learning strategy with students' learning motivation, the teaching of argumentative writing in 11th-grade classrooms at SMK Negeri 5 Mauk, Kabupaten Tangerang, can significantly improve. This opens avenues for achieving better learning outcomes and deeper understanding among students.

4. CONCLUSION

This research comprehensively examined the Influence of the Mastery Learning Strategy and Student Learning Motivation on Argumentative Writing Outcomes among 11th-grade students at SMK Negeri 5 Mauk, Kabupaten Tangerang. Based on the data analysis and research findings, several conclusions can be drawn:

4.1. Significant Role of Mastery Learning Strategy in Improving Learning Outcomes:

The utilization of the Mastery Learning strategy was identified as a key factor influencing students' argumentative writing outcomes. This approach, allowing students to delve deeply into concepts before progressing, had a positive impact on the understanding and skills of argumentative writing among the 11th- grade students at SMK Negeri 5 Mauk.

4.2. Impact of Student Learning Motivation on Argumentative Writing Outcomes:

Students' learning motivation, particularly intrinsic motivation stemming from internal desires to learn, significantly influenced their argumentative writing outcomes. Intrinsically motivated students tended to achieve better results due to their high interest and enthusiasm for learning argumentative writing.

4.3. Strong Interaction Between Mastery Learning Strategy and Student Learning Motivation:

It is crucial to recognize the robust interaction between the Mastery Learning strategy and students' learning motivation. Students exposed to Mastery Learning and possessing high learning motivation exhibited more significant improvements in their learning outcomes than those with only one of these factors. The combination of a structured teaching approach and students' motivation synergistically enhanced students' learning outcomes.

4.4. Implications for Teaching Practices:

These research findings carry important implications for educators and education policymakers. Teachers can benefit from implementing the Mastery Learning strategy and concurrently nurturing students' intrinsic motivation. Educators should identify and respond to students' learning motivation, fostering a learning environment that sparks students' interest and desire to learn.

This research provides a robust empirical foundation for enhancing teaching approaches and supporting students' learning motivation in the context of argumentative writing. By engaging and motivating students and applying effective teaching strategies such as Mastery Learning, education in 11th-grade classrooms at SMK Negeri 5 Mauk, Kabupaten Tangerang, can become more productive, leading to improved argumentative writing outcomes and deeper understanding among students.

REFERENCES

- [1] M. Indratin, "The Relationship Between Logical Thinking Ability and Writing Interest with Argumentative Writing Skills (Survey on 10th Grade Students of Regina Pacis High School Surakarta)," Thesis, UNS (Sebelas Maret University), 2010. Accessed: Oct. 06, 2023. [Online]. Available: <https://digilib.uns.ac.id/dokumen/17749/Hubungan-Antara-Kemampuan-Berpikir-Logis-Dan-Minat-Menulis-Dengan-Keterampilan-Menulis-Argumentasi-Survai-Pada-Siswa-Kelas-X-Sma-Regina-Pacis-Surakarta>
- [2] "THE INFLUENCE OF CREATIVITY AND MOTIVATION ON LEARNING OUTCOMES IN THE SUBJECT OF PRODUCTIVE MARKETING FOR GRADE XI STUDENTS AT SMK NEGERI 2 TUBAN | JOURNAL OF ECONOMIC EDUCATION AND ENTREPRENEURSHIP." Accessed: Oct. 07, 2023. [Online]. Available: <https://journal.unesa.ac.id/index.php/jepk/article/view/735>
- [3] E. S. Wahyuningsih, *Mastery Learning Model: Efforts to Improve Students' Activeness and Learning Outcomes*. Deepublish, 2020.
- [4] R. Astuti, 'Science Learning with the Process Skills Approach Using Modified Free Experiment and Guided Experiment Methods: Examining Students' Scientific Attitudes and Learning Motivations (Topic: Waste and Waste Utilization for Grade XI Semes),' Thesis, UNS (Sebelas Maret University), 2012. Accessed: Oct. 07, 2023. [Online]. Available: <https://digilib.uns.ac.id/dokumen/27789/Pembelajaran-IPA-dengan-Pendekatan-Ketrampilan-Proses-Sains-menggunakan-Metode-Eksperimen-Bebas-Termodifikasi-dan-Eksperimen-Terbimbing-Ditinjau-dari-Sikap-Ilmiah-dan-Motivasi-Belajar-Siswa-Pokok-Bahasan-Limbah-dan-Pemanfaatan-Limbah-Kelas-XI-Semes>
- [5] 150208096 Rima Yulia Fitri, 'Implementation of Mastery Learning Model on Students' Learning Outcomes in Chemical Bonding Material at SMA Negeri 1 Samadua, South Aceh,' undergraduate thesis, UIN Ar-Raniry, 2020. Accessed: Oct. 07, 2023. [Online]. Available: <https://repository.ar-raniry.ac.id>



[6] H. WIBOWO, INTRODUCTION TO LEARNING THEORIES AND TEACHING MODELS. Puri Cipta Media, 2020."