



PREDICTING FACTORS OF ACADEMIC PERFORMANCE OF INDONESIAN ELEMENTARY SCHOOL STUDENTS

PREDIKTIVNI FAKTORI AKADEMSKOG USPJEHA UČENIKA OSNOVNIH ŠKOLA U INDONEZIJI

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ABSTRACT

Along the way, the learning process will inevitably encounter various complex issues, including morale and motivation. This research investigates the effect of teacher morale and student learning motivation on academic performance. The method used a quantitative approach through two independent survey questionnaires and examining academic transcripts. The research participants were 219 elementary students chosen purposefully. The statistical data obtained were processed using SPSS version 21. Based on the data analysis focusing on the effect partially and simultaneously, it shows that teacher morale and learning motivation significantly affect student academic performance. The results demonstrate the influence of teacher morale and student learning motivation on academic performance. Recognizing the two-fold influence of these factors, both partially and simultaneously, provides a more sophisticated approach to educational programs. Teachers should modify their teaching approaches to boost teacher morale and student learning motivation, recognizing the potential for long-term positive effects on student academic achievement. This study contributes to a deeper understanding of how teacher morale and student learning motivation influence students' academic performance among fifth-graders in primary

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schools of Buleleng Sub-District, Bali, Indonesia. Recognizing the two-fold influence of teacher morale and student learning motivation, both partially and simultaneously, provides a more sophisticated approach to educational programs. Teachers should modify their teaching approaches to boost teacher morale and student learning motivation, recognizing the potential for long-term positive effects on student academic achievement.

Keywords: academic performance, learning motivation, teacher morale

SAŽETAK

Tokom procesa učenja neizbježno se javljaju različiti složeni problemi, uključujući moral nastavnika i motivaciju učenika. Cilj ovog istraživanja bio je ispitati uticaj morala nastavnika i motivacije učenika za učenje na akademski uspjeh. U istraživanju je primijenjen kvantitativni pristup, uz korištenje dva nezavisna anketna upitnika i analizu školskog uspjeha učenika. Uzorak je činilo 219 učenika osnovnih škola, odabranih namjernim uzorkovanjem. Dobijeni podaci obrađeni su u statističkom programu SPSS, verzija 21.

Rezultati analize pojedinačnih i istovremenih efekata pokazali su da moral nastavnika i motivacija za učenje statistički značajno utiču na akademski uspjeh učenika. Prepoznavanje pojedinačnog i zajedničkog uticaja ovih faktora omogućava sveobuhvatniji pristup kreiranju obrazovnih programa. Nastavnici bi trebali prilagođavati svoje nastavne pristupe s ciljem jačanja morala nastavnika i motivacije učenika za učenje, uzimajući u obzir mogućnost dugoročnih pozitivnih efekata na akademski uspjeh učenika.

Ovo istraživanje doprinosi dubljem razumijevanju načina na koji moral nastavnika i motivacija učenika za učenje utiču na akademski uspjeh učenika petog razreda osnovnih škola u potokrugu Buleleng, Bali, Indonezija.

Ključne riječi: akademski uspjeh, motivacija za učenje, moral nastavnika

INTRODUCTION

The Covid-19 outbreak may have ended, but its effects are still being seen. Among various sectors, the one where the COVID-19 pandemic has had the most significant impact on student achievement is education (Sondakh et al., 2023; Werang & Leba, 2022). A World Bank study reported harmful consequences when the Indonesian government decided to close schools and switch from regular in-person classes to online learning to prevent the rapid spread of COVID-19 among teachers and students. Student learning decreased, and Indonesia's reading scores in the Programme for International Student Assessment (PISA) test fell by 25-35 points (Astawan et al., 2023). The findings of this World Bank study show that school closures have harmed both students' physical connection to teachers and peers and their academic performance.

Teachers and authorities place a great deal of emphasis on students' academic success. This fact has attracted the curiosity of scholars and practitioners, fostering scientific investigation and

scholarly discourse. Scholars and experts have diligently struggled to investigate the factors contributing to or hindering students' academic success (Werang et al., 2023a). Academic performance refers to the degree to which a student gains value from each learning experience, typically evidenced by the level of competency in the subjects taught within the educational institutions. Academic performance is frequently viewed as a key element of student achievement. Academic success is measured using a variety of measures, such as mean grade point average (GPA), annual standardized assessments, and college entrance examinations (Lukman, 2021). These indicators serve as barometers of a student's attainments across diverse subjects.

Academic performance stands as a pivotal element of a student's comprehensive achievement. Various benchmarks gauge academic performance, including mean grade point average, annual standardized assessments, and college entrance examinations (Margunayasa et al., 2024; Sari & Suryani, 2020; Werang et al., 2025a; Wolomasi et al., 2024). These indicators serve as barometers of a student's accomplishment across diverse subjects. A multitude of investigations proposes that students who excel academically usually enjoy enhanced prospects for success, as their commendable academic performance aids in nurturing an array of life skills that prove advantageous for personal and vocational development.

Various factors impact students' academic performance. Many research has explored the influence of teacher morale on student academic performance (Bambi, 2020; Ehineni, 2017; El-Amin, 2013; Maningu, 2017; Sabin, 2015) and the influence of student learning motivation on academic performance (Atma et al., 2021; Attakhidijah & Muhroji, 2022; Sinaga, 2022; Zhang & Wang, 2023). This study offers a new perspective by investigating the impact of teacher morale and student learning motivation on academic performance in elementary schools. It highlights how these two factors — teacher morale and student motivation — serve as key drivers of students' academic success. In addition to uncovering these relationships, the study provides a methodological framework for future research on academic performance, motivation, and teacher morale. By illustrating the complex interplay between these variables, this research makes a valuable contribution to educational practices and policy development.

We investigated three research questions as the following: (a) Does teacher morale significantly impact student academic performance in the sub-urban elementary schools of Buleleng District, Bali, Indonesia? (b) Does student learning motivation have a significant positive impact on their academic performance in the sub-urban elementary schools of Buleleng District, Bali, Indonesia?; and (c) Do teacher morale and learning motivation have a simultaneous positive impact on student academic performance in the sub-urban elementary schools of Buleleng District, Bali, Indonesia? A quantitative research approach using a survey research design was employed to answer these three research questions.

Objective of the Study

Generally, this study aims to describe the impact of teacher morale and student learning motivation on the academic performance of fifth-graders in primary schools of Buleleng Sub-District, Bali, Indonesia. Specifically, this study intends to describe:

1. The impact of teacher morale on the academic performance of fifth-graders in primary schools of Buleleng Sub-District, Bali, Indonesia;
2. The impact of student learning motivation on the academic performance of fifth-graders in primary schools of Buleleng Sub-District, Bali, Indonesia.
3. The simultaneous impact of teacher morale and student learning motivation on the academic performance of fifth-graders in primary schools of Buleleng Sub-District, Bali, Indonesia.

Theoretical Framework and Hypothesis Development

Prior studies striving to identify the factors influencing a student's academic performance (Azhar et al., 2014; Diseth et al., 2010; Fernex et al., 2015; Saele et al., 2017; Wintre et al., 2011). In this research, we focused only on the following two factors, that are teacher morale and student learning motivation. The following is a brief look at teacher morale and student learning motivation.

Teacher Morale and Its Impact on Student Academic Performance

Schools play a vital role in preparing future generations of nations by providing a qualified workforce and citizens. A school's core comprises teachers who diligently craft educational materials, guide students, evaluate their advancement, and collaborate with peers, administrators, and parents. Teachers also need to work hard to build positive relationships with their students and foster a sense of community in the school, especially in the classroom (Senechal et al., 2016). In such complex circumstances and roles, teacher morale is crucial in translating the school's vision into various missions and school work programs to achieve educational goals.

Referring to the previous assertion, it is crucial to examine teacher morale as it is not only related to the success of teaching and student achievement but also directly linked to teacher retention (Morris, 2019). Teacher morale is a significant aspect of creating a conducive school environment. However, teacher morale is ambiguous because it is unclear whether the term refers to teachers as individuals or a group (Morris, 2019; Senechal et al., 2016). Baughman (1996), for example, reflects teacher morale from a collective perspective by defining it as a school environment where teachers establish friendship, openness, and collective trust, while Rowland (2008) focuses more on individual teachers' feelings towards the school environment that not only affect their actions but also influence students' motivation and achievement (Senechal et al., 2016).

A school's success greatly relies on its teachers' commitment, directly related to their morale in completing all school tasks (Benti & Tarekegne, 2022). Teacher morale refers to the enthusiasm of teachers in carrying out their duties, their persistence in giving their best, and the pride of

teachers in the school where they work. Teachers who feel that their voices are heard, their works are recognized, and they are given the freedom to come up with new ideas and approaches are more likely to work hard toward improving the school's effectiveness and ensuring the success of their students (Kola & Gbenga, 2015; Schleider, 2018; Yusof & Tengku-Arifin, 2020).

Teachers spend a lot of their time with students. Unsurprisingly, teachers' attitudes and behaviors, which reflect their thoughts and feelings, significantly impact students' attitudes and behaviors. Various studies (Abazaoğlu & Aztekin, 2016; Bost, 2019; Houchard, 2005; King'olina et al., 2015; Willis & Varner, 2010) emphasized the importance of teacher motivation in improving school effectiveness and academic achievement of students. Within this framework, enhancing teacher motivation makes teaching more enjoyable and creates a more pleasant learning environment for school students. A pleasant learning environment can motivate students to study more diligently to achieve outstanding academic performance. Therefore, school leaders must realize that what they say and do can significantly affect teachers' motivation and students' academic performance (Nelson-Danley, 2019). Barbieri et al. (2017) found that student academic achievement is also high in schools where teacher motivation is high. On the other hand, in schools where teacher motivation is low, student academic achievement is also low.

Student Learning Motivation and Its Impact on Academic Performance

Motivation is the force that drives a person to take action—or to refrain from acting. It can be intrinsic, arising from an internal desire to pursue something personally meaningful (Juliya & Herlambang, 2021; Susanti, 2019; Wibawa et al., 2024). A person is considered intrinsically motivated when they are compelled to complete a task because they have a clear, self-driven goal. On the other hand, extrinsic motivation comes from external factors, such as rewards, grades, or promotions. Ideally, individuals are motivated internally, feeling that the work they do is meaningful and aligned with their personal goals. In practice, however, external incentives—such as promotions, better job opportunities, and higher salaries—often play a larger role in inspiring people to work passionately.

The term motivation here refers to the student's learning motivation. Learning motivation is one of the most crucial factors in a student's success at school. The importance of learning motivation for a student's success in learning is highlighted by Dörnyei and Csizer (1998), who state that without motivation, a well-structured curriculum and effective teaching alone are insufficient for students to succeed. Unsurprisingly, parents and teachers consistently encourage students to study diligently. Yilmaz et al. (2017) identify several factors determining student motivation, including parental involvement and participation, parental support, peer pressure, learning strategies, teaching styles, and school environment. In school education, learning motivation becomes a tool for teachers to encourage students to learn and perform all tasks well to succeed.

There are numerous recent studies (Almaiki, 2019; Aslam et al., 2021; Bakar et al., 2022; Mehndroo & Vandana, 2020; Nurafifah et al., 2021; Ozer & Badem, 2021; Robbi et al., 2020; Steinmayr et al., 2019; Yogie et al., 2021) that underscore the importance of the role of learning motivation in enhancing students' academic performance. These various studies demonstrate that

motivation to learn is crucial for improving students' academic performance and is even more important than intellectual ability in determining their level of achievement (Hattie, 2009; Plante et al., 2013; Robbins et al., 2004; Wigfield & Cambria, 2010). Within this framework, intellectual ability has a limited impact on enhancing students' academic performance if their learning motivation does not support it since motivation directs student behavior toward academic performance.

Based on the existing literature examining the impact of teacher morale and learning motivation on the student's academic achievement, the hypothetical model of the research is presented in Figure 1.

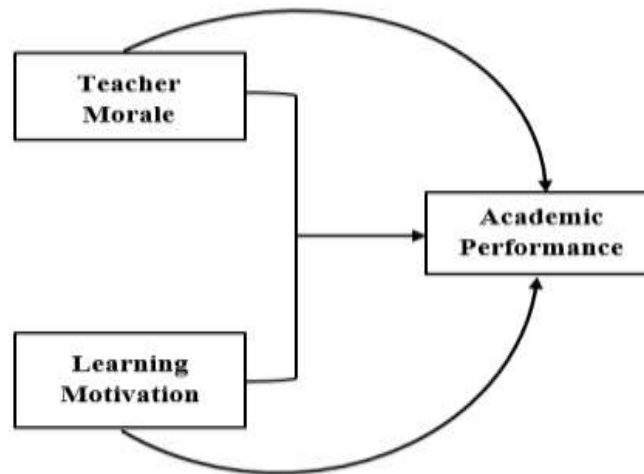


Figure 1. Hypothetical Model of the Research

Figure 1 presents a hypothetical model that integrates student learning motivation and teacher morale, suggesting a relationship that could impact academic performance. The fundamental assumption of this theoretical model is that student academic performance is significantly shaped by the morale of teachers and the motivation of students to learn. Teacher morale reflects teacher commitment, passion, and job happiness. Innovative teaching methods and a sense of passion are frequently brought to the classroom by motivated and contented teachers. As a result, students are then placed in an engaging and encouraging environment. There is no doubt about the causal relationships: happy teachers provide better instruction, which, in turn, affects how receptive students are to learning. Students are more likely to engage with the learning material and participate fully.

This particular model incorporates student learning motivation. This suggests that motivated students who actively participate, question, and commit to their studies will enhance their learning experience and success. Students establish a foundation for a deep comprehension and focused work ethic, both critical for academic success. Overall, by fostering an environment where teachers are motivated, and students are engaged, this model shows a potential place to improve the overall quality of education and enhance learning outcomes.

However, it is important to emphasize that this model is still a hypothesis until empirically tested. Empirical research is needed to prove the validity and relevance of the model in the real world, even though the theoretical basis indicates a synergistic relationship between teacher morale and student learning motivation. Although this theoretical model provides valuable insights into the possible impact of teacher morale and student learning motivation on academic performance, it must be experimentally validated before any claims can be made on its practicality.

RESEARCH METHODS

Research Design

This research used a quantitative survey design since it explored phenomena holistically by including collecting and analyzing numerical data to identify patterns and averages, establish causal relationships, and extend findings to larger populations (Bhandari, 2022). By measuring and evaluating research variables on a specific sample, quantitative research approaches are usually interpreted to produce findings that can be extrapolated to a broader population.

Surveys are an important tool in the quantitative research framework and are often used by scholars to collect numerical data (Williams, 2007). Researchers often use survey research designs for various reasons, the most important of which is their comfort in allowing participants to share their ideas and perspectives on a particular topic (Mills, 2021). In this investigation, we used survey research because several recent studies (Werang et al., 2023b; Werang et al., 2024a.b., Werang et al., 2025b.c) have highlighted the benefits: (a) low financial investment, (b) convenient data collection, (c) rapid acquisition of large amount of data, and (d) exact statistical analysis.

Research Participants

This research was conducted at elementary schools in the Buleleng Sub-District of Bali, Indonesia. A total of 219 elementary school students took part in this research. A purposive sampling technique was adopted to establish the number of samples due to time restrictions and the complexities of reaching the whole population under research during the holiday period. The sub-urban elementary schools in Buleleng District were chosen as the research site because they represent demographics in the area. The selection of fifth-graders as participants was deliberate, considering the importance of their potential to provide unique insights into the influence of many factors on academic performance. Since the students' progress in their education, parents and teachers pressure them to perform well academically, resulting in more demanding assignments and tests.

Data Collection and Measurement

This quantitative survey study was conducted to determine how teacher morale and student motivation for learning may affect their academic performance. Data on the variable of teacher morale were collected by delivering questionnaires to a total of 219 fifth-graders. We developed a questionnaire of 12 items distributed across five indicators: punctuality (three items), enthusiasm

(three items), creativity (two items), innovation (two items), and loyalty (two items). All participants were asked to rate their responses on a four-point Likert scale, ranging from 1 (Strongly Disagree) to 4 (Strongly Agree). To ensure clarity, all the items of the questionnaires were presented in Indonesian. The sample of items of questionnaires in English include "The teacher arrives on time," "The teacher commences and concludes lessons punctually," "The teacher displays enthusiasm during teaching," "The teacher motivates students to learn diligently," "The teacher encourages continuous learning," "The teacher employs diverse teaching aids to aid comprehension," "The teacher consistently fosters an enjoyable learning environment," and "The teacher consistently demonstrates dedication to teaching." All items of the questionnaires were found to be reliable and valid, with a Cronbach's Alpha coefficient of .753.

Data on the variable of student learning motivation were gathered by administering questionnaires to 219 fifth-graders. We developed a questionnaire of 11 items distributed across four indicators: curiosity (two items), tenacity (three items), desire for learning (three items), and aspiration for achievement (three items). All participants were asked to rate their responses on a four-point Likert scale ranging from 1 (Strongly Disagree) to 4 (Strongly Agree). The sample of items of questionnaires in the English version is as follows: "I consistently browse the internet for subjects of study that I am not familiar with," "Education has turned into a fundamental need for me," "I establish study schedules and make an effort to adhere to them," "I avoid delaying the completion of assignments assigned by teachers," "I experience strong motivation while tackling demanding tasks," "I consistently aim to excel in the classroom," and "I derive pleasure from engaging in competitions." All questionnaire items were reliable and valid, with the coefficient value of Cronbach's Alpha at .738.

Meanwhile, data on student academic performance were compiled by combining the educational results of the participating students. We systematically obtained information about students' academic performance by directly engaging with their class educators, commonly known as 'Guru Kelas', and thoroughly scrutinizing their academic transcripts. This approach necessitates a thorough review of student's academic records to evaluate their learning outcomes fully.

Data Analysis

Examining, filtering, converting, and organizing data to derive valuable insights, inform conclusions, and assist in decision-making is known as data analysis. To separate visible differences or relationships from purely random events, quantitative data uses statistical analysis to assess their importance. Simple and multivariate linear regression approaches are used in the inferential statistical analysis of the gathered data. The first two research questions were addressed using simple linear regression analysis, whereas the third question was addressed using multiple linear regression. We used the SPSS software version 21, to ensure exact results during the data analysis phase.

RESEARCH RESULTS

This research describes how teacher morale and student learning motivation affect academic performance. As previously stated, the collected data underwent inferential statistical analysis using simple and multiple linear regression analysis techniques. Table 1, Table 2, and Table 3

show the significant findings of the statistical analysis, consistent with the probed research questions and hypotheses.

Table 1. The Impact of Teacher Morale on Student Academic Achievement

N	R	R ²	t-count	t-table	Sig.
			0.05		
219	.893	.798	29.295	1.970956	.000

a Predictors: (Constant), Teacher_Morale

b Dependent Variable: Academic_Achievement

Data displayed in Table 1 reveals that at the alpha (α) level = .05, the value of $t_{\text{count}} = 29.295 > t_{\text{table}} = 1.970956$. Based on this data, the research hypothesis that teacher morale significantly impacts student academic performance is supported, while the opposite is not supported. Furthermore, data in Table 1 also revealed that the coefficient value of R^2 is .798, with the coefficient value of Sig. is 000. The data shows that teacher morale accounts for approximately 79,8 % of student academic achievement variability. This result emphasizes the significance of investing in programs that promote teacher well-being and job satisfaction, as they directly impact students' overall academic performance. It indicates that supporting and empowering teachers can create a virtuous cycle in which satisfied and motivated teachers are more inclined to nurture and inspire their students, resulting in continued academic growth and success.

Table 2. The Impact of Student Learning Motivation on Academic Performance

N	R	R ²	t-count	t-table	Sig.
			0.05		
219	.693	.480	14.165	1.970956	.000

a Predictors: (Constant), Learning_Motivation

b Dependent Variable: Academic_Achievement

Data displayed in Table 2 reveals that at the alpha (α) level = .05, the value of $t_{\text{count}} = 14.165 > t_{\text{table}} = 1.970956$. Based on this data, the research hypothesis that student learning motivation significantly impacts their academic performance is supported, while the reverse is not supported. Furthermore, data in Table 2 also revealed that the coefficient value of R^2 is .480, with the coefficient value of Sig. is 000. The data showed that students' learning motivation accounts for approximately 48 % of the variability in students' academic performance. The link between motivation and academic achievement is a crucial aspect of students' educational experiences, and understanding this relationship can lead to effective strategies for improving academic outcomes. Understanding how motivation affects student academic performance emphasizes fostering intrinsic motivation and establishing a supportive learning environment that inspires students to become engaged, enthusiastic learners. Teachers and parents may help students at all educational levels have a happy and effective educational experience by increasing their motivation.

Table 3. Simultaneous Impact of Teacher Morale and Learning Motivation on Student Academic Performance

N	R	R ²	F _{-count}	F _{-table}	Sig.
0.05					
219	.894	.799	429.841	3.07447264	.000

a Predictors: (Constant), Teacher_Morale; Learning_Motivation

b Dependent Variable: Academic_Achievement

The results in Table 3 indicate that, at a significance level of $\alpha = .05$, the calculated F-value of 429.841 exceeds the critical F-table value of 3.0744264. It infers that the research hypothesis suggesting a joint influence of teacher morale and student learning motivation on student academic performance is supported, whereas the opposite is not. Furthermore, data in Table 3 also reveals that the coefficient value of R^2 is .799, with the coefficient value of Sig. is 000. The data shows that teacher morale and student learning motivation account for approximately 79,9 % of student academic performance variability. This means that when teacher morale is strong and students are motivated to study, student academic performance improves concurrently. However, the data does not support the opposite scenario, implying that low teacher morale and low student learning motivation do not significantly impact student academic performance.

DISCUSSION OF FINDINGS

The results of the data analysis demonstrate that student academic success and learning motivation are positively influenced by teacher morale. In particular, the R^2 coefficient value for the impact of teacher morale on student academic achievement is .798. This value is significant, as demonstrated by the Sig. coefficient value of .000. It implies that funding to raise teacher morale may benefit students' motivation and academic performance. It signifies that students' academic performance and learning motivation to learn will be enhanced with improved teacher morale. On the other hand, students' academic performance and motivation to learn decrease when teacher morale declines. This finding is consistent with Bambi's (2020) Ehineni's (2017) and El-Amin's (2013) research findings that self-satisfied teachers are more likely to be successful educators and give their students an excellent educational experience.

Better education and student learning can result from high-morale teachers who are more evolved and committed to their work. Additionally, they may be more likely to offer students emotional support, constructive feedback, and a safe and supportive learning environment, which can foster a positive attitude toward learning. Conversely, low teacher morale may cause them to become less dedicated to their work, leading to less effective instruction and poorer student learning results. Furthermore, teachers may be less likely to offer students constructive feedback and supportive encouragement, which can lead to a negative attitude toward learning and, ultimately, weaker learning motivation and results.

Student motivation and academic success are influenced by teacher-student connections, which are impacted by teacher morale. Strong bonds between teachers and students can foster a greater

feeling of community and commitment to the school, boosting students' motivation and interest in their studies. Long-term academic achievement depends on having a strong desire to study. Students with high motivation to learn are keen to adopt a growth attitude. They think they can increase their knowledge and skills with dedication and complex study. Students who adopt this perspective might perceive challenges as chances for personal development and overcome their fear of failing. Growth-minded students are more likely to establish and meet learning objectives, eventually leading to improved academic achievement. Academically, those who are highly motivated to learn typically perform better than their peers. They are likelier to participate in active learning activities like posing queries, weighing in on class discussions, and asking their lecturers for comments.

The result of this research demonstrates that learning motivation affects student academic performance by showing the R^2 coefficient value of .480 and a Sig. coefficient value of .000. It implies that raising student learning motivation may benefit their academic performance. It indicates that motivated students perform better academically and are more interested to study thoroughly. On the other hand, unmotivated students perform worse academically, and they are less interest to learn. This result aligns with Ainurrohmah et al.'s (2020), Rajagukguk and Lubis' (2023), and Wild and Neef's (2023) research findings that students learning motivation impact greatly on their academic performance.

Generally speaking, high teacher morale and student learning motivation are necessary to improve academic achievement. Students will catch on when teachers are optimistic and excited about their teaching. Teachers who are enthusiastic and engaged in their work can foster a positive learning atmosphere, which can encourage children to embrace learning. This positive outlook on education may lead to increased academic success and drive to learn. Students who are highly motivated to learn will participate more actively in class, overcome setbacks, and cultivate an attitude that will help them perform better academically over time.

CONCLUSION

This research comprehensively explains how learning motivation and teacher morale affect student academic performance. A clear conclusion can be made from the results of data analysis that student academic performance is significantly and favorably impacted by teacher morale and learning motivation, both partially and simultaneously. These results demonstrate how important student motivation and teacher morale are in forming the core structure of academic achievement. This highlights how crucial it is for educational institutions to prioritize initiatives that inspire teachers and create learning settings that encourage students' intrinsic motivation to study. By doing this, educational institutions can set the stage for a more thorough and successful learning environment. The research results encourage educators, administrators, and policymakers to collaborate to enhance student academic achievement by creating plans that fully comprehend teacher morale and the drive of students to learn.

As this research was carried out in sub-urban elementary schools of Buleleng Regency, Bali, the research results should be strictly interpreted to extend the findings to more extensive and diverse

populations. In other words, the conclusions drawn from this research should be thoughtfully understood when attempting to generalize them to other contexts, geographical areas, or demographic groupings. This limitation emphasizes the need for future studies to have broader geographic areas, various demographic groupings, and a larger sample size.

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