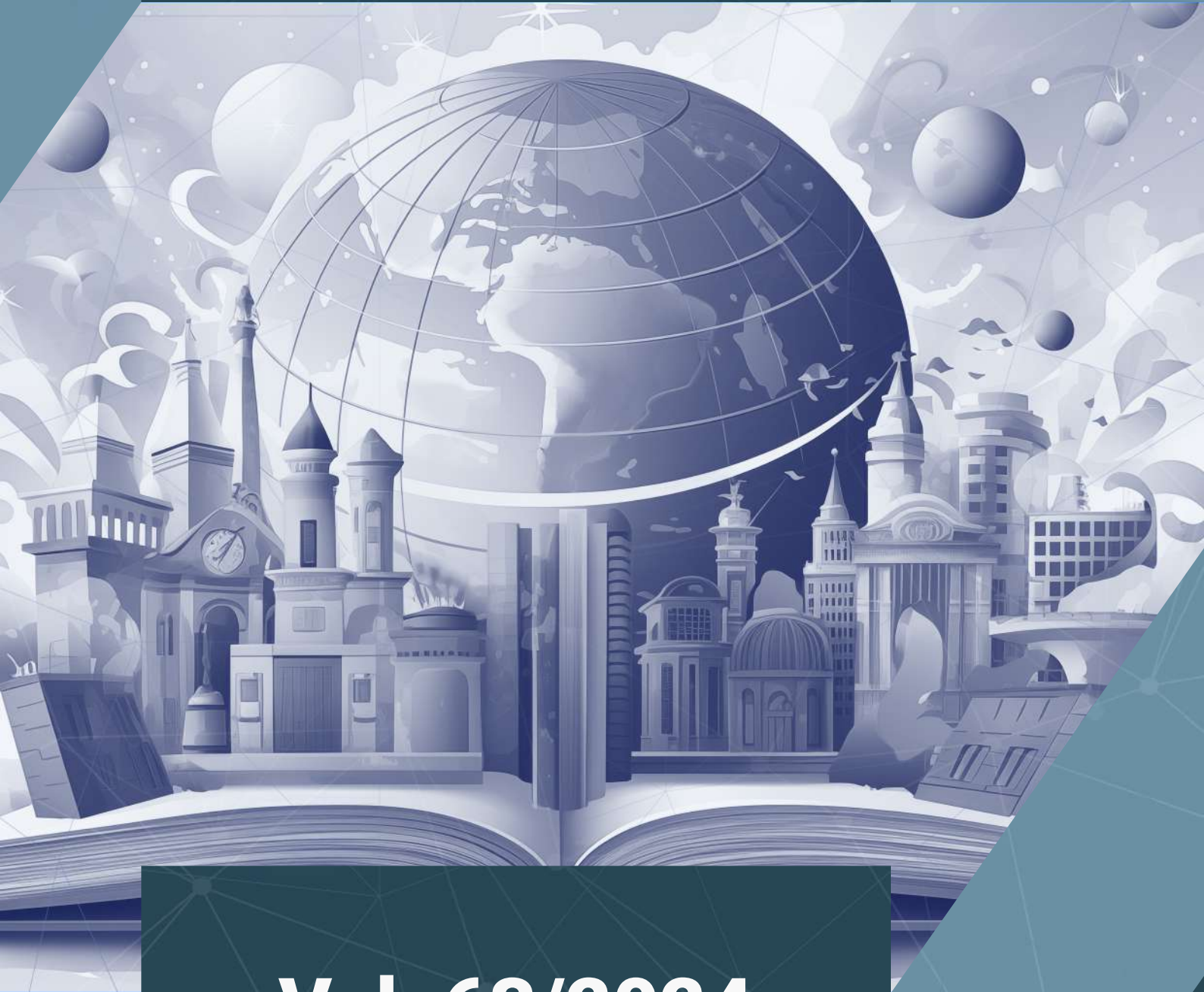




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## **Instructor's Leadership Style Improves Student Learning Motivation at Akademi Penerbang Indonesia Banyuwangi**

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**Abstract.** The study "Instructor's Leadership Style Improves Student Learning Motivation at Akademi Penerbang Indonesia Banyuwangi" examines how instructor leadership influences student motivation at API Banyuwangi. Learning motivation is key to academic success, and both intrinsic and extrinsic factors affect it. This study highlights the significant role instructors play in shaping student motivation through their leadership style. Using a quantitative approach, the researchers collected data from students and flight instructors via surveys. Two questionnaires were used: one to measure leadership style and another to assess student motivation. The sample was selected using stratified random sampling to ensure broad representation. The data was analyzed using SmartPLS 3, a tool that supports structural equation modeling and bootstrapping. Key findings show that specific leadership behaviors, such as giving clear instructions, offering constructive feedback, and using varied teaching methods, significantly enhance student motivation. Students are more motivated when instructors are seen as fair and engaging, which positively impacts their learning commitment. The analysis demonstrated that 74.2% of the variance in student motivation could be attributed to instructor leadership style, highlighting its importance. The study concludes that effective instructor leadership is crucial in boosting student motivation at API Banyuwangi. By fostering a supportive and engaging learning environment, instructors can enhance academic outcomes. The research emphasizes the importance of continuous professional development and innovative teaching practices to keep students motivated and committed to their studies.

**Keywords.** Instructor, Leadership Style, Student, Learning, Motivation, Pilot School

### **Introduction**

Motivation to learn is key to successful academic achievement. Furthermore, an essential component in student involvement and academic performance is learning motivation (Albagawi et al., 2024). It is seen as a crucial element of education, having implications for students' acquisition of thorough knowledge, particularly in higher education (Cervera et al., 2023). Inadequate critical thinking abilities and low passion for studying, especially in physics, present serious obstacles that must be resolved quickly to secure students' future success (Rizki et al., 2024). Learning outcomes' success is influenced by learning motivation, particularly

intrinsic motivation (Badaruddin & Untung, 2020). However, Extrinsic factors predominate and influence inherent motivation in some educational environments, according to research on the impact of intrinsic and extrinsic learning incentives on students (Wabiser et al., 2022). A teacher's leadership style can foster motivation to learn. Students' academic motivation and performance are greatly impacted by the teacher's leadership, with high levels of developmental leadership having a favorable impact on students' motivation and accomplishment (Jiang & Jia, 2018; Öqvist & Malmström, 2016; Q. Wang et al., 2023). The Indonesian study stressed the favorable effect of enhancing teachers' leadership on students' motivation and advocated for a paradigm change in educational leadership in schools (Ilma Nafia & Suyatno, 2020). Teachers have the authority to innovate to encourage students to be motivated. One of the most important characteristics of teachers that educational institutions focus on is their ability to innovate to help students advance their knowledge and skills (Bawuro et al., 2020). Every instructor wants to provide the most stimulating atmosphere possible for their students in the classroom. This result is because driven students outperform less motivated students in terms of their learning outcomes (Liu et al., 2023). Active student interest and engagement are essential for effective learning and greatly impact students' will to overcome obstacles (Bai et al., 2023). For effective learning, educators require specialized training. Rather than coming from the viewpoints of teachers, the majority of theories of motivation have mostly evolved from the work of scholars (Radil et al., 2023). Students' creativity can be stimulated and the classroom environment made more vibrant with the usage of technology. Technology integration can improve students' engagement and inventiveness (Wahjuningsih et al., 2020). Technology utilization in conjunction with autonomy-supportive teaching methods can increase student interest and need satisfaction, which will ultimately improve student achievements (David & Weinstein, 2024). Students' learning and development depend heavily on the teaching of leadership, which takes place in an asymmetrical interpersonal interaction (Fernández Espinosa & López González, 2023). Using contemporary resources like educational games and multimedia tools with digital materials, practical recommendations for developing responsive and interactive multidisciplinary lessons can aid in the creation of engaging and innovative learning activities that will pique students' interests (Gheorghe et al., 2019).

However, in reality, there are still students who are sleepy when learning. Current studies highlight the need for both short- and long-term motivation in the learning process; long-term motivation denotes a sustained commitment to learning tasks, while short-term motivation involves clear, difficult, and achievable goals (Shabbir et al., 2020). Lack of sleep hurts students' performance and quality of study, making it difficult for them to concentrate, learn, and reply in class (Ern & Sia, 2023). University students frequently experience daytime sleepiness, which is linked to decreased learning outcomes (Huang et al., 2014). Some students have no enthusiasm for learning. Students face difficulties when they move from high school to college, such as disparities in the learning settings and approaches, which can leave them feeling lost and devoid of excitement for learning (Min et al., 2021). Some pay attention, but they don't get what they're learning. Because of the low level of professional commitment among college students, some students in today's culture choose not to pursue occupations related to their majors after graduation. Additionally, students' professional commitment may be influenced by the enthusiastic teaching of college professors in the classroom (Yan et al., 2023). While learning, some students are conversing. It might be difficult for teachers to monitor their students' attention, particularly in big or virtual classrooms (Villa et al., 2020).

This study is important for an institution's academic quality development. To ensure academic standards in universities, countries must create a framework for policy that

successfully balances the interests of the state, the market, and the educational profession (Dill & Beerkens, 2013). Furthermore, social resilience can be strengthened by the Academy's leadership style for education. In academic contexts, resilience is crucial, and leadership philosophies that foster resilience in staff and students are necessary (Brewer et al., 2022; Koçak, 2021; Pillay et al., 2022; Qamar et al., 2024). This study explores how instructors' leadership style can help increase students' learning motivation at the Akademi Penerbang Indonesia (API) Banyuwangi.

### Method

This study used a quantitative approach with a survey method to examine the effect of instructor leadership style on student learning motivation at the API Banyuwangi. It entails identifying the research's goal that can be answered with a quantifiable question and selecting, implementing, and suitably analyzing statistical data (Buchholz, 2021). Quantitative research entails the methodical investigation of social issues through numerical data, necessitating the measurement and quantification of the subject under investigation (Sciberras & Dingli, 2023). The study population included all active students and Flight instructors (FI) at API Banyuwangi, with the sample drawn using a stratified random sampling technique to ensure equal representation from different levels and study programs.

Research instruments that are essential for collecting data from respondents are questionnaires (Zainol et al., 2021). The research instrument consists of two questionnaires: one to measure instructor leadership style adapted from relevant leadership theories, and another to measure student learning motivation adapted from a validated learning motivation instrument. Data collection will be done by distributing questionnaires to Students.

Table 1. Questionnaire Items

Construct	Code	Items
Instructor's Leadership Style	ILS1	The instructor gives clear directions in every meeting
	ILS2	The instructor listens to students' opinions and input
	ILS3	The instructor gives constructive feedback on student work
	ILS4	The instructor can inspire students to study harder
	ILS5	The instructor is fair to all students
	ILS6	The instructor uses interesting and varied teaching methods

Students' Motivation Learning	SML1	I feel motivated to study every day
	SML2	I strive to get good grades in every subject
	SML3	I am interested in the material taught in class
	SML4	I feel learning is important for my future
	SML5	I am motivated by my friends' achievements at school
	SML6	I feel happy when learning new things in class

Collected data will be processed with the SmartPLS 3 application. Since SmartPLS 3 meets the demand for intelligent, compact devices with sensing, actuation, and control functions, it may be pertinent in the context of smart systems, smart product-service systems, and smart environments (Bombieri & Pravadelli, 2016; Vinco et al., 2016; Wan & Alagar, 2014; Z. Wang et al., 2022).

The sampling technique used was randomized to Students. A representative sample is produced through random sampling, which gives each member of the population an equal chance of being included in the sample (Ibrahim & Marcaccio, 2023; Shah & Vingam, 2023). The sample in this study amounted to 20 students.

### Results & Discussion

One statistical method for enhancing estimate quality, performing robustness tests, and calculating standard errors for different statistics is bootstrapping (Bittmann, 2021). To assess the precision and dependability of sample estimates, bootstrapping entails randomly selecting samples with replacements from a collection of observed values (Egbert & Plonsky, 2021). Bootstrapping is especially suggested for tiny samples and samples with unknown or non-normal distributions. It makes it possible to test corpus homogeneity, validate statistical models, and determine sample estimate accuracy (Mokhtar et al., 2023).

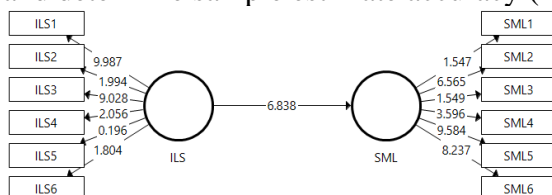


Figure 1 Bootstrapping Calculated Model

In Figure 1 it shows the result of the calculated model by bootstrapping. For the ILS construct, the outer loadings vary considerably, ranging from a low of 0.196 (ILS5) to a high of 9.987

(ILS1). This variation suggests that some indicators, particularly ILS1, ILS2, and ILS4, are especially strong representatives of the ILS construct, while others like ILS5 may be less indicative.

Similarly, the SML construct shows a range of outer loadings from 1.547 (SML2) to 9.584 (SML4). The generally high values here, particularly for SML4 and SML5, indicate that these indicators are robust measures of the SML construct.

The bootstrapping process, a resampling technique used to assess the stability of the model, has likely produced these numbers as t-statistics or z-scores. The predominantly high values (most exceeding 1.96, which is typically associated with  $p < 0.05$ ) suggest that the relationships in the model are statistically significant and not likely due to chance.

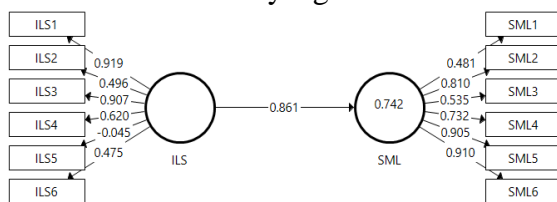


Figure 2 PLS Algorithm Calculated Model

In Figure 2 it shows the result of algorithm calculated. Examining the Instructor Leadership Style construct, we observe varying degrees of correlation between the indicators and the latent variable. ILS1 shows the strongest association with a loading of 0.919, suggesting this indicator highly representative of the ILS construct. ILS3 and ILS2 also demonstrate robust connections, with loadings of 0.907 and 0.496 respectively. ILS4 exhibits a slight negative loading of -0.045, which could indicate an inverse relationship with the overall construct or potentially a measurement issue that warrants further investigation. ILS5 and ILS6 show moderate positive loadings of 0.475 and 0.620, contributing to the overall measurement of instructor leadership style.

The Student Motivation to Learn construct displays consistently strong positive loadings across all its indicators. SML6 and SML5 stand out with the highest loadings of 0.910 and 0.905 respectively, indicating these factors are particularly influential in measuring student motivation. The remaining indicators – SML4, SML3, SML2, and SML1 – also show substantial positive loadings ranging from 0.732 to 0.481, collectively providing a comprehensive measure of student motivation.

The relationship between the two constructs is represented by the arrow connecting ILS to SML, with a path coefficient of 0.861. This strong positive value suggests that Instructor Leadership Style has a significant and beneficial impact on Student Motivation to Learn. The magnitude of this coefficient implies that improvements in instructor leadership are likely to correspond with substantial enhancements in student motivation.

Furthermore, the model reveals an  $R^2$  value of 0.742 for the SML construct, indicated by the number inside its circle. This suggests that approximately 74.2% of the variance in Student Motivation to Learn can be explained by the Instructor Leadership Style, highlighting instructors' crucial role in fostering student motivation.

In summary, this structural equation model provides valuable insights into the dynamics between instructor leadership and student motivation in an educational setting. It emphasizes the importance of effective leadership styles among instructors as a key factor in enhancing student motivation to learn, while also identifying specific aspects of both constructs that are particularly influential in this relationship.

## Conclusion

In conclusion, the leadership style of instructors plays a critical role in enhancing students' learning motivation at the Akademi Penerbang Indonesia (API) Banyuwangi. The study demonstrates that specific aspects of leadership, such as clear direction, constructive feedback, and inspiring teaching methods, significantly correlate with improved student motivation. The findings underscore the importance of developing leadership competencies among instructors to foster an engaging and motivational learning environment, ultimately contributing to better academic outcomes. Additionally, the study emphasizes the necessity for continuous professional development and the integration of innovative teaching practices to maintain student interest and commitment to learning.

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