

How Do I Rate Myself? Self-Efficacy from the Teachers' Point of View in Aviation Vocational School

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ARTICLE INFO	ABSTRACT
Article history Received Oct 11, 2025 Revised Dec 15, 2025 Accepted Dec 19, 2025	<p>This study investigates the factors influencing aviation vocational school instructors' self-efficacy and its effects on student engagement, classroom management, and instructional strategies. A sample of 100 participants was used to analyze the correlation between teacher self-efficacy and variables such as age, gender, position, additional assignments, highest degree of education, and institution. The impact of self-efficacy on supporting factors, specifically: a. the effectiveness of student engagement (ESE) and teacher self-efficacy: there is a substantial correlation between ESE and teacher self-efficacy, with ESE having a 98% influence on teacher self-efficacy; b. the effectiveness of classroom management (ECM) and teacher self-efficacy: a significant relationship is also observed between ECM and teacher self-efficacy, with ECM having a 98 percent impact on teacher self-efficacy; c. the effectiveness of instructional strategies (EIS) and teacher self-efficacy: a significant correlation exists between EIS and teacher self-efficacy, with EIS having a 98 percent influence on teacher self-efficacy. The findings demonstrate that the variables of age, position, education, and agency origin exert a substantial impact on the self-efficacy of teachers at aviation schools. Furthermore, elements such as student involvement, classroom management, and learning strategies are significant contributors to the enhancement of teacher self-efficacy within the context of an aviation vocational school.</p>
Keywords Self-efficacy Aviation vocational school Student engagement Classroom management Instructional strategies	

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I. Introduction

Insufficient self-assurance among students, stemming from past psychological distress or a lack of exposure to specific subjects, can have lasting consequences on their ability to achieve academic goals (Mofatteh, 2021) (Drăghici & Cazan, 2022). Despite academic success, students may perceive themselves as incapable or lack the persistence to face challenges (Limeri et al., 2020; Kapasi & Pei, 2022). Understanding the impact of classroom experiences on students' self-perception and decision-making is crucial for educators to adapt instructional methods and support students in building confidence and resilience (Heng & Chu, 2023; Darling-Hammond et al., 2020).

Teachers' self-efficacy beliefs about their teaching abilities will influence the types of experiences they design for pupils (Khanshan & Yousefi, 2020; Woodcock et al., 2022; Alibakhshi et al., 2020; Zee & Koomen, 2016; Jerrim et al., 2023). This educational experience affects students' decision-making and determination to achieve a goal. Furthermore,

their self-efficacy views that Field partially influences students' academic decision-making (Pignault et al., 2023) (Karpinski et al., 2020). By optimizing their classroom methods, educators can foster an environment that cultivates positive self-efficacy.

The issue explored is teachers' lack of confidence in their ability to educate all students (Brushkova et al., 2020) (Granero-Gallegos et al., 2022). Investigating the origins of teachers' efficacy beliefs can enhance students' self-efficacy by establishing effective classroom feedback mechanisms (Goos & Guerin, 2022; Handrianto et al., 2021). The correlation between teaching methods, assessment, and feedback is being studied to improve teachers' and students' self-perceptions (Torres et al., 2020; Yan et al., 2023). Teachers with strong beliefs in their abilities provide more substantial and regular formative feedback, empowering students to make informed academic choices (Schildkamp et al., 2020; Selvaraj et al., 2021). This, in turn, contributes to teachers' self-efficacy, creating an environment where students can confidently pursue and complete academic assignments.

Based on this context, the author focused on teachers' self-efficacy, student engagement, Class Management, Learning Strategies, and Supporting Factors. An Analysis of a Case Study Conducted at an Aviation Vocational School. The study problem can be stated as follows: What characteristics contribute to teachers' self-efficacy in student involvement, classroom management, and learning methodologies at aviation vocational schools? Do teachers' self-efficacy in aviation vocational schools impact student involvement, class management, learning methodologies, and supporting factors? This research aims to analyze the factors influencing teachers' self-efficacy in student involvement, class management, and learning methodologies in aviation vocational schools, and to investigate the impact of teachers' self-efficacy on student engagement, class management, and learning methodologies in these schools.

Students' experiences at school, whether working towards academic goals or completing assignments, impact their perceptions of self-efficacy. Self-efficacy, in turn, affects students' behavior, study program choices, and ability to persevere when faced with challenging assignments in specific fields of study (Meng & Zhang, 2023). Teachers play a crucial role in shaping classroom experiences and influencing social dynamics (J. Chen et al., 2020). Therefore, it is reasonable to assume that teachers' beliefs about their efficacy can impact students' classroom experiences, making it worthwhile to investigate potential influences on instructor efficacy.

A. Teacher Self-Efficacy

Teacher self-efficacy, a subset of self-efficacy, is shaped by educators' conduct and the surrounding environment (Johari et al., 2022; Duan et al., 2024). Teacher self-efficacy significantly impacts decision-making in educational settings and plays a crucial role in influencing the quality and practice of teaching (Emiru & Gedifew, 2024; Alibakhshi et al., 2020). (Woodcock et al., 2023) It was found that teachers' investment, effort, and goals in their teaching behavior are influenced by their efficacy beliefs. Specifically, teachers with higher self-efficacy are more likely to persist and demonstrate resilience in the face of setbacks and challenges (S. Li, 2023; Shao, 2023). Teachers who possess greater levels of teaching self-efficacy are more capable of adjusting teaching tactics to cater to the individual requirements of students (Barni et al., 2019) (Emiru & Gedifew, 2024).

Additionally, they strongly believe in their ability to make a positive impact on student learning and achievement. In addition, research has shown that children with highly effective teachers tend to achieve better academic performance (Burroughs et al., 2019). From a broad educational standpoint, this is a crucial outcome for facilitating successful and inclusive teaching. Argue that genuine inclusive schools necessitate structural modifications within the academic institution and a strong sense of self-efficacy within individual teachers and the

entire teaching staff (Friesen et al., 2023). Prior research has examined the relationships among faculty self-efficacy, inclusion, and instructional methods, as evidenced by studies such as Dignath et al. (2022) and Woodcock et al. (2023). Teachers face growing expectations to implement inclusive teaching methods (Alnahdi et al., 2022; Chow et al., 2023). While many teachers generally endorse inclusive practices, they often find them challenging and demanding due to insufficient preparation and expertise in teaching diverse pupils (Lindner & Schwab, 2020; Boyle & Anderson, 2020).

According to Alharbi & Iqtadar (2024), teachers with low self-efficacy face limitations in their ability to carry out inclusive teaching techniques in mainstream classrooms. This is because they perceive themselves as having limited capacity to meet all pupils' needs. Similarly, X. Yang & Du (2024) found that educators with low self-efficacy employed instructional methods of limited effectiveness, which impeded student learning. Conversely, educators who strongly believe in their ability to influence student outcomes are more likely to consistently adapt and modify their teaching methods to support underperforming students (van Geel et al., 2023). They achieve this by providing opportunities to enhance their learning more efficiently (Jemstedt, 2024; Darling-Hammond et al., 2020). The teaching personnel exhibit greater support and perseverance, employ high-quality teaching tactics, and dedicate sufficient time to ensure successful learning (Coman et al., 2020).

Educators with high self-efficacy can effectively address systemic barriers to student learning by applying the principles of engagement, representation, and action/expression within the Universal Design for Learning guidelines (Sharma et al., 2023; Navaitienė & Stasiūnaitienė, 2021). They achieve this by using inclusive teaching methods that involve careful planning, design, and equitable learning opportunities for all students (Addy et al., 2021; Sanger, 2020). Educators with strong self-efficacy are more likely to employ effective teaching strategies (Handrianto et al., 2021). They focus on student success and strive to facilitate optimal learning for all students (Díaz de León-López et al., 2021).

B. Theoretical Framework

A theoretical framework offers a vantage point for analyzing a phenomenon (Younas et al., 2023; van der Walldt, 2021). The Social Cognitive Theory (SCT) and Goal Setting Theory (GST) provide insights into the fundamental beliefs of learner self-efficacy and the factors that contribute to self-efficacy (Stajkovic & Sergent, 2019; Saks, 2024; Jeong et al., 2023; Gyepi-Garbrah et al., 2023; Pg Arshad et al., 2019). Comprehending the origins of self-efficacy in students and instructors could enhance their motivation and perseverance in completing assignments (Franks et al., 2023; Aikens & Kulacki, 2023). Social Cognitive Theory (SCT) presents a conceptual framework for understanding human behavior,

predicting an individual's behavior or lack thereof, and offering strategies for modifying a person's conduct (Thomas & Gupta, 2021; Stewart et al., 2020). Graf et al. (2021) exemplified this crucial concept in social cognitive theory (SCT) by suggesting that behavior is not solely determined by an individual's presence in a specific setting. Conversely, the environment is not a consequence of human actions and conduct.

SCT offers a framework for understanding behavior and a platform for individuals to engage in and demonstrate behavior (Fields et al., 2023; Sebastian et al., 2021). The variability of behavior across different situations does not necessarily indicate that the situation influences behavior (Duckworth & Gross, 2020). Instead, it suggests that individuals interpret situations differently, leading to different responses to the same set of stimuli, either across individuals or within the same individual at other times (Van Geert et al., 2022). Reciprocal determinism, as referred to in Social Cognitive Theory (SCT), is the idea that a person's perceived self-efficacy in a specific setting affects ongoing interactions within that environment (Schunk & DiBenedetto, 2020).

C. Formative Assessment and Feedback

Formative assessment is an evaluation method for developing abilities, dispositions, or beliefs (Ismail et al., 2022; Ariawan et al., 2022). Black and William (2010) conducted a thorough literature review to explore the impact of enhancing formative assessment on learner achievement (Ferdinal & Isramirawati, 2021). They addressed three key questions: 1) Is there empirical evidence supporting the claim that improving formative assessment leads to better academic standards? 2) Is there empirical data indicating the potential for enhancement? 3) Is there empirical evidence on strategies to enhance formative assessment? (Wafubwa, 2020) Analyzing nine years of research comprising 160 publications and 580 papers or chapters, they found substantial evidence supporting the positive impact of enhanced formative assessment on student performance. This comprehensive study highlights the significance of formative evaluation in improving academic standards.

The significance of formative assessment and its implementation in education has been acknowledged and endorsed by much recent research (Fukuda et al., 2022; van der Steen et al., 2023; Ismail et al., 2022; Seidl, 2024; Menéndez et al., 2019; T. Li et al., 2021). According to Trace (2021), evaluation is a broad term encompassing all actions taken by teachers and students to assess their progress and provide feedback to improve teaching and learning. The authors argue that instructors should use formative assessment data to design classroom activities and instructional goals that meet students' specific requirements (van der Steen et al., 2023; Kuhlmann et al., 2023). (Carlos et al., 2023) They defined formative assessment as a means of facilitating learning. Moreover, the key term that elucidates the notion of formative

assessment is not "what" formative assessment is, but rather "when" formative assessment occurs (Zhang et al., 2024; Finstad et al., 2022; Anderson & Taner, 2023). According to Blondeel et al. (2024), formative assessment positively impacts teacher practice. It helps instructors make instructional decisions based on assessment results and supports students in enhancing their work (Granberg et al., 2021). (Schmal et al., 2019). It (Addissouky et al., 2024) further elucidates the circumstances in which assessments are informative, emphasizing the significance of feedback loops

Draw a clear contrast between formative evaluation, performance feedback strategies, and other models (Morris et al., 2021) (Morris et al., 2021). The model asserts that the distinguishing characteristic is that the learner is presumed to play a central and proactive role in all feedback processes, setting it apart from the conventional concept of feedback (Lipnevich & Panadero, 2021; Ryan & Deci, 2020). They consistently monitor and oversee their performance, including their objectives and the tactics employed to attain them (Barker, Scott, & Manning, 2024). Self-feedback may lead to reevaluation of tasks or modifications to internal objectives, tactics, and plans, "Occupational Therapy Practice Framework: Domain and Process-Fourth Edition," 2020) (Ika & Pinto, 2022). Individuals can modify their existing information or beliefs, which may subsequently affect their ability to regulate their behavior (Wang et al., 2022; Botes, 2023). Emphasize the significance of receiving feedback from external sources, such as monitoring the learner's performance (Gan et al., 2021) (KUTASI, 2023). They provide additional insights that contribute to and enhance the findings of other researchers regarding formative assessment and feedback as follows (van der Linden et al., 2023) (Yin et al., 2022):

- Emphasize the importance of fostering self-assessment and reflection in the learning process.
- Foster discussions between teachers and peers around the process of learning.
- Provide clarification on the concept of good performance, including its aims, criteria, and required standards.
- Furnish teachers with data that can be utilized to mold instruction.

The information highlights the crucial role of teacher self-efficacy in shaping students' self-regulation of efficacy and skills acquisition (Lazarides & Warner, 2020). The interaction between teachers' beliefs in their effectiveness and students' feedback significantly influences students' learning experiences and goal achievement (Flint et al., 2024; Granziera & Perera, 2019). In this expanded model, learners and teachers play vital roles in regulating performance and fostering mastery experiences (Aguilon & Guhao Jr., 2024; Aikens & Kulacki, 2023). The exchange of feedback between the

instructor and the student affects the student's self-efficacy and transforms the teacher's confidence. Researchers propose that feedback exchanges can influence the development of self-efficacy for both parties, with outcomes varying depending on mastery experiences or goal setting (Franks et al., 2023). The teacher's belief in their effectiveness is shaped by students' mastery experiences at each feedback point, creating a reciprocal relationship between the teacher's and students' perceptions (Johnston et al., 2024; Buriřá et al., 2020).

D. Theoretical Convergence

Students employ many metacognitive skills to comprehend and navigate their daily academic routine (Dardjito, 2019; C. Chen et al., 2022). The researcher examined the influence of learners' metacognitive strategies on their achievement levels (Abdelrahman, 2020). He discovered that goal setting and planning significantly affected achievement (Sides & Cuevas, 2020; Bailey, 2019). Commitment to goals plays a crucial role in determining the effectiveness of self-regulatory feedback (L. F. Yang et al., 2022; Jin et al., 2023). They then elucidate the effects of feedback on individuals' self-efficacy. Individuals with high self-efficacy tend to generate more positive performance forecasts (Pignault et al., 2023). Following early failure, rather than initial success, they actively seek bad feedback to succeed at a task. For individuals who lack confidence in their abilities, receiving positive feedback on their initial achievements might validate their shortcomings and motivate them to take corrective measures. Through each endeavor on the educational journey, students move closer to or farther from achieving proficiency in the subject matter (Wu et al., 2024; Grassini, 2023). The instructor undergoes a mastery experience with every advancement or setback of each pupil.

Teacher self-efficacy is presented in all four outer circles: goals, instruction/feedback, practice/feedback, and performance/feedback (Raymond & Gabriel, 2023; Abdulrahman et al., 2020). Every milestone beyond the goal circle contributes to the learner's achievement of the objective. The smaller circle symbolizes the structured feedback loop, demonstrating how the learner's self-efficacy measurements are practically derived from performance feedback (H. L. Andrade, 2019). Furthermore, feedback has a formative role not only in achieving team goals but also in fostering learner self-efficacy (Johannes & Haase, 2022; Keller et al., 2024). Formative assessment feedback loop can result in mastery experiences and promote positive learner self-efficacy (Rakoczy et al., 2019; Alt et al., 2023). Nevertheless, the nature of how elementary school children's self-efficacy develops, whether positive or negative, is contingent on their instructors' self-efficacy.

II. Method

A. Research design

This study employs a quantitative research design. As assessed by observational rubrics, teacher self-efficacy is positively associated with student engagement, classroom management effectiveness, and proficiency in learning practices. Quantitative designs facilitate extrapolating relationships from samples to comparable populations (Alt et al., 2023; Cheong et al., 2023). Quantitative survey designs are employed when it is crucial to investigate the relationships among variables and to address issues and hypotheses through surveys and experiments (Ghanad, 2023; Van Quaquebeke et al., 2022). Inquiries for investigation 1. What characteristics contribute to teachers' self-efficacy at aviation schools for student involvement, classroom management, and learning strategies? 2. Do teachers' self-efficacy impact the supporting variables in flight schools, including student engagement efficacy, classroom management efficacy, and learning strategies?

B. Location and Time

The study was carried out at Politeknik Penerbangan Medan and Politeknik Penerbangan Surabaya. The implementation period is one semester, from October to December 2023 and January to March 2024.

C. Research Instruments

This research instrument employs a survey or questionnaire incorporating the Teacher Sense of Efficacy Scale (TSES) (Valls et al., 2020; Gómez-Nieto et al., 2023) and formative evaluation rubrics (Taylor et al., 2024). Megan Tschannen-Moran and Anita Woolfolk Hoy created the TSES utilized in this study (Tschannen-Moran & Hoy, 2001; Xie, 2023). This survey questionnaire was designed to be versatile and adaptable, facilitating comparisons of teacher efficacy beliefs and other variables that can impact them. In their research, the TSES developers highlighted the risk of creating overly specialized measures, which can lead to a loss of predictive ability beyond the specific skills and concepts being assessed. Hence, this survey tool becomes more valuable for establishing correlations between teacher self-efficacy variables and formative evaluation.

D. Sample and Population

The population comprises 100 lecturers from Politeknik Penerbangan Medan and Politeknik Penerbangan Surabaya. These individuals include both internal and external members of the higher teacher.

E. Data collection

Before commencing this research, the research approval was filed with the study program director at either Politeknik Penerbangan Medan or Politeknik Penerbangan Surabaya. The Qualtrics link to the teacher self-efficacy scale was distributed through email or a WhatsApp group. The Qualtrics platform was used to

collect and organize data from the teacher self-efficacy measure (Sadykova et al., 2023; García-Martín, 2023). Furthermore, it facilitates data generation for research purposes. Every participant, including teachers and study program heads, signed a consent letter. Only those aged 18 or older are eligible to provide direct-response information. All participants in this study were volunteers, and their identities were kept anonymous.

F. Data analysis

Qualtrics offers data collection and organization tools, while statistical calculations are conducted using SPSS (Cushman et al., 2021; Saleem et al., 2023). The study used the 24-item TSES survey as the data source. This survey collected rating scores from faculty members and study program chairs, as well as faculty-reported descriptive information. The data were acquired through an electronic survey (Pei et al., 2022) (C. Andrade, 2020).

Statistical analysis of data that summarizes and describes its main characteristics (Kotronoulas et al., 2023). Participants were requested to furnish the following details: gender, duration of teaching experience, highest academic qualification attained, and number of hours dedicated to professional development in formative evaluation (Copur-Gencturk & Orrill, 2023). Univariate analysis (distribution of each variable and dataset range) was conducted to characterize and depict each descriptive variable (Kaliyadan & Kulkarni, 2019). This enables the analysis of the data in terms of its frequency distribution, average, median, and most frequently occurring value.

The ratings from the primary feedback rubric were compared to the participants' self-efficacy scores on the TSES. The association between teacher self-efficacy and feedback given to students was investigated using correlation analyses and ANOVA (Feng et al., 2023; Duan et al., 2024; Love et al., 2020; Han & Wang, 2021). The analyzed data consisted of the composite score derived from the Teacher Self-Efficacy Scale (TSES) and the scores for the three domains of engagement, instructional strategies, and classroom management. This enables inferences on the correlation between teacher self-efficacy and feedback received from formative assessments.

III. Results and Discussion

The sample group had 100 respondents who constituted the teaching population. All 100 questionnaires were completed by faculty members, resulting in a response rate of 52% (N = 100). This statistical result includes information such as teaching age, gender, teaching position, additional assignments, last education, institution, efficacy in student engagement (ESE), efficacy in instructional strategies (EIS), and efficacy in classroom management (ECM). The provided data includes information on 100 respondents, encompassing the average age of teachers (43 years old), the predominant gender (male), teaching position,

additional duties, last education, institution, efficacy in student engagement (ESE), efficacy in instructional strategies (EIS), and efficacy in classroom management (ECM).

The descriptive statistics indicate that teachers' ages range from 22 to 70 years. The age group with the highest prevalence is 42, consisting of 10 individuals. Following closely behind is the 40-year-old age group, which includes eight individuals. At the age of 33, it is ranked third among six individuals. The gender distribution indicates 65 males and 35 females. Teaching roles include functional positions at different levels, including 18 expert assistants, 16 lecturers, 9 top lecturers, and 57 instructors. Of the 54 teachers, 46 have additional obligations, while the remaining 46 do not. The teaching team comprises eight individuals with a Diploma 3 as their highest degree of study. Additionally, there are 30 individuals from Stratum 1, 53 from Stratum 2, and 9 from Stratum 3. The subsequent text provides an elucidation of the research inquiries:

A. What factors contribute to the self-efficacy of teaching personnel in student involvement and classroom management at flight schools?

Table 1 presents a correlation matrix examining the relationships between teachers' self-efficacy characteristics and various factors, including age, gender, teaching position, additional assignments, highest degree of education, and institution of origin. The correlation coefficient (r) between teachers' self-efficacy and teaching age was 0.412, with a probability value of 0.000, which is less than 0.05. Therefore, the null hypothesis (Ho) is rejected, indicating a substantial association between teacher self-efficacy and teaching age. The correlation coefficient (r) between the teacher's self-efficacy and gender was -0.036, with a probability value of 0.360, which is greater than the significance level of 0.05. Therefore, the null hypothesis (Ho) is accepted, indicating no significant relationship or correlation between teacher self-efficacy and gender. The correlation coefficient (r) between teachers' self-efficacy and teaching positions was found to be -0.298, with a probability of 0.001, which is less than the significance level of 0.05. Therefore, the null hypothesis (Ho) is rejected, indicating a significant association between teachers' self-efficacy and teaching positions. The correlation coefficient (r) between the self-efficacy of teachers and additional assignments was found to be 0.189, with a probability (p-value) of 0.030, which is less than the significance level of 0.05. Therefore, the null hypothesis (Ho) is accepted, indicating no significant association or correlation between teachers' self-efficacy and additional tasks. The correlation coefficient (r) between teachers' self-efficacy and the latest education is 0.718, with a probability of 0.000, which is less than 0.05. Therefore, the null hypothesis (Ho) is accepted, indicating a substantial association between teachers' self-efficacy and the latest education. The correlation coefficient (r)

between teachers' self-efficacy and the institution's origin was found to be -0.275, with a probability of 0.003, less than the significance level of 0.05. Therefore, the null

hypothesis (Ho) is accepted, indicating a significant association between teachers' self-efficacy and institution origin.

Table 1. Correlations

		Self- efficacy	Age of the teacher	Gender	Teaching position	Additional work	Education	Institution
Pearson correlation	Self-efficacy	1.000	.412	-.036	-.298	.189	.718	-.275
	Age of the teacher	.412	1.000	-.313	.056	-.084	.104	-.137
	Gender	-.036	-.313	1.000	-.292	-.046	.192	-.177
	Teaching position	-.298	.056	-.292	1.000	-.122	-.529	.307
	Additional work	.189	-.084	-.046	-.122	1.000	.213	-.307
	Education	.718	.104	.192	-.529	.213	1.000	-.342
	Institution	-.275	-.137	-.177	.307	-.307	-.342	1.000
	Sig. (1-tailed)	Self-efficacy	.	.000	.360	.001	.030	.000
Age of the teacher		.000	.	.001	.290	.202	.152	.087
Gender		.360	.001	.	.002	.324	.028	.039
Teaching position		.001	.290	.002	.	.114	.000	.001
Additional work		.030	.202	.324	.114	.	.017	.001
Education		.000	.152	.028	.000	.017	.	.000
Institution		.003	.087	.039	.001	.001	.000	.
N		Self-efficacy	100	100	100	100	100	100
	Age of the teacher	100	100	100	100	100	100	100
	Gender	100	100	100	100	100	100	100
	Teaching position	100	100	100	100	100	100	100
	Additional work	100	100	100	100	100	100	100
	Education	100	100	100	100	100	100	100
	Institution	100	100	100	100	100	100	100

Table 2. Descriptive Statistics

Table 2 shows the descriptive statistics for each variable. The table includes Mean (average), Std. Deviation (standard deviation), and N (number of data), where N is the number of respondents (100 people).

	Mean	Std. Deviation	N
Self-Efficacy	67.2400	18.28457	100
Age Of The Teacher	43.9000	12.30546	100
Gender	1.3500	.47937	100
Teaching Position	3.0500	1.20918	100
Additional Work	1.4600	.50091	100
Education	2.6300	.76085	100
Institution	1.2800	.45126	100

Table 3. Collinearity Diagnostics

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions						
				(Constant)	Age	Gender	Position	Add.Work	Education	Institution
1	1	6.434	1.000	.00	.00	.00	.00	.00	.00	.00
	2	.222	5.389	.00	.00	.05	.16	.03	.04	.08
	3	.126	7.136	.00	.06	.31	.01	.17	.00	.10
	4	.094	8.252	.00	.22	.06	.11	.30	.05	.03
	5	.078	9.055	.00	.08	.15	.22	.14	.01	.46
	6	.037	13.119	.00	.35	.11	.31	.14	.70	.03
	7	.008	29.177	1.00	.28	.32	.19	.21	.19	.31

^a Dependent Variable: SELF-EFFICACY

Table 4. ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21214.510	6	3535.752	27.670	.000 ^b
	Residual	11883.730	9	127.782		
	Total	33098.240	9			

^b Dependent Variable: Self-Efficacy

^c Predictors: (Constant), Institution, Age of The Teacher, Teaching Position, Additional Work, Gender, Education.

Tables 3 and 4 aim to determine whether the factors of teaching age (X1), gender (X2), teaching position (X3), additional work (X4), education (X5), and institution (X6) exert significant influence when considered together. Regarding self-efficacy (Y), the two factors are combined. The result of the second model indicates an F-count of 27,670, with a significance level of 0.000, which is below the threshold of 0.05. Therefore, regression analysis can be employed to forecast self-efficacy.

Table 5. Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-2.806	11.943		-.235	.815		
	Age Of The Teacher	.486	.103	.327	4.743	.000	.811	1.233
	Gender	-1.940	2.693	-.051	-.720	.473	.774	1.291
	Teaching Position	.725	1.152	.048	.630	.531	.666	1.502
	Additional Work	2.645	2.473	.072	1.070	.288	.841	1.188
	Education	16.998	1.846	.707	9.208	.000	.654	1.528
	Institution	.421	2.899	.010	.145	.885	.754	1.326

^d Dependent Variable: SELF-EFFICACY

The Coefficients (Table 5) shows the following values: in column B, the constant (a) is 2.806, the coefficient for teaching age (b1) is 0.486, the coefficient for gender (b2) is -1.940, the coefficient for teaching position (b3) is 0.725, the coefficient for additional work (b4) is 2.645, the coefficient for last education (b5) is 16.998, and the coefficient for institution origin (b6) is 0.421. The data above indicates the following values: The constant is 2.806, the regression coefficient for teaching age (X1) is 0.486, gender (X2) is -1.940, teaching position (X3) is 0.725, additional work (X4) is 2.645, education (X5) is 16,998, and the origin of the institution (X6) is 0.421.

B. Does the self-efficacy of teaching personnel impact student engagement, classroom management efficacy, and learning strategy efficacy in aviation schools?

1) Efficacy in Student Engagement and Self-Efficacy of the Teacher

The correlation matrix in Table 6 shows a strong positive correlation ($r = 0.990$) between the variable efficacy in student engagement and the teacher's self-efficacy. The probability value (0.000) is less than the significance level of 0.05, indicating that the null hypothesis (Ho) can be rejected. Therefore, there is a significant relationship between student engagement efficacy and teachers' self-efficacy.

Table 6. Correlations

		Self-efficacy	Ese
Pearson	Self-Efficacy	1.000	.990
Correlation	Efficacy In Student Engagement	.990	1.000
Sig. (1-tailed)	Self-Efficacy	.	.000
	Efficacy In Student Engagement	.000	.
N	Self-Efficacy	100	100
	Efficacy In Student Engagement	100	100

Table 7 determines how student engagement (X1) substantially impacts teacher self-efficacy (Y). Based on the results of the second model, the F-count is 6.5, indicating a significance level of $0.000 < 0.05$. Therefore, regression analysis can be used to predict teachers' self-efficacy.

Table 7. ANOVA^a

Model		Sum of Squares	d	Mean Square	F	Sig.
1	Regression	32454.533	1	32454.533	4940.983	.000 ^b
	Residual	643.707	9	6.568		
	Total	33098.240	9			

^c Dependent Variable: SELF-EFFICACY

^f Predictors: (Constant), ESE

C. *Efficacy in Classroom Management and Self-Efficacy of Teachers.*

The correlation matrix in Table 8 shows a strong positive correlation ($r = 0.993$) between the variable efficacy in classroom management and the teacher's self-efficacy. The probability value (0.000) is less than the significance level of 0.05, leading to the rejection of the null hypothesis (H_0). This indicates a significant relationship between classroom management efficacy and teachers' self-efficacy.

Table 8. Correlations

		Self- efficacy	Ecm
Pearson correlation	Self-efficacy Efficacy in classroom management	1.000 .993	.993 1.000
Sig. (1-tailed)	Self-efficacy Efficacy in classroom management	. .000	.000 .
N	Self-efficacy Efficacy in classroom management	100 100	100 100

Table 9 examines whether classroom management efficacy (X1) substantially affects teacher self-efficacy (Y). The output of the second model indicates that the F-count value is 6755.3, with a significance level of 0.000, which is less than 0.05. Therefore, regression can be employed to forecast teacher self-efficacy.

Table 9. ANOVA^a

Model		Sum of Squares	d f	Mean Square	F	Sig.
1	Regression	32624.947	1	32624.947	6755.313	.000 ^b
	Residual	473.293	98	4.830		
	Total	33098.240	99			

^a Dependent Variable: SELF-EFFICACY

^b Predictors: (Constant), ECM

1) *Efficacy in Instructional Strategies and Self-Efficacy of Teachers*

The correlation matrix in Table 10 shows a strong positive correlation ($r = 0.991$) between the variable efficacy in instructional strategies and teacher self-efficacy. The probability value (0.000) is less than the significance level of 0.05, leading to the rejection of the null hypothesis (H_0). This indicates a significant relationship between effective instructional strategies and teachers' self-efficacy.

Table 10. Correlations

		Self- efficacy	Eis
Pearson Correlation	Self-Efficacy Efficacy In Instructional Strategies	1.000 .991	.991 1.000
Sig. (1-tailed)	Self-Efficacy Efficacy In Instructional Strategies	. .000	.000 .
N	Self-Efficacy Efficacy In Instructional Strategies	100 100	100 100

Table 11 examines whether the effectiveness of instructional strategies (X1) substantially affects teachers' self-confidence and competence (Y). The output of the second model indicates an F-count of 5085.48, with a significance level of 0.000, which is lower than the threshold of 0.05. Therefore, regression can be employed to forecast teachers' self-efficacy.

Table 11. ANOVA^a

Model		Sum of Squares	d f	Mean Square	F	Sig.
1	Regression	32472.478	1	32472.478	5085.481	.000 ^b
	Residual	625.762	98	6.385		
	Total	33098.240	99			

^a Dependent Variable: SELF-EFFICACY

^b Predictors: (Constant), EIS

IV. Conclusion

The findings of this study highlight that teacher self-efficacy in aviation vocational schools is not a static trait, but a dynamic construct shaped by both personal attributes, such as age, teaching position, and educational attainment, and institutional contexts, including the school's origin. While gender and additional assignments appear to exert little influence, the evidence shows that self-efficacy is strongly reinforced by teachers' ability to engage students, manage classrooms effectively, and employ diverse instructional strategies, each of which accounts for nearly all the observed variances. This underscores the reciprocal nature of teaching confidence: educators who believe in their capacity to influence learning are more likely to adapt pedagogical approaches, provide meaningful formative feedback, and cultivate inclusive environments, thereby enhancing student achievement and simultaneously strengthening their own professional identity. Ultimately, the study affirms that fostering teacher self-efficacy is pivotal for advancing instructional quality and sustaining a culture of resilience,

adaptability, and excellence within aviation vocational education.

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