



# Enhancing Teacher Performance Through Academic Supervision and Self Efficacy

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**Abstract.** The task of the school principal is to carry out and monitor the educational process at the level of academic units, that is, through supervision; academic supervision is a means of promoting the professionalism of teachers. This study is a statistical analysis survey that uses trajectory analysis, which aims to analyse the impact of academic supervision and self-efficacy on improving teaching professionalism. This study is a statistical analysis survey that uses trajectory analysis, which aims to analyse the impact of academic supervision and self-efficacy on improving teaching professionalism. The sample size of this study was 300 secondary school teachers in Jakarta; Use Smart Partial Least Square (Smart-PLS) software with good data requirements of  $R > .70$ . The results of this research analysis show that tutoring directly affects teacher performance. Self-efficacy has an impact on teacher performance, academic advising directly affects self-efficacy, and academic supervision improves teacher performance through self-efficacy. In addition, the results of the data analysis concluded that self-efficacy has an effective influence on improving the professionalism of teachers. To improve the quality of education, school leaders must streamline the implementation of academic supervision to improve the quality of education.

**Keywords:** Academic Supervision · Self-Efficacy · Teacher Professionalism · Smart PLS

## 1 Introduction

Teachers play a strategic role in improving the education quality as they are directly involved in the educational process in schools. The essential components in the educational process are teacher performance and the principal's academic supervision [1]. Teachers are leaders in the process of learning and teaching activities [2]. Teachers should create innovative learning so that students can adapt to the changing needs of the technological society [3]. The teacher's task in learning is a routine activity such as making lesson plans, conducting teaching and learning activities, providing evaluations of learning outcomes, and providing remedial teaching or enriching learning materials. Teachers must provide the best service to students in carrying out these tasks, but not all teachers

carry out these tasks properly and correctly. Educational supervision can improve teacher skills and teaching competence [4]. Another component that can improve teacher professionalism is self-efficacy because high self-efficacy will lead to work enthusiasm. His attitudes and values influence behavior; an employee who is happy at work will always be satisfied with his work, which certainly improves the quality of his work. Teachers' efficacy is mastery of competence and interest in work [5]. This research is entitled: Enhancing teacher performance through academic supervision and self-efficacy. This study will answer the following questions: (1) whether there is an influence of academic supervision on self-efficacy and teacher working; (2) whether there is an influence of self-efficacy on the teacher's performance; and (3) whether there is an indirect effect of academic supervision on teacher performance through self-efficacy.

Teacher performance (TF) relates to four teachers' mastery of the material, teaching methods, personality, and social [6]. Performance is the result of measuring the knowledge, attitude, and skills of the human resources of a school, and mastery of technology is a competency that must be mastered by teachers in pedagogic applications [7]. In general, teachers in Indonesia must have competencies: the personality associated with adult humans must have a good personality as an example to their students; social, which describes that the teacher should get along with friends of the profession scientifically at scientific meetings; professional, that a teacher must have a background in the field of study that is following that taught in the classroom, with a minimum qualification of bachelor's degree; pedagogic, this is related to learning methods and strategies, how to abstract learning materials so that students can receive quickly with the use of technology.

Academic Supervision (AS) supports school principals in evaluating teaching activities and developing positive relationships between principals and teachers [8]. The principal AS can advise teachers to develop learning in achieving the goals already formulated in the lesson plan, so cumulatively it also helps students achieve to the fullest. It can be concluded that AS is quality control of teaching and learning activities in schools through program planning, implementation of supervision, evaluation of supervision results, and follow-up of supervision results. The essential thing is that AS is part of the principal's management to run the school to improve the school education quality.

Self-efficacy (SE) is more important than skills, knowledge, or experience because, without SE, a person can make decisions [9]. People will do a job when they think they can do it, which is a form of SE [10]. Schools in Indonesia require teachers with strong SE because SE is the capacity to believe in a person's ability to achieve goals well so that teachers will provide learning to the best students. Self-efficacy affects teachers' different ways of thinking and acting, so the learning atmosphere is not dull.

## 2 Methods

### 2.1 Participant and Procedure

This quantitative research with statistical analysis Path model analysis uses Smart-PLS. Data that meet the requirements of  $r > .70$  were then further analyzed to prove the hypothesis [11]. The sample size was 300 public high school teachers in Jakarta and was taken randomly. Retrieval of research data through instruments based on three questionnaire variables with a Likert scale. Questionnaire responses had five choices with a score of: 5

**Table 1.** Demographics

Component	Characteristic	N	%
Gender	Men	120	40
	Women	180	60
Aged	22–33 years	146	48.67
	34–45 years	102	34
	46–57 years	52	17.3
Teaching experience	0–11 years	128	42.67
	12–23 years	112	37.33
	24–35 years	60	20
Education	Bachelor	190	63.33
	Master	106	35.33
	Doctoral	4	1.33

(fully agree); 4 (agreed); 3 (enough agree); 2 (disagree); 1 (disagree at all). The research results were tested for validity and reliability on all sample members. Researchers distributed research instruments to 330 senior high school teachers in north Jakarta via email and Google form. They were getting smooth dissemination of instruments with the help of school superintendents and principals based on the results at the preparatory meeting. The answer to the instrument that met the requirements was 300 respondents because some people did not return it, and some did not answer completely. There are two parts to the questionnaires. Part 1 demographic data, in this section, respondents must fill out a questionnaire about age, gender, degree holder, and work experience which is personal data. Part 2 is to fill in the questions of the three variables. In this section, respondents were asked to answer questionnaire questions of 20 items about academic supervision, 22 items about self-efficacy, and 22 items about teacher achievement. Each item on the instrument is coded. This research was conducted from January to June 2022.

## 2.2 Demographics

The members' sample research consists of various teachers' characteristics; the difference in respondent status is to obtain various opinions and get comprehensive analysis results—variation in respondent status required in management research [12]. The modus of sample in Table 1 saw that more women than men; ages between 22 and 33 years are the most of the other age intervals; teaching experience of 0 to 11 years more dominates; and the most bachelor's degree education.

## 2.3 Research Design

This study analyzes exogenous variables on endogenous direct and indirect effects variables with a research design as shown in Fig. 1.

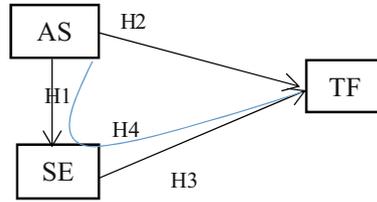


Fig. 1. Research Design

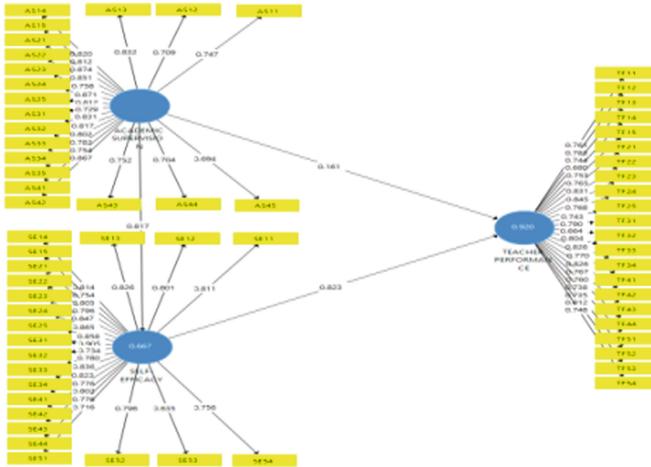


Fig. 2. Data validation

The research hypotheses are:

- H1: There is a positive direct AS influence on SE
- H2: The AS has a significant influence on the TF directly
- H3: There is a significant SE influence on TF directly
- H4: There is an indirect influence of the AS on TF through SE.

### 3 Findings and Discussion

Validity and reliability tests using Smart-PLS and valid data will be analyzed to prove the research hypothesis. Based on analysis, there are 60 valid data ( $r > .70$ ), and four invalid data ( $r < .70$ ) as shown in Fig. 2.

The researcher will use all eligible data  $r > .70$ , a requirement for data analysis using Smart-PLS. After the four invalids were deleted, invalid data is as in Table 2. However, all indicators are represented by items in the instrument variable-invalid data as listed in Table 2.

Table 3 states that the three latent variables have composite reliability of  $r > .70$ , Cronbach's alpha is  $r > .70$ , and Average Variance Extracted (AVE)  $r > .50$ . The results show that the indicators used to analyze academic supervision, self-efficacy, and teacher

**Table 2.** Invalid data

No	Code	R	Variable
1	AS45	.694	Academic supervision
2	SE53	.635	Self-efficacy
3	TF14	.680	Teacher performance
4	TF32	.664	Teacher performance

**Table 3.** Data Reliability

Variables	AS	SE	TF
N	19	21	20
Cronbach's Alpha	.969	.973	.967
Composite Reliability	.971	.971	.971
AVE	.629	.629	.629
P-Value	.000	.000	.000
Decision	Reliable	Reliable	Reliable

**Table 4.** Results of the analysis of hypotheses

Hypotheses	Original Sample (O)	Std. Dev.	T-Statistic	P-Values
AS → SE	.817	.027	30.490	.000
AS → TP	.161	.020	7.859	.000
SE → TP	.823	.018	45.581	.000
AS → SE → TP	.672	.028	24.443	.000

performance have met the criteria for discriminant validity to continue analyzing research data [13].

The hypothesis analysis in the study used bootstrapping on smart-PLS, which results in: path coefficient, standard deviation, t-statistics, and p-values, as shown in Table 4.

The results of the H1 and H2 analysis answer the first research question: the influence of AS on SE and TF. The test result effect analysis in Table 4 states that the p-value for AS → SE is 0.000 (<0.05), meaning that there is a significant effect of AS on SE; Likewise, the p-value for AS → TP is 0.000 (<0.05), so there is a positive influence on AS on TP. These results correspond to the research result, which states that academic supervision positively affects 579 faculty members at universities in Malaysia with PLS-SEM analysis [14]. Therefore, teachers need academic supervision by the headmaster: as the quality of control of teacher performance in learning activities, management, and development of learning media, strengthening the work of the right teacher, and providing

motivation. An interesting finding from the results of this study is the magnitude of the influence of the US  $\rightarrow$  SE, which is 66.75% (relatively high), this indicates the results of research on high school teachers in Jakarta that education supervision is a factor that affects the self-efficacy of a teacher, so academic supervision needs to be carried out in all schools in Jakarta in order to increase self-efficacy.

The third hypothesis resulting in answer to the second question is that SE affects TF (H3). The H3 analysis results show that the p-value of SE  $\rightarrow$  TP is 0.000 ( $<0.05$ ). That proves that there is a positive influence of SE on TP. Self-efficacy affected performance at universities in Jordan [15]. Based on our research result and other research results, SE has been proven to affect TF. Because with the SE, a person has improved her ability to work, that she is able to complete the task as a teacher, she does not hesitate to go to work and decide on her best job.

The result of the fourth hypothesis is that there is an indirect effect of AS on TF through SE (H4). The analysis results answer the third question. The analysis results prove that AS  $\rightarrow$  SE  $\rightarrow$  TP produces 0.000 ( $< 0.05$ ). The further analysis compares the magnitude of the influence of AS  $\rightarrow$  TP and AS  $\rightarrow$  SE  $\rightarrow$  TP. The magnitude of the influence of AS  $\rightarrow$  TP is 2.59%, while the magnitude of the influence of AS  $\rightarrow$  SE  $\rightarrow$  TP is  $0.817 \times 0.823 = 67.24\%$ , so the magnitude of the influence of AS  $\rightarrow$  SE  $\rightarrow$  TP is bigger than AS  $\rightarrow$  TP; means that self-efficacy as an intervening variable has an effective influence on teacher performance. That indicates to the world of education that a teacher's self-confidence is necessary because teachers deal directly with students. On the other hand, students will view the teacher as an authoritative figure, so students will be motivated to study harder by taking advantage of their time to study so that in the end, it will create a society that likes to learn.

Furthermore, the comparison of the effect of AS  $\rightarrow$  TP with SE  $\rightarrow$  TP by comparing the T-statistic of AS  $\rightarrow$  TP is 7,859, and SE  $\rightarrow$  TP is 45,581. Because 45,581 is higher than 7,859, the conclusion is that the influence of SE  $\rightarrow$  TP is significant. The study's results recommend that academic supervision variables require an increase in the program at South Jakarta senior high schools. Again, education requires the teachers' self-efficacy because it will affect students to study hard, facilitate their concentration in learning, and arouse students' emotions to achieve the best learning outcomes.

## 4 Conclusion

This study analyzes the impact of the U.S. and SE on TP. All hypotheses prove that there is a significant US influence on the teacher's SE directly, a significant direct US influence on TP directly, an SE influence on the TF directly, and a positive indirect influence on the USA by the SE on the TP with a Sig value.  $< .05$ . Further analysis also showed that SE effectively influenced TP as an intervention variable, as evidenced by the extent to which the effect of self-adhesive monitoring on teacher performance by SE was more significant than the INFLUENCE OF THE US on TP; SE has a greater impact on TF than the US. Based on the results of this study, we suggest that the use of AS in schools should be more effective. The U.S. aims to improve and develop the teaching and learning process and is part of the promotion of teacher professionalism and classroom management order.

**Acknowledgments.** On this occasion, the researchers would like to express their special gratitude: To committee *icle-Uniwara*, who has directed until publishing this article, and the Directorate of Higher Education of the Ministry of Education and Culture, who has provided *training* in writing reputable international journals; rector of Indraprastha University PGRI Jakarta, who has motivated lecturers; and all teachers who have participated in the filling of this research instrument.

**Authors' Contributions.** Academic supervision is part of the principal's management duties that must be carried out programmatically so that teachers will feel the benefits of the principal's supervision, namely the development of teacher professionalism. Academic supervision is quality control over the quality of teaching and learning activities so that there will be an increase in the quality of graduates.

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