Volume 16, Issue 3, 05 Oktober 2025, Pages. 648-668

Jurnal Manajemen (Edisi Elektronik)

Sekolah Pascasarjana Universitas Ibn Khaldun Bogor

http://dx.doi.org/10.32832/jm-uika.16i3.19822

Analysis of Teacher Empowerment and Professional Practices on Individual Innovation with Self Efficacy as an Intervening Variable

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A R T I C L E I N F O

DOI: 10.32832/jmuika.v16i3.19822

Article history
Received
05 Mei 2025
Accepted:
16 Mei 2025
Available online
05 Oktober 2025

Keywords:
teacher empowerment, professional practices, self-efficacy, individual innovation.

A B S T R A C T

This study is motivated by the importance of individual innovation among teachers to improve the quality of learning. The purpose of this study is to analyse the effect of Teacher Empowerment and Professional Practices on Individual Innovation with Self-Efficacy as an intervening variable. The study population included 111 public junior high school teachers in Purworejo District, Purworejo Regency, using the census method. Data analysis was carried out using the PLS-SEM method through SmartPLS 4 software. The results showed Teacher Empowerment had a positive but insignificant effect on Individual Innovation, but a significant positive effect on Self-Efficacy. Professional Practices proved to have a positive and significant effect on Individual Innovation and Self-Efficacy. In addition, Self-Efficacy has a positive and significant effect on Individual Innovation and acts as a significant mediator in the indirect relationship between variables.

1. INTRODUCTION

The Education and culture office plays an important role in advancing education in Indonesia through various policies, programmes and educator capacity building (Sijabat et al., 2022) . As the agency responsible for the management of education at the district to national level, it works to ensure the achievement of quality and equitable education standards for all students. In this case, efforts to improve the quality of teachers and education personnel are one of the main priorities of the Education and Culture Office, as teachers are at the forefront of education. Central and local governments work together through various programmes to empower teachers, develop professional competencies and improve the quality of teaching practices. All these efforts are expected to support the establishment of an innovative and adaptive educational climate.

Individual innovation in education refers to the ability of teachers to create new teaching methods, strategies and practices that are effective and relevant (Mea et al., 2024) . This innovation can be in the form of using technology in learning, developing creative teaching materials, or teaching approaches that adjust to the needs of students. In the Purworejo District Education and Culture Office, individual innovations are increasingly needed to support the improvement of education quality. Teachers are expected to be agents of change in the classroom by bringing new ideas that can increase student engagement and motivate them in the learning process. In the context of education in Purworejo, individual innovation is also required to help respond to various challenges faced, such as differences in student backgrounds, limited facilities and rapid technological developments. Therefore, support from the education office is needed to provide space and opportunities for teachers to develop creativity and innovation in teaching.

The Education and Culture Office of Purworejo district has the responsibility to manage education at various levels, including junior high schools (SMP) in Purworejo sub-district. In this sub-district, there are several public junior high schools, such as SMP Negeri 1 Purworejo, SMP Negeri 2 Purworejo, SMP Negeri 4 Purworejo, SMP Negeri 6 Purworejo, and SMP Negeri 31 Purworejo, which are part of a network of schools under the auspices of the local education office. These schools have different characteristics and challenges, but are similar in terms of the need to improve the quality of teachers and learning. Teachers in these schools are expected to be able to implement the education office's policies and programmes to the fullest and bring innovations to improve learning effectiveness. The Purworejo district education office plays an important role in providing training and other supporting programmes that enable teachers in these schools to continue to grow in their professional competence and creativity.

The phenomenon of individual innovation among public junior high school teachers in Purworejo District reflects ongoing efforts to bring about positive change in teaching practices, despite the limitations of educational resources and facilities. These observations were obtained

through preliminary field surveys and informal interviews conducted between January and March 2025, with the aim of identifying innovative behaviours and the real challenges faced by teachers in the classroom context. Based on data from the Purworejo District Education Office (2025), around 45 per cent of junior high school teachers in this subdistrict have participated in learning innovation training over the past three years. The training programme is part of an initiative to improve pedagogical competence and strengthen a culture of innovation in public schools.

This phenomenon has become increasingly relevant amid demands for a more independent learning curriculum, changes in the characteristics of digital generation students, and the accelerated adoption of technology in post-pandemic learning. Teachers' initiatives in integrating technology and creative learning methods are concrete evidence of individual innovation. For example, some teachers at SMP Negeri 1 Purworejo have used digital media and project-based learning models to enhance student interaction in the classroom. Meanwhile, teachers at SMP Negeri 6 Purworejo have begun developing educational game-based teaching materials to increase student engagement. These conditions show that despite facing limitations, the spirit of innovation continues to grow actively among teachers.

These findings are in line with previous studies showing that individual innovation is influenced by teacher empowerment. According to Mokhlis & Abdullah, (2023), teacher empowerment plays an important role in shaping teachers' confidence and initiative to create innovations in learning practices. In other words, when teachers feel they have autonomy, support, and access to adequate resources, their innovative potential is more likely to flourish. In the context of Purworejo, support in the form of training, teacher collaboration, and pedagogical experimentation spaces serve as important catalysts for the growth of individual innovation.

Teacher empowerment is an effort to provide freedom, resources, and support that enable teachers to innovate in teaching (Hartati, 2023) . In Purworejo district, teacher empowerment has become part of the Education and Culture Office's agenda, where teachers are given the opportunity to attend training, seminars, and workshops aimed at improving their competence. Effective teacher empowerment has the potential to encourage individual innovation, as teachers who feel supported will be more willing to take the initiative in creating new teaching methods (Kurniawan, 2024) . This empowerment includes not only technical and material support, but also psychological aspects, where teachers feel valued and have an important role in the education system (Widyanto et al., 2023) . Therefore, this empowerment is an important factor in encouraging public junior high school teachers in Purworejo sub-district to develop individual innovations that can improve the quality of education. Besides being influenced by teacher empowerment, according to Kimberly et al., 2019) individual innovation is also influenced by professional practices.

Professional practices are a series of activities and actions that reflect competence, ethics, and standards in the teaching profession (Danim, 2012). The focus on junior high school (SMP) in this study is based on the strategic role of junior high school teachers as a bridge between primary and secondary education, where character building, independent learning, and critical

thinking skills begin to be intensively developed. In addition, data from the Purworejo District Education Office shows that various professional development programmes for teachers in recent years have predominantly targeted junior high school teachers. Therefore, highlighting professional practices at this level provides a more representative picture of the dynamics of teacher professional development and its impact on learning innovation. In state junior high schools in Purworejo sub-district, professional practices include careful lesson planning, effective use of teaching strategies, and accurate assessment of learning outcomes. By adopting good professional practices, teachers can create a conducive learning environment to support innovation. Research shows that teachers' professionalism has an effect on their ability to innovate, as teachers who carry out professional practices tend to be more disciplined, structured and able to adjust to students' needs (Faqihudin, 2024) . Professionalism also helps teachers manage challenges in the learning process, so that individual innovation can grow optimally (Zubairi, 2023) . In public junior high schools in Purworejo sub-district, the implementation of good professional practices is supported by training and supervision organised by the Purworejo Education Office. In this case, self-efficacy plays a role as an important intervening variable, bridging the influence of teacher empowerment and professional practices on individual innovation (Hananta, 2022) .

Teachers who have high self-efficacy tend to feel more confident in facing challenges and developing their creativity (Sembiring, 2022) . In the context of teachers of SMP Negeri Purworejo sub-district, self-efficacy can help reduce the fear of failure in trying new teaching methods. When teachers feel confident, they are more likely to participate in training or use methods they have never tried before (Khadijah & Salim, 2024) . For this reason, self-efficacy functions as a bridge between teacher empowerment and professional practices to encourage teachers to innovate independently in the classroom (Karwati et al., 2024) . However, previous research on the influence between teacher empowerment and professional practices on self-efficacy shows inconsistent results.

Several studies have found that teacher empowerment has a significant influence on teacher self-efficacy (Yumus, 2022) , where the support provided to teachers in the form of training and decision-making authority increases their confidence in facing educational challenges. For example, certain studies show that empowered teachers tend to have stronger beliefs in implementing new learning methods and solving problems in the classroom. However, some other studies found no significant effect of teacher empowerment on self-efficacy (Tambunan et al., 2021) . These results suggest that empowerment is not always enough to increase self-efficacy, especially if it is not supported by a conducive work environment or lack of additional support such as recognition or adequate facilities.

Similarly, research on the influence of professional practices on individual innovation also shows mixed results. Some studies show that the implementation of good professional practices has a significant effect on individual innovation, where structured professional practices

encourage teachers to be more creative in finding new approaches to learning (Kimberly et al., 2019) . On the other hand, some studies show that professional practices do not have a significant influence on individual innovation (Palupi, 2022) . In these studies, although teachers apply professionalism in teaching, it does not always lead to individual innovation, especially if they do not have intrinsic motivation or supportive environment. In addition, research also reveals inconsistencies regarding the effect of self-efficacy on individual innovation. Some study results show that high self-efficacy encourages innovation (Kimberly et al., 2019) , while other studies did not find a significant effect (Flaviani & Azizah, 2022) , suggesting that self-confidence alone is not always enough to generate innovation if it is not supported by other aspects such as resources and institutional support.

Based on the phenomenon of individual innovation that occurs in public junior high schools in Purworejo district and the existence of research gaps in previous studies, research with the title "Analysis of Teacher empowerment and Professional practices on Individual innovation with Self Efficacy as an Intervening Variable (Study at the Purworejo District Education and Culture Office)" is important to do. This study aims to analyse the extent to which teacher empowerment and professional practices affect individual innovation, and how self-efficacy can be a variable that strengthens the relationship. This study is expected to contribute to the development of education policy and teacher empowerment in Purworejo district, as well as provide new insights in the literature on factors that support individual innovation among educators. The following is a picture of the research model in this study:

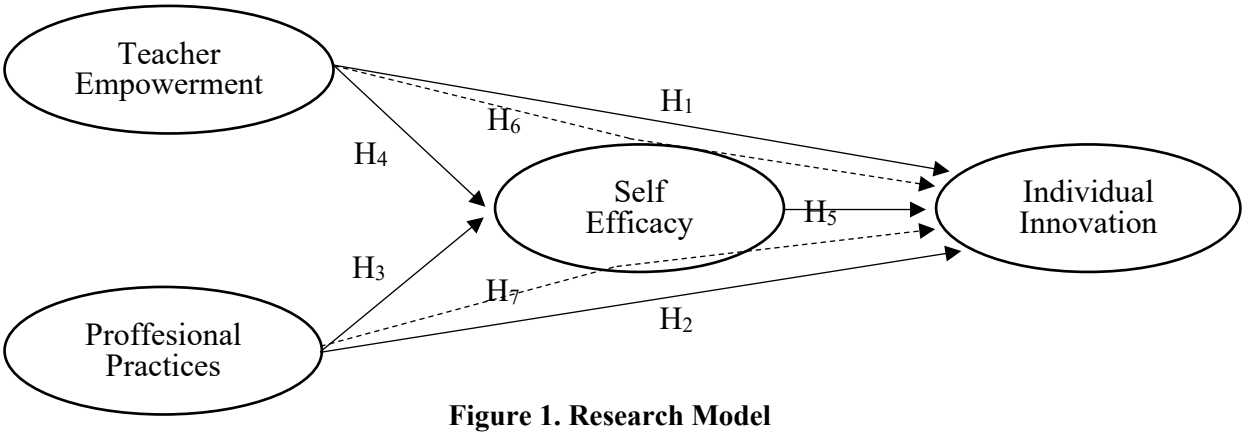

Figure 1. Research Model

Teacher empowerment affects Individual Innovation. Teacher empowerment includes providing autonomy, opportunities to participate in decision-making, and support for professional development. When teachers feel empowered, they tend to be more confident, creative, and motivated to adopt new approaches to learning, which increases individual innovation (Amabile, 1988). Research by Spreitzer, (1995) shows that empowerment in the work environment can increase sense of meaning, competence, self-determination, and impact on work, which are important factors in facilitating innovation. In addition, other studies also indicate that empowerment can reduce job stress and increase job satisfaction, which ultimately strengthens teachers' ability to create innovations that benefit students and schools (Bogler & Somech, 2004). This hypothesis is supported by research conducted by Xia & O'Shea, (2024)

Setiawan, (2019), and Widodo & Sriyono, (2020) which states that innovation among teachers is influenced by various individual factors such as the level of motivation and commitment to professional learning, as well as work environment factors, including support from schools and colleagues. Therefore, the hypotheses in this study are:
H_1: Teacher empowerment has a positive effect on Individual Innovation

Professional practices influence Individual Innovation. Professional practices that include ongoing training, team collaboration, reflection on work, and the application of high standards of work can improve individual knowledge, skills, and creativity. When individuals work in an environment that supports professional practices, they are more likely to feel encouraged to explore new ideas and innovate in their work (Scott & Bruce, 1994). Research by (Janssen, 2000) also found that professional practices that focus on improving competence and effective communication encourage individuals to be more proactive and bold in generating innovative ideas. In addition, these practices strengthen professional commitment and self-confidence, which increase individuals' propensity to innovate. This hypothesis is supported by research conducted by I acopino et al., (2018), Labbaika et al., (2024) and Haryono et al, (2019) which states that educator professionalism can encourage educational innovation.
H_2: Professional practices have a positive effect on Indiviual Innovation

Teacher empowerment affects Self Efficacy. Teachers are given the opportunity to be involved in decision-making, managing the learning environment, and innovating teaching methods, which ultimately increases their confidence in doing their job effectively (Spreitzer, 1995). Research by (Tschannen-Moran & Hoy, 2001) shows that strong teacher self-efficacy is related to their willingness to try new methods and face greater challenges in learning. In addition, the increased autonomy resulting from empowerment allows teachers to feel more control over their work environment, which strengthens feelings of competence and personal effectiveness (Bandura, 1997). This hypothesis is supported by research conducted by Hakami & Sodik, (2023), Hemric et al, (2020) and Hood, (2019) which states that the level of perceived empowerment is positively correlated with self-efficacy. Teacher empowerment can increase their confidence in their teaching abilities, which in turn can improve student achievement.
H_3: Teacher empowerment has a positive effect on Self Efficacy

Professional practices have a positive effect on Self Efficacy. When individuals consistently engage in professional practices, such as ongoing training, collaboration with peers, application of high work standards, and reflection on work outcomes, they will develop greater skills and confidence in their abilities. According to research (Gibson & Dembo, 1984), a professional's self-efficacy increases when they have access to practices that support increased competence and problem solving. Research by Tschannen-Moran & Hoy, (2001) also shows that high self-efficacy in teachers is closely related to engagement in professional practices that improve their knowledge and skills, which in turn makes them more confident in facing professional challenges. This hypothesis is supported by research conducted by Azimmah & Mahmud, (2019),

Puspitasari & Asrori, (2019) and Abidah & Arif, (2023) which states that teachers' self-efficacy increases during teaching practice, so there is a positive relationship between self-efficacy and teaching practice. Therefore, the hypotheses in this study are :
H_4: Professional practices affect Self-Efficacy

Self-efficacy affects individual innovation. Individuals with high levels of self-efficacy tend to be more confident in the face of challenges and more motivated to try new approaches, making them more likely to generate innovative ideas. According to research by Tierney & Farmer, (2002), creative self-efficacy plays an important role in driving innovative behaviour, where individuals who feel capable and confident in a particular area are more motivated to explore and implement creative solutions. In addition, other studies have shown that self-efficacy strengthens resilience to failure and increases an individual's ability to continue experimenting and adapting, which are key elements of innovation (Bandura, 1997). This hypothesis is supported by research conducted by Kimberly et al, (2019), Tirmizi et al, (2020) and Khayati & Sarjana, (2015) which states that self-efficacy has a positive influence on teacher innovation. The study found that teachers with high levels of self-efficacy tend to be more creative in developing innovative learning methods and approaches.
H_5: Self efficacy has a positive effect on individual innovation.

Teacher empowerment affects individual innovation mediated by self-efficacy. Teacher empowerment has a positive effect on individual innovation, and this effect is often mediated by self-efficacy. When teachers feel empowered through autonomy, participation in decision-making, and support for professional development, they experience increased self-efficacy or confidence in their ability to manage their tasks. This higher self-efficacy then encourages teachers to be more proactive, creative and risk-taking in creating new approaches to teaching, thus contributing to increased individual innovation (Spreitzer, 1995; Bandura, 1997). Research by Tierney & Farmer, (2002) also shows that strong self-efficacy acts as a mediator between empowerment and innovative behaviour, where this self-belief becomes the foundation for teachers to innovate more in facing challenges and achieving educational goals.
H_6: Teacher empowerment has a positive effect on individual innovation mediated by self-efficacy.

Professional practices influence individual innovation mediated by self-efficacy. Professional practices have a positive influence on individual innovation, which is often mediated by self-efficacy. Professional practices include activities such as ongoing training, peer-to-peer collaboration, reflection on work, and the application of high work standards, all of which help to improve an individual's knowledge, skills, and confidence. With high self-efficacy, individuals feel more capable and confident to explore new ideas and solve problems in innovative ways (Bandura, 1997). Research by Tierney & Farmer, (2002) suggests that creative self-efficacy can strengthen the relationship between engagement in professional practice and innovative behaviour, as self-efficacy helps individuals to be more prepared for challenges and more willing to take the risks required in innovation.

H_7: Professional practices have a positive effect on individual innovation mediated by self-efficacy.

RESEARCH METHODS

This study is a quantitative study with an explanatory approach that aims to examine the causal relationship between teacher empowerment, professional practices, self-efficacy, and individual innovation through Partial Least Squares (PLS)-based Structural Equation Modeling (SEM) analysis. The population in this study was public junior high school teachers in Purworejo Regency, with purposive sampling technique and the number of respondents was 111 teachers who met the criteria of teaching experience of at least three years and active in professional development activities. The instrument used is a closed questionnaire with a five-point Likert scale, which has been tested for content validity through expert judgment, and tested for convergent validity, discriminant validity, and composite reliability through measurement model analysis (outer model) in SEM-PLS. The operationalisation of variables was based on the adaptation of instruments from previous studies that have been proven valid and reliable:

Table 1. Operasional Definition

Variables	Operational Definition	Indicators	Source
Teacher Empowerment	A dynamic process that encourages teachers to actively participate in decisions that impact their professional lives.	Trust; Status; Professional development; Collaboration; Autonomy	Hıdıroğlu & Tanrıöğen, (2020)
Professional Practices	A series of actions and standards applied by teachers to achieve optimal learning outcomes, through teaching strategies, classroom management, and self-development.	Reflective practice; Collaboration; Instructional strategies and practices; Continuous professional development; Student-centred learning	Muir et al.2021)
Self-Efficacy	Teachers' confidence in their ability to effectively complete teaching tasks, including managing the classroom and achieving learning outcomes.	Successful experience; Vicarious experience; Verbal and social encouragement; Physical and emotional condition; Reflection and professional development	Hidayat & Patras, (2024)
Individual Innovation	Teachers' ability to create and implement new ideas that improve the quality of learning.	Willingness to change; Ability to try new things; Ability to generate new processes; Courage to take controlled risks; Motivation for continuous learning	Nurcahyo & Wikaningrum, (2020)

Source: data processed, 2025

Data analysis was carried out using SmartPLS version 4 software, which included testing the outer model (with valid indicators if the outer loading value> 0.70, AVE> 0.50, and composite reliability> 0.70), as well as testing the inner model by looking at the R-square value, path coefficient, and T-statistic of bootstrapping results (5,000 samples). The significance test uses

a p-value threshold of <0.05. In addition, the mediation effect analysis was carried out with an indirect effect approach on the path involving self-efficacy. The overall model evaluation considered the Standardised Root Mean Square Residual (SRMR) value with a criterion of <0.08 and Normed Fit Index (NFI) >0.90 to indicate a good model fit. Thus, the analysis results in the next section no longer contain technical explanations of the model tests, but directly present the interpretation of the statistical findings.

2. RESULTS & DISCUSSION

Overview. The Purworejo District Education and Culture Office is a local government agency responsible for the implementation of education and the preservation of local culture. This research focuses on teachers at state junior high schools in Purworejo sub-district, with a total population of 111 teachers spread across several schools. These teachers play a strategic role in implementing local education policies and improving the quality of learning. This population data is the basis for obtaining an empirical picture of the condition of educator competence, the effectiveness of the learning process, and the contribution of teachers to achieving the vision of education in Purworejo district.

Respondent Data Characteristics. Respondent data characteristics consist of gender, age, latest education, and length of work. Respondent data characteristics are summarised in the following table:

Table 2. Characteristics of Respondent Data

Characteristics	Total	Percentage (%)
Gender:		
Male	37	33%
Women	74	67%
Total	**111**	**100%**
Age:		
18 th - 25 th	1	1%
26 th - 35 th	29	26%
36 th - 45 th	18	16%
> 46 yrs	63	57%
Total	**111**	**100%**
Last Education:		
D1/D2/D3	1	1%
S1	87	78%
Master's Degree	23	21%
Total	**111**	**100%**
Length of Service:		
<5 years	21	19%
6 years - 15 years	17	15%
16 years - 25 years	35	32%
>26 years old	38	34%
Total	**111**	**100%**

Source: data processed, 2025

Based on data from 111 public junior high school teachers under the auspices of the Purworejo District Education and Culture Office, the majority of respondents were female (67%) and in

the age group above 46 years (57%), reflecting the dominance of female educators as well as the high proportion of experienced teachers. Most had a Bachelor's degree (78%), with 21% having pursued a Master's or Doctoral degree. Length of service is predominantly over 16 years (66%), indicating stability and depth of teaching experience. This profile reflects the characteristics of a mature teaching workforce in terms of age and experience, with good academic qualifications, which is an important basis for analysing the role of teacher empowerment and professional practice on individual innovation, with self-efficacy as a mediating variable.

Convergent Validity. Convergent validity is measured through the outer loading and Average Variance Extracted (AVE) values.

Table 3. AVE Test Results Convergent Validity Test

Variable	Average variance extracted (AVE)	Description
Teacher Empowerment	0,813	Valid
Proffesional Practices	0,778	Valid
Self-Efficacy	0,741	Valid
Individual Innovation	0,819	Valid

Source: SmartPLS output, 2025

The outer loading results of all indicators are above 0.70, indicating that each indicator has a significant contribution in representing the measured construct. For example, in the Teacher Empowerment variable, all indicators such as Trust and Autonomy show values between 0.885-0.910, which reflects that the construct is measured strongly. The AVE value of each construct also exceeds the 0.50 threshold, with Teacher Empowerment (0.813), Professional Practices (0.778), Self-Efficacy (0.741), and Individual Innovation (0.819). This value confirms that more than 50% of the indicator variance can be explained by the construct in question, indicating excellent convergent validity.

Discriminant Validity. Discriminant validity is tested through the cross-loading method, where each indicator has the highest loading on its original construct compared to other constructs.

Table 4. Cross Loading Results of Discriminant Validity Test

Variable	Teacher Empowerment	Proffesional Practices	Self Efficacy	Individual Innovation	Mean
Teacher Empowerment	0,910	0,766	0,719	0,717	8,595
	0,885	0,740	0,693	0,690	8,216
	0,907	0,773	0,715	0,752	8,495
	0,906	0,766	0,704	0,712	8,550
	0,901	0,797	0,770	0,783	8,541
Proffesional Practices	0,762	0,875	0,779	0,802	8,180
	0,752	0,858	0,689	0,692	8,117
	0,763	0,908	0,797	0,828	8,432

Variable	Teacher Empowerment	Proffesional Practices	Self Efficacy	Individual In-novation	Mean
	0,710	0,843	0,747	0,807	8,045
	0,773	0,922	0,772	0,803	8,505
Self-Efficacy	0,611	0,716	0,855	0,760	7,937
	0,620	0,616	0,796	0,650	8,018
	0,735	0,757	0,894	0,827	8,189
	0,759	0,783	0,861	0,782	8,595
	0,706	0,813	0,895	0,844	8,198
Individual Innovation	0,770	0,827	0,801	0,906	8,495
	0,697	0,760	0,812	0,911	8,072
	0,724	0,809	0,826	0,914	8,099
	0,726	0,809	0,816	0,904	8,126
	0,752	0,837	0,824	0,889	8,333

Source: SmartPLS output, 2025

The results show that all indicators meet the requirements, so it can be concluded that the constructs in the model are unique and do not overlap with each other.

Composite Reliability. Construct reliability was assessed through Cronbach's Alpha and Composite Reliability values.

Table 5. Results of Cronbach's Alpha Values for Composite Reliability Tests

Variable	Cronbach's alpha	Description
Teacher Empowerment	0,943	Valid
Proffesional Practices	0,928	Valid
Self-Efficacy	0,912	Valid
Individual Innovation	0,945	Valid

Source: SmartPLS output, 2025

All variables showed values above 0.9 (Teacher Empowerment = 0.943; Professional Practices = 0.928; Self-Efficacy = 0.912; Individual Innovation = 0.945), indicating very high internal consistency. This confirms that all indicators consistently measure the same construct accurately and reliably.

Model Fit. Evaluation of model fit was conducted by observing several indices, including SRMR, d_ULS, d_G, Chi-square, and NFI.

Table 6. Model Fit Test Results

Model Fit	Estimated model
SRMR	0,049
d_ULS	0,496
d_G	0,634
Chi-square	375,517
NFI	0,856

Source: SmartPLS output, 2025

The SRMR value of 0.049 is below the 0.08 threshold, indicating low model residuals. The d_ULS (0.496) and d_G (0.634) values indicate minimal model misfit. Although the Chi-square

value is quite high (375.517), in the context of PLS-SEM this reflects the complexity of the model that is able to capture the variance of the data in depth. The NFI of 0.856 also reinforces that the model has a good structural fit.

Hypothesis Testing. Path coefficient describes the strength and direction of influence between exogenous latent variables on endogenous latent variables in the research model. According to Hair et al. (2019), a relationship is considered significant if the P-value <0.05, which indicates that the influence between variables does not occur by chance and has a real impact. The following picture of the Path coefficien t test results is as follows:

Table 7. Hypothesis Test Results

Path Coefficient	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T Statistics	P values	Ket
Teacher Empowerment → Individual Innovation	0,059	0,062	0,064	0,927	0,354	Not Proven
Professional Practices→ Individual Innovation	0,418	0,412	0,097	4,308	0,000	Proven
Teacher Empowerment→Self-Efficacy	0,242	0,234	0,107	2,257	0,024	Proven
Professional Practices→ Self-Efficacy	0,654	0,653	0,100	6,521	0,000	Proven
Self-Efficacy→ Individual Innovation	0,494	0,496	0,073	6,732	0,000	Proven

Source: data processed, 2025

Mediation testing. Path analysis is basically an analysis of the path model of a diagram that connects independent (exogenous) variables, moderating (exogenous/endogenous) variables, and dependent (endogenous) variables. The relationship pattern is shown using arrows from the exogenous variables to the endogenous variables.

Table 8. Test Results of Mediating Variables

Path Coefficient	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values	Ket
Teacher Empowerment → Self Efficacy → Individual Innovation.	0,120	0,113	0,051	2,356	0,019	Accepted, Full Mediation
Professional Practices → Self Efficacy → Individual	0,323	0,326	0,080	4,030	0,000	Accepted, Partial Mediation

Source: data processed, 2025

R Square (R^2). R-square in PLS-SEM measures how well the latent independent variables in the model can explain the variability of the latent dependent variables. The R^2 value indicates the overall predictive power of the model. The R^2 value ranges from 0 to 1, where a higher value indicates a better model in explaining the variance. The following is the R-square value in this analysis.

Table 9. R-Square Test Results (R^2)

Var. Dependent	R-Square	Adjusted R-Square
Individual Innovation	0,868	0,864
Self-Efficacy	0,756	0,752

Source: SmartPLS output, 2025

Based on table 9, the R-Square (R^2) test results show that the model has very good predictive power in explaining the dependent variable. The dependent variable Individual Innovation has an R-Square value of 0.868 and an Adjusted R-Square of 0.864, which means 86.8% of the variability in Individual Innovation can be explained by the independent variables in the model. The remaining 13.2% is influenced by other factors outside the model. This value is in the strong category, indicating that the model is able to describe most of the factors that influence individual innovation. Self-Efficacy has an R-Square value of 0.756 and an Adjusted R-Square of 0.752, which indicates that 75.6% of the variation in Self Efficacy is explained by the independent variables used. This also falls into the strong category, indicating that the model is able to explain the factors that influence self-efficacy well. The following Figure 4.2 output PLS-SEM Algorithm to see the R^2 test of the research model.

The Effect of Teacher Empowerment on Individual Innovation. The analysis results show that, with a coefficient value of 0.059, a T-statistic of 0.927 (less than 1.659), and a P-value of 0.354 (greater than 0.05). This means that while teacher empowerment tends to positively drive individual innovation, the effect is not statistically strong enough to be considered significant. This indicates that teacher empowerment alone does not directly trigger individual innovation. This phenomenon reflects a condition where although teachers feel empowered through trust, autonomy, collaboration, and professional development, it is not enough to directly encourage them to innovate. One possible reason is that the perceived empowerment is still structural or administrative, not accompanied by emotional encouragement and real support in trying new methods in the field. Teachers may have autonomy in decision-making, but without a strong sense of self-efficacy and a supportive environment, the potential for innovation remains stunted. In addition, a work culture that tends to maintain conventional learning methods can make teachers reluctant to take risks despite having the authority. This is in line with the results showing that the effect of Teacher Empowerment becomes more significant when through Self-Efficacy as an intervening variable, confirming that teacher empowerment needs to be accompanied by strengthening self-confidence so that they are more courageous and motivated to innovate in learning. The results of this study are supported by research conducted by Taoefik et al., (2017) which says that empowering teachers through collaborative supervision of school supervisors has no positive effect on teachers' innovative behaviour.

Effect of Professional Practices on Individual. The results of the analysis show that Professional Practices have a positive and significant influence on Individual Innovation, with a coefficient value of 0.418, T-statistic 4.308 (greater than 1.659), and P Value 0.000 (smaller than 0.05). This means that the better the professional practices implemented by teachers such as

learning reflection, collaboration, implementing effective instructional strategies, and continuous professional development, the higher the tendency of teachers to innovate in the learning process. Teachers who engage in reflective practices, collaboration, continuous professional development, and student-centred learning strategies tend to be more adaptive and creative in seeking new teaching methods. In the real context, this can be seen when teachers who actively discuss with peers, share experiences and attend training are more willing to explore modern learning technologies, design more interactive activities and try differentiated approaches to make learning more effective. This supportive professional culture creates an environment where innovation is no longer an individual initiative, but a collective necessity to improve the quality of learning. This significant effect also indicates that when teachers feel professionally supported and continuously honed in their competence, they are more motivated to try new things and develop more innovative learning methods that are relevant to the needs of today's students. The results of this study are supported by research conducted by I acopino et al., (2018) , Labbaika et al., (2024) and Haryono et al, (2019) which states that educator professionalism can encourage educational innovation.

The Effect of Teacher Empowerment on Self Efficacy. The results of the analysis show that Teacher Empowerment has a positive and significant influence on Self-Efficacy, with a coefficient value of 0.242, T-statistic 2.257 (greater than 1.659), and P Value 0.024 (smaller than 0.05). This means that the higher the level of empowerment felt by teachers through trust, status, professional development, collaboration, and autonomy, the higher their self-efficacy in carrying out their role as educators. Teacher Empowerment has a positive and significant influence on Self-Efficacy among teachers at the Purworejo Regency Education and Culture Office, reflecting that when teachers feel empowered, their confidence in carrying out their professional roles increases. In reality, teachers who are given the trust to make decisions on learning methods, are given the space to collaborate, and are recognised for their competence will feel more able to face challenges in the classroom. For example, when a teacher is trusted to design a new learning model or lead innovative activities at school, they will feel more valued and competent. This is in line with Bandura's (1997) theory which emphasises that mastery experiences and social recognition (verbal and social persuasion) strengthen self-efficacy. Teachers who feel supported, whether by leaders or colleagues, are more confident in trying creative learning strategies and solving problems in the classroom. Effective empowerment not only builds professional autonomy, but also fosters the belief that they are able to bring positive changes in the teaching and learning process, which in turn strengthens the innovative mentality in carrying out their duties as educators. The results of this study are supported by research conducted by Hakami & Sodik, (2023) , Hemric et al., (2020) and Hood, (2019) which states that the level of perceived empowerment is positively correlated with self-efficacy. Teacher empowerment can increase their confidence in their teaching abilities, which in turn can improve student achievement.

The Effect of Professional Practices on Self Efficacy. The results of the analysis show that

Professional Practices have a positive and significant influence on Self-Efficacy, with a coefficient value of 0.654, a T-statistic of 6.521 (greater than 1.659), and a P Value of 0.000 (smaller than 0.05). This means that the higher the quality of professional practices carried out by teachers such as learning reflection, collaboration, application of effective instructional strategies, and involvement in continuing professional development, the greater the self-efficacy they have. In daily reality, teachers who are accustomed to reflecting on their learning, collaborating with peers, implementing effective instructional strategies, and engaging in continuous professional development tend to have higher self-efficacy in facing learning challenges. For example, teachers who actively participate in modern training and discuss innovative learning strategies will feel more prepared and able to implement them in the classroom. In addition, collegial support from collaborative practices such as lesson study or group discussions provide moral and social encouragement that strengthens teachers' perceptions of their own abilities. This is in line with Bandura's theory (1997) which states that vicarious experiences and verbal and social persuasion strengthen self-efficacy. Teachers who see their colleagues successfully implementing new methods will be encouraged to believe that they are also capable of doing so. Therefore, a dynamic and supportive professional environment not only improves skills, but also builds teachers' confidence to continue to develop and innovate. The results of this study are supported by research conducted by Azimmah & Mahmud, (2019) , Puspitasari & Asrori, (2019) and Abidah & Arif, (2023) which states that teacher self-efficacy has increased during teaching practice, so there is a positive relationship between self-efficacy and teaching practice.

The Effect of Self Efficacy on Individual Innovation. The analysis shows that Self-Efficacy has a positive and significant influence on Individual Innovation, with a coefficient value of 0.494, T-statistic 6.732 (greater than 1.659), and P Value 0.000 (smaller than 0.05). This means that the higher teachers' confidence in their abilities, which is influenced by successful experiences, social support, and positive emotional conditions, the greater their tendency to innovate in learning. In daily reality, teachers who have high self-confidence feel able to manage the class, try new methods, and face challenges tend to be more willing to innovate. For example, teachers who are confident in their abilities will be more proactive in applying technology in learning, designing creative activities that actively involve students, or even creating more interactive and contextual teaching media. Previous successful experiences (mastery experiences) encourage teachers to feel that their innovations will succeed, while encouragement from peers and leaders (verbal and social persuasion) strengthens their enthusiasm to keep trying new things. This is in line with Bandura's (1997) theory which asserts that teachers with high self-efficacy are more persistent, resilient and do not give up easily despite facing obstacles. In other words, the more capable teachers feel, the more likely they are to create new and more effective ways of learning. Therefore, building teachers' self-efficacy is not only about increasing self-confidence, but also encouraging sustainable innovation in education. The results of this study are supported by research conducted by Kimberly et al., (2019) , (Tirmizi et al., 2020) and (Khayati & Sarjana, 2015) which states that self-efficacy has a positive influence on teacher innovation. The study found that teachers with high levels of self-efficacy tend to be more creative in developing innovative learning methods and approaches.

The Effect of Teacher Empowerment on Individual Innovation through Self Efficacy. The results of the analysis show that Teacher Empowerment has a significant indirect effect on Individual Innovation through Self-Efficacy, with a coefficient value of 0.120, T-statistic 2.356 (greater than 1.659), and P Value 0.019 (smaller than 0.05). This means that teacher empowerment does not directly encourage individual innovation, but becomes effective when mediated by increased Self-Efficacy. When teachers feel more trusted, valued, given autonomy, and receive professional support, this increases their belief in their own abilities. This belief then encourages them to try new things, take measured risks, and create innovative learning. This finding reinforces the understanding that empowerment alone is not enough to trigger innovation, it requires solid confidence so that teachers dare to go further in implementing creative ideas in the classroom. The results of this study are supported by research conducted by Tierney & Farmer, (2002) also showed that strong self-efficacy acts as a mediator between empowerment and innovative behaviour, where this self-confidence becomes the foundation for teachers to innovate more in facing challenges and achieving educational goals.

The Effect of Professional Practices on Individual Innovation through Self Efficacy. The results of the analysis show that Professional Practices have a significant indirect effect on Individual Innovation through Self-Efficacy, with a coefficient value of 0.323, a T-statistic of 4.030 (greater than 1.659), and a P Value of 0.000 (smaller than 0.05). This means that professional practices implemented by teachers such as learning reflection, collaboration, effective instructional strategies, and continuous professional development are able to increase individual innovation, but this influence works optimally through increasing Self-Efficacy first.Good professional practices strengthen teachers' confidence in their abilities, and this confidence is then the main trigger for daring to innovate. The large coefficient value indicates that Self-Efficacy plays an important role as a mediator, where teachers who have high confidence as a result of quality professional experience are more encouraged to try new methods, create more creative learning approaches, and take measured risks. This finding supports the social-cognitive theory that professional competence development contributes to increased self-efficacy, which in turn encourages innovative behaviour in education. The results of this study are supported by research conducted by Tierney & Farmer, (2002) showed that creative self-efficacy can strengthen the relationship between engagement in professional practice and innovative behaviour, because self-efficacy helps individuals to be more prepared for challenges and more willing to take the risks needed in innovation.

3. CONCLUSION & SUGGESTION

Conclusion. Based on the findings of this study, the phenomenon that emerges highlights the pivotal role of Self-Efficacy as a psychological bridge between external supports such as teacher empowerment and professional practices and the manifestation of individual innovation among teachers. While structural or organizational empowerment alone is insufficient to trigger innovative behavior, its effectiveness is significantly amplified when accompanied by a strong

sense of self-confidence. Teachers who perceive themselves as trusted and autonomous, and who engage in reflective, collaborative, and student-centered professional practices, tend to develop higher self-efficacy. This internal conviction, in turn, propels them to experiment, take calculated risks, and apply novel approaches in their teaching. Hence, innovation in the educational context is not merely a product of institutional support, but is deeply rooted in the teacher's own belief in their professional capabilities.

Suggestions. Schools and policymakers are advised to design teacher empowerment programmes that are integrated with strengthening self-efficacy, through training based on successful experiences, mentoring and positive feedback. Professional culture also needs to be strengthened by making reflection, collaboration between teachers, and continuous access to contextualised training a habit. To support innovation, it is necessary to create a work climate that provides space for exploration and tolerance for constructive failure. For future researchers, it is recommended to explore other variables that may influence Self-Efficacy and Individual Innovation, such as organisational climate, transformational leadership, or intrinsic motivation. Further research can also consider the role of other mediators or moderators such as Job Satisfaction, Work Engagement, or Organizational Support to provide a more comprehensive understanding of the factors that drive innovation among teachers.

REFERENCES

Abidah, N., & Arif, A. (2023). The Effect of Teaching Skills, Professional Competence and Self-Efficacy on the Success of Plp Students of Accounting Education Study Programme, Surabaya State University. *EDUNOMIA: Scientific Journal of Economic Education*,*4* (1), 56-69. https://doi.org/10.24127/edunomia.v4i1.4874

Amabile, T. M. (1988). A model of creativity and innovation in organisations. *Research in Organizational Behaviour*, *.10*

Azimmah, N., & Mahmud, A. (2019). The Effect of the Quality of Field Experience Practices on Competence Through Self Efficacy and Interest. *Economic Education Analysis Journal*, *8*(3), 1016–1029.

Bandura, A. (1997). *Self-efficacy: The exercise of control* (Vol. 604). Freeman.

Bogler, R., & Somech, A. (2004). Influence of teacher empowerment on teachers' organizational commitment, professional commitment and organizational citizenship behaviour in schools. *Teaching and Teacher Education*, *20*(3), 277–289.

Danim, S. (2012). *Teacher professional development*. Prenada Media.

Faqihudin, M. (2024). Implementation of School Culture in Shaping Teacher Professionalism. *Thawalib: Journal of Islamic Education*, *5*(1), 255–266.

Flaviani, I. D., & Azizah, S. N. (2022). The Effect of Perceived Organizational Support, Interpersonal Justice and Self Efficacy on Organzational Citizenship Behavior: Study on Teachers at SMP Negeri 2 Adimulyo. *Scientific Journal of Management, Business and Accounting Students (JIMMBA)*, *4*(5), 704–715.

Gibson, S., & Dembo, M. H. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology*, *76*(4), 569.

Hakami, M. A. F., & Sodik, S. (2023). The Effect of Empowerment and Self-Efficacy on Employee

Performance with Job Satisfaction as an Intervening Variable. *JIM (Journal of Management Science)*, *9*(2), 142–153.

Hananta, M. (2022). *The Effect of Transformational Leadership on Knowledge Sharing with Trust In Leader and Self-Efficacy as Mediating Variables (Case Study on Staff Level Hotel Employees Throughout Indonesia)*. Indonesian Islamic University.

Hartati, D. (2023). Teacher Empowerment in Improving Education Quality: A Case Study of the Implementation of the Independent School Initiative. *GUAU: Journal of Professional Education for Teachers of Islamic Religion*, *3*(6), 9–18.

Haryono, Stanislaus, S., & Widhanarto, G. P. (2019). Teacher Professionalism through Learning Innovation Training, a Pilot Improvement Programme for Teachers in Semarang Regency. *Educational Science Gazette*,*46* (2), 75-80. http://journal.unnes.ac.id/nju/index.php/LIK

Hemric, M., Eury, A. D., & Shellman, D. (2020). Correlations between perceived teacher empowerment and perceived sense of teacher self-efficacy. *Journal of Scholarship and Practice*, *7*(1), 37–50.

Hidayat, R., & Patras, Y. E. (2024). Teacher innovativeness: The effect of self-efficacy, transformational leadership, and school climate. *Journal of Pedagogical Research*,*8* (1), 208-222. https://doi.org/10.33902/JPR.202424547

Hıdıroğlu, Y. Ö., & Tanrıöğen, A. (2020). Development of teachers' empowerment scale: A validity and reliability study. *International Journal of Assessment Tools in Education*, *7*(4), 753–772.

Hood, N. (2019). *Strategies for developing and maintaining self-efficacy in teachers*. The Education Hub. https://theeducationhub. org. nz/strategies-for ....

Iacopino, V., Mascia, D., & Cicchetti, A. (2018). Professional networks and the alignment of individual perceptions about medical innovation. *Health Care Management Review*, *43*(2), 92–103.

Janssen, O. (2000). Job demands, perceptions of effort-reward fairness and innovative work behaviour. *Journal of Occupational and Organizational Psychology*, *73*(3), 287–302.

Karwati, L., Herwina, W., Nurlaila, N., Yuliani, L., Novitasari, N., Hamdan, A., & Laksono, B. A. (2024). *Community Education Programme Innovation*. Bayfa Cendekia Indonesia.

Khadijah, S., & Salim, R. M. A. (2024). Self-concept, self-esteem, and self-efficacy affect teachers' risk taking. *JPPI (Journal of Indonesian Education Research)*, *10*(2), 50–61.

Khayati, N., & Sarjana, S. (2015). Self-Efficacy and Creativity to Create Teacher Innovation. *Journal of Education and Culture*, *21*(3), 243–262.

Kimberly, J. F., Prakoso, D. B., & Efrata, T. C. (2019). The role of individual innovation capability, intrinsic motivation, and self-efficacy on individual performance in Student Organisations. *Mahardhika Media*, *17*(2), 231–243.

Kurniawan, J. E. (2024). *Entrepreneurship In School Teachers*. Publisher Ciputra University.

Labbaika, W., Fadillah, R., Mudiarty, M., & Prihatini. (2024). The effect of educational innovation through professional improvement of educators in teacher professional education. *Education Scholar*, *3*(6), 101–112.

Mea, F., High, S., Christian, A., Nation, A., Teacher, K., Teacher, I., & Dynamic, K. (2024). Teacher Creativity And Innovation In Creating. *Inculco Journal of Christian Education*, *4*(3), 252–275.

Mokhlis, S., & Abdullah, A. H. (2023). Measurement Model of Teacher Effort, School Innovation

Climate and Innovative Work Behaviour: An Endorsement Factor Analysis Approach: A Model For Measuring Teacher Ability, School Innovation Climate And Innovative Work Behaviour: A Confirmatory Factor Analysis . *ATTARBAWIY: Malaysian Online Journal of Education*, *7*(1), 10–23.

Muir, T., Deed, C., Thomas, D., & Emery, S. (2021). Achieving teacher professional growth through professional experimentation and changes in pedagogical practices. *Australian Journal of Teacher Education (Online)*, *46*(9), 22–38.

Nurcahyo, S. A., & Wikaningrum, T. (2020). The Role of Knowledge Sharing ..... (Satria Avianda Nurcahyo & Tri Wikaningrum). *Journal of Economics and Business*, *21*(2), 13–25.

Palupi, Y. I. (2022). *Factors Affecting the True Learner Attitude of Accounting Education Students at UNS Surakarta*.

Puspitasari, W., & Asrori. (2019). The Effect of Field Experience Practices on Readiness to Become a Teacher with Self-Efficacy as an Inervening Variable. *Economic Education Analysis Journal*,*8* (3), 1061-1078. https://doi.org/10.15294/eeaj.v8i3.35724

Scott, S. G., & Bruce, R. A. (1994). Determinants of innovative behaviour: A path model of individual innovation in the workplace. *Academy of Management Journal*, *37*(3), 580–607.

Sembiring, J. M. (2022). The Effect of Self-Efficacy and Workload on Performance Through Job Satisfaction at the Office of Food and Livestock Security of North Sumatra Province. *Jesya (Journal of Sharia Economics and Economics)*, *5*(1), 185–199.

Setiawan, D. (2019). Teacher Empowerment in Improving the Quality of Learning in Special Schools. *Indonesian Journal of Education Management & Administration Review*, *2*(1), 177–182.

Sijabat, O. P., Manao, M. M., Situmorang, A. R., Hutauruk, A., & Panjaitan, S. (2022). Managing teacher quality through the teacher mobiliser programme. *Journal of Educational Learning and Innovation (ELIa)*,*2* (1), 130-144. https://doi.org/10.46229/elia.v2i1.404

Spreitzer, G. M. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of Management Journal*, *38*(5), 1442–1465.

Tambunan, E. S., Tambunan, W., & Kailola, L. G. (2021). The Effect of Principal Leadership and Teacher Self-Efficacy on Improving Teacher Professionalism at SMP Negeri 1 Habinsaran. *Tambusai Journal of Education*, *5*(2), 3342–3352.

Taoefik, M., Fakhruddin, F., & Thomas, P. (2017). The Mediating Effect of Emotional Intelligence on the Effect of Collaborative Supervision and Leadership on Teachers' Innovative Behaviour. *Educational Management*, *6*(1), 71–79.

Tierney, P., & Farmer, S. M. (2002). Creative self-efficacy: Its potential antecedents and relationship to creative performance. *Academy of Management Journal*, *45*(6), 1137–1148.

Tirmizi, A., Rokhmat, J., & Sukardi, S. (2020). The Effect of Self-Efficacy on the Innovativeness of Vocational High School (SMK) Teachers in West Lombok. *JISIP (Journal of Social Science and Education)*,*4* (4). https://doi.org/10.58258/jisip.v4i4.1606

Tschannen-Moran, M., & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, *17*(7), 783–805.

Widodo, W., & Sriyono, H. (2020). Teacher empowerment strategies in improving education quality. *Faktor: Scientific Journal of Education*, *7*(1), 7–12.

Widyanto, N., Suharman, S., & Sudadi, S. (2023). Educational Supervision In Improving The Professionalism Of Elementary School Teachers In Kutai Kartanegara District. *Pendas Mahakam: Journal of Primary School Education and Learning*, *8*(2), 137–148.

Xia, J., & O'Shea, C. (2024). What makes a difference in teacher innovativeness? Evidence from the

TALIS 2018 US teacher data. *Journal of Research in Innovative Teaching & Learning*, *ahead-of-p*(ahead-of-print). https://doi.org/10.1108/JRIT-09-2023-0144

Yumus, A. A. H. (2022). The influence of empowerment, self-efficacy and organisational culture on the performance of smkn 1 balikpapan teachers. *Journal of Business Managerial*, *5*(2), 98–105.

Zubairi, M. P. I. (2023). *Professionalism Of Islamic Religious Education Teachers In The Era Of Revolution 4.0*. Adab Publisher.