



Conceptualizing Perceived Form Over Substance (PFOS): A Theoretical-Empirical Framework for Understanding Educational Performativity among Indonesian Pre-Service Teachers

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ABSTRACT

Purpose – This study aims to conceptualize and examine Perceived Form Over Substance (PFOS) as a theoretical-empirical framework for explaining why Indonesian pre-service teachers may prioritize administrative form, academic image, and measurable outcomes over substantive pedagogical learning.

Methodology – This study employed an exploratory quantitative design. The instrument was developed through preliminary observations, focus group discussions, literature review, and two rounds of pilot testing to refine the theoretical domains. The main survey was administered to 347 pre-service teachers in Indonesia. The final instrument consisted of the PFOS scale, Personal Traits (PTRAIT), and Systemic Pressure (PSIST). Quantitative data were analyzed using Principal Component Analysis (PCA) with Promax rotation, reliability analysis, descriptive statistics, and multiple linear regression.

Findings – The results indicate that PFOS comprises three dimensions: Academic Formalism, Image Management, and Outcome Orientation. The factor structure was empirically supported by KMO = 0.86, Bartlett's test $p < 0.001$, and total variance explained of 45.47%. The PFOS scales demonstrated satisfactory reliability, with Cronbach's alpha ranging from 0.71 to 0.76. Regression results indicate that systemic pressure, particularly procedural certainty and task structure, is the strongest and most consistent predictor of all PFOS dimensions. Thus, PFOS is better understood as an adaptive response to academic systemic pressures rather than a deficit in individual character.

Contribution – This study contributes to educational performativity literature by proposing PFOS as a multidimensional construct in Indonesian teacher education. It offers practical insights for evaluation systems that support autonomy, pedagogical meaning, and substantive learning.

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INTRODUCTION

Over the past two decades, global education reform has increasingly emphasized accountability, documentation, quality standardization, professional certification, digital governance, and performance measurement. Although these reforms are intended to improve educational quality, performance-based accountability systems do not always produce substantive pedagogical improvement. Instead, they may narrow pedagogical practices, encourage target-oriented behavior, and increase pressure on teachers and schools (Levatino et al., 2024; Li & Gu, 2026; Zeitlin et al., 2025). Similarly, the digitalization of education through platforms and reporting systems may strengthen performativity because teachers' work becomes increasingly directed toward activities that are visible, documented, and administratively traceable. (Moraiti et al., 2024; Ussatova et al., 2026).

A similar condition can be observed in Indonesian education. Various policies, including teacher certification, inclusive education, curriculum decentralization, performance digitalization, and the Merdeka Curriculum, continue to face a gap between administrative compliance and meaningful pedagogical transformation. For example, the implementation of the Merdeka Curriculum is influenced by teachers' readiness, understanding of the curriculum, school support, and available facilities. (Syofyan et al., 2024). Teacher certification also needs to be more strongly connected to pedagogical quality and learning outcomes. (Fernandes et al., 2023; Nawas et al., 2025). Meanwhile, zoning and inclusive education policies continue to face challenges related to unequal access, resource readiness, and urban-rural disparities in support. (Fauziyah et al., 2025; Susanto et al., 2024). Student achievement is also shaped by geographical location, socioeconomic status, and the availability of educational resources. (Aditia & Széll, 2025). These conditions suggest that educational reform may become administratively visible without necessarily transforming the substance of teaching and learning.

This problem is scientifically important because it reveals a gap between formal policy success and substantive educational change. In many educational settings, procedures, formats, reports, certificates, and measurable indicators are often treated as signs of quality, even when they do not necessarily reflect deep understanding, pedagogical competence, or meaningful learning. (Papola et al., 2024; Wiedermann et al., 2023). Therefore, the issue is not only a matter of resources or policy implementation, but also a structural, cultural, and psychological tendency among educational actors to value form over substance. This tendency may become stronger when the education system rewards visible compliance, procedural certainty, and external validation more than reflection, autonomy, and pedagogical meaning.

To explain this tendency, this study develops the concept of Perceived Form Over Substance (PFOS). PFOS is defined as a perceptual-behavioral tendency in which educational actors prioritize visible administrative compliance, academic or professional image, and measurable formal achievements over substantive mastery, pedagogical quality, and meaningful learning. This definition is grounded in educational performativity theory, which explains how accountability systems may shift attention toward visible indicators of success. (Ball, 2003; Levatino et al., 2024). It is also supported by sociometer and self-determination perspectives, which explain how individuals may seek recognition and adapt to externally controlled academic environments. (Bartholomew et al., 2011; Deci & Ryan, 2000; Leary, 2005). Thus, PFOS does not interpret formalistic behavior as laziness, moral weakness, or individual failure, but as an adaptive response to academic and institutional environments that emphasize formal evidence, procedural correctness, and external recognition.

The focus on pre-service teachers is especially important. Pre-service teachers are future educational professionals who are still forming their pedagogical beliefs, academic habits, professional identity, and understanding of what counts as good teaching. If they are socialized into an academic environment that overemphasizes formats, grades, credits, certificates, and external approval, they may internalize a formalistic orientation before entering the teaching profession. This makes pre-service teacher education a critical site for examining PFOS. Studying PFOS among pre-service teachers is therefore not merely about describing student behavior; it is about identifying how future teachers may learn to define educational quality through visible

compliance rather than substantive learning. In this context, PFOS may manifest as excessive attention to assignment format rather than to the strength of ideas, a desire to appear competent rather than to understand truly, and an orientation toward grades, credits, and certificates rather than the process of knowledge mastery.

Several studies have discussed performativity, accountability, and evaluative pressure in education. Levatino et al. (2024), through a review of 133 empirical studies, show that performance-based accountability can generate various side effects in school governance. However, their study focuses mainly on policy and regulatory mechanisms rather than on the formation of individual behavioral tendencies in teacher education. Bjerke et al. (2025) emphasize that performative accountability needs to be understood contextually through inclusive mathematics education in Norway. However, their study does not explain how accountability pressure may be internalized as a psychological tendency to choose form over substance. Moraiti et al. (2024) show that digital platforms can strengthen performativity and intensify teachers' work. Still, their focus remains on teachers' digital labor rather than on a construct that connects administrative compliance, image management, and formal outcome orientation. Sturrock (2024) discusses gaming practices in primary schools in England, namely, teachers' tendency to adjust assessment practices so that data appear favorable. However, the study does not develop a psychological-cultural model explaining why such formalistic behavior becomes an adaptive strategy within the education system. Guenther (2021) also shows that accountability-based evaluation can influence teachers' professional identity. Still, the study places greater emphasis on teachers' experiences of performance evaluation than on the development of a multidimensional construct among pre-service teachers.

These studies demonstrate that performativity and accountability have been widely examined, but they also leave an important theoretical gap. Existing research has not sufficiently explained how the pressure of accountability is internalized by pre-service teachers, leading them to prioritize form, image, and formal outcomes over substantive learning. In addition, previous studies have not yet developed a multidimensional construct linking administrative formalism, image management, and outcome orientation in the specific context of Indonesian teacher education. This gap is problematic because teacher education institutions are not only spaces for academic training, but also spaces where future teachers learn what educational quality means. If formal compliance becomes the dominant standard of success, future teachers may reproduce the same pattern in their professional practice.

In response to this gap, this study proposes PFOS as a theoretical-empirical construct contextualized within Indonesian education. The theoretical foundation of PFOS is structured through three main lenses. First, educational performativity theory explains how accountability systems can encourage actors to perform in ways that produce visible indicators of success. Second, sociometer theory and Self-Determination Theory help explain why individuals may seek recognition, external validation, and security when their sense of competence or autonomy is pressured. Third, Indonesian bureaucratic and cultural perspectives, including the culture of *formalitas saja* and the concept of *Karsa Umat*, provide contextual grounding for understanding why formal procedures may become socially and institutionally legitimized. (Heryanto, 1995a, 1995b; Soewardi & Arief, 1999). Through this integration, PFOS is not treated as a purely personal trait, but as a tendency shaped by the interaction between systemic pressure, social recognition, and institutional culture.

The theoretical contribution of this study lies in shifting the discussion of educational performativity from the policy or institutional level to the formation of behavioral tendencies among future teachers. While previous studies have shown that accountability systems may produce performative behavior, this study explains how such pressures translate into a measurable, multidimensional construct among pre-service teachers. The empirical contribution lies in examining whether PFOS consists of distinct dimensions and whether it is more strongly predicted by systemic pressure than by personal disposition. Therefore, this study contributes to the literature by positioning formalistic orientation not as an individual character weakness, but as an adaptive response arising from audit pressure, the need for social recognition, bureaucratic culture, and the institutional conditions of Indonesian teacher education.

Based on this background, this study aims to conceptualize and examine PFOS as a theoretical-empirical framework for understanding Indonesian pre-service teachers' tendency to prioritize form over substance in the educational process. Specifically, this study is guided by three research questions:

1. How can PFOS be conceptualized as a construct that explains the orientation of form over substance in Indonesian pre-service teacher education?
2. What dimensions constitute PFOS based on empirical findings among pre-service teachers?
3. To what extent do systemic pressure and personal disposition predict the emergence of PFOS?

This study offers theoretical, empirical, and practical contributions. Theoretically, it extends the educational performativity literature by developing PFOS as a construct explaining how accountability pressure, social validation, and institutional culture shape a form-over-substance orientation among pre-service teachers. Empirically, it tests the dimensional structure of PFOS and examines the relative predictive roles of systemic pressure and personal disposition. In practice, it provides a basis for teacher education institutions to design evaluation systems that move beyond administrative compliance to support autonomy, pedagogical meaning, professional trust, and substantive learning.

METHODOLOGY

Research Design

This study employed a quantitative exploratory design to develop and empirically examine Perceived Form Over Substance (PFOS) among Indonesian pre-service teachers. This design was selected because PFOS is a new, context-specific construct that has not yet been established as a stable theoretical model in prior educational research. The exploratory design enabled the study to identify the empirical dimensions of PFOS and examine the extent to which systemic pressure and personal disposition predict its emergence. Unlike confirmatory research, this study did not aim to test a pre-existing standardized model, but to construct an initial theoretical-empirical framework that can be further validated in future studies. Therefore, the design was appropriate for the early stage of construct development, particularly in examining whether form-over-substance orientation can be measured as a multidimensional tendency in pre-service teacher education.

Participants

The participants in the main survey were 347 pre-service teachers recruited from Universitas Pendidikan Indonesia. They were purposively selected because pre-service teachers are a critical group for examining PFOS. At this stage, they are still forming academic habits, pedagogical beliefs, professional identity, and their understanding of what counts as educational quality before entering the teaching profession. In addition to the main survey, two pilot studies were conducted, each involving 60 pre-service teachers. The pilot participants were involved solely to assess item clarity, conceptual relevance, and the instrument's preliminary performance. Thus, the participant structure consisted of two phases: pilot testing to refine the instrument and the main survey for empirical analysis.

Instruments

The instrument was developed through an iterative process involving preliminary observations, focus group discussions, a literature review, and two rounds of pilot testing. The initial item pool consisted of 50 items mapped onto eight theoretical domains: formalism, image management, dependence on external validation, outcome orientation, ethical compromise, entitlement or narcissism, short-term gratification, and resistance to feedback. After the pilot studies, several domains were removed because they showed weak empirical support, low factor loadings, cross-loadings, or potential defensive-response bias. The final instrument consisted of three main scales: Perceived Form Over Substance (PFOS), Systemic Pressure (PSIST), and Personal Traits (PTRAIT). All items were measured using a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. The final retained constructs were structured as follows:

1. Perceived Form Over Substance (PFOS). The final scale consists of 17 items assessing three dimensions: PFOS_FRM (Academic Formalism, 6 items), reflecting the prioritization of academic rules

over learning substance; PFOS_IMG (Image Management, 5 items), reflecting the prioritization of professional image over actual competence; and PFOS_HSL (Outcome Orientation, 6 items), reflecting the prioritization of final grades over meaningful learning processes. One item from the initial pool was excluded during validation due to an insignificant factor loading, resulting in a final PFOS scale of 17 items.

2. Systemic Pressure (PSIST). This 16-item scale measures perceived institutional pressure through two factors: PSIST_KPST (Procedural Certainty and Task Structure, 9 items) and PSIST_VLDS (External Validation of Self and Academic Achievement, 7 items).
3. Personal Traits (PTRAIT). This 15-item scale measures the disposition for social and academic validation, comprising PTRAIT_VALSOS (Validation of Social Self, 8 items) and PTRAIT_VALAK (Validation of Academic Self, 7 items).

Data Collection Procedure

Data collection was executed in three distinct, chronological phases. First, the initial item pool was generated and mapped onto theoretical domains based on preliminary observations. Second, the instrument underwent two phases of pilot testing ($N = 60$ per phase) to evaluate item clarity, conceptual appropriateness, and preliminary statistical performance, leading to the refinement and reduction of the theoretical domains. Third, the finalized quantitative survey was administered to the main sample of 347 pre-service teachers using a structured questionnaire.

Data Analysis

Quantitative data were analyzed using exploratory factor analysis procedures, specifically Principal Component Analysis (PCA) with Promax rotation. Promax rotation was selected because the dimensions of PFOS were theoretically expected to be correlated, as academic formalism, image management, and outcome orientation are interrelated manifestations of privileging form over substance. PCA was deemed appropriate, given that PFOS is an emerging construct and the study's objective was to explore the empirical clustering of items in this specific context. Confirmatory Factor Analysis (CFA) was not performed at this stage because PFOS does not yet exhibit a stable, universal factor structure across diverse populations; future studies are recommended for cross-contextual confirmatory testing.

The analysis yielded a three-factor solution for PFOS, with sampling adequacy confirmed by a KMO value of 0.862 and a significant Bartlett's test of sphericity ($p < 0.001$). These three factors explained 45.47% of the total variance. Reliability analysis indicated acceptable internal consistency for all PFOS dimensions (PFOS_FRM: $\alpha = 0.76$; PFOS_IMG: $\alpha = 0.71$; PFOS_HSL: $\alpha = 0.71$). Descriptive statistics were computed to outline response tendencies, and multiple linear regression analysis was conducted to examine the extent to which systemic pressure and personal disposition predict the three PFOS dimensions.

FINDINGS

Research Findings

This section presents the research findings on Perceived Form Over Substance (PFOS) among pre-service teachers. The findings are organized into five sections: theoretical screening, the factor structure of PFOS, instrument reliability, descriptive statistics, and multiple linear regression analysis. The initial instrument was developed through preliminary observations, literature review, and preliminary focus group discussions to ensure item clarity and contextual appropriateness. It was then refined through two stages of pilot testing before being administered in the main survey, which involved 347 pre-service teachers. The final instrument consisted of PFOS, Personal Traits (PTRAIT), and Systemic Pressure (PSIST), which were measured using a Likert scale ranging from 1 to 5.

Theoretical Screening of the PFOS Construct

The initial stage of the study produced eight theoretical domains mapped from observed behaviors: formalism, image management, dependence on external validation, outcome orientation, ethical compromise, entitlement or narcissism, short-term gratification, and resistance to feedback. After two stages of pilot testing, six domains were removed because they had empirical limitations, such as low factor loadings, cross-loadings, defensive response bias, or weak emergence in participants' experiences. Thus, PFOS primarily rests on Ball's theory of performativity and Leary's sociometer theory.

Table 1. Theoretical Domains Tested and Retained in the Final PFOS Instrument

Pilot Domain	Theoretical Anchor	Retained	Reason
Formalism	Ball (2003), Lyotard (1984)	Yes	Empirically strong
Image Management	(Goffman, 1959), (Leary, 2005)	Yes	Empirically strong
Dependence on External Validation	Buffardi & Campbell (2008), (Leary, 2005)	Yes	Became part of the sociometer mechanism
Outcome Orientation	Ball (2003)	Yes	Became part of PFOS
Ethical Compromise	Teixeira & Rocha (2010)	No	Low loading and defensive bias
Entitlement or Narcissism	Campbell (2004)	No	Did not emerge organically
Short-Term Gratification	Steel & König (2006)	No	Inconsistent factor structure
Resistance to Feedback	Bushman & Baumeister (1998)	No	Defensive bias and low relevance

Table 1 shows that PFOS was not conceptualized as a construct merely explaining individual character weaknesses, such as narcissism, entitlement, or resistance to criticism. Instead, PFOS is better understood as a tendency that emerges from performativity pressure and the need for social validation. In other words, students' tendency to prioritize form over substance is closely related to an academic system that places high value on formal compliance, the appearance of competence, and visible achievement.

Factor Structure of PFOS

The results of the exploratory factor analysis indicate that PFOS comprises three main dimensions: PFOS FRM (Academic Formalism), PFOS IMG (Image Management), and PFOS HSL (Outcome Orientation). The suitability of the data for factor analysis was indicated by a KMO value of 0.86 and Bartlett's test of $p < 0.001$. These three factors explained 45.50% of the total variance.

Table 2. Factor Structure of PFOS

PFOS Dimension	Meaning of the Dimension	Number of Items
PFOS FRM (Academic Formalism)	The tendency to prioritize academic formalities over the substance of learning	6
PFOS IMG (Image Management)	The tendency to prioritize academic or professional image over actual competence	5
PFOS HSL (Outcome Orientation)	The tendency to prioritize outcomes over a meaningful learning process	6

Table 2 shows that PFOS is a multidimensional construct. Academic Formalism describes students' tendency to pay more attention to format, assignment structure, memorization, guidelines, and deadlines than to the quality of ideas or understanding. Image Management reflects a tendency to appear competent in the eyes of others rather than to deepen academic mastery genuinely. Outcome Orientation indicates the tendency

to focus on grades, credits, GPA, certificates, and graduation requirements rather than on a meaningful learning process.

Instrument Reliability

Reliability analysis was conducted on all dimensions of PFOS, PTRAIT, and PSIST. The results show that all dimensions had Cronbach's alpha values above 0.70, indicating adequate internal consistency.

Table 3. Reliability of PFOS, PTRAIT, and PSIST Dimensions

Construct	Dimension	Cronbach's Alpha	Alpha Based on Standardized Items	Number of Items
PFOS	PFOS FRM (Academic Formalism)	0.76	0.76	6
PFOS	PFOS IMG (Image Management)	0.71	0.71	5
PFOS	PFOS HSL (Outcome Orientation)	0.71	0.71	6
PTRAIT	PTRAIT VALSOS (Validation of Social Self)	0.75	0.75	8
PTRAIT	PTRAIT VALAK (Validation of Academic Self)	0.76	0.76	7
PSIST	PSIST KPST (Procedural Certainty and Task Structure)	0.79	0.79	9
PSIST	PSIST VLDS (External Validation of Self and Academic Achievement)	0.75	0.76	7

Table 3 shows that all instrument dimensions demonstrated acceptable reliability. The highest reliability was observed in PSIST KPST, with a Cronbach's alpha of 0.79, while the lowest was observed in PFOS IMG and PFOS HSL, each with a Cronbach's alpha of 0.71. Therefore, the instrument used in this study is sufficiently consistent for measuring the tendency to prioritize form over substance, the need for personal validation, and systemic pressure within the academic environment.

Descriptive Statistics

Descriptive statistics were used to describe participants' response tendencies for each dimension. Since all instruments used a Likert scale ranging from 1 to 5, mean values close to 3 indicate a moderate or neutral tendency. In contrast, higher values indicate a stronger tendency toward the measured variable.

Table 4. Descriptive Statistics of PFOS, PTRAIT, and PSIST Dimensions

Variable	Mean	SD	95% CI	Median	Min-Max	Skewness	Kurtosis
PFOS FRM	3.01	0.68	2.94–3.08	3.00	1.00–5.00	0.30	0.39
PFOS IMG	2.62	0.68	2.54–2.69	2.60	1.00–5.00	0.29	-0.01
PFOS HSL	3.36	0.63	3.30–3.43	3.33	1.17–5.00	0.01	0.39
PTRAIT VALSOS	2.99	0.63	2.92–3.05	3.00	1.25–5.00	-0.05	0.45
PTRAIT VALAK	3.59	0.62	3.52–3.65	3.57	1.57–5.00	-0.43	0.58
PSIST KPST	3.20	0.60	3.14–3.26	3.11	1.00–5.00	0.04	0.33
PSIST VLDS	2.99	0.64	2.92–3.06	3.00	1.00–4.71	0.09	0.43

Table 4 shows that among the PFOS dimensions, the highest mean score was observed for PFOS HSL, at 3.36. This indicates that outcome orientation, such as grades, GPA, credit units, and graduation requirements, is the most prominent form of PFOS. PFOS FRM was in the moderate category, with a mean of 3.01, while PFOS IMG had a lower mean of 2.62. Among the predictor variables, PTRAIT VALAK had the highest mean score, at 3.59, indicating that the need for academic validation was relatively strong among pre-service teachers. Meanwhile, PSIST KPST had a mean of 3.20, higher than PSIST VLDS (2.99). This means that pressure related to procedural certainty and task structure was more prominent than pressure related to external

validation. The skewness and kurtosis values for all variables remained within acceptable ranges; therefore, the data distribution was considered adequate for further analysis.

Multiple Linear Regression Analysis

Multiple linear regression analysis was conducted to examine the effects of personal disposition and systemic pressure on the three dimensions of PFOS. The predictor variables used were PTRAIT VALSOS, PTRAIT VALAK, PSIST KPST, and PSIST VLDS. The results showed that all three regression models were statistically significant.

Table 5. Summary of Regression Models for the Three PFOS Dimensions

Dependent Variable	R Square	Adjusted R-Square	F	Sig.
PFOS FRM	0.47	0.46	74.51	< 0.001
PFOS IMG	0.27	0.26	31.76	< 0.001
PFOS HSL	0.37	0.36	50.66	< 0.001

Table 5 shows that the regression model for PFOS FRM had the highest explanatory power, with an R-squared value of 0.47. This means that the combination of personal disposition and systemic pressure could explain 47% of the variation in academic formalism. The regression model for PFOS HSL explained 37% of the variation in outcome orientation, while the regression model for PFOS IMG explained 27% of the variation in image management. All three models were significant at $p < 0.001$, indicating that the predictors used were relevant for explaining PFOS tendencies among pre-service teachers.

Table 6. Standardized Regression Coefficients Predicting PFOS Dimensions

Predictor	PFOS FRM β	Sig.	PFOS IMG β	Sig.	PFOS HSL β	Sig.
PTRAIT VALSOS	0.14	0.013	0.29	< 0.001	0.07	0.279
PTRAIT VALAK	-0.00	0.935	-0.14	0.015	0.08	0.149
PSIST KPST	0.58	< 0.001	0.27	< 0.001	0.44	< 0.001
PSIST VLDS	0.04	0.478	0.15	0.021	0.14	0.020

Table 6 shows that PSIST KPST was the strongest and most consistent predictor of all PFOS dimensions. For PFOS FRM, PSIST KPST had the largest effect, with $\beta = 0.58$ and $p < 0.001$. This finding indicates that the stronger the systemic pressure to follow procedures, guidelines, and task structures, the greater the students' tendency to prioritize academic formalities over the substance of learning. For PFOS HSL, PSIST KPST was also the strongest predictor, with $\beta = 0.44$ and $p < 0.001$. This means that pressure related to procedural certainty also encourages an orientation toward grades, outcomes, and formal requirements. For PFOS IMG, PSIST KPST remained significant, with $\beta = 0.27$ and $p < 0.001$, although the strongest effect in this dimension came from PTRAIT VALSOS, with $\beta = 0.29$ and $p < 0.001$. These results show that image management is influenced not only by systemic pressure but also by the need for social validation. Students whose self-worth depends more strongly on social acceptance tend to make greater efforts to appear competent in the eyes of others. Overall, however, systemic pressure had a broader and more consistent influence than personal disposition. Thus, the regression findings support the argument that PFOS is primarily a structural response to an academic system that emphasizes procedural certainty, external validation, and formal achievement, rather than merely a deficit in individual character.

Regression Assumption Testing

Regression assumption testing was conducted by examining multicollinearity, residual normality, and homoscedasticity. The multicollinearity test results showed that all tolerance values were above 0.10 and all Variance Inflation Factor (VIF) values were below 10. Therefore, multicollinearity could not interfere with the regression model.

Table 7. Summary of Multicollinearity Test

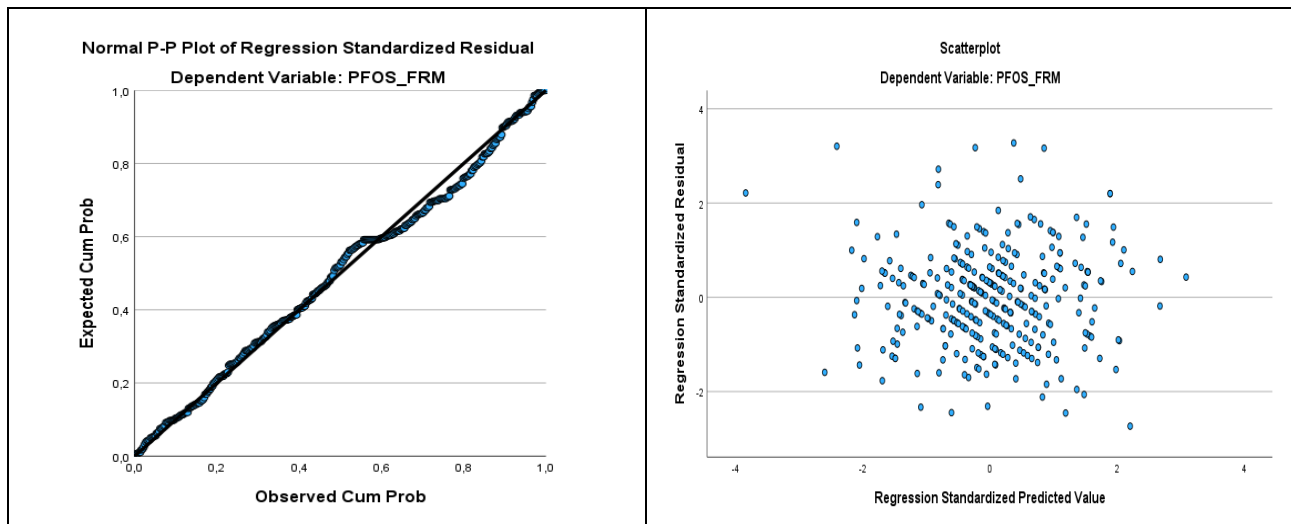
Predictor	Tolerance	VIF
PTRAIT VALSOS	0.51	1.98
PTRAIT VALAK	0.64	1.56
PSIST KPST	0.61	1.64
PSIST VLDS	0.54	1.85

Table 7 shows that all predictors had low VIF values, ranging from 1.56 to 1.98. These values indicate that the relationships among the predictor variables remained within an acceptable level. Therefore, the regression model did not exhibit multicollinearity.

Table 8. Summary of Residual Statistics and Model Diagnostics

Model	Std. Residual Min– Max	Stud. Residual Min– Max	Cook’s Distance Max	Centered Leverage Max
PFOS FRM	-2.73–3.28	-2.76–3.30	0.07	0.08
PFOS IMG	-2.89–2.64	-2.94–2.65	0.10	0.08
PFOS HSL	-3.46–3.60	-3.47–3.65	0.09	0.08

Table 8 shows that the Cook’s Distance values across all three models were below 1, indicating no strong evidence of highly influential cases. The maximum centered leverage values were also relatively low, at 0.08 for all models. Therefore, the regression models can be considered sufficiently stable. Although some standardized residual values approached or slightly exceeded ± 3 , the residual plot patterns still indicated an acceptable distribution for regression analysis.

**Figure 1.** Normal P-P Plot and Scatterplot of Regression Residuals for PFOS FRM

The Normal P-P Plot for the PFOS FRM model shows that the residual points follow the diagonal line. This indicates that the residuals in the PFOS FRM model are approximately normally distributed. Furthermore, the scatterplot for the PFOS FRM model shows that the points are relatively randomly distributed around the zero line. This pattern indicates that the model does not exhibit serious heteroscedasticity.

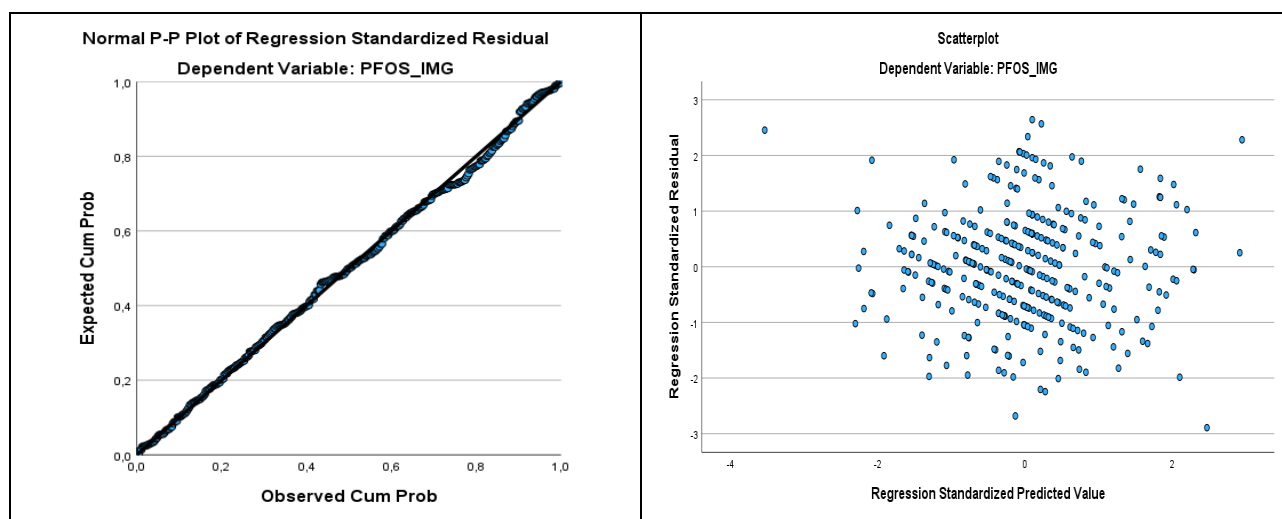


Figure 2. Normal P-P Plot and Scatterplot of Regression Residuals for PFOS IMG

The Normal P-P Plot for the PFOS IMG model shows that the residual points tend to follow the diagonal line. Therefore, the assumption of residual normality in the PFOS IMG model is acceptable. Furthermore, the scatterplot for the PFOS IMG model shows that the residuals are relatively randomly distributed and do not form a particular pattern. This indicates that the assumption of homoscedasticity is met.

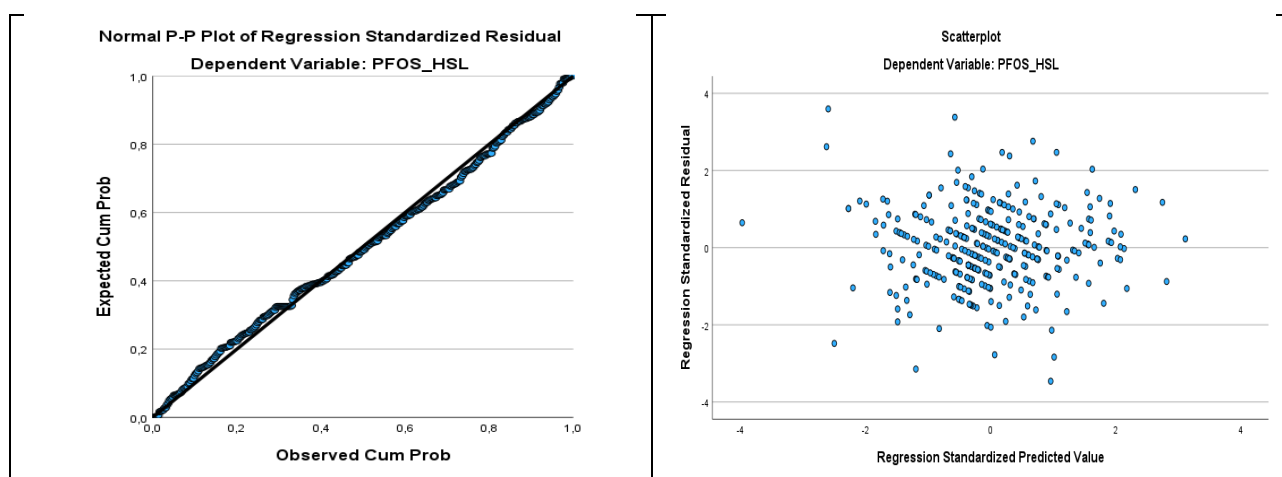


Figure 3. Normal P-P Plot and Scatterplot of Regression Residuals for PFOS HSL

The Normal P-P Plot for the PFOS HSL model indicates that the residuals follow the diagonal. Therefore, the residuals in the PFOS HSL model can be considered normally distributed. Furthermore, the scatterplot for the PFOS HSL model shows that the residuals are relatively randomly distributed around the zero line. This pattern indicates that the PFOS HSL regression model meets the assumption of homoscedasticity. Overall, the results indicate that PFOS comprises three dimensions: Academic Formalism, Image Management, and Outcome Orientation. These three dimensions have adequate reliability and are supported by an acceptable factor structure. Descriptively, the most prominent PFOS dimension is Outcome Orientation, indicating that pre-service teachers tend to be more strongly oriented toward grades, GPA, credit units, and graduation requirements than toward a meaningful learning process. In terms of predictors, PSIST KPST, or systemic pressure related to procedural certainty and task structure, is the strongest and most consistent predictor of all PFOS dimensions. This finding strengthens the conclusion that PFOS is not primarily caused by students' personal weaknesses but rather an adaptive response to an academic environment that emphasizes procedural compliance, external validation, and formal achievement.

DISCUSSION

This study conceptualized and examined Perceived Form Over Substance (PFOS) as a theoretical-empirical framework for understanding how Indonesian pre-service teachers may prioritize form over substance in teacher education. The empirical analysis confirmed a robust three-dimensional structure of PFOS comprising Academic Formalism, Image Management, and Outcome Orientation. These dimensions indicate that form-over-substance orientation is not a single behavioral tendency. Still, a patterned response reflected in students' attention to academic formats, concern with appearing competent, and emphasis on formal outcomes such as grades, credits, certificates, and graduation requirements. This finding is theoretically important because it shows that educational performativity is not limited to policy, institutional accountability, or school governance. Rather, it may also be internalized in the academic behavior of future teachers during their professional formation. In the context of teacher education, PFOS reflects how pre-service teachers may learn to associate educational success with visible academic performance rather than substantive understanding and pedagogical meaning. Thus, this study expands the discussion of educational performativity by showing how accountability-oriented environments may shape professional formation before students enter the teaching profession.

The findings are consistent with previous research on performativity, accountability, and evaluative pressure in education. Levatino et al. (2024) show that performance-based accountability may generate unintended effects in school governance, including behavioral adjustment to performance indicators. Moraiti et al. (2024) demonstrate that digital platforms may intensify performativity by making teachers' work increasingly documented and traceable. Bjerke et al. (2025) emphasize that performative accountability needs to be understood contextually, while Sturrock (2024) illustrates how assessment practices may be adjusted to produce favorable data. Guenther (2021) Further shows that accountability-based evaluation can shape teachers' professional identity. The present study extends these discussions by showing that performative tendencies may emerge earlier, during teacher preparation, as a measurable psychological and behavioral construct among pre-service teachers. The main contribution of this study lies in positioning PFOS as a multidimensional construct that connects academic formalism, image management, and outcome orientation within Indonesian pre-service teacher education. Previous studies have largely examined performativity at the level of policy, institutional accountability, teachers' digital labor, assessment practices, or professional identity. By contrast, this study shows how performative expectations may be translated into students' everyday academic orientation. This contribution is especially relevant in the Indonesian context, where educational legitimacy is often associated with administrative completeness, procedural certainty, and visible evidence of achievement.

These findings also shift the analytical focus from blaming individual students to examining how teacher education systems define success, reward performance, and communicate expectations about meaningful learning. If pre-service teachers are repeatedly evaluated through rigid formats and formal outputs, they may come to view teaching as the production of visible evidence rather than as the cultivation of understanding, reflection, and professional judgment. Teacher education institutions, therefore, need to reconsider how accountability, assessment, and academic supervision are organized. Evaluation systems should not only measure whether students complete formal requirements, but also examine the quality of their reasoning, reflective capacity, pedagogical decision-making, and ability to connect theory with practice. From a theoretical perspective, PFOS can serve as a bridge among educational performativity, self-worth regulation, and institutional culture. Ball's theory of performativity helps explain how audit-oriented systems encourage actors to perform visible indicators of quality. Sociometer theory explains why recognition and acceptance may strengthen students' conformity to dominant academic expectations. However, the Indonesian context adds an important cultural-institutional dimension: formal procedures often confer social legitimacy, making formality appear synonymous with quality. This suggests that PFOS is not only a psychological tendency, but also a culturally and institutionally situated phenomenon.

Future research should develop PFOS in several directions. First, confirmatory studies are needed to test whether the three-dimensional structure of PFOS remains stable across different universities, regions, and

teacher education programs. Second, longitudinal research is required to examine whether PFOS develops, declines, or strengthens as pre-service teachers move from coursework to teaching practice and professional employment. Third, comparative studies involving in-service teachers, lecturers, and students from non-education fields could clarify whether PFOS is specific to teacher education or reflects a broader pattern in Indonesian higher education. Future studies may also examine whether frustration of psychological needs, autonomy support, assessment climate, or academic trust mediate or moderate the relationship between systemic pressure and PFOS. Such work would strengthen PFOS not only as an empirical construct but also as a broader theoretical framework for explaining how education systems may produce compliance without substantive transformation.

CONCLUSION

This study establishes Perceived Form Over Substance (PFOS) as a theoretical-empirical framework for explaining how form-over-substance orientation emerges in Indonesian pre-service teacher education. The findings show that PFOS consists of three interrelated dimensions: Academic Formalism, Image Management, and Outcome Orientation. Together, these dimensions provide a coherent and empirically grounded structure for understanding how future teachers may come to associate educational quality with visible academic form rather than substantive pedagogical learning. PFOS should not be reduced to an individual character problem. Rather, it reflects how academic expectations, assessment practices, and institutional routines may shape pre-service teachers' understanding of meaningful learning and professional quality. This highlights the need for teacher education institutions to design learning and assessment systems that strengthen reflective judgment, pedagogical reasoning, and substantive mastery. Future research should examine the stability and generalizability of the PFOS construct through Confirmatory Factor Analysis, broader samples, and cross-institutional comparisons. Longitudinal studies are also needed to trace how PFOS develops across coursework, teaching practice, and early professional experience. Overall, PFOS provides a critical framework for rethinking teacher education beyond visible academic form toward pedagogical meaning, reflective judgment, and substantive learning.

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