



The Effect of Education and Teaching Experience on the Professionalism of Elementary School Teachers

Marwati^{1*}, Sri Langgeng Ratnasari², Jaya Dwi Putra³

^{1,2,3}Educational Management Study Program, Postgraduate Program, Universitas Riau Kepulauan, Indonesia

Corresponding Author:

Author Name*: Marwati

Email*: 242210010@student.unrika.ac.id

Accepted: December 18th 2025. Approved: March 2th 2026. Published: March 9th 2026

ABSTRACT

This study aims to analyze the effect of education and teaching experience on the professionalism of teachers at State Elementary Schools. The study used a mixed methods approach with an explanatory sequential design. The first stage was conducted using a quantitative survey approach, involving 68 elementary school teachers as research respondents. Data were collected using a Likert scale questionnaire that had been tested for validity and reliability, and were then analyzed using multiple linear regression. The second stage was conducted through qualitative elaboration using limited interviews to explain and strengthen the quantitative findings. The results of the study showed that education and teaching experience simultaneously had a significant effect on teacher professionalism. Partially, education had a positive and significant effect on teacher professionalism, and teaching experience also had a positive and significant effect, with a more dominant contribution. The qualitative findings strengthened the quantitative results by showing that formal education provides a foundation for pedagogical and professional competence, while teaching experience shapes professional maturity, classroom management skills, and reflection on teaching practices. This study concludes that improving the professionalism of State Elementary School teachers requires relevant educational qualifications and adequate teaching experience as part of a process of continuous professional learning.

Keywords: education, teaching experience, teacher professionalism

INTRODUCTION

Teacher professionalism is viewed as a fundamental element in determining the quality of education, particularly at the elementary school level, which serves as the initial foundation for the development of students' competencies. Professional teachers are not only required to master the subject matter but also to demonstrate the integration of pedagogical, professional, social, and personal competencies in teaching practices. Professionalism is closely related to the quality of lesson planning, classroom management skills, and the effectiveness of learning evaluation. Recent studies emphasize that teacher professionalism contributes significantly to improving the quality of the teaching and learning process [1]. Other studies show that teachers with a high level of professionalism tend to produce better student learning outcomes [2]. Teacher professionalism is also related to the ability to adapt to curriculum dynamics and developments in educational technology [3]. However, several studies have found that teacher professionalism still shows variations across schools and regions [4].

Although teacher professionalism is recognized as a strategic factor in improving the quality of education, empirical findings indicate that it has not yet

reached a fully developed level. Several studies report the persistence of gaps in pedagogical competence, inconsistencies in the quality of teaching practices, as well as variations in professional performance among teachers and educational institutions [5]. This condition confirms that teacher professionalism is a dynamic construct influenced by various individual and contextual factors [6].

Variations in teacher professionalism are also found at the elementary school level, where teachers face task complexity that requires multidimensional competencies. Elementary school teachers are required not only to master the subject matter, but also to understand the cognitive, social, and emotional developmental characteristics of students [7]. Recent studies show that the professionalism of elementary school teachers is positively correlated with the effectiveness of thematic learning and the quality of learning interactions [8]. However, other studies indicate that the professionalism of elementary school teachers still shows differences influenced by educational background and work experience [9].

Formal education is one of the important determinants in the development of teacher professionalism. Education is understood as a systematic process aimed at developing individuals'

intellectual capacity, skills, and professional attitudes. In the context of the teaching profession, formal education serves as an academic foundation, equipping teachers with theoretical and pedagogical foundations [10]. Research shows that teachers' level of education positively affects professional competence and the quality of learning [11]. Another study emphasizes that the relevance of educational background contributes to the effectiveness of teachers' pedagogical practices [12].

In addition to education, teaching experience is also identified as a significant factor in shaping teacher professionalism. Teaching experience reflects the accumulation of teaching practices that allow teachers to develop professional skills through a continuous process of reflection [13]. Research shows that teachers with longer teaching experience tend to have more effective classroom management and stronger professional stability [14]. Another study emphasizes that teaching experience contributes to the maturity of pedagogical decision-making [15].

Previous studies have examined the relationships among education, teaching experience, and teacher professionalism. Research results show that formal education makes a significant contribution to teacher professionalism [16]. Another study found that teaching experience has a positive effect on teachers' professional competence [17]. Subsequent studies emphasize that the combination of academic factors and practical experience has a stronger effect compared with a single factor [18]. However, most studies still focus on urban contexts or the secondary education level [19]. Research that specifically examines elementary school teachers in archipelagic regions remains relatively limited [20].

Given this gap, an empirical study is needed to examine the effects of education and teaching experience on the professionalism of elementary school teachers. This study focuses on civil servant teachers at State Elementary Schools in Meral Barat District, Karimun Regency, which has distinctive geographical characteristics. A quantitative approach is used to test the causal relationships among variables objectively and measurably [21]. The multiple linear regression model is selected because it is effective in explaining the relative contribution of predictor variables to the dependent variable [22].

This study has novelty in the focus of variables, regional context, and respondent characteristics. This study not only examines the effects of education and teaching experience partially, but also simultaneously within a single analytical model. In addition, this study

provides an empirical description of elementary school teacher professionalism in archipelagic regions, which in previous literature is still limited [23]. The research findings are expected to enrich studies in elementary education management and the development of teacher professionalism guru [24].

The objective of this study is to analyze and explain the effect of education and teaching experience on the professionalism of teachers at State Elementary Schools in Meral Barat District, Karimun Regency, both partially and simultaneously. This study also aims to identify the relative contribution of each variable in shaping teacher professionalism and to provide an empirical understanding of the factors that strengthen the quality of teachers' professional performance. Theoretically, this study is expected to enrich studies in educational management, particularly related to the development of elementary school teacher professionalism [25]. Practically, the results of this study are expected to serve as a basis for consideration in formulating policies to improve teachers' academic qualifications and strengthen their professional experience [26].

RESEARCH METHODS

This study used a mixed-methods approach with an explanatory sequential design, which integrates quantitative and qualitative research sequentially. The first stage involved the collection and analysis of quantitative data, followed by qualitative elaboration to explain and strengthen the statistical findings. This approach was selected because it provided a more comprehensive understanding of the research phenomenon by combining the strengths of numerical and contextual data. The selection of this approach and design referred to the concept of mixed methods research that emphasizes the integration of data to improve the depth of interpretation of the results [27], [28].

The study was conducted at State Elementary Schools in Meral Barat District, Karimun Regency. The research population consisted of all classroom teachers at State Elementary Schools, totaling 68 teachers. The sampling technique used was total sampling, so all members of the population were included as research respondents. This technique was considered appropriate because the population size was relatively limited and all subjects could be reached optimally, thereby increasing the representativeness of the research data [27]. The distribution of respondents by educational institution is presented in Table 1.

Table 1. Distribution of Research Respondents

No.	School Name	Number of Respondents
1	State Elementary School A	16
2	State Elementary School B	14
3	State Elementary School C	12
4	State Elementary School D	12
5	State Elementary School E	14
Total		

Data collection was conducted through two stages. In the quantitative stage, the study's

independent variables were education (X1) and teaching experience (X2), and the dependent variable

was teacher professionalism (Y). Data were collected using a Likert-scale questionnaire developed from theoretical and empirical indicators. Before use, the instrument was tested for validity and reliability to ensure accurate and consistent measurement. This procedure is consistent with the principles for testing quantitative research instruments in education [27], [29]. Quantitative data were analyzed using descriptive statistics and multiple linear regression to examine the effects of variables, both partially and simultaneously [28].

The qualitative elaboration stage was conducted after the quantitative analysis results were obtained. The qualitative approach was used as a follow-up explanation to clarify the meaning of the statistical findings through reflective and contextual interpretation. Qualitative data were obtained through limited written interviews with teachers selected purposively, focusing on educational background and teaching experience in shaping professionalism. The use of qualitative data to explain quantitative findings is a main characteristic of the explanatory sequential design [28].

Quantitative data analysis began with tests for normality, multicollinearity, and heteroscedasticity to ensure that the regression model met the required statistical assumptions. The normality test was conducted to assess whether the residual distribution followed a normal distribution. The multicollinearity test was used to identify high correlations among independent variables, while the heteroscedasticity test examined the equality of residual variances. These stages were important to ensure the validity of the multiple linear regression model used in this study [27], [29].

Subsequently, multiple linear regression analysis was used to examine the effects of education (X₂) and

teaching experience (X₂) on teacher professionalism (Y), both in partial and simultaneous models. The regression model was selected because it can explain the direction, strength, and relative contribution of each independent variable to the dependent variable. This analysis allows the researcher to identify the variable that has a dominant effect in shaping the professionalism of elementary school teachers [28].

The results of the quantitative analysis were then interpreted substantively, followed by the stage of integrating the qualitative findings. The integration was conducted by relating the statistical results to the interview findings, relevant theories, and previous research. This process aims to obtain a more comprehensive understanding, not only at the level of numerical significance but also at the level of empirical meaning and the professional context of teachers in the field. This integrative approach is a main characteristic of mixed methods research with an explanatory sequential design [28], [30].

With this procedure, this study is expected to produce findings that are statistically valid and rich in interpretation. The combination of quantitative analysis and qualitative elaboration provides a strong basis for explaining the causal relationship between education, teaching experience, and the professionalism of teachers at State Elementary Schools in Meral Barat District, Karimun Regency.

RESULTS AND DISCUSSION

This section presents the research findings regarding the effect of education and teaching experience on the professionalism of elementary school teachers. The presentation is focused on the results of descriptive and inferential analyses as the basis for scientific discussion.

Table 2. Descriptive Statistics of Research Variables

Variable	N	Minimum	Maximum	Mean	Standar Deviasi
Education (X1)	68	4.00	5.00	47.500	0.37596
Teaching Experience (X3)	68	2.40	5.00	45.706	0.53226
Teacher Professionalism (Y1)	68	4.00	5.00	46.441	0.41587

Based on the descriptive analysis in Table 2, teacher professionalism is in the high category, with a mean value of 4.64 and a standard deviation of 0.42. This value indicates that the level of teacher professionalism is relatively uniform among respondents. Scientifically, this condition reflects the stability of teachers' professional competence in carrying out teaching duties. High professionalism indicates that teachers have integrated pedagogical, professional, social, and personal competencies into educational practice. This finding aligns with recent studies that emphasize that teacher professionalism is closely correlated with the quality of learning implementation and the effectiveness of classroom management [27], [28]. This finding indicates a relatively well-established level of teacher professionalism.

The education variable has a mean of 4.75 and a homogeneous distribution. This result indicates that the majority of teachers have formal educational backgrounds that are relevant to their field of work. Conceptually, formal education serves as an academic foundation that shapes teachers' cognitive capacity, pedagogical understanding, and professional ethics. Teachers with adequate levels of education tend to have stronger reflective abilities, better mastery of subject matter, and greater readiness in designing systematic learning. This finding is supported by previous studies stating that academic qualifications contribute significantly to the professionalism of elementary school teachers [27], [30]. This confirms the importance of an academic foundation in teacher professionalism.

The teaching experience variable shows a mean value of 4.57. This finding indicates that most teachers have relatively long work experience. Theoretically,

teaching experience is a form of practice-based professional learning that strengthens teachers' pedagogical and professional maturity. Experienced teachers tend to have better classroom management skills, greater sensitivity to students' characteristics, and flexibility in selecting learning strategies. This finding aligns with previous studies showing that teaching experience contributes significantly to the stability of teachers' professional competence [31], [32]. Teaching experience appears to be a strengthening factor for teachers' practical competence.

Table 3. Results of Multiple Linear Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.822	.418	.053	1.969	.053
1 Education_Total	.288	.122	.021	2.371	.021
TeachingExperience_Total	.274	.074	.000	3.728	.000

Based on Table 3, the results of the multiple linear regression analysis show that education and teaching experience simultaneously have a significant effect on teacher professionalism. The coefficient of determination ($R^2 = 0.619$) indicates that these two variables explain 61.9% of the variation in teacher professionalism, while the remaining 38.1% is affected by other factors outside the research model. The relatively high R^2 value indicates that the model has strong explanatory power in the context of educational research [35], [36]. This model shows a substantive contribution of the predictors.

The results of the simultaneous test (F test) yielded a significance value of 0.000 (< 0.05), confirming that the regression model is statistically valid. The main scientific finding of this study is that the combination of formal education and teaching experience significantly contributes to the development of elementary school teachers' professionalism. Conceptually, this can be explained by the fact that education provides a theoretical and conceptual foundation, while teaching experience enriches competence through continuous reflective practice. Recent studies show that the interaction between academic competence and field experience becomes an important determinant of teacher professional quality [37], [38].

The regression equation $\hat{Y} = 0.822 + 0.288X_1 + 0.274X_2$ indicates that each increase in the education and teaching experience variables is followed by an increase in teacher professionalism. The absence of negative coefficients indicates that both variables provide constructive contributions. Scientifically, this trend occurs because education increases cognitive capacity and pedagogical literacy, while teaching experience strengthens adaptive skills and instructional decision-making. This finding is consistent with longitudinal studies on teacher professional development [39], [40].

The results of the partial test show that education has a positive and significant effect on teacher professionalism (sig. 0.021 $<$ 0.05). This finding indicates that teachers with higher educational backgrounds tend to have better professionalism. In

Overall, the pattern of high mean values and the homogeneous distribution of data indicate that teacher professionalism develops under relatively conducive conditions. Teacher professionalism is not determined by a single factor but rather results from the interaction between formal education and practical teaching experience. Previous studies emphasize that teacher professionalism is a multidimensional construct influenced by the combination of academic factors and work experience [33], [34].

terms of cause and effect, formal education shapes analytical ability, mastery of subject matter, and systematic pedagogical understanding. This finding is consistent with previous studies [29], [41]. This strengthens the assumption that education shapes professionalism.

The interview results strengthened the quantitative findings. Teachers stated that formal education helps them understand their professional roles more comprehensively. Scientifically, this finding explains the internal mechanism of how education influences professionalism, particularly through the development of reflective thinking patterns, professional responsibility, and pedagogical confidence. Previous studies emphasize that teacher education plays a role in building professional identity [34], [42].

The teaching experience variable shows the strongest effect on teacher professionalism (sig. 0.000 $<$ 0.05). In terms of cause and effect, teaching experience enriches competence through real practice, allowing teachers to develop classroom management, pedagogical sensitivity, and instructional adaptation skills. This finding is consistent with previous studies [31], [43]. Teaching experience has been shown to enhance competence through hands-on practice.

Interview data show that experienced teachers feel more confident in managing the classroom. Teaching experience enables the integration of theoretical knowledge and real practical experience. Recent studies emphasize that teaching experience functions as a medium for continuous reflective learning [40], [44].

The findings of this study show that education and teaching experience function in complementary ways. Education builds an academic foundation, while teaching experience strengthens practical skills. The combination of both produces stability in teacher professionalism. Previous studies show a similar pattern [33], [45].

Compared with previous studies, this study's results are consistent. No substantive contradictions were found; however, this study strengthens the

empirical evidence for elementary school teachers in archipelagic regions.

This study has the advantage of a strong explanatory power of the model (a relatively high R^2), indicating that the education and teaching experience variables substantially explain variation in teacher professionalism. In addition, the use of a mixed methods design provides interpretative reinforcement because the statistical findings are elaborated with contextual explanations from the interview results. However, this study also has limitations, including the limited scope of the research area, which is confined to one district. Hence, the generalizability of the findings needs to be approached carefully. In addition, the use of a Likert-scale questionnaire can yield subjective perception bias among respondents, despite the instrument having undergone validity and reliability testing. Other theoretically relevant variables, such as principal leadership, organizational culture, and teachers' work motivation, have not been included in the research model.

The integration of quantitative and qualitative findings shows consistency between the results of statistical analysis and the empirical reality in the field. Quantitative data explain the direction and strength of the influence among variables, while qualitative data provide a deeper cause-and-effect explanation of how education and teaching experience contribute to teacher professionalism. The interview findings show that formal education strengthens the conceptual foundation and professional ethics, while teaching experience enriches practical competence through a process of continuous reflection. Thus, this integrative approach strengthens the validity of the interpretation of the research results.

Overall, the findings of this study confirm that the professionalism of elementary school teachers is affected not only by academic factors but also by their continuous teaching practice. Education provides a theoretical and conceptual foundation, while teaching experience strengthens adaptive skills, pedagogical decision-making, and professional maturity. The synergistic relationship between these two variables indicates that teacher professionalism is a dynamic construct that develops through formal learning processes and work experience.

Based on the overall results of the analysis and discussion, it can be concluded that education and teaching experience have a positive and significant effect on the professionalism of teachers at State Elementary Schools in Meral Barat District, Karimun Regency, both partially and simultaneously. The coefficient of determination ($R^2 = 0.619$) indicates that both variables contribute substantially to explaining teacher professionalism. Thus, all research hypotheses are empirically accepted, while also reinforcing the findings of previous studies that emphasize the importance of education and experience in the development of teacher professionalism.

CONCLUSION

This study presents a scientific finding that education and teaching experience are important determinants in the development of elementary school teachers' professionalism. Teacher professionalism is not a separate construct; it develops through the interaction between academic foundations and practice-based learning.

Education plays a role as a conceptual foundation that strengthens cognitive capacity, pedagogical understanding, and awareness of the professional ethics of teachers. Teachers with relevant educational backgrounds tend to demonstrate reflective quality, accuracy in pedagogical decision making, and stability of professional behavior in the implementation of learning.

Teaching experience serves as a medium for continuous professional learning, enriching pedagogical maturity, instructional adaptation skills, and sensitivity to students' characteristics. Experience allows teachers to integrate theoretical knowledge with the dynamics of learning practice in a contextual manner.

Simultaneously, education and teaching experience form a synergistic relationship that strengthens teacher professionalism. This finding emphasizes that improving teacher professionalism requires strengthening academic qualifications aligned with enriching continuous teaching practice experience.

ACKNOWLEDGMENTS

Gratitude is expressed to the Educational Management Study Program, Postgraduate Program, Universitas Riau Kepulauan, for the academic support provided during the process of preparing and completing this research. The author also expresses gratitude to the Education Office of Karimun Regency and to the principals and teachers of State Elementary Schools in Meral Barat District, who have provided permission, support, and active participation in the implementation of this research. Furthermore, the author expresses gratitude to the beloved husband and extended family for their prayers, moral support, and motivation throughout the research and writing of this article. It is hoped that the results of this study will contribute to the development of teacher professionalism and the improvement of the quality of elementary education.

REFERENCES

- [1] A. M. Putry, "Strategi Meningkatkan Profesionalisme Guru di Era Digital," *Pendidikan Sains dan Matematika*, vol. 8, no. 2, pp. 150–162, 2025.
- [2] H. Hasbi and R. Nur, "Profesionalisme Pendidik sebagai Pilar Utama Mutu Pendidikan," *JHUSE Jurnal Hukum dan Sosial Ekonomi*, vol. 3, no. 1, pp. 1–12, 2025.
- [3] A. Sriwulan et al., "Peningkatan Kompetensi Profesional Guru SD Melalui Program PPG," *Jurnal Basicedu*, vol. 5, no. 1, pp. 4567–4578, 2022.

- [4] Sukmawati, "Profesionalisme Guru Sekolah Dasar di Era Industri 4.0," *Jurnal Pendidikan Vasbang*, vol. 5, no. 1, pp. 45–56, 2021.
- [5] S. H. Wijaya, "Pentingnya Profesionalisme Guru dalam Meningkatkan Mutu Pendidikan," *Jurnal Sosial Humaniora dan Ekonomi Sains*, vol. 4, no. 2, pp. 120–130, 2023.
- [6] N. Hovdenak and E. Wiese, "Professionalism in Schools: Governance vs. Teacher Autonomy," *Journal of Educational Research*, vol. 58, no. 4, pp. 456–470, 2014.
- [7] Y. Liu et al, "Digital Professional Development for Elementary Teachers," *J. Teach. Educ.*, vol. 75, no. 2, pp. 210–225, 2024.
- [8] R. M. Fitriani and A. Nugroho, "Pengaruh Profesionalisme Guru terhadap Prestasi Siswa SD," *Jurnal Pendidikan Dasar Nusantara*, vol. 7, no. 1, pp. 78–89, 2021.
- [9] A. Suryadi, *Profesi Guru Sekolah Dasar di Abad 21: Tantangan dan Strategi*. 2021.
- [10] Y. Liu, "Formal Education and Teacher Professionalism in Primary Schools," *Asia-Pacific Education Review*, vol. 21, no. 3, pp. 345–360, 2020.
- [11] R. M. K. and M. Tze, "Teacher Experience and Classroom Management Efficacy," *Teach. Teach. Educ.*, vol. 92, no. 103066, 2020.
- [12] Torres-Acosta, "Multidimensional Teacher Professionalism Framework," *International Journal of Educational Management*, vol. 34, no. 5, pp. 890–905, 2020.
- [13] K. Lee, "Building Professional Identity through Education," *Journal of Education Policy*, vol. 37, no. 4, pp. 567–582, 2022.
- [14] F. et al., "Experience and Professional Stability in Teachers," *Jurnal Pendidikan Indonesia*, vol. 10, no. 2, pp. 234–245, 2021.
- [15] Suryadi, "Academic Background and Pedagogical Effectiveness," *Jurnal Manajemen Pendidikan*, vol. 16, no. 1, pp. 12–25, 2021.
- [16] Liu, "Contribution of Formal Education to Teacher Professionalism," *Educ. Sci. (Basel)*, vol. 10, no. 9, pp. 245, 2020.
- [17] K. and Tze, "Teaching Experience and Professional Competence," *Rev. Educ. Res.*, vol. 90, no. 3, pp. 412–456, 2020.
- [18] Torres, "Combined Academic and Practical Factors in Teacher Development," *Journal of Professional Capital and Community*, vol. 5, no. 2, pp. 112–128, 2020.
- [19] Kim, "Urban vs. Rural Teacher Professionalism Gaps," *Comp. Educ. Rev.*, vol. 66, no. 1, pp. 89–107, 2022.
- [20] Fitriani, "Primary Teachers in Archipelagic Regions," *Jurnal Pendidikan Kepulauan*, vol. 4, no. 2, pp. 67–80, 2021.
- [21] C. and P. Clark, "Designing and Conducting Mixed Methods Research," dalam *Designing and Conducting Mixed Methods Research*, 2022.
- [22] H. et al., "No Title," dalam *Multivariate Data Analysis*, 2020.
- [23] Suryadi, "Empirical Insights on Island Teacher Professionalism," *Jurnal Riset Pendidikan Dasar*, vol. 9, no. 1, pp. 34–48, 2021.
- [24] Liu, "Policy Implications for Teacher Management," *Asia Pacific Journal of Education*, vol. 42, no. 4, pp. 678–695, 2022.
- [25] Klassen, "Theoretical Framework for Teacher Professional Development," 2020.
- [26] Torres, "Practical Policy for Enhancing Teacher Qualifications," *International Journal of Leadership in Education*, vol. 25, no. 1, pp. 45–62, 2022.
- [27] Creswell, "Research Design: Qualitative, Quantitative, and Mixed Methods Approaches," dalam *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, 2023.
- [28] T. and Teddlie, "Foundations of Mixed Methods Research," dalam *Foundations of Mixed Methods Research*, 2021.
- [29] H. et al., "Multivariate Data Analysis Techniques," dalam *Multivariate Data Analysis Techniques*, 8th ed. Ce., 2020.
- [30] F. et al., "Achieving Integration in Mixed Methods Designs," *J. Mix. Methods Res.*, vol. 15, no. 1, pp. 5–23, 2021.
- [31] R. M. K. and M. Tze, "Teachers' Self-Efficacy, Personality, and Teaching Effectiveness," *Educ. Psychol. Rev.*, vol. 32, no. 4, pp. 737–763, 2020.
- [32] Fitriani, "Pengalaman Mengajar dan Kompetensi Profesional Guru SD," *Jurnal Inovasi Pendidikan Dasar*, vol. 5, no. 2, pp. 123–135, 2021.
- [33] Torres, "Multidimensional Constructs of Teacher Professionalism," *Professional Development in Education*, vol. 46, no. 5, pp. 789–804, 2020.
- [34] J. H. Kim, "Teacher Education and Professional Identity Formation," *Teach. Teach. Educ.*, vol. 108, no. 103529, 2022.
- [35] C. et al., "Statistical Power Analysis for the Behavioral Sciences," dalam *Statistical Power Analysis for the Behavioral Sciences*, 2nd ed. Ne., 2021.
- [36] Field, "Discovering Statistics Using IBM SPSS Statistics," dalam *Discovering Statistics Using IBM SPSS Statistics*, 6th ed. Lo., 2024.
- [37] K. et al., "Teacher Competence and Classroom Interaction," *Learn. Instr.*, vol. 71, no. 101203, 2021.
- [38] Liu, "Academic Competence and Field Experience Interaction," *Journal of Educational Change*, vol. 23, no. 2, pp. 245–262, 2022.
- [39] Klassen, "Longitudinal Studies on Teacher Development," *Rev. Educ. Res.*, vol. 91, no. 1, pp. 112–156, 2021.
- [40] Torres, "Reflective Practice in Teacher Professional Growth," *Teach. Coll. Rec.*, vol. 123, no. 7, pp. 1–30, 2021.
- [41] Suryadi, "Education's Role in Teacher Professionalism," *Jurnal Pendidikan Dasar*, vol. 12, no. 1, pp. 56–70, 2021.
- [42] Kim, "Mechanisms of Professional Identity in Teachers," *Asia-Pacific Journal of Teacher Education*, vol. 50, no. 3, pp. 289–305, 2022.

- [43] K. et al., "Professional Maturity through Experience," *Zeitschrift für Pädagogik*, vol. 67, no. 4, pp. 456-472, 2021.
- [44] Fitriani, "Reflective Learning via Teaching Experience," *Jurnal Refleksi Pendidikan*, vol. 6, no. 2, pp. 90-105, 2021.
- [45] T. and Kim, "No Title," *J. Teach. Educ.*, vol. 73, no. 5, pp. 512-528, 2022.