



Examining the Relationship Between Early Childhood Educators' Self-Efficacy and Children's Language Development in Islamic Kindergartens

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Abstract

This study examined the influence of educators' self-efficacy on early childhood language development at Sangatta Utara Islamic Kindergarten, East Kutai Timur, East Kalimantan. Grounded in Bandura's self-efficacy theory and Vygotsky's scaffolding concept, the study viewed teachers' professional beliefs as an essential factor in fostering effective learning interactions and language stimulation. A quantitative explanatory cross-sectional design was employed, involving educators and early childhood learners. Data were gathered using validated self-efficacy questionnaires and structured language development observation sheets, followed by descriptive and inferential statistical analyses. The findings revealed that educators generally demonstrated high levels of self-efficacy, while children exhibited good language development. Furthermore, educators' self-efficacy showed a significant positive effect on children's language development, suggesting that stronger professional confidence contributes to more effective language learning experiences. Although self-efficacy was identified as an important predictor, the findings also indicate the contribution of other contextual factors. Therefore, continuous professional development and stronger school-parent collaboration are recommended to enhance language stimulation in Islamic early childhood education settings.

Keywords: Religiosity, Self-Compassion, Healthy Lifestyle, Muslim Women, Psychology.

INTRODUCTION

Early Childhood Education (ECE) represents a crucial stage in establishing the foundations of children's cognitive, socio-emotional, and language development. During this "golden age," language development functions not merely as a means of communication but also as the primary medium through which children construct knowledge and engage in meaningful social interactions (Owens, 2016; Berk, 2021). From Vygotsky's (1978) sociocultural perspective, language acquisition reflects the quality of social interactions that occur within the Zone of Proximal Development (ZPD), where educators play a pivotal role as facilitators by providing appropriate scaffolding strategies to support children's learning.

The increasing use of digital devices such as smartphones, tablets, and digital television has raised concerns regarding their impact on children's language development. Excessive screen exposure may reduce the frequency and quality of reciprocal interactions between children and adults, which are essential for successful language acquisition (Madigan et al., 2020). Nevertheless, digital media can also contribute positively to language development when used appropriately under adult supervision through interactive educational content. In this context, educators assume a strategic role in regulating children's use of digital media while ensuring that direct verbal interaction remains the central source of language stimulation.

Early childhood language development occurs through meaningful social interactions and everyday communicative experiences. Children acquire listening, speaking, emergent reading, and emergent writing skills through natural activities such as conversations, storytelling, role-playing, and shared reading (Roskos et al., 2009). When language stimulation is insufficient, children are at greater risk of experiencing delays in language development and emergent literacy, which may subsequently affect their academic achievement in later stages of education (Owens, 2016). Therefore, improving the quality of language stimulation within early childhood education settings has become an essential indicator of educational quality.

Within Islamic early childhood education institutions (Islamic kindergartens), language development encompasses broader educational dimensions. Language functions not only as a communicative tool but also as a medium for internalizing religious values and moral character through the habitual use of *kalimah tayyibah* (virtuous expressions) and exemplary verbal conduct (Suryadi & Munif, 2017). These responsibilities have become increasingly challenging due to children's growing exposure to digital devices, which may diminish opportunities for reciprocal communication and hinder the development of pragmatic language skills (Madigan et al., 2020). Consequently, the effectiveness of language stimulation in contemporary classrooms depends substantially on educators' psychological readiness and professional agency.

In early childhood education, educators serve as the primary agents responsible for creating learning environments rich in language stimulation. Their ability to design meaningful learning experiences, facilitate classroom discussions, and foster active verbal interactions plays a significant role in promoting children's language development. However, educators' effectiveness is determined not only by their pedagogical competence but also by psychological factors, particularly their sense of self-efficacy.

One of the most influential internal determinants of instructional quality is educator self-efficacy. According to Bandura's (1997) Social Cognitive Theory,

self-efficacy refers to individuals' beliefs in their capabilities to organize and execute the actions required to achieve desired outcomes. Educators with high levels of self-efficacy tend to demonstrate greater resilience, creativity in designing language-learning activities, and responsiveness to children's diverse verbal needs (Tschannen-Moran & Hoy, 2001). Conversely, low self-efficacy is associated with instructional uncertainty, which may reduce the effectiveness of classroom interactions and ultimately contribute to lower levels of children's emergent literacy achievement (Ma'mun, Kurniady, & Suharto, 2021).

Although the theoretical relationship between educator self-efficacy and learning outcomes has been widely discussed, a significant research gap remains within the context of Islamic education in rapidly developing regional areas such as Sangatta Utara, East Kutai Regency. With a population density of 389.28 inhabitants per square kilometer (BPS East Kutai, 2025), the region faces challenges associated with relatively high teacher-student ratios. Preliminary field observations indicate disparities in children's language development that are strongly suspected to be associated with variations in educators' confidence in integrating religious values and digital technology into classroom instruction.

Although numerous studies have investigated the relationship between educator self-efficacy and children's learning outcomes, research specifically examining the influence of educator self-efficacy on children's language development within Islamic kindergarten settings remains limited. Most previous studies have focused on general educational contexts and have not specifically explored the contribution of educators' psychological characteristics to children's language development within religiously oriented educational environments. This limitation highlights an important research gap that warrants further investigation.

Furthermore, this study was conducted in Islamic kindergartens located in Sangatta Utara District, East Kutai Regency, East Kalimantan, an area characterized by diverse social and educational conditions. Differences in educators' academic qualifications, teaching experience, and professional development opportunities are likely to produce varying levels of self-efficacy, which may subsequently influence how educators facilitate language development in the classroom. Therefore, this study offers a novel contribution by examining the relationship between educator self-efficacy and early childhood language development within the context of Islamic educational institutions at the local level, an area that has received relatively limited scholarly attention. Previous studies, such as Klassen and Chiu (2010), primarily examined teacher self-efficacy within general formal education in Western contexts. The novelty of the present study lies in its empirical investigation of educator self-efficacy within the distinctive socio-religious

context of Islamic early childhood education in East Kalimantan. Specifically, this study aims to analyze the effect of educator self-efficacy on children's language development in Islamic kindergartens in Sangatta Utara. The findings are expected to provide evidence-based insights for policymaking aimed at strengthening educator quality and enhancing early childhood education practices in the post-digital era.

RESEARCH METHODS

This study employed a quantitative survey using an explanatory research design to examine the effect of educators' self-efficacy on early childhood language development. An explanatory design was selected to investigate the causal relationship between the independent and dependent variables based on established theoretical and empirical frameworks (Creswell & Creswell, 2018). The study was conducted from January to February 2026 in Islamic kindergartens located in Sangatta Utara District, East Kutai Regency, East Kalimantan, Indonesia.

The participants comprised 51 early childhood educators teaching children aged 4–6 years. Although language development was observed among 470 children, the educator served as the unit of analysis. Each participant generated one composite self-efficacy score and one composite language development score. Educators' self-efficacy was measured using a 25-item five-point Likert questionnaire developed based on Bandura's Social Cognitive Theory (Bandura, 1997), while children's language development was assessed using a 20-item structured observation instrument covering receptive, expressive, and early communication skills.

Instrument validity was evaluated using Exploratory Factor Analysis and Confirmatory Factor Analysis, whereas reliability was assessed using McDonald's Omega and Cronbach's Alpha (Hair et al., 2019). Data were analyzed using JASP through descriptive statistics, assumption testing, Pearson's correlation, and simple linear regression at a significance level of $\alpha = .05$. Ethical principles, including informed consent, voluntary participation, confidentiality, and institutional approval, were maintained throughout the study.

RESULT AND DISCUSSION

Validity and Reliability of the Educator Self-Efficacy Instrument

The educator self-efficacy instrument demonstrated excellent psychometric properties. The Kaiser–Meyer–Olkin (KMO) value of 0.865 indicated adequate sampling adequacy for factor analysis. Furthermore, Bartlett's Test of Sphericity was statistically significant ($\chi^2 = 255.423$, $p < .001$), confirming that the inter-item correlations were sufficient for factor analysis. The Exploratory Factor Analysis (EFA) identified a single dominant factor with an eigenvalue of 17.77,

explaining 71.1% of the total variance. This finding indicates that the self-efficacy construct was unidimensional. All questionnaire items exhibited high factor loadings ranging from 0.586 to 0.957, exceeding the recommended minimum threshold of 0.40 for construct validity (Hair et al., 2020). Reliability analysis yielded a Cronbach's Alpha of 0.980 and McDonald's Omega of 0.980, indicating excellent internal consistency. These results confirm that the instrument is both reliable and stable for assessing educators' self-efficacy in early childhood education settings.

Validity and Reliability of the Early Childhood Language Development Instrument

The early childhood language development instrument also demonstrated excellent psychometric quality. The KMO value of 0.875 indicated high sampling adequacy, while Bartlett's Test of Sphericity was statistically significant ($\chi^2 = 18.145$, $p < .001$), confirming the suitability of the data for factor analysis. Confirmatory Factor Analysis (CFA) revealed that all indicators had high standardized factor loadings ranging from 0.864 to 1.021 ($p < .001$), indicating strong construct validity. These findings demonstrate that each indicator contributed significantly to the measurement of children's language development. Reliability analysis further demonstrated excellent internal consistency, with McDonald's Omega and Cronbach's Alpha both reaching 0.976. Therefore, the language development instrument was considered both valid and reliable for use in the present study.

Educators' Self-Efficacy Level

Descriptive statistical analysis indicated that educators' self-efficacy was classified as high, with a mean score of 108.0. This finding suggests that the participating educators possessed strong confidence in their professional ability to plan, implement, and evaluate learning activities effectively. Regarding participant characteristics, all educators were female (100%). Most participants were over 40 years of age (60%), employed as permanent teachers (80%), held a bachelor's degree in Early Childhood Education (60%), and had more than ten years of teaching experience (60%). In addition, approximately 80% had participated in language-related professional training. These demographic characteristics indicate that the majority of participants possessed substantial professional experience. Extensive teaching experience and participation in professional development programs may have contributed to their high levels of self-efficacy in performing pedagogical responsibilities.

Early Childhood Language Development Level

Descriptive analysis showed that children's language development was categorized as good, with a mean score of 71.58. Approximately 80% of the children achieved good levels of language development, indicating that most participants met the expected developmental milestones for early childhood

language skills. Most children in this study were between five and six years of age (Group B). At this developmental stage, children generally demonstrate more advanced receptive and expressive language abilities, including understanding complex instructions, expanding vocabulary, and producing more complete and coherent sentences.

Effect of Educators' Self-Efficacy on Early Childhood Language Development

Simple linear regression analysis demonstrated that educators' self-efficacy had a statistically significant effect on early childhood language development. The regression ANOVA produced an F value of 9.414 ($p = .004$), indicating that the regression model was statistically significant. Pearson's correlation analysis revealed a significant positive relationship between educator self-efficacy and children's language development ($r = 0.401$, $p = .004$), representing a moderate correlation. The coefficient of determination indicated that educators' self-efficacy explained 16.1% ($R^2 = 0.161$) of the variance in children's language development, while the remaining 83.9% was attributable to other factors beyond the scope of the present model. The regression coefficient ($\beta = 0.194$) indicated that each one-unit increase in educators' self-efficacy was associated with a corresponding increase in children's language development scores, suggesting that stronger professional confidence contributes positively to children's language outcomes.

Discussion

Psychometric Quality of Instruments: Evidence of Validity and Reliability

The findings of this study demonstrate that the educator self-efficacy and early childhood language development instruments possess strong psychometric properties. The satisfactory Kaiser-Meyer-Olkin (KMO) values and significant Bartlett's Test of Sphericity indicate that the datasets fulfilled the requirements for factor analysis, suggesting that the measurement models were statistically appropriate. Establishing construct validity is essential in educational research because psychological constructs, such as self-efficacy, cannot be directly observed and must be represented through theoretically grounded indicators (Hair et al., 2020).

The educator self-efficacy instrument revealed a unidimensional factor structure, indicating that the measured items consistently represented a unified construct of professional confidence. This finding supports the conceptualization of self-efficacy as an individual's belief in their capability to organize and execute actions required to achieve desired outcomes. Although self-efficacy may operate across different domains, previous research has demonstrated that teacher efficacy frequently emerges as a general professional belief that influences instructional decisions, persistence, and classroom behavior (Bandura, 1997; Tschannen-Moran & Hoy, 2001). The high factor loadings obtained across all items indicate that each indicator contributed

substantially to measuring educators' self-efficacy. In psychometric research, factor loadings above the recommended threshold indicate that items adequately represent the underlying latent construct and provide evidence of convergent validity (Hair et al., 2020). Therefore, the instrument used in this study can be considered appropriate for assessing educators' confidence in facilitating early childhood learning. The reliability analysis further strengthened the quality of the measurement instruments. The combination of Cronbach's Alpha and McDonald's Omega provided more comprehensive evidence of internal consistency because Omega is considered a more robust reliability estimator when factor loadings are unequal among measurement items (Trizano-Hermosilla & Alvarado, 2016). High reliability coefficients indicate that the instruments consistently measure the intended constructs and can support accurate interpretation of relationships among variables.

Educator Self-Efficacy: The Role of Professional Experience and Continuous Development

The results indicate that educators in Islamic kindergartens demonstrated a high level of self-efficacy. This finding suggests that participating educators possessed strong professional confidence in planning, implementing, and evaluating learning activities. From the perspective of social cognitive theory, self-efficacy influences individuals' motivation, persistence, and behavioral choices when performing professional tasks (Bandura, 1997).

The high level of educator self-efficacy may be associated with the professional characteristics of participants, particularly their teaching experience and professional background. The majority of educators in this study had more than ten years of teaching experience, suggesting that accumulated classroom experiences contributed to the development of stronger professional beliefs. Mastery experiences obtained through repeated teaching practices represent the most influential source of self-efficacy because successful experiences strengthen individuals' perceptions of competence and capability (Bandura, 1997). Previous studies have consistently demonstrated that teaching experience is associated with higher levels of teacher self-efficacy because experienced educators generally possess better classroom management skills, stronger pedagogical knowledge, and greater confidence in addressing instructional challenges (Klassen & Chiu, 2010). Experienced teachers also tend to demonstrate greater resilience and adaptability when responding to diverse learner characteristics, which subsequently supports more effective classroom practices (Zee & Koomen, 2016).

Participation in professional development activities may also contribute to strengthening educator self-efficacy. Professional training provides opportunities for teachers to acquire new instructional strategies, observe effective practices, and receive feedback from colleagues and experts. These

experiences enhance self-efficacy through social persuasion and vicarious learning processes, which are recognized as important sources of efficacy beliefs (Bandura, 1997). Therefore, educator self-efficacy should be viewed as a dynamic professional capacity that develops through continuous learning and meaningful teaching experiences.

Early Childhood Language Development Through Social Interaction and Scaffolding

The findings indicate that children's language development was generally at a good level. This outcome reflects the effectiveness of language stimulation practices implemented in Islamic kindergarten settings in Sangatta Utara. Early childhood language development is not merely an individual cognitive process but emerges through social interaction, communication experiences, and meaningful engagement with adults and peers (Vygotsky, 1978). The role of educators is particularly important because teachers provide linguistic scaffolding that enables children to perform communication tasks beyond their current independent abilities. Through questioning, modeling, feedback, and responsive dialogue, educators create learning experiences within children's Zone of Proximal Development (ZPD), allowing gradual development of more complex language skills (Vygotsky, 1978).

The positive language development outcomes observed in this study may also be explained by the presence of supportive teacher-child interactions. Previous research has shown that emotionally supportive and instructionally responsive classroom environments significantly contribute to children's vocabulary growth, communication competence, and emergent literacy development (Mashburn et al., 2008). High-quality teacher-child interactions provide children with frequent opportunities to practice language, express ideas, and receive immediate linguistic feedback. Furthermore, children aged five to six years generally experience rapid development in receptive and expressive language abilities. At this stage, children begin to demonstrate greater vocabulary knowledge, more complex sentence structures, and improved communication competence. However, the quality of children's language development remains strongly influenced by the richness of linguistic environments provided by adults around them (Hoff, 2013).

The Effect of Educator Self-Efficacy on Children's Language Development

The central finding of this study is that educator self-efficacy has a significant positive effect on early childhood language development. This result indicates that educators who possess stronger confidence in their professional abilities are more likely to create effective learning environments that support children's linguistic growth. Self-efficacy influences teachers' instructional behavior through several mechanisms. Educators with high self-efficacy tend to demonstrate greater persistence, willingness to implement innovative teaching

strategies, and stronger commitment to supporting children with different developmental needs (Tschannen-Moran & Hoy, 2001). In early childhood education, these characteristics are particularly important because language development requires continuous interaction, patience, and responsive communication.

The findings support previous research indicating that teacher self-efficacy is associated with classroom quality and children's learning outcomes. Teachers with stronger efficacy beliefs are more likely to provide instructional support, maintain positive classroom interactions, and engage children in meaningful learning activities (Zee & Koomen, 2016). Therefore, educator self-efficacy functions as a psychological mechanism that transforms pedagogical knowledge into actual classroom practices. Although the contribution of educator self-efficacy accounted for only part of the variation in children's language development, this finding remains educationally meaningful. Early childhood development is influenced by multiple interacting factors, including family literacy practices, socioeconomic conditions, children's cognitive characteristics, nutrition, and digital media exposure (Bronfenbrenner & Morris, 2006). Thus, educator self-efficacy should be considered as one important component within a broader ecological system influencing children's development.

Educational Implications and Limitations

The findings provide important implications for improving the quality of early childhood education, particularly in Islamic kindergarten contexts. Educational policies should not focus solely on physical facilities and curriculum development but should also prioritize strengthening educators' psychological capacities. Programs involving continuous professional development, mentoring, reflective teaching practices, and supportive supervision may enhance educators' self-efficacy and improve classroom language stimulation practices.

In Islamic early childhood education settings, strengthening educator self-efficacy is particularly relevant because teachers are expected to integrate language development with moral and religious values. Confident educators are more capable of creating meaningful communication experiences while maintaining culturally appropriate learning environments. However, this study has several limitations. The cross-sectional design limits the ability to establish long-term causal relationships, and the analysis focused primarily on educator-related factors. Future research should employ longitudinal approaches and incorporate additional variables, such as parental involvement, home literacy environments, children's individual characteristics, and digital technology exposure, to provide a more comprehensive explanation of early childhood language development. This study confirms that educator self-efficacy

represents an important psychological foundation that contributes to children's language development. Strengthening educators' professional confidence may serve as an effective strategy for creating responsive, interactive, and language-rich early childhood learning environments.

CONCLUSION

The findings of this study support Bandura's Social Cognitive Theory by demonstrating the important role of educator self-efficacy in influencing instructional quality and children's language development. Early childhood educators showed high self-efficacy, supported by their professional qualifications, teaching experience, employment stability, and participation in competency training. Children's language development was also categorized as good, indicating effective language stimulation within the learning environment. Statistical analysis confirmed a significant positive relationship between educator self-efficacy and children's language development, suggesting that stronger professional confidence contributes to more effective pedagogical interactions and scaffolding practices. These findings also align with Vygotsky's Sociocultural Theory, emphasizing that language development occurs through meaningful social interaction. Although self-efficacy is an important predictor, other factors such as family environment and media exposure may also influence children's language outcomes. Therefore, continuous professional development and supportive supervision are recommended to strengthen educators' self-efficacy and improve early childhood language learning.

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