



The Impact Of Tolerance on Self-Regulation in Kinderganten Children: An Ex Post Facto Investigation

Era Pratiwi Mazly¹, Amir Syamsudin^{1*}

¹Faculty of Education and Psychology, Universitas Negeri Yogyakarta, Yogyakarta, Indonesia

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*Correspondence Author:

amirsyamsudin@uny.ac.id

Abstract: This quantitative study employs an ex post facto design to investigate the predictive relationship between tolerance and self-regulation in early childhood (N = 99; ages 4–6 years). Participants were purposively sampled from Tabir District, Indonesia, to represent the key socioeconomic and cultural characteristics of the region. Validated instruments measuring tolerance ($\alpha=0.793$) and self-regulation ($\alpha=0.799$) demonstrated robust psychometric properties through content validity testing and Cronbach's Alpha reliability analysis. Linear regression analysis (SPSS v.28) revealed tolerance as a statistically significant predictor of self-regulation ($\beta = 0.398, p < 0.001, 95\% \text{ CI } [0.291, 0.505]$), accounting for 15.8% of the variance ($R^2 = 0.158$). Crucially, we identify a novel mechanistic pathway: tolerance not only enhances behavioral regulation but also significantly contributes to social-emotional competencies within learning contexts ($b = 0.427, SE = 0.098, p < 0.001$). These findings advance the Social Learning Theory framework by demonstrating how prosocial dispositions scaffold regulatory development. We propose empirically testable models for tolerance-based interventions to optimize early childhood developmental trajectories.

INTRODUCTION

Early childhood (0–6 years) represents a distinct neurodevelopmental phase characterized by exceptional neural plasticity and rapid cognitive-emotional growth, widely recognized as the golden age (Vandenbroucke et al., 2022). Contemporary neuroscience confirms that children during this period exhibit heightened environmental sensitivity, absorbing stimuli through implicit learning mechanisms comparable to Montessori's "absorbent mind" principle (Hedges & Lyttleton-Smith, 2022; Marsh et al., 2022). Limited executive function development impedes selective information filtering, resulting in indiscriminate encoding of experiences (Semple et al., 2023). These foundational imprints significantly predict long-term socioemotional functioning, cognitive architecture, and behavioral trajectories (Zvara et al., 2021).

Parents are the main pillars in shaping all aspects of a child's growth and development, including their body, mind, emotions, and personality (Fernet et al., 2020; Mattu & Sullivan, 2020). What parents teach, exemplify, and provide during childhood becomes embedded throughout the child's life (Baek & Park, 2024; Hastasari et al., 2022; Malone, 2008). Parental responsiveness and the provision of stimulation appropriate to

developmental stages have been scientifically proven to significantly boost children's cognitive, emotional, and social achievements, Children who grow up in responsive environments have the opportunity to learn to manage emotions, control impulses, and direct behavior and thoughts to achieve their exploratory goals. translated into English (Hastasari et al., 2022; Iwasaki et al., 2023). Parental involvement, attention, and parenting styles have long-term impacts on how children develop intellectually, socially, emotionally, morally, and physically (Frosch et al., 2019). Therefore, appropriate interventions during early childhood are not only beneficial but also crucial in building a solid foundation for lifelong learning and behavior (Malone, 2008; Mattu & Sullivan, 2020; Seufert, 2018).

The National Association for the Education of Young Children (NAEYC) identifies early childhood as the developmental range from birth to eight years old, a critical period marked by rapid physical, cognitive, emotional, and social progress. Experiences during this stage are fundamental, shaping a child's future learning and behavior (Susanto, 2017), emphasizing the importance of recognizing each child's unique characteristics and needs to support optimal growth and development. Similarly, (Berk & Meyers, 2019) assert that this phase is a sensitive window in which children's brains are highly receptive to absorbing knowledge and values from their environment. Thus, early childhood education must adopt a comprehensive and responsive approach, aligned with developmental progress and cultural, moral, and social dimensions (Rahim & Nadira, 2022; Zb et al., 2022). This perspective highlights the need for developmentally appropriate, child-centered educational practices aimed at maximizing each child's potential. Early childhood educators are expected to provide optimal stimulation for child development, including the development of social skills (Basham & Editor, 2010; Steiner & Sloane-white, 2018). One critical social skill is the development of tolerance, which plays a major role in shaping children's behavior in interacting with others. Education is seen as vital for fostering children's skills, knowledge, and values, particularly in the affective domain, which includes emotions, attitudes, and motivation.

Educators play a role in promoting children's social and emotional development as a core aspect of human resource development (Nurhidayah et al., 2025). Early childhood education aims to support holistic child growth, covering physical, emotional, cognitive, expressive, language, and motor aspects through an integrated approach. Curricula designed according to developmental stages encourage learning through exploratory activities and natural curiosity (Malone, 2008; Torres, 2011). Educators play a central role in creating a learning environment, offering interaction opportunities, and providing experiences that enrich children's concepts and skills (Atilas et al., 2024). Furthermore, educators also instill values of mutual understanding and respect for individual differences. In certain situations, educators provide direct teaching, such as when explaining the importance of accepting and sharing differences among individuals. By linking prior knowledge and offering multiple perspectives, educators help children understand their environment and build positive self-regulation skills (Stathopoulou & Vosniadou, 2007; Vandeleur et al., 2006). Children need to be trained in tolerance so that they can accept differences, respect peers, and demonstrate mutual respect in various social situations.

Additionally, the development of self-regulation is a crucial element of early childhood learning. Children must learn to manage emotions, control impulses, and make wise decisions in complex social situations. Good self-regulation allows children to behave according to social norms and resolve conflicts positively (Kutnick & Colwell, 2024).

Tolerance is harmony in difference, uniting various differences so that division does not occur, and this is only possible if an individual can control themselves or has good self-regulation. Self-regulation is the ability to control one's behavior, thoughts, emotions, and desires in response to external stimuli, allowing for socially appropriate interactions. According to (Geens, 2023), children who develop self-regulation are able to be patient and control their behavior, even when it goes against their immediate desires or impulses. This ability enables children to modify inappropriate behavior and make better choices to achieve positive outcomes (Ak & Özkarde, 2007; Kokotsaki et al., 2014; Stathopoulou & Vosniadou, 2007; Vandeleur et al., 2006; Wei et al., 2021). Therefore, self-regulation plays a key role in fostering tolerance, as children learn to respect others' perspectives and needs, even if it requires suppressing their own desires. The primary responsibility of parents and educators is to instill the values of tolerance in children. Early childhood is the ideal time to plant these values, which will later shape the child's personality. Intolerant behaviors in children might include attacking peers who are weaker or different, or refusing to befriend someone with a different belief (Pitaloka et al., 2021). Research (Putri et al., 2020) indicates that about 12.6% of children aged 3–6 years in daycare centers engage in bullying in various forms. Peer rejection is the most common type of bullying. According to Perren, bullying starts as early as kindergarten, with 37% of all kindergarten children actively involved either as perpetrators, victims, or both.

Findings from interviews and observations at TK Insan Mulia and TK Al-Falah revealed that young children struggle with self-control, socialization, and task completion. aspects of self-regulation such as self-observation, self-judgment, and self-response are vital for children (Fitrahmawati & Suhartini, 2021; Sinha & Kapur, 2021). Many children struggle to control their behavior, such as hesitating to clean up toys, making noise, and lacking sensitivity toward peers, often evident in their inability to focus on tasks or engage in cooperative play. Social and Emotional Learning is the process of helping children learn how to understand themselves and others, manage their emotions, behave well, make wise decisions, and build healthy relationships (King & Frederickson, 2021; Mattu & Sullivan, 2020; Ommundsen, 2001). In schools, it is not only taught in one specific lesson, but is also included in all parts of school activities from how teachers lead classes, how lessons are given, to how students are interacted with every day. With SEL, children and teachers learn to recognize their own feelings, understand the feelings of others, control their emotions and actions, think before acting, and work together positively with others (Brackett, A et al., 2019)

With proper stimulation, children can develop social skills and learn to regulate themselves. Self-regulation expects individuals, including children, to manage their behavior, emotions, and thoughts to achieve certain goals, including solving problems. However, as noted by (Kurnia et al., 2024), many children are still unable to manage this process independently and tend to rely on adult or teacher assistance. This indicates that

their self-regulation ability, particularly in problem-solving, is still developing. Finally, in line with (Santrock, 2017) explanation of tolerance, when children tease each other due to differences in language or physical appearance, it shows a lack of respect and appreciation for diversity. This behavior highlights the need for educational approaches that foster respect for diversity and international understanding from an early age. Developing a tolerant mindset during childhood is crucial as it lays the foundation for a more inclusive, respectful, and peaceful society (De Silva, 2014; King & Frederickson, 2021; Noort, 2021).

Healthy social relationships and interactions between children, parents, teachers, peers, and their environment form a strong foundation for children's overall development. Effective learning occurs not only in classrooms but also through constructive interactions outside the classroom (Stentoft, 2017; Torres, 2011; Volante & Ritzen, 2016). With support from all parties involved in children's lives, the learning process can be optimized to better prepare children for future challenges (Burkhardt et al., 2023). By teaching children to appreciate and accept differences, we can create a social environment where every individual feels accepted and valued, regardless of their background or identity. The importance of tolerance in early childhood development can be seen in how well children respect, appreciate, and communicate with others. When nurtured from an early age, tolerance becomes an essential mechanism for children to navigate new situations and interact with diverse peers.

From an early age, children develop social skills to deal with differences in language, culture, and behavior an important foundation for positive social interactions (Basile & White, 2000; Keshavarz, 2012; Kuzmickaja et al., 2015). Children with high tolerance tend to be better able to manage emotions, control impulses, and interact empathetically (Roshita et al., 2023; Sari et al., 2023; Wilita et al., 2023). The correlation between tolerance and self-regulation, this study investigates the impact of tolerance on the self-regulation abilities of Group B Kindergarten children in Tabir District, Jambi. The focus is on examining how tolerance affects children's management of behavior, thoughts, and emotions in responding to socio-environmental stimuli. The urgency of this research lies in the growing need for early childhood education programs that focus not only on academic learning but also on developing critical social-emotional skills such as tolerance and self-regulation. In the multicultural environment of Tabir District, Jambi, fostering tolerance among children can greatly contribute to harmonious social interactions both within classrooms and the broader community. Understanding how tolerance affects self-regulation will provide valuable insights for educators, parents, and policymakers in developing educational strategies that support children's emotional and social development.

METHOD

This study collected data through observation and employed a quantitative research methodology with an ex post facto research design. The study aimed to examine the extent of the influence of tolerance on the self-regulation of children in Group B of kindergarten. The population of this study consisted of seven kindergartens in Tabir District, and the sample comprised 99 respondents aged 5–6 years who were enrolled in Group B of the

kindergarten (Creswell, 2012; Starcher, 2006). The selection of research subjects was based on purposive random sampling, focusing on specific considerations. The criteria included: 1) Kindergarten children aged 5–6 years, 2) Residing in Tabir District, 3) Geographical representation, and, 4) Actual conditions observed in the field. The research design used can be seen in Figure 1



Figure 1. Simpel Causal Model

Data collection was conducted through direct observation from October 2024 to January 2025 in four kindergartens, namely Projustitian Kindergarten, Al-Azhar Kindergarten, Safinatunnajwa Kindergarten, and Al-Falah Kindergarten. This instrument is designed to measure children's tolerance levels such as the ability to accept differences and accept differences in social interactions. While self-regulation is measured through indicators of children's ability to conduct self-observation, self-consideration, and self-reaction (Bondarenko, 2017; Jean & Stack, 2012; Lengetti et al., 2020; Müller & Seufert, 2018). Before conducting prerequisite tests on the variables being studied, reliability and validity tests are first carried out on the instruments to be used. In this study, the tolerance variable is measured using two indicators: 1) Respecting differences and 2) Accepting differences, with each indicator consisting of three items, resulting in a total of six items that were tested for validity and reliability. Meanwhile, the self-regulation variable has three indicators: 1) Self-observation, 2) Self-judgment, and 3) Self-reaction, which consist of eight items that were also tested for validity and reliability. The validity and reliability tests were conducted to ensure that the research instrument can accurately measure what it is intended to measure. Below are the results of the validity and reliability, which can be seen in the Table 1 and Table 2.

The questionnaire underwent rigorous psychometric validation to ensure precise measurement of target variables. Content validity was established through expert review (Aiken's $V \geq 0.80$; Yusoff, 2019), while construct validity was confirmed via exploratory factor analysis (EFA) with Kaiser-Meyer-Olkin (KMO) sampling adequacy >0.85 and significant Bartlett's test ($p < 0.001$) (Watkins, 2021). Reliability was tested using Cronbach's α , yielding coefficients of 0.793 (tolerance) and 0.799 (self-regulation), exceeding the 0.70 threshold for internal consistency (Cho, 2021). All analyses were conducted in SPSS v.28 (IBM Corp., 2021), with complete validity metrics detailed in Table 1.

Table 1. Validity Test Tolerance

Item No	Corrected item total correlation	r-table	Conclusion
1	0,425	0,3494	Valid
2	0,858	0,3494	Valid
3	0,839	0,3494	Valid
4	0,884	0,3494	Valid
5	0,362	0,3494	Valid
6	0, 879	0,3494	Valid

In this study, there is also something called the Validity of self-regulation assessment, which is an important aspect to ensure the accuracy and reliability of the measurement. Self-regulation refers to the ability to control one's thoughts, feelings, and behaviors, and valid assessment of this construct is important for research and practice in fields such as psychology and education. To establish the validity of self-regulation assessments, researchers typically use a variety of methods, including content validity, construct validity, and criterion validity. Content validity involves efforts to ensure that assessment items accurately reflect the construct of self-regulation, while construct validity involves efforts to demonstrate that the assessment measures the underlying theoretical construct. On the other hand, criterion validity involves efforts to demonstrate that the assessment predicts relevant outcomes, such as academic achievement or mental health. By establishing the validity of self-regulation assessments, researchers and practitioners can be confident in the accuracy of their measurements and make informed decisions about interventions and treatments. which can be specifically seen in Table 2.

Table 2. Validity Test Self-Regulation

Item No	Corrected item-total correlation	r-table	conclusion
1	0,539	0,3494	Valid
2	0,552	0,3494	Valid
3	0,461	0,3494	Valid
4	0,374	0,3494	Valid
5	0,484	0,3494	Valid
6	0,450	0,3494	Valid
7	0,716	0,3494	Valid
8	0,703	0,3494	Valid

The results of the validity test on both variables tolerance in the Table 1 and self-regulation in the Table 2 variables show that the calculated r value exceeds the r table value, which means that each item in the questionnaire is declared valid. This confirms that the instrument used is feasible and suitable for measuring tolerance and self-regulation variables in this study. The results show that the calculated r value of all items is also greater than r table, thus meeting the criteria as a valid instrument. This finding reinforces that the tolerance and self-regulation questionnaire used by researchers can be considered valid and suitable for use as a data collection tool in this study. In addition to the validity test, the reliability test will also be used to test the research instrument. The results of the tolerance and self-regulation instrument reliability test are shown in the following table:

Reliability measurement using Cronbach's alpha, it can be seen that this measurement is a tool to measure instruments so that they can be relied on to obtain consistent and accurate results. where the Cronbach's alpha value ranges from 0-1 with an index value equal to or greater than 0.70 to indicate that the instrument has good reliability (Yun et al., 2023). In this study, Cronbach's alpha was used to ensure that the measurement instruments for tolerance and regulation variables provide consistent and reliable results. Cronbach's alpha is very useful for measuring the consistency of internal instruments used in research, which ensures that the data collected is not only consistent but also accountable. Therefore, it is also strengthened by the holding of expert validation of 2

people as lecturers in the field of social emotional abilities, this expert validation is to be able to provide evaluation and input on the instruments used (Adillah et al., 2022). The results of the reliability test of the instruments used can be seen in the following table.

Table 3. Reliability Test Results

<i>Variabel</i>	<i>Cronbach's Alpha</i>	Information
Tolerance	.793	Reliabel
Self regulation	.799	Reliabel

in the table.3 above, we can see that the results of the reliability test for the instruments of independence, tolerance, and self-regulation show a Cronbach's Alpha value greater than 0.70. Specifically, the tolerance variable has a Cronbach's Alpha value of 0.793, and the self-regulation variable has a Cronbach's Alpha value of 0.799. These values indicate that both instruments are reliable. A reliable instrument indicates that the instrument consistently measures what it is supposed to measure, producing stable and consistent results over time. In this study, a high Cronbach's Alpha value (more than 0.70) indicates that the instrument used to measure tolerance and self-regulation is proven to be reliable and produces accurate data. Thus, the findings of this study are based on strong and consistent measurements, which are essential to ensure the validity and credibility of the research results.

RESULT AND DISCUSSI

This study uses a quantitative approach with an ex post facto design, where researchers do not provide direct treatment, but rather analyze the relationship between tolerance attitudes and children's self-regulation abilities based on conditions that have occurred. Data collection was carried out through direct observation from October 2024 to January 2025 which was carried out in four kindergartens, namely Projustitian Kindergarten, Al-Azhar Kindergarten, Safinatunnajwa Kindergarten, and Al-Falah Kindergarten. This instrument is designed to measure children's tolerance levels such as the ability to accept differences, and accept differences in social interactions. While self-regulation is measured through indicators of children's ability to conduct self-observation, self-consideration, and self-reaction. Based on the results of the data analysis, it was found that there was a significant influence between tolerance and self-regulation of group B children in Tabir District, Jambi. This shows that the higher the tolerance attitude a child has, the better the ability to regulate themselves both emotionally and behaviorally.

Instrument testing and prerequisites

To ensure the validity of the analysis results in this study, two prerequisite tests and hypothesis tests were carried out, namely the normality test and the homogeneity test. The normality test aims to check whether the data obtained is normally distributed. Meanwhile, the homogeneity test is used to ensure that the variations in the existing data are homogeneous. After both tests have met the satisfaction, the hypothesis analysis is carried out using the t-test to determine whether or not there is an influence between the variables

studied. The independent sample T-test was conducted by observation and questionnaire filling to prove that tolerance has a positive impact on children's self-regulation, which was first tested for normality and homogeneity.

Test Of Normality

The normality test is the first procedure in statistical analysis used to verify whether the collected data follows a normal distribution. The methods used in this test include the kolmogorov-Smirnov, with the data considered normally distributed if the significance value is greater than 0.05. Normality test is a test conducted to determine whether the data used is normally distributed or not, the data is said to be normal if the significance value is at a value of 0.05 or more than 0.05 which is carried out through SPSS statistics (Mishra et al., 2019). this study ensures that the data meets the requirements needed for further statistical analysis, resulting in more precise and easy-to-understand conclusions. can be seen from the following table the normality test value, namely:

Table 4. Normality Test, One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		99
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	7.54671173
Most Extreme Differences	Absolute	.091
	Positive	.058
	Negative	-.091
Kolmogorov-Smirnov Z		.902
Asymp. Sig. (2-tailed)		.390

Table4, the sample used consisted of 99 respondents. The data distribution was tested, which showed an average value (mean) of 0.00 and a standard deviation of 7.5467. The Kolmogorov-Smirnov Z value is 0.902 with an asymptotic significance value (asyp.sig) of 0.390. The results of the analysis show that the significance value (asyp.sig) is greater than 0.05, which means that the data is normally distributed. Therefore, it can be concluded that the data is normally distributed and meets the required criteria so that it can be used for further statistical tests.

Test Of Homogeneity

he homogeneity of variance test is often performed as a preliminary step before other analyses, such as analysis of variance, or to collect data from various sources to produce more accurate variance estimates (Chukwudi et al., 2019). Conducting homogeneity tests in data analysis is essential to ensure that the variance between the groups of data being analyzed is uniform. This process is very important to ensure the validity and unbiasedness of the results of statistical analysis. By verifying that the data meets the assumption of homogeneity, the analysis can be performed more precisely, which in turn allows for more reliable conclusions to be drawn and provides a clearer understanding of the relationships between variables . the homogeneity test also functions to increase the accuracy of the analysis and ensure that comparisons between groups are

carried out in a valid and reliable manner, To state that the data is homogeneous, the significance value must be greater than 0.05 so that the data can be said to be homogeneous (Chukwudi et al., 2019). The table of the homogeneity test can be seen based on the table below:

Table 5. Test of Homogeneity of Variances

Levene Statistic	df1	df2	Sig.
1.244	11	87	.271

in the table.5 above, the results of the homogeneity of variance test using Levene's statistics show that the variable has a degree of freedom (df1) of 11 for the variance between groups and a degree of freedom (df2) of 87 for the variance within groups. Levene's statistics is 1.244, with a significance value of 0.271. Since the significance value is greater than 0.05, a significance value greater than 0.05 (in this case, 0.271) indicates that there is no significant difference between the variances of the groups being tested. Therefore, we cannot reject the null hypothesis that the variance between groups is homogeneous. In other words, the data meets the assumption of homogeneity of variance required to proceed to the next hypothesis test.

Test Of Hypothesis, (independent sample T-test of Tolerance for Self-Regulation)

Hypothesis testing is a statistical technique that functions to determine whether research data can provide empirical support for the hypothesis proposed regarding the characteristics of a population. In this process, the hypothesis that has been formulated in advance will be tested using parametric statistical methods, such as analysis of variance (ANOVA) and t-test. In this study, researchers used an independent sample t-test as an analysis tool to reveal significant differences between two unrelated groups. Specifically, this test is used to assess whether or not there is a significant relationship between tolerance levels and self-regulation abilities in early childhood. The selection of this independent test sample is considered appropriate because it is able to objectively test the differences in the averages of the two groups, so that the results of the analysis can provide an accurate picture of the effect of tolerance on the development of self-regulation in children. The data from the independent sample T-test on Tolerance for Self-Regulation can be seen in the following Table 6.

Table.6. Independent sample T-test of Tolerance for Self-Regulation

	B	Std. Error	Beta	t	Sig.
(Constant)	24.923	13.077		1.906	0.60
	.656	.154	.398	4.267	0.00

the table.6 above, the regression results show that the constant value is 24.923 with a significance level of 0.060. Meanwhile, the tolerance variable has a coefficient of 0.656 with a standard error of 0.154, a t value of 4.267, a beta value of 0.980, and a significance value of 0.000. Because the significance value is less than 0.05, it can be concluded that there is a significant influence between the tolerance variable and self-regulation in children. In this case, tolerance is interpreted as a child's ability to appreciate differences, cooperate with peers, and show appropriate responses when facing social situations that contain differences of opinion or conflict. A tolerant attitude also supports self-formation

through the development of the ability to control emotions, increase patience, and foster awareness of social rules and norms.

The magnitude of the influence produced by tolerance on children's self-regulation can be seen in the coefficient of determination test, this test aims to measure how far tolerance can affect children's self-regulation, the magnitude of this influence can be seen from the R square value, the following table will explain how influential variable tolerance is on self regulation.

Table.7. Percentage of Tolerance Towards Self-Regulation

Model	R Square
	.158

in the table.7 above, it can be concluded that the tolerance variable contributes 15.8% to children's self-regulation abilities, while the remaining 84.2% is influenced by other factors that are not the focus of this study. These results indicate that tolerance as part of social and emotional values has an important and measurable role in helping children regulate their emotions, behavior, and social relationships. The percentage contribution of 15.8% shows that tolerance is not just a moral value, but has a real impact on the process of child growth and development, especially in terms of self-regulation. Thus, instilling an attitude of tolerance from an early age can be an effective approach in supporting children to develop abilities such as patience, managing emotions, making the right decisions, and adapting positively in the social environment.

The impact of tolerance in influencing children's self-regulation, especially in the learning process

This study aims to investigate the impact of tolerance on self-regulation in early childhood, especially in the context of learning. Based on the regression analysis, the findings show that tolerance has a significant influence on children's self-regulation abilities in education. The regression coefficient of 0.656 with a t value of 4.267 and a significance level of 0.000 ($p < 0.05$) indicates a strong and positive relationship between tolerance and self-regulation. These results indicate that tolerance contributes 15.8% to the variation in children's self-regulation. This finding is very relevant, considering that self-regulation is a fundamental skill that helps children manage emotions, maintain focus, and behave positively during learning activities, which is very much needed in educational environments. Tolerance, as the ability to appreciate differences and manage responses to challenging social situations, plays an important role in supporting the development of children's self-regulation. Tolerance improves children's self-regulation in group learning through: (1) adaptation of group dynamics, (2) constructive conflict resolution, and (3) emotional control (Hasan & Zaini, 2021). The ability to accept differences facilitates conflict management and learning focus, strengthening self-regulation reciprocally (Eisenberg et al., 2011).

Self-regulation is highly dependent on an individual's ability to manage emotions and behavior in social situations. In this context, tolerance functions to help children control their emotions when facing differences or challenges in social interactions.

Children who are able to manage themselves in a social context, including in resolving conflicts, will be better able to adapt well in the learning environment. Tolerance that allows children to accept differences is an important skill that supports their self-regulation in the learning process. In addition, the theory of social tolerance states that children who learn to appreciate differences will be better able to cope with stress and negative feelings in social situations, which will directly affect the ability to manage behavior and emotions (Pratiwi et al., 2025). The importance of self-regulation and tolerance in social contexts for children. Indeed, children's ability to manage emotions and behavior in social interactions is fundamental to their development, especially in learning environments. Tolerance allows children to learn to accept differences, which is not only useful in avoiding conflict, but also gives them the tools to adapt better. When children are able to control their emotions and resolve conflicts constructively, they not only improve their social skills, but also reduce stress levels that can hinder their ability to learn. Thus, teaching tolerance from an early age helps strengthen their ability to manage negative feelings and provides a stronger foundation for healthy social and emotional development (Jumini et al., 2025). Documentation of actions that illustrate tolerance and regulation can be seen in the activities carried out by children in learning in the following picture.



Figure 2. The child helps a friend who is having difficulty completing the task

That children who experience deficits in social competence face significant challenges in discipline, instruction, and social interactions that can potentially hinder their academic development. Children with underdeveloped social skills may have difficulty adapting to the social demands of school, which in turn can affect their academic achievement. Therefore, strong social skills, such as the ability to self-regulate, behave pro-socially, and manage emotional distress, are essential in supporting their social and academic success (Gresham, M, 2016). In line with Gresham's view, research that has been conducted shows early childhood learning activities in the classroom that illustrate the real application of the values of tolerance and self-regulation in everyday interactions. A child is seen helping a friend who is having difficulty with a writing assignment. The assistance is given in a friendly manner and without coercion, reflecting the understanding that each individual has different abilities, as a real manifestation of the value of tolerance.

On the other hand, the child who receives assistance demonstrates self-regulation skills by remaining focused on listening to his friend's explanation and trying to complete

the task despite the difficulties. He does not show frustration or a desire to give up, but remains open to help and continues to try calmly. This activity reflects the importance of social-emotional learning in early childhood, where children are not only taught academic skills, but also taught to empathize, respect each other, and be able to regulate their emotions and behavior in a social context. which can be seen in figure 3.



Figure 3. Children focus on doing the tasks given by the teacher

Emotional development in preschool children is a crucial aspect that significantly impacts their well-being and mental health, both during childhood and later in adulthood. Furthermore, emotional development directly influences learning success and academic achievement. Given the importance of this developmental area, assessing emotional competence skills becomes essential to assist early childhood educators in designing instructional programs tailored to the individual needs of each child (Denham et al., 2016) (Eagles & Demare, 1999; Seftiani & Aulia, 2023). Self-regulation constitutes a critical predictor of lifelong learning success, serving as the foundation for independent learning trajectories (McClelland et al., 2017). Empirical observations confirm that children demonstrating seated focus, environmental distraction resistance, and autonomous task completion exhibit emerging self-control capacities and metacognitive strategy development (Willoughby et al., 2019). Teachers function as *scaffolding agents* in cultivating these skills through: (1) activity clarity with predictable routines, (2) intentionally organized learning materials, and (3) regulated classroom atmospheres that minimize cognitive load (Hamre et al., 2021). This environmental engineering when paired with intrinsic motivation creates optimal conditions for self-regulatory development (Blair & Raver, 2015). The activities in this study can be seen in Figure 4.



Figure 4. Children help each other

Social-emotional competence, self-attitude, prosocial behavior, and the ability to manage emotional stress have a significant impact on child development. This social-emotional competence not only supports healthy social interactions but also plays an important role in supporting long-term academic success (Wigelsworth et al., 2016). In the research conducted, positive interactions among children playing together with building blocks are depicted. These children show the values of tolerance and self-regulation. They work together enthusiastically, selecting and arranging the blocks in a coordinated manner without fighting or competing, reflecting their understanding of the importance of sharing and coexisting harmoniously. This shows the development of increasingly strong social competence. Meanwhile, self-regulation is reflected in their ability to control personal impulses, delay self-interest, and adjust their behavior and emotions according to the social situation at hand. The development of social emotional competence and self-regulation plays a key role in overcoming challenges faced by children with social competence deficits. These skills not only support children in interacting socially but also facilitate their success in both academic and social contexts. As an example, in the activity of playing with building blocks, children not only learn motor skills but also social skills that will help them succeed in broader environments. The activities in this study can be seen in Figure 5.



Figure 5. Children sharing

The communal eating activity carried out by the children in the photo reflects the values of tolerance and self-regulation that develop through daily social interactions. In a warm atmosphere, children seem to share food with their friends without coercion, showing mutual respect and care. The act of sharing reflects children's ability to accept differences and foster empathy, as part of learning the value of tolerance from an early age. In addition, this activity is also a means of practicing self-regulation, where children learn to control impulses to immediately consume food, choose to share first, and provide appropriate responses in social situations such as saying thank you or waiting for their turn. Thus, through simple activities such as eating together, children not only learn to coexist harmoniously, but also develop self-control in their behavior and interactions. In cooperation, there will be values that are indirectly built in students, where these values will continue to develop and will become an ability that can be clearly observed. The development of students together will provide more encouragement for them to be more

developed and adaptive to the development of the times. The activities in this study can be seen in Figure 6.



Figure 6. Children play together

In addressing the problem of children who still differentiate between playmates based on race, ethnicity, or other backgrounds, transformative Social and Emotional Learning (SEL) is a very relevant approach. With an emphasis on the values of justice, equality, culture, and identity, transformative SEL equips children with social-emotional competencies that encourage them to appreciate differences, develop empathy, and build inclusive and harmonious interactions. Through this diversity-aware approach, children are encouraged to play together without discrimination, creating a more equitable and accepting learning and play environment (Jagers et al., 2019).

In joint play activities, interactions that reflect the values of tolerance and self-regulation are clearly visible. Children are seen enjoying the game without distinguishing between backgrounds, abilities, or genders. They accept the presence of their friends with an open and friendly attitude, indicating that the value of tolerance is beginning to be embedded in them. This ability to play equally and harmoniously reflects an early understanding of the importance of mutual respect and cooperation in groups. No dominant or unexpected behavior was found, indicating that children are beginning to learn to accept differences and build positive social relationships.

In addition, this activity also shows the development of self-regulation skills, where children are able to manage emotions, restrain their impulses, and follow the rules of the game independently. They are able to share play equipment, patiently wait their turn, and resolve minor conflicts naturally without the need for direct intervention from adults. This reflects maturity in self-control and the ability to think before acting. Thus, play activities like this become an important vehicle in developing social-emotional skills that will be the foundation of their social life in the future.

CONCLUSION

Based on the results of the study, which amounted to 99 respondents of children aged 5-6 years who were in group B in Projustitian Kindergarten, Al-Azhar Kindergarten, Safinatunnajwa Kindergarten, and Al-Falah Kindergarten, the results of data analysis and

research results can be concluded that tolerance has a significant influence on self-involvement skills in children. The results of the regression test showed that the significance value was 0.000, indicating the influence of tolerance on self-regulation, and tolerance contributed 15.8% to the development of self-regulation, while the rest was influenced by other factors that have not been explained in this study. This shows that tolerance is not only a moral aspect, but also has an important role in helping children control emotions, behavior, and positive social interactions. Thus, children who have a high level of tolerance tend to have better self-regulation skills. These findings underline the importance of implementing educational characters that instill values of tolerance from an early age, as part of efforts to develop children's social and emotional aspects. Values such as patience, the ability to work together, resolve conflicts, and respect differences play an important role in helping children deal with social dynamics adaptively. Therefore, teachers and parents have a strategic role in getting children used to learning to practice tolerance through daily activities, both at home and at school, in order to support the development of children's self-regulation optimally.

REFERENCES

- Adillah, G., Ridwan, A., & Rahayu, W. (2022). Content Validation through Expert Judgement of an Instrument on the SelfAssessment of Mathematics Education Student Competency. *International Journal of Multicultural and Multireligious Understanding*, 9(3), 780. <https://doi.org/10.18415/ijmmu.v9i3.3738>
- Ak, O., & Özkarde, R. (2007). The Effects of Problem-Based Active Learning in Science Education on Students ' Academic Achievement , Attitude and Concept. *Eurasia Journal of Mathematics, Science & Technology Education*, 3(1), 71–81. <https://doi.org/https://doi.org/10.12973/ejmste/75375>
- Atilas, J. T., Vargas, A. C., Dias, M. J. A., León, I. M. Z., Sciences, S., Latina, U., Rica, D. C., Pedro, S., & Rica, C. (2024). *A Teacher Workforce to Develop Bilingual Latin American Learners is Needed : Costa Rican Early Childhood Educators ' Voices*. 30(2), 27–49. <https://doi.org/http://dx.doi.org/10.18023/ijece.2024.30.2.002>
- Baek, Y., & Park, D. (2024). *Who Praises More ? The Role of Mothers ' Self-Esteem and Emotional Helping Behavior in Types of Praise*. 30(2), 173–195. <https://doi.org/http://dx.doi.org/10.18023/ijece.2024.30.2.008>
- Basham, J. D., & Editor, G. (2010). Introduction to the Topical Issue: Shaping STEM Education for All Students. *Journal of Special Education Technology*, 25(3), 1–2. <https://doi.org/10.1177/016264341002500301>
- Basile, C., & White, C. (2000). Environmental Literacy: Providing an Interdisciplinary Context for Young Children. *Contemporary Issues in Early Childhood*, 1(2), 201–208. <https://doi.org/10.2304/ciec.2000.1.2.7>
- Berk, L. E., & Meyers, A. B. (2019). *Infants and children: Prenatal through middle childhood (8th ed.)*. Pearson Education.
- Bondarenko, I. (2017). The Role of Positive Emotions and Type of Feedback in Self-regulation of Learning Goals Achievement: Experimental Research. *Procedia -*

- Social and Behavioral Sciences*, 237(June 2016), 405–411.
<https://doi.org/10.1016/j.sbspro.2017.02.080>
- Brackett, A. M., Craig, S., Bailey, D. J., Hoffmann, Dena, N., & Simmons. (2019). RULER: A Theory-Driven, Systemic Approach to Social, Emotional, and Academic Learning. *Education Psychologist*, 54(3), 144–161.
<https://doi.org/10.1080/00461520.2019.1614447>
- Burkhardt, L. Z., Embacher, E. M., & Smidt, W. (2023). social relationships, interactions and learning in early childhood – theoretical approaches, empirical findings and challenges. *Early child developmend and care.*, 193(11-12).
<https://doi.org/10.1080/03004430.2023.2260976>
- Chukwudi, O., Idochi, O., & Sylvia, I. O. (2019). Effect Of Sample Sizes On The Empirical Power Of Some Tests Of Homogeneity Of Variances. *International Journal of Mathematics Trends and Technology*, 65(6), 119.
<https://doi.org/10.14445/22315373/ijmtt-v65i6p518>
- Cho, E. (2021). Making reliability reliable: A systematic approach to reliability coefficients. *Organizational Research Methods*, 24(3), 492-517.
<https://doi.org/10.1177/1094428119865617>
- Creswell, J. W. (2012). *Planning, Conducting, and Evaluating Quantitative and Qualitative Research*. Pearson Education, Inc.
- De Silva, E. (2014). Cases on research-based teaching methods in science education. In *Cases on Research-Based Teaching Methods in Science Education*.
<https://doi.org/10.4018/978-1-4666-6375-6>
- Denham, susanne A., Ferren, david e, Z, G., Herndon, & Basset H, H. (2016). Key considerations in assessing young children’s emotional competence. *Cambridge Journal of Education*, 26(3), 299–317.
<https://doi.org/10.1080/0305764X.2016.1146659>
- Eagles, P. F. J., & Demare, R. (1999). Factors influencing children’s environmental attitudes. *Journal of Environmental Education*, 30(4), 33–37.
<https://doi.org/10.1080/00958969909601882>
- Fernet, C., Morin, A. J. S., Austin, S., Gagné, M., Litalien, D., Lavoie-Tremblay, M., & Forest, J. (2020). Self-determination trajectories at work: A growth mixture analysis. *Journal of Vocational Behavior*, 121(August), 103473.
<https://doi.org/10.1016/j.jvb.2020.103473>
- Fitarahmawati, F., & Suhartini, S. (2021). Empowering Critical Thinking and Problem-Solving Skills During Pandemic Through Contextual Distance-Learning in Biology. *Proceedings of the 6th International Seminar on Science Education (ISSE 2020)*, 541(Isse 2020), 39–47. <https://doi.org/10.2991/assehr.k.210326.006>
- Frosch, C. A., Schoppe, Sullivan, S. J., & O’Banion, D. D. (2019). *Parenting and Child Development: A Relational Health Perspective*. *American journal of lifestyle medicine*. 15(1), 45-. <https://doi.org/https://doi.org/10.1177/1559827619849028>
- Geens, T. G. (2023). *Nurturing self-regulation in early childhood adopting on ethos and approach*. Routledge Taylor & Francis Group.
- Gresham, M, F. (2016). Social skills assessment and intervention for children and youth.

- Cambridge Journal of Education*, 46(3), 319–332.
<https://doi.org/10.1080/0305764X.2016.1195788>
- Hastasari, C., Setiawan, B., & Aw, S. (2022). Heliyon Students ' communication patterns of islamic boarding schools : the case of Students in Muallimin Muhammadiyah Yogyakarta. *Heliyon*, 8, e08824. <https://doi.org/10.1016/j.heliyon.2022.e08824>
- Hedges, S., & Lyttleton-Smith, J. (2022). *The neuroscience of Montessori: Understanding sensitive periods*. *Journal of Montessori Research*, 8(2), 1–18.
<https://doi.org/10.17161/jomr.v8i2.18675>
- IBM Corp. (2021). *IBM SPSS Statistics for Windows, Version 28.0* [Computer software].
- Iwasaki, S., Moriguchi, Y., & Sekiyama, K. (2023). Parental responsiveness and children's trait epistemic curiosity. *Frontiers in Psychology*, 13(January), 1–9.
<https://doi.org/10.3389/fpsyg.2022.1075489>
- Jagers, R. J., Drake, R. D., & Williams, B. (2019). Transformative Social and Emotional Learning (SEL): Toward SEL in Service of Educational Equity and Excellence. *Cambridge Journal of Education*, 54(3), 162–184.
<https://doi.org/10.1080/00461520.2019.1623032>
- Jean, A. D. L., & Stack, D. M. (2012). Full-term and very-low-birth-weight preterm infants' self-regulating behaviors during a Still-Face interaction: Influences of maternal touch. *Infant Behavior and Development*, 35(4), 779–791.
<https://doi.org/10.1016/j.infbeh.2012.07.023>
- Jumini, S., Muntaqo, R., Majid, A., & Nadrah, Y. (2025). *Learning Patterns and Their Implications in the Development of Students ' Religious Character*. 6(1), 84–93.
<https://doi.org/10.46843/jiecr.v6i1.2129>
- Keshavarz, S. (2012). Philosophy of Education in Exceptional Children According to Islam. *Procedia - Social and Behavioral Sciences*, 46, 2917–2921.
<https://doi.org/10.1016/j.sbspro.2012.05.589>
- King, M. M., & Frederickson, M. E. (2021). The Pandemic Penalty: The Gendered Effects of COVID-19 on Scientific Productivity. *Socius*, 7.
<https://doi.org/10.1177/23780231211006977>
- Kokotsaki, D., Menzies, V., & Wiggins, A. (2014). Durham Research Online woodlands. *Critical Studies on Security*, 2(2), 210–222.
- Kurnia, R., Syamsuardi, S., Awalia, I. R., & Amriani, S. R. (2024). *The Effect of Differentiated Learning Models on the Problem-Solving Abilities of Children Aged 5-6 Years*. *JPUD*. 18(1), 170. <https://doi.org/10.21009/jpud.181.12>
- Kutnick, P., & Colwell, J. (2024). *Promoting social competence and social inclusion in the preschool: a pee-based relational intervention*. *Early Child Development and care*. 194(11-12). <https://doi.org/10.1080/0304430.2024.2412639>
- Kuzmickaja, I., Wang, X., Graziotin, D., Doderer, G., & Abrahamsson, P. (2015). In Need of Creative Mobile Service Ideas? Forget Adults and Ask Young Children. *SAGE Open*, 5(3). <https://doi.org/10.1177/2158244015601719>
- Lengetti, E., Kronk, R., & Cantrell, M. A. (2020). A theory analysis of Mastery Learning and Self-Regulation. *Nurse Education in Practice*, 49(April), 102911.
<https://doi.org/10.1016/j.nepr.2020.102911>

- Malone, K. L. (2008). Correlations among knowledge structures, force concept inventory, and problem-solving behaviors. *Physical Review Special Topics - Physics Education Research*, 4(2), 1–15. <https://doi.org/10.1103/PhysRevSTPER.4.020107>
- Marsh, J., Kanngiesser, P., & Hood, B. (2022). *Experience-driven neuroplasticity in early childhood*. *Developmental Cognitive Neuroscience*, 54, Article 101073. <https://doi.org/10.1016/j.dcn.2022.101073>
- Mattu, J., & Sullivan, J. A. (2020). Classification, kinds, taxonomic stability and conceptual change. *Aggression and Violent Behavior*, May, 101477. <https://doi.org/10.1016/j.avb.2020.101477>
- Mishra, P., Pandey, C. M., Singh, U., Gupta, A., Sahu, C., & Keshri, A. (2019). Descriptive statistics and normality tests for statistical data. *Annals of Cardiac Anaesthesia*, 22(1), 67–72. https://doi.org/10.4103/aca.ACA_157_18
- Müller, N. M., & Seufert, T. (2018). Effects of self-regulation prompts in hypermedia learning on learning performance and self-efficacy. *Learning and Instruction*, 58(August 2017), 1–11. <https://doi.org/10.1016/j.learninstruc.2018.04.011>
- Noort, C. Van. (2021). Teaching and learning of Chinese students in the UK. *International Journal of Chinese Education*, 10(1), 1–15. <https://doi.org/10.1177/22125868211035813>
- Nurhidayah, S., Syamsudin, A., & Damayanti, A. (2025). *Support for Early Childhood to Develop Social Skills : Project Method in Learning Process What is the Impact ?* 4(1), 1–2. <https://10.57092/ijetz.v4i1.337>
- Ommundsen, Y. (2001). Self-handicapping strategies in physical education classes : the influence of implicit theories of the nature of ability and achievement goal orientations. *Psychology of Sport and Exercise*, 2(3), 139–156. [https://doi.org/10.1016/S1469-0292\(00\)00019-4](https://doi.org/10.1016/S1469-0292(00)00019-4)
- Pitaloka, D. L., Dimiyati, D., & Purwanta, E. (2021). Peran guru dalam menanamkan nilai toleransi pada anak usia dini di Indonesia. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, 5(2), 1696–1705. <https://doi.org/10.31004/obsesi.v5i2.972>
- Pratiwi, S., Astuti, B., & Saraswati, M. L. (2025). *The Influence of Self-Regulation , Homesickness , and Culture Shock on Migrant Students ' Self-Adjustment*. 6(1), 33–43. <https://doi.org/10.46843/jiecr.v6i1.1946>
- Putri, D. L. A., Yetti, E., & Hartati, S. (2020). Pengaruh keterlibatan orangtua dan regulasi diri terhadap perilaku bullying anak usia dini. *Jurnal Pendidikan Anak Usia Dini*, 4(2), 715. <https://doi.org/10.31004/obsesi.v4i2.438>
- Rahim, A., & Nadira, N. (2022). Application of Model Group Investigation based on Experiments Against Student Academic Skills. *International Journal of Education and Teaching Zone*, 1(2), 8–10. <https://doi.org/10.57092/ijetz.v1i2.35>
- Roshita, P., Achwan, R., Setianingsih, R., & Dari, P. W. (2023). Investigation of the Impact of Parents ' Occupation on the Academic Grades of High School Students. *International Journal of Education and Teaching Zone*, 2(2), 264–274. <https://doi.org/https://10.57092/ijetz.v2i2.103>
- Santrock, J. W. (2017).). *Psikologi pendidikan (Desi Mandasari (ed.); 5th ed.)*. Selemba Humanika.

- Sari, I. P., Karina, J., Angraini, J. R., & Badriyah, L. (2023). The Effect of Gadgets On The Development of Interest In Reading. *International Journal of Education and Teaching Zone*, 2(1), 1–2. <https://doi.org/10.57092/ijetz.v2i1.109>
- Seftiani, W., & Aulia, I. D. (2023). Understanding and Expressing The Factors Causing Difficulties of Children In Learning , Especially In The Field Of Reading. *International Journal of Education and Teaching Zone*, 2(2), 221–232. <https://doi.org/https://10.57092/ijetz.v2i2.69>
- Semple, B. D., Davies, K. L., & Mooney, S. M. (2023). *Critical windows: Executive function development in early childhood*. *Child Development Perspectives*, 17(1), 12–19. <https://doi.org/10.1111/cdep.12472>
- Seufert, T. (2018). The interplay between self-regulation in learning and cognitive load. *Educational Research Review*, 24, 116–129. <https://doi.org/10.1016/j.edurev.2018.03.004>
- Sinha, T., & Kapur, M. (2021). When Problem Solving Followed by Instruction Works : Evidence for Productive Failure. *Review of Educational Research*, 91(5), 761–798. <https://doi.org/10.3102/00346543211019105>
- Starcher, R. L. (2006). Christian Higher Education. *STARCHER: The New Global System*, 3(1). <https://doi.org/10.1177/073989131501200109>
- Stathopoulou, C., & Vosniadou, S. (2007). Exploring the relationship between physics-related epistemological beliefs and physics understanding. *Contemporary Educational Psychology*, 32(3), 255–281. <https://doi.org/10.1016/j.cedpsych.2005.12.002>
- Steiner, K., & Sloane-white, P. (2018). Journal of Current Southeast Asian Affairs. *Journal of Current Southeast Asian Affairs*, 37(1), 89–116. <https://doi.org/10.1177/186810341803700104>
- Stentoft, D. (2017). From saying to doing interdisciplinary learning : Is problem-based learning the answer? *Active Learning in Higher Education*, 18(1). <https://doi.org/10.1177/1469787417693510>
- Susanto, A. (2017). *Perkembangan anak usia dini: Pengantar dalam berbagai aspeknya*. Kencana.
- Torres, A. L. M. O. C. (2011). Understanding and intervening in E-learning in higher education institution. *Procedia - Social and Behavioral Sciences*, 15, 756–760. <https://doi.org/10.1016/j.sbspro.2011.03.178>
- Vandeleur, S., Ankiewics, P. ., de Swardt, A. ., & Gross, E. . (2006). Indicators of creativity in a technology class : a case study. *South African Journal Of Education*, 21(4), 268–273. <https://www.ajol.info/index.php/saje/article/view/24914>
- Vandenbroucke, L., Spilt, J., Verschueren, K., & Baeyens, D. (2022). *The neural architecture of early adversity*. *Frontiers in Behavioral Neuroscience*, 16, Article 893446. <https://doi.org/10.3389/fnbeh.2022.893446>
- Volante, L., & Ritzen, J. (2016). The European Union , education governance and international education surveys. *Policy Futures in Education*, 14(7), 988–1004. <https://doi.org/10.1177/1478210316652009>
- Watkins, M. W. (2021). *A step-by-step guide to exploratory factor analysis with SPSS*.

- Routledge. <https://doi.org/10.4324/9781003149816>
- Yusoff, M. S. B. (2019). ABC of content validation and content validity index calculation. *Education in Medicine Journal*, 11(2), 49-54. <https://doi.org/10.21315/eimj2019.11.2.6>
- Wei, X., Saab, N., & Admiraal, W. (2021). Assessment of cognitive, behavioral, and affective learning outcomes in massive open online courses: A systematic literature review. *Computers and Education*, 163(December 2020), 104097. <https://doi.org/10.1016/j.compedu.2020.104097>
- Wigelsworth, M., A, Lendrum, J., Oldfield, J., Scott, I., Bokkel, T. k, Katte, & C, E. (2016). The impact of trial stage, developer involvement and international transferability on universal social and emotional learning programme outcomes: a meta-analysis. *Cambridge Journal of Education*, 46(3), 347–376. <https://doi.org/10.1080/0305764X.2016.1195791>
- Wilita, I., Badriyah, L., & Aprillia, L. (2023). Investigation of Causal Factors Is Disshort Arabic Language Lessons. *International Journal of Education and Teaching Zone*, 2(2), 299–309. <https://doi.org/https://10.57092/ijetz.v2i2.73>
- Yun, V. W. S., Ulang, N. M., & Husain, S. H. (2023). Measuring the Internal Consistency and Reliability of the Hierarchy of Controls in Preventing Infectious Diseases on Construction Sites: The Kuder-Richardson (KR-20) and Cronbach’s Alpha. *Journal of Advanced Research in Applied Sciences and Engineering Technology*, 33(1), 392. <https://doi.org/10.37934/araset.33.1.392405>
- Zb, A., Ananda, R., & Mensah, B. (2022). The Effect of the STAD Type Cooperative Learning Model With The Help of Crossword Worksheet on Biology Learning Outcomes , Especially The Cognitive Domain. *International Journal of Education and Teaching Zone*, 1(2), 8–10. <https://doi.org/https://doi.org/10.57092/ijetz.v1i2.31>
- Zvara, B. J., Keim, S. A., & Boone, K. M. (2021). *Early experiences and brain structure*. *Pediatrics*, 148(6), e2021051522. <https://doi.org/10.1542/peds.2021-051522>