

QUALITY GAP IN EARLY CHILDHOOD EDUCATION SERVICES TEACHER'S PERSPECTIVE AS CHALLENGE IMPLEMENTATION OF 13 YEARS OF COMPULSORY EDUCATION IN INDONESIA

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Abstract. *This study aims to analyze the quality gaps in Early Childhood Education (ECE) services in supporting the implementation of 13-year compulsory education, particularly in relation to students' readiness to enter primary school. A quantitative approach with an explanatory survey design was employed, involving ECE and primary school teachers as respondents. The sampling technique used was proportionate stratified random sampling, and data were collected using a Likert-scale questionnaire measuring teacher quality, infrastructure, institutional management, and student readiness. Data analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM) to examine the relationships among variables and identify dominant factors influencing quality gaps in ECE services. The findings indicate significant disparities in ECE service quality, which contribute to variations in students' readiness for primary education. Teacher quality and infrastructure emerged as the most influential determinants, while institutional management played a supporting role. This study provides important implications for educational policy, particularly in strengthening ECE quality as a foundation for the successful implementation of 13-year compulsory education.*

Keywords: *Early Childhood Education; Compulsory Education; PLS-SEM; Quality Gap; School Readiness*

1. INTRODUCTION

Policy must study for 13 years is form commitment government in increase quality source Power man through expansion access inclusive and sustainable education . Policy This in line with global agendas such as *Sustainable Development Goals* (SDG 4) which emphasizes importance education quality since age early . In the context of This , Early Childhood Education (PAUD) becomes foundation main in build readiness Study child before enter level education basic . Various studies show that quality PAUD services contribute significant to development cognitive , social , and emotional child as well as success academic term long (Yoshikawa et al., 2013). In addition , longitudinal research also confirms that investment in education age early give impact significant to readiness school and achievements education in the future (Heckman, 2006).

Implementation Early Childhood Education services in various developing countries show existence inequality significant in access and quality services , which are influenced by factors social economy , region, and policy education (Angrist et al., 2020). In Indonesia, the equalization program PAUD services not yet fully capable overcome disparity said , especially related quality power educators and facilities education (Hidayat & Patras, 2024). Inequality This impact on variation readiness child moment enter education base.

Facilities and infrastructure is determinant important in determine quality PAUD services because play a role in create environment conducive learning for development children . Research in journal reputable show that quality environment Study in a way direct influence development cognitive and language child age early (Burchinal et al., 2000). However, the gap facility Still become problem major in various context education , including Indonesia (Pratiwi,

2025).

Quality power PAUD educators are factor key in determine quality interaction impactful learning directly on development children . International studies show that teacher competency has connection significant with quality learning and outcomes Study students (Darling-Hammond, 2000). However so , in many developing countries including Indonesia, still there is challenge in matter qualifications and professionalism of PAUD teachers (Azizatul Mu'arrofah et al., 2025).

The quality of PAUD services is also influenced by effectiveness management institution education . Research show that leadership and management effective schools contribute to improvement quality learning and outcomes Study students (Leithwood et al., 2009). Management based quality allows institution education For do repair sustainable in service education (Makmur Jaya et al., 2021).

Although various study has study implementation policy must learning , some big Still use approach normative or studies literature . In fact , the approach empirical based on field data is very important For understand gap quality service in a way more comprehensive. Recent studies emphasize importance data- based usage teacher perceptions for evaluate quality education in a way contextual (Hanushek & Rivkin, 2012). Study this discuss related with educational gap in children age early prepare must study for 13 years with a number of question question study following this:

- a. *How quality PAUD services contribute to readiness implementation must study 13 years , especially in transition to education base ?*
- b. *How management PAUD services affect readiness student in continue to school base based on teacher's perspective ?*
- c. *How perceptions of PAUD teachers and elementary school teachers towards gap quality early childhood education services in support readiness student enter education base ?*

2. LITERATURE REVIEW

a. Early Childhood Education Quality (PAUD Quality)

The quality of Early Childhood Education (PAUD) globally is often seen from two main aspects, namely structural quality and process quality. Structural quality covers formal features such as size center education, teacher education, ratio staff, teacher salaries, stability staff and facilities physical. On the other hand, process quality represents experience direct children, including sensitivity teacher emotional, responsiveness cognitive, material learning and interaction with Friend peers. Various aspect process quality is very closely related relation with learning, development, and well-being child age early in school. The quality of the process is considered as driver main development children, where interactions are sensitive and stimulating act as catalyst for healthy growth. High quality PAUD give benefit significant for development cognitive, language, and social children. On the other hand, PAUD with quality low can cause risk dangerous for track development children in the future. Experience quality in PAUD will influence development brain since age early, which has an impact on learning to more direction good. Quality PAUD environment high also reported help children from family with socio-economic status low For overcome various problem behavior. Therefore Therefore, the availability of quality PAUD is very important For support learning and development maximum for all child (Slot et al., 2015).

Review study previously about management quality and resilience in Early Childhood Education (PAUD) institutions show that management system poor education can cause decline quality school in a way significant. In the Indonesian context, the increase amount similar PAUD institutions demand every school For own resilience or good resistance to be able to endure in competition. Institutions This must ensure that the educational program they give to children own high quality, so that capable get trust from parents preschool guardians. Resilience school refers to the ability A institution For adapt and thrive in the midst challenge as well as change

dynamic environment. Teachers, students, and parents is source Power essential in build resilience Because they is asset main thing that can interesting interest public wide. Therefore that, resilience the school is very close relation with quality education provided in a way consistent by the institution the. Resilient school No only capable endure live and compete with institutions similar, but also capable still tolerant to various inequality that exists in society. This is show that resilient school focus on excellence academic at a time capable respond challenge complex social and environmental conditions. In addition, schools must maintain legitimacy they as institution education that is respected and recognized by the public(Anders & Oppermann, 2024).

Strategy for guard resilience schools in Indonesia involve four main pillars, namely source Power quality human resources, unique school programs, promotion schools and management quality. Management source Power quality human beings, including placement effective staff and training routine, proven can increase quality education in a way overall. The curriculum and programs offered must also be in harmony with market needs and demands for increase ability school in still competitive. Resilience is also closely related with the existence of a strong branding process as well as style management that is not too bureaucratic. Solid branding process help school get trust and support from various party stakeholders interests. Branding is a unique strategy that can push achievement quality maximum academic for participant educate. School need differentiate self they from competitors and build place special in the heart student and parents For impact on the registration process student new. Unusual management style too bureaucratic refers to the approach more managerial flexible, innovative, and adaptive, which allows organization For more responsive to challenges. Management approach like This often push adoption of new ideas, collaboration team, and taking more decisions fast(Anders & Oppermann, 2024).

b. 13-Year Compulsory Education

Study about implementation must study for 13 years with enter One Early Childhood Education (PAUD) year as foundation education base the more develop in a number of year lastly. However Thus, the study which is special connect gap quality early childhood education services with readiness implementation policy the Still relatively limited and scattered in various focus research. Therefore that, before study empirical done, required study beginning through approach Systematic Literature Review (SLR) for map development research, found gap scientific, as well as identify factors dominant influencing success implementation policy education the(Wang et al., 2020).

SLR in research This focused on three keywords main, namely Early Childhood Education Quality, 13-Year Compulsory Education, and School Readiness. Keywords Early Childhood Education Quality used For examine various study related quality PAUD services, including teacher quality, facilities infrastructure, management institutions, and the quality of the learning process child age early. Meanwhile that, keyword 13-Year Compulsory Education used For identify various studies about policy expansion must learning, equality access education, as well as readiness system education in support universal education. The keywords School Readiness used For study readiness child enter education basic, good from aspect cognitive, social-emotional, language, and ability adaptation Study(Slot et al., 2015).

Through the SLR approach, research previously can analyzed in a way systematic For find pattern connection intervariable, trend global research, the most widely used method used, as well as gap research that is still ongoing need study more Continued. Search results literature show that part big study more Lots discuss PAUD quality and readiness school in a way separate, whereas research that connects both of them in context implementation must study for 13 years is still very limited, especially in Indonesia. Therefore that, research This present For fill in gap the with analyze teacher perspective on gap quality PAUD services as challenge implementation must study 13 years(Phillipsen et al., 1997).

For ensure success implementation must studied 13 years in Indonesia, the government must adopt role dominant in promote quality and equity. Use theory game evolutionary show that mechanism rewards and punishments can push government local For more active in support quality PAUD. Subsidies government directed at development source Power human teachers more effective increase quality compared to just physical capital subsidies(Phillipsen et al., 1997). In addition, strict supervision from government center required For changing government strategy areas that are not active become active in promoting PAUD. Investment in source Power humans, such as localized teacher training, is factor key influencing factors quality of the educational process beginning. In the middle competition between institutions, resilient PAUD schools must capable offering excellent programs like curriculum international and learning Language foreign For interesting interest society. Finally, closing the quality gap between area urban and rural must become priority main in the universalization agenda education in Indonesia. Transformation real in reality daily life of educators is condition absolute for achievement dream happy and inclusive schools for all over child nation. Through management quality strategic and support sustainable policies, Indonesia can build a resilient and globally quality PAUD system (Wang et al., 2020).

c. Challenges in PAUD Quality Gap

Challenge in implementation must studying in Indonesia is related close with gap or gap quality early childhood education services, especially from teacher's perspective. Although system Indonesian education is very broad, there are need urge For move beyond just improvement access going to achievement education quality high. One of the challenge main is management system poor education, especially in rural areas isolated, which causes motivation Study student become low. Condition This exacerbated by the reality that No all.

PAUD in Indonesia have system good management, which has an impact on the learning process and its results. Lack of teacher competencies and skills in apply education inclusive for child in need special also become constraint serious. In addition, the lack of information and preparation For accreditation become challenge alone for improvement quality Early Childhood Education institutions in Indonesia. Problems furthermore related with need will be qualified teachers, where some teachers are still Not yet own background behind appropriate education. Teacher welfare also affects quality overall services provided at the institution parenting children(Slot et al., 2015). Low teacher salaries in a way significant associated with management class and quality more instructional bad in the environment education beginning. The appreciation received by teachers greatly influences motivation they For give service education best for children(Phillipsen et al., 1997).

The gap quality is also visible real in comparison between network public and private early childhood education schools. Research in Spain shows that public schools tend to own condition work and coordination more teams Good compared to school Private sector. Quality in schools private often hampered by orientation business, burden high teacher workload, and limitations source Power For renovation infrastructure. Possibility equalization salary and conditions Work other Far more big in school public compared in the sector private schools(Wang et al., 2020). In public schools, coordination and working hours personal considered very important and structured in timetable teacher's work. On the other hand, coordination teams in many school private considered almost No Possible done Because constraint time and budget. In addition, openness and flexible attention to family more easy conducted in public schools because Already structured and acculturated with good. Project pedagogical on the network Public schools also show level more standardization and integration tall compared to school private sector which tends to dispersed. Gap This create what is called as the "Matthew Effect", where the use of PAUD services become No evenly distributed among classes and groups different social. Therefore that, the effort resignification PAUD pedagogical needs accompanied by with change structural, especially in conditions the work of educators(Anders & Oppermann, 2024).

d. Equity and Accessibility in PAUD

In an attempt promote equity or justice PAUD access, experience from China show importance the role of the state as provider goods public. Government China has do effort big For increase availability and affordability of PAUD through policy strategic since 2010. Focus policy shift from just availability physique going to affordability cost and suitability service for family. Innovative strategies implemented is promote park "Pu Hui Xing" children who pegged cost affordable schools for all family. Fiscal fund allocation in a way special directed to rural areas and less developed provinces develop in a way economy For bridge urban-rural disparity(Anders & Oppermann, 2024). Although access has increase drastic, gap in infrastructure, resources power, and teacher-child ratio between area urban and rural still There is a teacher in the park children urban reported more capable provide environment stimulating and responsive learning to need individual children. In rural areas, the challenge like number of teachers who are not trained in a way professional Still Keep going hinder development PAUD system(Slot et al., 2015). For reach sustainability, the PAUD system must Keep going reformed to become more inclusive, affordable and fair in accordance with the Sustainable Development Goals (SDGs). Empowered, professional, and skilled early childhood education teachers is key main success system education beginning This (Wang et al., 2020).

3. RESEARCH METHODS

Study This use approach quantitative with method survey descriptive with google form for analyze gap quality Early Childhood Education (PAUD) services in support implementation policy must studied for 13 years in Indonesia. Quantitative approach chosen Because study This focus on measurement teacher perceptions of quality service education through analyzed numerical data in a way statistics (Arikunto, 2023). Survey methods used For obtaining empirical data in a way direct from respondents about teacher quality , facilities and infrastructure , management institutions , gaps quality early childhood education services , and readiness student enter school basic . Survey approach assessed appropriate For describe phenomenon education in a way objective based on condition real in the field(Sugiyono, 2022) .

Study This started with Systematic Literature Review (SLR) study for strengthen runway conceptual and find related research gaps quality PAUD services and implementation must study for 13 years . Search literature done using the keywords "Early Childhood Education Quality", "13-Year Compulsory Education", and "School Readiness" in various article national and international reputable . Literature review the used For identify variables research , indicators instruments , as well as connection theoretical inter - variable support study empirical . The use of SLR in study education help build framework systematic and conceptual based proof scientific (Snyder, 2019).

Population in study This are PAUD teachers and elementary school teachers involved in the process of education and transition child going to education basic . Technique of taking sample using purposive sampling with consider that respondents own experience teaching and understanding condition PAUD services in their respective institutions . Based on results data collection , number respondents who participated as many as 124 people from from various regions in Indonesia. The majority respondents There were 122 PAUD teachers (98.4%), while there were 2 elementary school teachers (1.6%). Based on school status , 110 respondents (88.7%) came from from school private sector and 14 respondents (11.3%) came from from public schools . From the aspect experience teaching , partly big respondents own experience more from 10 years as many as 77 people (62.1%), so the data was assessed Enough representative in describe condition quality PAUD services . Purposive sampling technique is widely used used in study education Because capable choose appropriate respondents with objective research (Etikan, 2016).

Instrument study use questionnaire closed Google Form based with five- level Likert scale , namely very much not agree , no agree , doubtful, agree , and strongly agree . Instrument study

arranged based on indicator variables research developed from theory quality education and results study previous . Variable teacher quality (X1) consists of on indicator competence pedagogical , ability designing learning , use method varied , interaction learning , teacher qualifications , and development professional . Variable facilities and infrastructure (X2) include facility learning , environment learning , learning media , tools game educational , and appropriate standard facilities . Variables management institutions (X3) include program planning , implementation learning , evaluation , leadership , coordination , and management based quality . Variable gap quality PAUD services (Z) measure perception respondents to difference quality service between PAUD institutions . Meanwhile that , variable readiness students (Y) include readiness cognitive , social , emotional , abilities follow instructions , and independence Study children. Use Likert scale assessment effective in measure perception and attitude respondents to phenomenon social and educational (Arikunto, 2023).

Before used in data collection, instruments study moreover formerly through the validation process content (content validity) with request evaluation from expert education child age early and management education. Validation done For ensure that every indicator in accordance with objective research and capable measure variables studied in a way right. In addition , the instrument is also arranged use a number of statement positive and negative (reverse item) for minimize response bias respondent. Use of reverse items in study survey aim increase consistency answers and reduce trend response monoton from respondents (Sugiyono, 2022).

Data collection techniques were carried out online through distribution of Google Form to PAUD teachers and elementary school teachers respondents research . Use online survey selected Because more effective reach respondents from various area as well as simplify the process of collecting and processing data. In addition to questionnaires , research this also uses documentation as supporting data For strengthen interpretation results research . The entire research process done with notice ethics research , such as guard confidentiality identity respondents , no display personal data , as well as ensure that the data only used For interest academic and research scientific (Creswell & Creswell, 2014).

Research data analyzed use analysis statistics descriptive with Microsoft Excel help for count frequency , percentage , and average value for each variables research . Analysis results Then categorized to in level low , medium , and high For make it easier data interpretation . Analysis descriptive used For describe condition quality early childhood education services , level gap quality between institutions , and readiness student enter school base based on teacher perception . Descriptive approach chosen Because study This focused on mapping condition empirical and identification factors dominant influencing implementation must studied 13 years in Indonesia (Sugiyono, 2022).

Framework analysis study based on theory quality education that explains that quality education influenced by relationships between input, process, and output of education . In research this , quality of teachers, facilities infrastructure and management institution positioned as the main input in Early Childhood Education (PAUD) services . Learning and interaction processes education understood as quality of the process that affects development child during attending PAUD. As for readiness student enter school base positioned as an educational output that is influenced by quality services received children . This approach used For explain that gap quality PAUD services can impact to readiness Study student in support success implementation policy must study for 13 years in a way sustainable (Arikunto, 2023).

4. RESULTS AND DISCUSSION

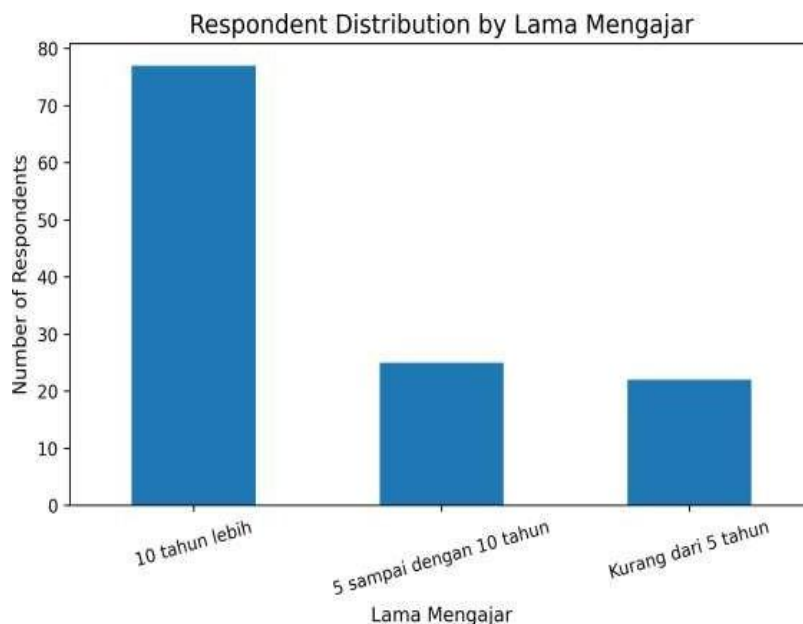


Figure 1. Distribution of respondents based on the available demographic category

a. Quality PAUD services contribute to readiness implementation must study 13 years, especially in transition to education base.

Research result show that majority respondents originate from Early Childhood Education (PAUD) level , namely as many as 122 respondents or 98.4%, whereas respondents from level Elementary School only as many as 2 people or 1.6%. Based on school status , some big respondents originate from school private as many as 110 people (88.7%), while state schools as many as 14 people (11.3%). From aspect experience teaching , the majority respondents own experience more from 10 years , namely as many as 77 people (62.1%). The data show that respondents in study This dominated by teachers who have own experience long in organization service education child age early so that the perception given assessed Enough representative For describe condition quality PAUD services in the field . Experience high teaching allows teachers to have greater understanding deep about readiness student enter education base as well as challenge implementation must study 13 years (Makmur Jaya et al., 2021).

Based on results analysis descriptive , variable quality power educator show category high . Most of the respondents state that PAUD teachers have own good ability in understand characteristics development children , composing planning learning , as well as use method varied and enjoyable learning . In addition , teachers are also assessed capable build active interaction with participant educate so that the learning process walk more effective . Findings This show that teacher quality is one of the factor main supporting success Early Childhood Education services. Research results This in line with theory quality education that places teachers as the most important component in determine quality learning and development child age early . Good teacher competency will create experience learn more meaningful and supportive readiness child enter school base (Leithwood et al., 2009).

b. Management PAUD services affect readiness student in continue to school base based on teacher perspective

In this aspect facilities and infrastructure , results study show that part big respondents evaluate facility learning in PAUD institutions has is in the category Enough good . Availability of learning media , tools game educational , space learning and environment school assessed capable support the learning process child age early. However, still found a number of institutions that have limitations facilities, especially in institutions private sector in certain areas . Inequality

the seen on access towards modern learning media , quality room learning , and completeness tool game educational (Darling-Hammond, 2000). Conditions This show that although access PAUD services are increasingly area , equality quality facility education Still become challenge main in support implementation must study for 13 years in a way evenly distributed in Indonesia.

Research results also show that variables management institution Still is in the category currently compared to variables others . Some respondents disclose that education program management , coordination between teachers, evaluation learning and application management based quality Not yet walk optimally . Some PAUD institutions still face constraint in sustainable program development and strengthening of governance institution (Burchinal et al., 2000). Findings This show that quality management institution be one of influencing factors quality service education in a way as a whole . In the context of education child age Early , effective management is essential For ensure all over component education can walk in a way structured and improvement - oriented quality service (Leithwood et al., 2009).

The gap quality PAUD services are still felt Enough high by respondents research . Most teachers stated that there is difference quality service between PAUD institutions , both from aspect teacher quality , facilities education , as well as support management school . The gap the more seen between institutions located in urban areas and areas with limitations source Power education . In addition , the differences capacity funding between public and private schools are also becoming influencing factors quality service education . Findings This show that expansion access education Not yet fully followed with equality quality PAUD services . If the conditions This Keep going taking place , then implementation must study for 13 years potential face challenge in create readiness equal learning for all over Indonesian children (Phillipsen et al., 1997).

c. Perceptions of PAUD teachers and elementary school teachers towards gap quality early childhood education services in support readiness student enter education base

On the variable readiness students , results study show that readiness child enter school base is in the category enough . Some respondents state that children has own ability base like know letters , numbers , following teacher instructions , and interact social with Friend peers. However however , still there is students who experience difficulty in aspect independence learning , control emotions and adaptation to environment school basic. Condition This show that readiness student No only influenced by ability academic only, but also related close with development social and emotional child during follow education in PAUD. Therefore that, quality PAUD services have role important in form readiness Study child in a way comprehensive (Leithwood et al., 2009).

Findings study This show existence close relationship between quality early childhood education services with readiness student enter education basic. Competent teachers, adequate facilities , and management good institution proven support creating a more effective learning process effective for child age early . On the other hand , the gap quality service between institution cause difference readiness student when enter school basis . Research results This support theory quality education that explains that quality education influenced by the quality of input, process, and output of education . In the context of study this , quality of teachers, facilities infrastructure and management institution play a role as educational input that influences the learning process and produces output in the form of readiness student (Slot et al., 2015).

In a way overall , results study show that implementation must study for 13 years No only need expansion access education , but also strengthening quality early childhood education services evenly distributed . The government need strengthen policy improvement teacher competence , equality means infrastructure and development management PAUD institutions , especially in areas that are still own limitations service education . In addition , it is necessary supervision better quality sustainable so that all PAUD institutions have standard relative service

equal to improvement quality more services evenly distributed , PAUD can functioning optimally as foundation education base in support success implementation must studied 13 years in Indonesia.

CONCLUSION

Study This show that quality Early Childhood Education (PAUD) services have a very important role in support implementation policy must studied for 13 years in Indonesia. Based on results research , the quality of PAUD teachers is in the category high , which is visible from teacher's ability in understand development children , composing appropriate learning , as well build interaction active and fun learning . Findings This show that teacher competency becomes factor main in create experience quality learning for child age early so that capable support readiness child enter education basic . With Thus , the quality power educator become foundation important in success transition education child going to level school base .

In this aspect facilities and infrastructure , research find that part big PAUD institutions have own facility sufficient learning adequate For support the educational process child age early. However however , still there is gap quality facility between institutions , especially in schools private sector and institutions located in the region with limitations source Power education. Differences access towards learning media , tools game educational and quality environment Study show that equality quality PAUD services are still become challenge in support implementation must study for 13 years optimally . Conditions the show that expansion access education Not yet fully followed with equality quality service education. research results also show that management PAUD institutions still need strengthening to be able to support improvement quality service in a way sustainable . Some institution Still face constraint in education program management , coordination between teachers, evaluation learning , as well as implementation management based quality . Findings This show that quality of governance institution own influence to effectiveness of the learning process and quality service education in a way overall . Therefore that, strengthening capacity management institution be one of step important in create system more PAUD services quality, structured , and improvement - oriented quality education child age early.

Study this also confirms that gap quality PAUD services are still felt Enough high by teachers, both from aspect teacher quality , facilities education , as well as support management institutions . Gap the seen more real between urban areas and areas with limitations access education as well as between public and private institutions . Impact from gap the seen in readiness student when enter school base , where still there is children who experience difficulty in aspect independence learning , ability social, control emotions and adaptation to environment school . This is show that readiness student No only influenced by ability academic, but also by quality service education received during attending PAUD.

In a way overall , research This conclude that success implementation must study for 13 years No Enough only through improvement access education , but also requires equality quality early childhood education services comprehensive. Government need strengthen policy improvement teacher competence, equality facilities and infrastructure, strengthening management institutions, as well as supervision quality service education in a way sustainable. With improvement quality more services evenly distributed , PAUD can functioning optimally as foundation education capable basis form readiness Study child in a way cognitive, social , and emotional in support success implementation must studied 13 years in Indonesia.

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