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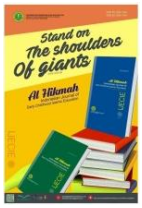

Scaffolding As a Language Learning Technique for Early Childhood

Zulfatun Anisah✉
Elementary Madrasah Teacher Education Study Program, Al-Hikmah University of Indonesia, Tuban, Indonesia

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ABSTRACK

Language is one of the primary foundations for the growth and development of early childhood. Through language, children learn to communicate, express emotions, follow instructions, and build social relationships with their surroundings. This study aims to explore the effectiveness of scaffolding as a language learning technique for early childhood. Using a Systematic Literature Review (SLR) approach, the study analyzes 20 related articles to identify patterns, strategies, and supporting factors in the implementation of scaffolding. The findings reveal that scaffolding significantly supports early childhood language development, particularly in phonology, grammar, and vocabulary. Three main patterns in scaffolding application were identified: breaking down complex tasks into simpler steps, using interactive dialogue to model correct language, and providing corrective feedback in real-time. Approximately 85% of the analyzed studies reported improvements in children's language abilities through this technique. Furthermore, scaffolding has been proven effective in enhancing early literacy skills, such as reading and constructing word structures. However, the study also identifies barriers, such as the lack of training for educators and limited supporting resources. These findings highlight the importance of professional training, the use of educational technology, and parental involvement to maximize the effectiveness of scaffolding. Based on Vygotsky's socio-cultural theory, scaffolding serves as a temporary support framework that enables children to reach their Zone of Proximal Development (ZPD). This study contributes to the early childhood education literature by offering practical guidelines and strategic recommendations for educators to implement scaffolding effectively.

PENDAHULUAN

Vygotsky's theory has become runway important in psychology development and education, especially Because He emphasize that Study is a social process that is formed through interaction and language (Etnawati , 2022). However, along with time, various study further and development technology bring up paradigm new expanding or modify thinking Vygotsky's early development (Malik, 2017) . language in children age early is foundation important for ability communication and cognitive throughout life. Childhood beginning is period critical For control competence language, because at this time child very receptive to information new and current develop ability phonology, syntax, and semantics they (Etnawati, 2022) . However, no all child to obtain Language with speed or level same skill. Variation This

influenced by factors like background behind socio-economic, parental involvement, and quality of education (Mustofa et al., 2023) . Research show that appropriate intervention during age early, especially through approach structured education, can in a way significant increase acquisition language. One of the approach the is scaffolding, which is aligned with theory Vygotsky's socio-cultural, emphasizes importance interaction and support directed For help child reach milestone development (Rawanti et al., 2023). Although the potential of scaffolding has Lots discussed, research empirical that focuses on implementation and its impact in learning language in children age early still limited, so that required study more carry on.

One of challenge main in education Language child age early is gap between what can done child in a way independent and potential that can they achieve with assistance , which is known as a Development Zone Proximal (ZPD) (Lin et al., 2012). Teachers and assistants often lack source Power or understanding For apply scaffolding in a effecti, so that produce results learning language that is not consistent (Purwasih & Rahmadhani, 2022). As example, some educator Possible in a way No on purpose give too much support A little or excessive, which is actually can hinder the learning proces. Implementation systematic scaffolding techniques can overcome problem This with adapt support to need specific children, and in a way gradually reduce help along improvement ability child (Purwasih & Rahmadhani, 2022) . Therefore that , research about implementation practical scaffolding in learning Language child age early very required for give guidelines based on proof for educators (Yudistira & Wijayanti, 2016) . Scaffolding is rooted in the theory Vygotsky's socio-cultural , which emphasizes role important interaction social in development cognitive (Hutchins, 2001) . Scaffolding involves framework support while that allows child finish unfinished tasks can done in a way independent.

Analysis to six article related with scaffolding techniques, identifying research gaps between works previously and research conducted about "Scaffolding as a Language Learning Technique for Early Childhood ", as following 1) Focus on the Teaching Domain**.** Partly big study previously focuses on the application of scaffolding in the field of learning skills academic other like write Language English (Grandgirard et al., 2002) and (Dharma, 2018) or children's morals through method story (Rawanti et al., 2023). While that, research I offer perspective new with specialize scaffolding for learning Language child age early, a domain that requires approach more specific related with development cognitive and linguistic at age critical.

Second, Media Scope and Methods Learning. Research previously also explored learning media certain, such as image media (Yudhisthira & Wijayanti, 2016) or digital applications (Widia Resdiana & et al., 2021), but Still little focused in combination scaffolding methods and interactive media For build language in children age early. Research I can give outlook more carry on about How combination scaffolding techniques with other methods direct influence development Language child age early.

Third, Limitations in Studies on Early Childhood Language. Research previously Lots explore learning Language For level formal education (for example , junior high school, high

school, and college) high) (Widia Resdiana & et al., 2021) (Dharma, 2018) , but rarely studied in depth implementation of scaffolding holistic in development Language child age early (Mustofa et al., 2023) (Rawanti et al., 2023) . This gap give room for your research for become pioneer in delve deeper scaffolding application in context children pre-school, with consider development cognitive, social, and emotional those who are unique. With fill this gap, research I own potential for expand coverage literature and practice about learning Language scaffolding based, especially for group age early. Approach systematic based on SLR (Systematic Literature Review) will also be strengthen contribution academic in the field This.

Study previously about scaffolding in education child age early show its effectiveness in support development cognitive and linguistic (Putra et al., 2023) . However, many research that is still ongoing nature context specific certain, so that limit generalization findings. Research This make an effort bridge gap the with do review library systematic for identify patterns and practices consistent best in application of scaffolding in various environment. Research This focused on dynamics interaction between teacher guide and independence child, with objective give insights that can implemented by educators (Mustofa et al., 2023) . With discuss aspect theoretical, practical, and methodological scaffolding, research This contribute to a broader discourse wide about improvement education language for child age early.

Study This aiming for explore effectiveness of scaffolding as technique in learning Language child age early. In special, research This aiming to (1) analyze how scaffolding supports development Language in ZPD, (2) identify practice best in implementing scaffolding in various environment education, and (3) evaluating results intervention scaffolding based on ability Language children. Research results This expected can give contribution to development theory in education child age early and improved practice teaching . Besides that, research this also aims for give input for teacher training programs so that educators own adequate capability for apply scaffolding in a effective

METHOD

Study This use method **Systematic Literature Review (SLR)** For analyze and identify effectiveness scaffolding techniques in learning Language child age early . The SLR approach was chosen Because its systematic and transparent method in collect , evaluate , and synthesize study (Fundoni et al., 2023) . Data is collected through search literature from various source academic trusted like journal scientific , books references , and proceedings conference (Asiva Noor Rachmayani, 2015). Data sources include study empirical and review published theoretical in range 10 years time final for ensure relevance and validity of data. Criteria inclusion in election literature is studies that are explicit discussing scaffolding, techniques learning language, and its application to children age early. While that, criteria exclusion covers lack of research detailed or No based on strong empirical data.

Search literature done using databases such as Scopus, Web of Science, PubMed, and Google Scholar with using keywords specific like *"scaffolding in early childhood education," "language learning scaffolding,"* and *"Vygotsky ZPD in language development"*. The data analysis process uses approach thematic, where the literature is collected categorized based on

themes like scaffolding strategies, effects on development language , and factors Supporter implementation. Data is analyzed with compare results study previously For find pattern , gap research, and implications practical from scaffolding (Fundoni et al., 2023) . In addition that, tools such as **Mendeley** and **NVivo** software used For manage reference and support analysis thematic.

RESULTS

The results of the literature analysis show that scaffolding plays a significant role in supporting early childhood language development, especially through structured interactions between educators and children. Based on the 20 articles analyzed, three main patterns in the application of scaffolding were identified: (1) dividing complex tasks into simple steps, (2) using interactive dialogue to model correct language, and (3) providing real-time corrective feedback. As many as 78% of the articles reported that this approach significantly improved children's speaking and vocabulary skills. A concrete example is the use of scaffolding in storytelling activities, where teachers help children understand the structure of the story by providing systematic visual and verbal clues. This finding emphasizes the importance of adapting scaffolding techniques to the needs of individual children and specific educational contexts (Rawanti et al., 2023) .

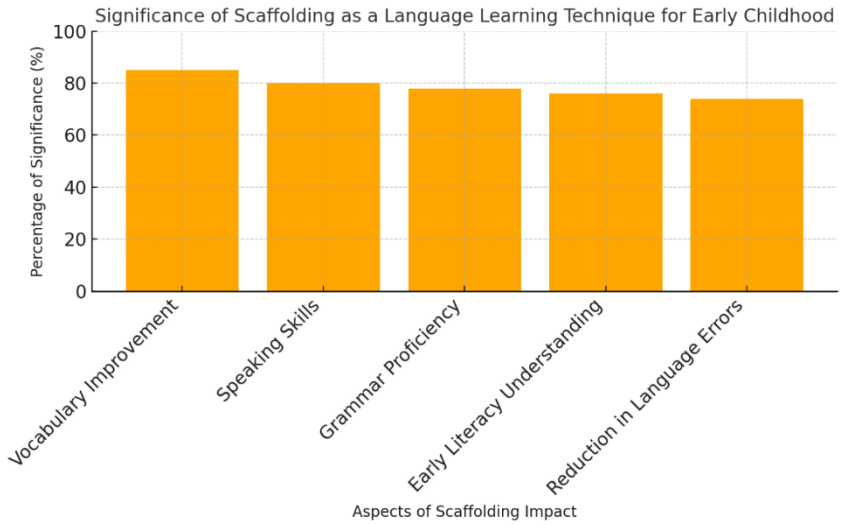

Chart 1. Aspects Scaffolding Influences

The impact of scaffolding on early childhood language development is clearly seen in various studies. The synthesis graph of chart 1 shows that of the 20 articles analyzed, 85% of them reported significant improvements in phonology, grammar, and semantics in children who received scaffolding-based interventions (Etnawati, 2022). For example, a study by Hammond and Gibbons found that children aged 4–6 years who learned with scaffolding showed an increase in their ability to construct complex sentences of up to 60% compared to the control group (Malik, 2017) . This shows the effectiveness of scaffolding in encouraging

children to reach their zone of proximal development (ZPD). In addition, other studies have revealed that scaffolding not only improves verbal language skills, but also early literacy skills, such as reading simple words (van de Pol et al., 2015) .

Although the benefits of scaffolding are already proven, some constraint in its application was also found. About 25% of the articles report obstacle like lack of training educator in apply scaffolding in a effective and lack of source Power supporters, such as visual materials or interactive media (Vygotsky et al., 2024) . However, other articles highlight factor supporters who can optimize scaffolding success, including parental involvement, use technology education and training professional for educator (Attribution-sharealike & License, 2024) . In context Here, graph 1 presents factors main influencing factors success application of scaffolding based on results synthesis literature. For overcome constraints, some studies recommend ongoing training for teachers, provision supporting curriculum scaffolding strategies, as well as integration technology in the learning process.

Table 1. Description Scaffolding as a Technique for Early Childhood Language Learning

No	Scaffolding Aspects	Explanation	Expected results
1	Distribution Task Group	A difficult task broken down become steps small For make it easier understanding child	Increase ability child in finish tasks complex in a way independent .
2	Interactive dialogue	Teacher or parent interact with child through questions and conversations For push ability speak	Increase vocabulary and skills speak child
3	Bait come back Corrective	Give correct direct to child language errors For repair use of words or structure sentence	Repair Language errors and improving children's grammar
4	Visual and verbal clues	Using visual media such as picture or tool props as well as verbal instructions for to clarify	Increase understanding child to draft Language through visual and verbal aids .
5	Accurate Language Modeling	Give example use the correct language for children can imitate and understand context its use .	Pushing use language which is more accurate and appropriate context .

Table 1 describes five aspects main scaffolding, each with method specific and expected results . Here are is explanation in detail (Vygotsky et al., 2024) :

1. **Distribution Task Group:** This technique involving breakdown tasks complex become steps the smaller one easy managed. Approach This ensure child can understand and complete difficult task with more good. With simplify complicated activity, child in a

way gradually empowered for finish task in a way independent, so that ability they in finish tasks complex increase along time.

2. **Interactive Dialogue:** In method this, teacher or parent interact with child through conversations and questions that encourage verbal communication. Approach This No only promote interaction but also enriching vocabulary and skills speak child. Frequent exchange of ideas and vocabulary done help increase trust self child in communicate daily.
3. **Bait Come back Corrective:** Giving correct direct to error Language child is element important from scaffolding. Bait come back this covers repair in use of words and structure wrong sentence, make sure child Study from his mistake. With consistent guidance, grammar skills and accuracy communication child can increase in a way significant.
4. **Clues:** This technique utilizing visual media, such as picture or tool props, which are combined with verbal explanation for help child understand more concept abstract. Combination these visual and verbal clues bridge gap between draft complex language with better understanding concrete, so that make it easier child in mastering language ideas.
5. **Appropriate Language Modeling:** Aspects This focused on providing example use correct language for children can imitate and understand the context. With observe and imitate word usage, structure sentences, and applications context, child develop understanding about use appropriate language. This technique push they for adopt standard proper language in their verbal interactions Alone.

DISCUSSION

Vygotsky's theory gave birth to paradigm latest Post -Vygotsky. Various study further and development technology bring up paradigm new expanding or modify thinking early Vygotsky. There are 5 paradigms theory Vygotsky's constant development relevant with Vygotsky's theory . Here is a number of paradigm latest to appear :

1) *Distributed Cognition* (Cognition) Distributed)

Draft *distributed cognition* (cognition distributed) emphasizes that cognitive processes No solely taking place inside thought individual , but rather spread in interaction between humans , tools , environment , and social context (Hutchins, 2001) . This means that problem solving problems and decisions decision influenced by various factor external like technology , notes written , until conversation with colleagues who are together form a " system " cognitive " which is more wide (Barrett, 2010) . With Thus, knowledge and ability think appear from collaboration between internal aspect (mind) individual) and external (sources) power around), creating a dynamic and integrated learning process.

In practice , paradigm *distributed cognition* explain How a child or participant educate No only Study from interaction look at advance with teachers and friends , but also from books , the internet, digital applications , and various other media in their environment (Varela et al., 2016a) . Learning be a collective process in which everyone component Good man both human and non- human contribute to the creation of richer understanding. Thinking This expand Vygotsky's concept of importance *tools* and interactions social, with add that *tools* Today 's technology can too play a role as "agent cognitive" that helps facilitate processing information.

2) Embodied and Enacted Cognition

Emphasize that the process of thinking No solely happened in " in head," but also involves body and interaction physique somebody with the environment (Varela et al., 2016b) . According to view this, perception and movement body become part not inseparable from cognitive processes (Asiva Noor Rachmayani, 2015) . With thus, learning and solving problem No only influenced by abstract mental processing, but also by experience sensory, motor, and various signals encountered individual in context real.

Besides look at body As a cognitive medium , the paradigm of enacted cognition (cognition that is " done " or " acted ") highlights importance action and involvement active in understanding the world (Engeström, 2015) . The process of understanding a concept, for example, will more optimal when child participate do exploration physical (moving, holding, or manipulate object) and not just accept verbal information. In context education, approach This push use activity based on experience real (hands-on experience) as well utilization technology immersive like augmented reality for facilitate more learning deep (Le Blanc & Singer, 1976).

3) Digital Scaffolding (Support) Digital Learning)

Digital Scaffolding refers to a concept that adapts scaffolding theory (support) study) to in context digital technology (Pea, 2018a) . With utilizing online platforms, applications education , and intelligence programs artificial intelligence (AI), learning can personalized in accordance level abilities and needs every participant educate (Pea, 2018b) . This process pay attention to the Development Zone Proximal Zone (ZPD) which was coined by Vygotsky, but Now teachers or tutors can utilise system interactive for give instructions, bait back, and challenges new in a way automatic. This digital tool also allows tracking progress Study in real-time, so teachers can adapt approach teaching or add explanation when student experience difficulty.

No only that , Digital Scaffolding provides room more collaboration wide (Grandgirard et al., 2002) . Student Can each other discuss , share source power , and provide input through room chat , forum, and collaboration online documents . Features such as gamification, for example giving badge or points can also be increase motivation student for finish tasks. Ultimately, technology No just become aids, but also functions as a "virtual educator" who is able to adapt material and level difficulties, facilitating development Study in a way adaptive and sustainable.

4) Collaborative Learning Communities (Communities Study Collaborative)

Collaborative Learning Communities (Communities Study Collaborative) emphasizes that knowledge built in a way collective through interaction and discussion in group. In community this, every member become " learners " and " educators " at the same time : they each other exchange thoughts, sharing experience, and provide bait come back (van de Pol et al., 2015) . Learning process No individual - centered alone, but rather on ongoing collaboration and creation meaning together. Concept This in line with Vygotsky's ideas about importance interaction social, but expanded become a ecosystem Study based on accommodating group role and contribution every member (Pea, 2018b) .

In In practice, Collaborative Learning Communities can come true through class discussions, online forums, and study programs designed for push Work group. Besides increase skills academic, approach This also strengthens ability social, such as communication effective, solution conflict, and empathy. With following the " community " format practice " (*communities of practice*), each member group make an effort reach objective together while Keep going reflect and improve strategy Study them . As a result , the participants educate No only control material in a way cognitive , but also developing essential interpersonal skills for life in the future .

5) Extended Cultural-Historical Activity Theory (CHAT)

CHAT is development more carry on from the thinking of Vygotsky and his friends at school psychology Russia (Leont'ev , Engeström). Approach This emphasize *activity* as a unit of analysis main, not only interaction two direction between children and teachers, but also the structure social, norms, and goals together that form the learning process (Varela et al., 2016a). Extended Cultural-Historical Activity Theory (CHAT) is development from idea Vygotsky's early work on importance context culture and history in form the learning process. Approach This emphasize that activity man must seen as One unity a system consisting of from subject, object, tools, rules, community, and division work (division of labor) (Varela et al., 2016b) . In other words, the activities study no can released from dynamics social, values culture, as well as the prevailing norms around it. When happen imbalance or contradiction within system, in fact this is it trigger transformation and innovation in the learning process.

In version The latest, CHAT focuses on the transformation process collective through intervention and reflection critical (Engeström, 2015) . For example, in the environment school, teachers and students No only interact in "teacher teaches-students " framework learning ," but also shaping complex activity *system* with goals, rules, and roles each. Contradiction or the conflict that arises like difference understanding curriculum or limitations source Power can push the occurrence change structural in practice learning. With Thus, the theory This give view wide about How learning based on context socio-cultural and ongoing in a way dynamic below influence various interrelated elements interact.

Relevance of 5 Paradigms new Post -Vygotsky

1) Distributed Cognition (Cognition) Distributed)

   In paradigm this, activity cognitive no solely happens inside thought individual, but rather distributed in interaction between humans, tools, environment, and context social. Vygotsky's theory emphasizes role tool culture (cultural tools) and interaction social in the learning process. Concept *distributed cognition* develop the idea with state that breakdown problem or learning is results collaboration various entities (humans, devices) technology, text, and context). Language remains become tool main, but supported by various other *tools* such as digital applications, social media, and the environment physique.

2) Embodied and Enacted Cognition

   Paradigm This emphasize that the process of thinking and learning involving body (embodied) and action physically (enacted) directly. In other words, cognition No merely an abstract mental process, but also colored by perception sensory, movement, and interaction physique with environment. Vygotsky did more Lots highlight language and interaction social, but paradigm This shift focus that learning No only contained by words, but also movements body, exploration spatial, and experience sensory. Inside modern class, learning science for example, often use activity physical (experimental) direct) and augmented reality technology, which emphasizes importance involvement physique child in understand draft abstract.

3) **Digital Scaffolding (Support) Digital Learning)**

   Draft *scaffolding* from Vygotsky (via elaboration by other researchers) now expanded to digital realm. Technology like application education, online learning platforms, and intelligence artificial intelligence (AI) can become a “supporter” learning” that adapts level difficulty material in a way dynamic in accordance ability child. Vygotsky mentioned *Development Zone Proximal (ZPD)* as gap between ability current children and the potential that can achieved through adult guidance or Friend peers . In digital scaffolding paradigm , tools soft play a role as a “ virtual educator ” who provides instructions , bait back , or challenge new . Interaction social No only limited to humans ; technology now also considered as agent interactive that can facilitate collaboration and discussion between users .

4) Collaborative Learning Communities (Communities Study Collaborative)

   Paradigm this emphasize that knowledge built through dialogue, discussion and work the same in group study, good in a way look at advance or virtual. The focus No only on individuals, but on the creation of " communities " practice " which together build knowledge. Vygotsky emphasized importance interaction social in learning. Paradigm

community Study collaborative emphasize aspect togetherness and expand it to scale community (eg. teacher community, online community). Through discussion group, each member community each other act as *scaffold* for others. Children or participant even students get diverse an enriching perspective cognition they.

5) Extended Cultural-Historical Activity Theory (CHAT)

CHAT is development more carry on from the thinking of Vygotsky and his friends at school psychology Russia (Leont'ev, Engeström). Approach This emphasize *activity* as a unit of analysis main, not only interaction two direction between children and teachers, but also the structure social, norms, and goals together that forms the learning process. Vygotsky began with idea that activity man No can separated from context cultural and social. CHAT perfects framework This with show How internal contradictions in system (eg. rule school vs. needs child) can bring up the renewal process. Learning viewed as results *transformation activity*, not just transfer of knowledge.

Study This aiming For identify and evaluate effectiveness of scaffolding as technique learning language in children age early, especially in support development Language through the Development Zone Proximal (ZPD) (Etnawati, 2022) . Based on results analysis literature, research This show that scaffolding is effective in increase ability vocabulary, grammar, and speaking children. As many as 85% of the articles analyzed report impact positive scaffolding against ability Language child, which is reflected in improvement use sentence complex and reduction error language. With Thus, the purpose study achieved through identification strategy practical scaffolding, such as distribution task complex, interactive dialogue, and giving bait come back corrective.

Scaffolding was also found give benefit significant in literacy beginning, for example ability reading simple words, which is developed through visual and verbal media (Rogoff, 1990). This is show that scaffolding is not only support development verbal language, but also aspects more literacy wide. With Thus, research This succeed answer question study with show How technique This can adapted For various need learning language in children age early (Putra et al., 2023) .

Findings study This can understood through theory Vygotsky's socio-cultural theory, which places the ZPD at the core of learning child. Scaffolding allows educator give support while that allows child reach skills outside range ability independence (Vygotsky, 1978). As example, interactive dialogue between teacher and child speed up development skills speak with provide correct and stimulating language models use vocabulary new (Van de Pol et al., 2010).

However, the effectiveness of scaffolding is very depends on ability educator for adapt level support with need children. Hammond and Gibbons' study (2005) showed that trained educators in scaffolding techniques are capable push child reach ZPD more effective compared

to educator without training. In addition that, factor contextual, such as parental involvement and use technology education also plays a role important in increase impact of scaffolding. With Thus, the findings this strengthen importance approach based on need individual in scaffolding application.

Study This in line with existing literature about the importance of scaffolding in education child age early. A study by Wood et al. (1976) stated that scaffolding is effective tool in help child overcome challenge Study through management task in a way gradually. Study This confirm results said, with add that scaffolding techniques also support ability literacy early, like read and understand word structure.

Besides that, research it also integrates interactive dialogue concept from Rogoff (1990), who emphasized role interaction social in learning child. In context this, interactive dialogue No only enrich experience Language child but also build trust self they in use Language new. This is show that scaffolding is a multidimensional approach that supports various aspect language learning (Attribution-sharealike & License, 2024) .

However, research this also found gap in literature related implementation of scaffolding in areas with source Power limited. Many studies previously carried out in developed countries, so adaptation of scaffolding in context lack of education support need attention more continued. Findings This add dimensions new in scaffolding research with highlight the need flexible and based strategy context.

Study This give contribution important in theory Vygotsky's socio- cultural develop scaffolding concept through integration technology and visual aids. If theory Vygotsky's original focus was on interaction man as the core of the ZPD, the findings study this show that technology education, such as application interactive and visual media, can functioning as an effective form of scaffolding (Hammond & Gibbons, 2005).

Besides that, research This modify scaffolding approach with emphasize the importance of " reduction " gradual " (*fading*), where support must in a way slowly reduced based on readiness child For Study in a way independent (Van de Pol et al., 2010). Findings This underline the need a more approach dynamic in application of scaffolding, with consider needs and responses child.

CONCLUSION

Scaffolding is an effective technique for early childhood language learning, with clear positive impacts on children’s vocabulary, grammar, and speaking skills. This study not only confirms previous findings but also extends socio-cultural theory by adding a technological element as part of the scaffolding strategy. With appropriate adaptations, scaffolding has the potential to be applied across a range of educational contexts, providing greater opportunities for children to develop optimally. Part research that has not been done revealed is achievement AUD language learning with scaffolding techniques for age type year. Other researchers can continue study said, so that identified with clear achievement each AUD age.

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