



## **How Children Learn to Speak: A Psycholinguistic Analysis of Language Development in a Three-Year-Old**

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### **Abstract**

*This case study explores the early stages of language development in a three-year-old Indonesian-speaking child through the lens of psycholinguistics, focusing on phonological, morphological, and semantic domains. Drawing on the theoretical frameworks of Chomsky's Universal Grammar, Halliday's functional language theory, and Clark's interactionist model, the research investigates how innate capacities and environmental input jointly shape language acquisition. Using naturalistic observation and audio-visual recordings, 25 spontaneous utterances were collected and analyzed qualitatively. Phonologically, the child demonstrated common developmental processes such as substitution and omission, showing partial mastery of the phonemic inventory. Morphological analysis revealed early morpheme use, overgeneralization, and bilingual word blending. Semantically, the child exhibited notable competence in categorization, antonym recognition, and pragmatic usage, often preceding phonological or morphological precision. The findings indicate that semantic understanding tends to develop earlier and more robustly than formal linguistic structures, underscoring the importance of a rich linguistic environment. This study highlights the intertwined roles of biological endowment and social interaction in early language learning and offers insight into the dynamic trajectory of linguistic development in early childhood.*

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**Keywords:** psycholinguistics, early childhood, case study, language acquisition

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## INTRODUCTION

Language acquisition is one of the most remarkable milestones in early human development. At the core of psycholinguistics lies the inquiry into how children acquire the complex system of language, encompassing phonology, morphology, and semantics. Each linguistic domain unfolds incrementally through a dynamic interaction between cognitive maturation and environmental exposure. The purpose of this study is to explore how a three-year-old child in an Indonesian context demonstrates linguistic growth, with specific focus on her spoken utterances that reflect early development in sound patterns, word formation, and meaning.

From a theoretical standpoint, Noam Chomsky's (1965) concept of the Language Acquisition Device (LAD) proposes that humans are biologically endowed with an innate mechanism for acquiring language. Chomsky's theory of Universal Grammar asserts that children are born with a mental blueprint that enables them to recognize grammatical structures, regardless of the language to which they are exposed. This nativist view underpins much of modern psycholinguistics and frames the notion that early language acquisition, while influenced by input, is biologically scaffolded.

In contrast, Halliday (1975) offered a functionalist view by positing that language evolves through social interaction. According to Halliday, language development is driven by communicative needs, and children learn to use language by participating in meaningful exchanges within their environments. He outlined seven functions of language in early childhood—instrumental, regulatory, interactional, personal, heuristic, imaginative, and representational—each illustrating the role of language in structuring human activity. This perspective emphasizes the social and pragmatic dimensions of language learning.

Further building on interactionist views, Clark (2009) described language as a symbolic system acquired through a child's cognitive engagement and social participation. She argued that children develop linguistic competence not only by mimicking sounds or forms but by interpreting meaning in context. Clark highlighted the importance of input, feedback, and routine interaction in expanding vocabulary and refining grammatical structures. The symbolic associations children create between words and referents become progressively more sophisticated, especially as they generalize linguistic patterns and apply them to novel situations.

The early development of phonology—how children learn the sound patterns of their language—often involves systematic processes such as substitution, omission, and addition. As Odden (2005) noted, phonology concerns the mental representation of sound systems and the rules governing sound combinations. Young children, for instance, may replace a difficult phoneme such as /r/ with an easier one like /l/, as observed in the utterance "gambal" for "gambar". Such errors are not arbitrary but are guided by regular developmental patterns.

Morphological development refers to how children begin to manipulate the smallest units of meaning—morphemes—and apply them to word formation. Katamba (1993) explained that morphology involves both the analysis of morphemes and the productive rules that generate

word forms. Early in development, children may simplify morphemes, overgeneralize rules, or blend words, such as saying "tentiuw" for "thank you". These speech forms provide evidence of emerging morphological awareness.

Semantics, the study of meaning, captures how children understand and use language to represent the world. According to Saeed (2016), semantics includes lexical meanings, sentence-level meaning, and the broader pragmatic context of use. In this study, a child's use of bilingual vocabulary (e.g., "banana" for "pisang") and accurate antonyms (e.g., "dingin" for "panas") illustrates her growing semantic competence. Even in the presence of phonological or morphological errors, semantic understanding often precedes grammatical precision.

Therefore, analyzing a child's utterances across these three domains provides insights not only into typical developmental trajectories but also into the interplay between innate capacities and environmental shaping. This study investigates the linguistic performance of a three-year-old girl, Achifa, through a case study approach, aiming to identify developmental patterns and early challenges in language acquisition.

## METHODS

This study adopts a qualitative research design to analyze the natural spoken language of a three-year-old child, focusing on her phonological, morphological, and semantic development. Qualitative methods are particularly well-suited for capturing rich, contextualized, and naturally occurring data in language acquisition research (Patton, 2002; Creswell, 2014). As Miles and Huberman (1994) assert, qualitative data provide a deep understanding of developmental processes by revealing patterns, functions, and meanings in context.

The subject of the study is Achifa Putri Ayanza, a three-year-old Indonesian-speaking child. The primary data were collected through naturalistic observation and video recordings of the child's spontaneous speech in daily routines. This method ensures the authenticity of the linguistic data and reflects the actual language behavior of the child in her home environment.

The researchers employed note-taking and audio-visual transcription to document the child's utterances during interactions with family members. A total of 25 utterances were recorded and analyzed. Each utterance was categorized according to its linguistic domain—phonology, morphology, or semantics—using established linguistic frameworks. Phonological analysis drew on the work of Odden (2005); morphological analysis was based on Katamba (1993) and Fromkin et al. (2018); and semantic evaluation followed criteria outlined by Saeed (2016) and Clark (2009).

The data were interpreted through inductive thematic analysis to uncover recurring patterns of speech development and identify typical errors. The focus was on how the child's utterances demonstrate substitution, reduction, or addition in phonology; overgeneralization and simplification in morphology; and meaning association, categorization, and causal reasoning

in semantics. This triangulated approach allows for a holistic understanding of early language development in a natural setting.

## RESULTS AND DISCUSSION

This study analyzed the spoken language of a three-year-old Indonesian child, Achifa Putri Ayanza, with a focus on phonological, morphological, and semantic development. Through naturalistic observation, 25 utterances were documented and analyzed. These utterances provided a window into the cognitive and linguistic processes occurring during early childhood language acquisition.

Phonological development in young children typically involves the gradual acquisition of consonants and vowels, often accompanied by systematic errors such as substitution, omission, and addition. In this study, Achifa exhibited a range of phonological processes that are typical for her developmental stage. For example, she substituted the rhotic /r/ with /l/ in utterances like "*Gambal lusa*" for "*Gambar rusa*" and "*Keleta*" for "*Kereta*." Such substitutions reflect the difficulty many children face in articulating rhotic sounds due to their articulatory complexity (Odden, 2005).

Omissions also appeared frequently, as in "*Ake ayung*" for "*Pake payung*," where the initial /p/ is dropped. Additionally, she produced vowel elongation and phoneme addition, as in "*Ditinii*" for "*Di sini*" and "*Maraah*" for "*Merah*." These modifications are not random but follow identifiable phonological processes linked to articulatory ease and limited motor control at this age. Despite these distortions, Achifa had already acquired all five Indonesian vowel sounds and was able to pronounce 13 consonants correctly, indicating that she had attained a substantial portion of the phonemic inventory of her language.

These phonological patterns highlight the gradual nature of phonological acquisition and underscore the influence of exposure and practice. They also support the nativist view that children come equipped with the ability to recognize phonological systems but require environmental feedback to master their articulation (Chomsky, 1965).

Morphological development was evident in Achifa's spontaneous speech, particularly in her use of root words, reduplication, and early clause formation. Most of her utterances involved monomorphemic words like "*mimi*" (minum) and "*poto*" (foto), reflecting Katamba's (1993) assertion that morphological competence begins with the use of simple morphemes. Her attempts at more complex expressions, such as "*Teyimakacih*" (Terimakasih) and "*Haluss kabul, anyak pemadam kebakayan*" (Harus kabur, banyak pemadam kebakaran), show her ability to chunk multi-morphemic expressions, even if the structure remains unstable.

A particularly interesting aspect of her morphological development is her exposure to English morphemes, evidenced by utterances such as "*Tentiuw*" (Thank you) and "*Cheese*" during photo-taking. These examples reflect her interaction with a bilingual or media-rich environment, which aligns with Clark's (2009) view that children's lexical and morphological development is shaped through symbolic association and social exposure.

Moreover, Achifa showed early signs of morphosyntactic development. In utterances like "*Aku punya soda*," she attempted simple subject-predicate-object constructions. Although these clauses were not fully formed, they demonstrate an emerging grasp of syntax.

Reduplication was also observed, as in “*Mimi*” for “*Minum*,” a common infantile morphological pattern indicating both cognitive development and articulatory adaptation.

Semantic development was perhaps the most advanced among the three linguistic aspects observed. Achifa demonstrated a growing ability to understand word meanings, object categorization, and basic semantic relationships. For instance, her correct responses in naming objects (“*Air*” for water), identifying opposites (“*Dingin*” as the antonym of “*Panas*”), and classifying animals (“*Burung*” as the flying animal over “*Kucing*”) highlight her grasp of basic lexical semantics and categorization (Saeed, 2016).

She also displayed an understanding of functional and causal relationships. Her statement “*Pasti deh rumahku terbakar*” in response to a question about fire, shows her ability to associate cause with effect—a mature semantic function for her age. This indicates that while her phonology and morphology are still developing, her semantic reasoning is already demonstrating signs of depth and abstraction.

Importantly, Achifa’s use of English terms such as “*banana*” and “*thank you*” reflects bilingual awareness, a finding supported by Clark (2009), who emphasized the role of multilingual exposure in enhancing semantic flexibility and vocabulary growth in children. Her semantic competence also extended to context-based communication, as seen in her response “*Tentiuw*” when asked what to say after receiving two dolls. Though she did not explicitly mention plurality, she responded with a social cue, showing pragmatic awareness.

These semantic findings support the notion that meaning-making in children often precedes full phonological or morphological mastery. Children may grasp and use concepts meaningfully even when their articulation or syntactic structure is underdeveloped.

## CONCLUSION

This case study of a three-year-old child’s language acquisition reveals that phonological, morphological, and semantic development progress simultaneously, though not uniformly. Achifa demonstrated typical phonological errors such as substitution and omission, reflecting normal developmental processes. Morphologically, she used primarily simple word forms with early signs of clause construction and exposure to bilingual elements. Semantically, her development was particularly notable, as she showed the ability to identify, categorize, and associate meaning across contexts and languages.

The findings underscore the interplay between innate linguistic capabilities and environmental input. As posited by Chomsky (1965), biological endowment provides the structural foundation for language, while social interaction, as emphasized by Halliday (1975) and Clark (2009), facilitates learning and functional use. Overall, Achifa’s utterances reflect a healthy and dynamic stage of language acquisition, with semantics often leading the way in communicative competence. Her case highlights the importance of rich, supportive environments that nurture both expressive and receptive language skills in early childhood.

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