

Ecological Affordances and the Spontaneous Emergence of English in a Bilingual EFL Primary School

Bungsudi,^{1*} Eka Pratiwi Yunianti,² Teofilo Boguite Damoco³

^{1,2}Universitas Aisyah Pringsewu, Pringsewu, Lampung, Indonesia, ³Union Christian College, San Fernando City, La Union, Philippines

Article Information

Received: May 04, 2026

Revised: September 06, 2026

Accepted: September 06, 2026

Published online: October 11, 2026

Abstract

Early English acquisition in EFL contexts is often reduced to formal instructional outcomes, overlooking naturalistic, ecological processes in children's language development. This study examines how ecological affordances shape the spontaneous emergence of English among four focal learners in Grades 1 to 4, aged 7 to 10, at a bilingual primary school in Indonesia. Data were collected from four students, selected through purposive sampling, together with their teachers and parents as additional sources for triangulation, over three to four months through participatory observation, interviews, and document analysis, following a qualitative case study with a phenomenological orientation. Findings reveal that English development is not driven primarily by formal instruction but emerges through interactions across digital, social, physical, and affective environments, comprising four affordance layers: digital exposure as a trigger, family mediation as reinforcement, school-based interaction as stabilization, and affective affordances as motivational sustainers. This study also proposes three interrelated descriptive constructs that model language emergence as a multi-layered, self-reinforcing system across home, school, and digital spaces, offered as an interpretive account of this case rather than as validated theoretical models. These findings reconceptualize early language learning as distributed and interaction-driven and suggest that educators in similar contexts consider designing affordance-rich environments that bridge home, school, and digital spaces.

Keywords: ecological affordances; spontaneous language emergence; bilingual EFL primary school; young learners; ecological language learning

Introduction

The early years of primary education, ages 7 to 10, are a critical stage in second language acquisition, as children show heightened sensitivity to linguistic input and a natural inclination to experiment with language use in

meaningful ways (Koivula et al., 2024). At this stage, language learning extends beyond formal classroom instruction and becomes embedded in children's everyday experiences. In bilingual primary school settings in Indonesia, where English functions as a foreign language rather than a community language, children are

*Corresponding Author: Bungsudi
(bungsudi@gmail.com) Jalan Ahmad Yani Number 1A, Tambak Rejo, Wonodadi, Pringsewu, Pringsewu Regency, Lampung, 35372

©2025 by the Authors, published by Vision: Journal for Language and Foreign Language Learning
<https://journal.walisongo.ac.id/index.php/vision>

exposed to English not only through structured teaching but also through spontaneous peer interaction, digital media engagement, and informal communication with teachers and family members (Ollerhead & Pennington, 2024). These naturalistic conditions suggest that instructional models alone cannot fully explain language development in such contexts; it must be understood as an emergent, ecologically distributed process shaped by the totality of children's everyday environments.

Ecological approaches to language learning have increasingly emphasized that acquisition is shaped by dynamic interactions between learners and the layered environments in which they are embedded (M. L. Rowe, 2022; Schwartz & Deeb, 2021). This ecological orientation builds on earlier foundational work: Kramsch (2003) argued that language development cannot be separated from the social and semiotic context in which it occurs, treating meaning-making as something co-constructed between learner and environment rather than transmitted through input alone, while Van Lier (2004) conceptualized language ecology as a system of perception and action in which learners notice and respond to affordances rather than receive them. Drawing on Van Lier's (2010) ecological theory of language learning and Bronfenbrenner's (1979) ecological systems theory, both of which conceptualize learners as active agents who interact with multiple layers of their environment, researchers have argued that language emerges not from passive reception of input but from active engagement with environmental resources across physical, social, digital, and affective domains. The concept of affordances, defined as the functional opportunities that the environment

provides for meaningful language use (Aronin & Singleton, 2012; Kasbi & Shirvan, 2017), is central to this framework. In this study, spontaneous English use refers to instances of English production that occur without direct elicitation or instructional prompting; that is, language children generate on their own initiative during ordinary interaction rather than in response to a set task or a teacher's request. Affordances let learners actively engage with language, turning input into communicative action in authentic contexts (Jun & Mu, 2024; Mercer, 2011). This perspective, further elaborated through complex systems thinking in language education (Larsen-Freeman, 2016; Mercer, 2012), repositions the learner as an agent who continuously perceives and acts upon ecological opportunities available in their immediate context. Recent empirical work has confirmed that the quality, diversity, and interconnectedness of such affordances predict language development better than formal instructional exposure alone (Sun, 2023; Zhao et al., 2022). However, research over the past decade has generally examined these affordance types in isolation, treating digital, familial, or classroom-based input as separate variables rather than tracing how they interact within a single learner's experience. These studies also rarely define what counts as "spontaneous" use consistently, making it difficult to determine whether the affordances identified produce unprompted language or merely task-elicited performance.

A particularly important strand of this literature concerns the role of digital media in providing early English input to young learners in EFL contexts. Digital platforms such as videos, games, and interactive applications provide

children with access to authentic English input and create opportunities for incidental vocabulary acquisition and pronunciation development (Muslem et al., 2022; Purnamasari, 2018). Empirical studies consistently show that children who frequently engage with English digital content demonstrate measurable improvements in vocabulary knowledge and phonological awareness (Chandra et al., 2023; Jing et al., 2023), often predating formal schooling. Digital affordances are distinctive because they are accessible, intrinsically motivating, and can generate repeated exposure to authentic language input outside institutional boundaries. Critically, however, their developmental value depends on how much they are reinforced and contextualized through social and affective interactions at home and school.

Family mediation constitutes a second major ecological layer in children's early language development. Research shows that the quality and diversity of linguistic input, both at home and at school, play a crucial role in accelerating second language acquisition (Paradis, 2023; Unsworth et al., 2019; Yang et al., 2021). The eco-behavioral model (Ford et al., 2020) further highlights that interactional opportunities and responsive communication between children and caregivers are critical to supporting language growth. Active parental engagement through meaningful conversation, literacy modeling, and a language-rich home environment is a critical ecological factor in children's language development at the primary school level. Its absence significantly diminishes children's motivation and overall linguistic competence (Mulyani, 2022). In the Indonesian EFL context, parental involvement and access to

digital media further shape children's linguistic environments, creating multiple layers of affordances that influence language development (Astutik & Suryanto, 2024; Zein, 2016).

School-based affordances provide a third ecological layer that stabilizes and functionalizes spontaneous English use. Research consistently shows that frequent, meaningful verbal interaction; exposure to diverse linguistic resources; and engagement in language activities within classroom routines contribute to vocabulary development and communicative competence (Baroody et al., 2015; Finders et al., 2023; Justice et al., 2018). Translanguaging practices, that is, the fluid deployment of multiple linguistic resources across languages, have been documented as a natural cognitive and social strategy among young EFL learners in Indonesia, enabling them to bridge home and school language practices and to support comprehension in English learning (Astutik & Suryanto, 2024; Cenoz & Gorter, 2022; L. Rowe, 2018; Tai, 2022; Zein, 2016). Rather than representing a deficiency, such cross-lingual practices constitute an affordance in their own right, facilitating meaning-making and participation in English-medium interaction. Ecological work in the Indonesian EFL context further shows that instructors who deliberately construct learning ecologies around Bronfenbrenner's microsystem, prioritizing interactive exposure and responsive feedback, create conditions far more conducive to spontaneous language production than those relying on transmission-oriented pedagogy (Rahimi, 2024).

Affective dimensions of the learning ecology have also received increasing scholarly

attention. Children's willingness to engage with English, their enjoyment of language activities, and their confidence in using the language spontaneously are not merely psychological by-products of instruction but active ecological forces that sustain or suppress language emergence (Mercer, 2012). A supportive affective environment, characterized by encouragement, tolerance of error, and social recognition, functions as a motivational affordance that amplifies the effects of digital, social, and physical inputs. When affective conditions are positive, children are more likely to transfer language encountered in digital contexts to school routines, and to carry school-based language use into home interaction, creating a self-reinforcing ecological cycle.

Despite this growing body of ecological research, a significant gap remains in understanding how these multiple affordance layers operate simultaneously and recursively within a single, naturalistic EFL environment, particularly at the level of young primary school learners in Indonesia. Much of the existing literature continues to focus on structured pedagogical interventions, curriculum design, or teacher-directed instruction (Prošic-Santovac & Rixon, 2019; Setyaningrum et al., 2022), or examines affordances as isolated variables rather than as interconnected components of a dynamic, self-organizing system. Consequently, the mechanisms through which English emerges spontaneously across interconnected ecological domains, and how affordances from one context cascade into and reinforce affordances in another, remain insufficiently theorized and empirically underexplored. This gap is particularly consequential in the Indonesian EFL context, where limited ambient English

exposure outside school makes integrating home, digital, and school ecologies especially critical to sustaining children's language development. This condition differs from ESL or community-language settings such as Malaysia, the Philippines, or Singapore, where English is embedded in public and social life, and children accumulate substantial ambient exposure outside formal instruction. In Indonesia, by contrast, English functions almost entirely as a school subject with limited presence in everyday life, so whatever ecological affordances exist must be deliberately constructed and sustained through the coordinated efforts of home, school, and digital environments. Examining how these affordances interact within such a low-exposure EFL setting therefore offers a distinct test of ecological models of language learning, one that has received comparatively little attention relative to ESL contexts.

This study therefore aims to investigate how ecological affordances shape the spontaneous emergence of English among young learners in a bilingual EFL primary school in Indonesia, with specific attention to how different affordance types interact dynamically across home, school, and digital environments, focusing on a single-site case at Citra Bangsa School Pringsewu. The inquiry is guided by three interrelated aims: to examine how young learners interact with ecological affordances in their environment to produce spontaneous English use, to identify types of ecological affordances that are most salient in supporting early English emergence in a bilingual EFL primary school, and to explain how these affordances interact with one another to sustain spontaneous English use in everyday learning contexts widely (Sweeny, 2010).

Method

Research Design

This study employed a qualitative case study design, drawing on a phenomenological orientation to inform data collection rather than as a parallel methodological framework, to investigate how ecological affordances shape the spontaneous emergence of English among young learners in a bilingual EFL primary school context. The phenomenology and case study research differ in their underlying purpose: phenomenology seeks to uncover the shared essence of a lived experience across individuals, whereas case study research aims to develop an in-depth understanding of a bounded system (Creswell & Poth, 2018). This study is methodologically a case study, in which Citra Bangsa School Pringsewu constitutes the bounded system under investigation; the phenomenological orientation operates only at the level of interview technique, guiding the researcher to attend closely to participants' subjective descriptions of their everyday encounters with English, without claiming to extract a generalized essence of experience across participants. The phenomenological orientation was selected to capture learners' lived linguistic experiences and their natural engagement with English as it emerges through interaction with social, physical, and digital environments (Creswell & Poth, 2018; Moustakas, 2011). A single-case design was adopted because, unlike comparative designs, it enables an in-depth, contextually grounded understanding of how affordances operate and interact within a specific ecological setting (Van Lier, 2010). This design aligns with the study's ecological framework, which views language acquisition as an emergent process inseparable

from the naturalistic environments in which learners are situated. Focusing on one site allows the study to generate a rich, thick description of how different affordances are perceived, used, and interconnected within this case, rather than making claims about representativeness across the wider school population. Data were collected over approximately three to four months, a period considered adequate for a case study of this scope because it allowed the researcher to document recurring, rather than one-off, instances of reported affordance use through the sustained, multi-method engagement of observation and interviews across student, teacher, and parent perspectives (Creswell & Poth, 2018). As with any time-bound case study, the findings describe the affordance interactions observed during this period rather than children's long-term developmental trajectories, a boundary addressed further in the Limitations section.

Participants

The research was conducted at Citra Bangsa School Pringsewu, a bilingual primary school in Lampung Province, Indonesia, where English is integrated into daily instructional practices alongside Indonesian. The school was selected because it provides a structured yet interaction-rich environment with multiple overlapping affordance layers, including access to digital media, active teacher-student communication, peer interaction, and print-rich physical settings, making it a contextually appropriate site for examining ecological affordances in an EFL context. The primary participants were children aged 7 to 10 years from Grades 1 to 4. A total of four students were selected as focal participants through purposive sampling. The four focal

students comprised two girls and two boys, one from each grade level, from Grade 1 (age 7) to Grade 4 (age 10). They were recommended by their homeroom teachers as being able to communicate comfortably during extended observation and interview sessions, which served as the operational criterion for purposive selection. Purposive sampling was justified because the study prioritized information-richness over representativeness, seeking participants whose experiences were most likely to illuminate the phenomenon under investigation (Creswell & Poth, 2018). Because the four focal students, one per grade level, represent a narrow base, the resulting account is best understood as an in-depth description of these four cases rather than a comprehensive picture of affordance use school-wide. To enhance data richness and ensure triangulation, we included two English teachers and four focal students' parents who were directly involved in the children's learning environments, ensuring multiple ecological perspectives were represented.

Instruments

Two instruments were developed for this study. First, an observation checklist was used to document the presence and content of English-language print materials, such as posters, vocabulary displays, and classroom signage, as evidence of the physical affordances available to learners within the school environment. Second, semi-structured interview guides were developed separately for students, teachers, and parents to explore their experiences, perceptions, and interpretations of English exposure and use. The student interview guide used short, concrete questions organized around familiar everyday contexts, such as daily

English use, digital media habits, the classroom environment, and feelings about English, a design suited to children's linguistic and cognitive developmental stage. The semi-structured format was chosen because it allowed the researcher to maintain thematic consistency while accommodating the varied linguistic and developmental capacities of child and adult participants. The researcher kept reflective field notes during observation and interview sessions to record nonverbal behavior and contextual details not captured by the checklist or audio recording. Appendix A and Appendix B provide the observation checklist and interview guides to support transparency and replicability.

Data Collection

Data were collected over approximately three to four months. Observations focused on documenting English-language print materials across classrooms and common school areas as evidence of physical affordances, while the interview data described below captured accounts of students' spontaneous English use. A total of ten interviews were conducted: four with the focal students, two with their English teachers, and four with their parents. All interactions involving English use were audio- or video-recorded with all participants' informed consent and parental consent for child participants.

Supplementary reflective memos documented emerging analytical insights during fieldwork, supporting an iterative data collection process in which observations and interviews informed one another progressively. The researchers conducted interviews with children and parents primarily in Indonesian; they produced and cross-checked the transcripts and

English translations used in the Findings against the original recordings to minimize loss of meaning. Quotations that participants originally produced in English are indicated as such.

Data Analysis

Data analysis followed the reflective thematic analysis framework proposed by Braun & Clarke (2006), chosen for its flexibility in handling phenomenological data and its ability to identify latent and manifest patterns across multiple data sources. The analysis proceeded through six phases. In the familiarization phase, we transcribed all recordings and read them repeatedly to develop an overall sense of the data. In the initial coding phase, instances of spontaneous English use reported by participants were identified and coded according to their ecological triggers, broad code sets that directly address the first research aim: how young learners interact with affordances to produce spontaneous English use. In the theme-searching phase,, related codes were organized into candidate categories corresponding to social, physical, and digital domains, providing an initial response to the second research aim regarding which affordance types are most salient in supporting early English emergence. In the reviewing phase, we checked candidate themes against the coded extracts and the full dataset to ensure internal coherence and distinctiveness between themes. In the defining and naming phase, four affordance-based themes and two cross-cutting interactional mechanisms were finalized, forming the analytical basis for addressing the third research aim about how different affordances interact to sustain spontaneous English use. The final phase produced an analytic narrative explaining how the identified affordance layers and their

interactions collectively create the ecological conditions for English emergence at Citra Bangsa School Pringsewu. Throughout all stages, the analysis emphasized intra-case depth rather than cross-case comparison, examining how affordances interact dynamically within a single ecological system.

To ensure the study's credibility and rigor, multiple trustworthiness strategies were employed. Source triangulation was achieved by collecting data from students, teachers, and parents. Method triangulation was ensured by integrating interview accounts with observational documentation of the physical, print-rich environment, supported by reflective field notes. Member checking was conducted with participating teachers, who reviewed and validated emerging interpretations. This member checking was limited to teacher participants; feedback from student and parent participants was not systematically incorporated into the validation process. Because the study makes claims about children's lived experiences and home digital habits, this is a limitation, and readers should interpret findings about children's and parents' perspectives with this constraint in mind. An audit trail was maintained to document all analytical procedures and decision points, and thick description was used to provide sufficient contextual detail for readers to assess transferability. Ethical approval was obtained from the affiliated institutional review board, informed consent was secured from all participants, and confidentiality and anonymity were maintained throughout the study. In addition to parental consent, researchers sought verbal assent from each child participant before every interview and

observation session, and children could decline or discontinue participation at any time.

Findings and Discussion

Finding

The analysis revealed that the spontaneous emergence of English among young learners at Citra Bangsa School Pringsewu is shaped by the dynamic interaction of ecological affordances across digital, social, and physical environments. Rather than operating independently, these affordances form an interconnected system through which children perceive, internalize, and reproduce English in meaningful contexts. Iterative coding and thematic analysis (Braun & Clarke, 2006) yielded four major themes, each representing a layer of ecological affordance, together with two interactional mechanisms that explain how these layers jointly sustain spontaneous English use. So that readers can judge how consistent or exceptional each pattern was, the account below draws on all four focal students, their two teachers, and their four parents, and it notes explicitly where a pattern recurred across most cases and where it reflected only one or two children.

The first layer concerns the period before formal schooling, when children's initial encounters with English took place mainly through digital media and family interaction. All four focal students traced their first contact with English to the home rather than the school. The Grade 3 participant stated, "Since I was little... I studied by myself, watching YouTube," while the Grade 4 participant placed this exposure slightly later, in his first year of elementary school. Parents' accounts converged with these recollections: one parent explained that her son "learned English from YouTube and from his

father" from a very young age, and another described her child's earliest exposure as coming through "English songs and school-related vocabulary songs." Teachers corroborated this pattern from the classroom side, observing that many students arrive at school having already picked up English "from YouTube, songs, or parents even before coming to school." This digital-first pathway was therefore not confined to a single case but recurred, with only minor variation, across all four focal families. Within this early layer, two related patterns stood out. Children encountered English overwhelmingly through audiovisual input rather than formal instruction, as their own descriptions of learning "by myself" from screens make clear. At the same time, family members sustained this exposure even when their own proficiency was limited. One parent admitted that "my own English is limited, so I cannot teach him much," yet she still facilitated her child's learning by watching content with him and encouraging him to repeat new words, a pattern of shared viewing and encouragement echoed in the other parent interviews. Early exposure, then, was not an isolated event but the foundational ecological layer that sensitized children to English before structured learning began.

Building on this foundation, digital media continued to serve as a primary affordance for vocabulary acquisition and activation, although their role shifted noticeably as children grew older. The youngest participants offered the clearest examples of direct lexical uptake from screens. The Grade 1 student recalled learning words such as "bedroom" and "bathroom," along with simple expressions, from videos, and teachers observed that Grade 1 and Grade 2 students readily produced words and phrases

such as “Sorry” and “Thank you” that could be traced to media exposure. The two older focal students, by contrast, described a more selective relationship with digital input. Asked about recently learned words, the Grade 3 student admitted, “I did, but I forgot,” and his teacher likewise noted that Grade 3 students “sometimes forget the new words.” The Grade 4 student went further, stating a clear preference for “being in the real world” over screens and choosing to “speak English with friends at school” rather than rely on video content. His teacher confirmed this shift, observing that Grade 4 students increasingly carry what they retain from videos into face-to-face interaction instead of repeating it passively. Because these contrasts rest on only four cases, they should be read cautiously; nevertheless, they align with teachers’ broader classroom observations and point to a developmental gradient in which digital affordances serve mainly as an entry point for vocabulary in the earlier grades, while social affordances grow more salient as learners approach Grade 4.

This growing importance of social interaction is most visible in the school environment, which offered a structured ecological system in which children could turn passive exposure into active use, chiefly through sustained teacher and peer interaction. Teachers consistently used English in classroom routines such as greetings, commands, and requests for permission, and children reciprocated with functional phrases drawn directly from these routines, asking, for example, “Miss, I want to wash my hands,” or using expressions such as “Sorry,” “Thank you,” and “May I borrow...?” One teacher explained that this reflected a deliberate pedagogical stance: a safe, supportive interactional

environment in which mistakes are accepted and even encouraged, reinforced through consistent praise, was seen as crucial for promoting spontaneous use. Students and parents independently recalled the same praise expressions, such as “Very good” and “Go ahead,” which suggests that these phrases functioned as a shared linguistic ritual linking teachers, students, and, through students’ retelling, parents. Peer interaction extended these affordances further, as children reported that much of their English use at school occurred informally among friends during play rather than only in response to teacher prompts. The physical environment complemented these social affordances by providing constant, low-effort exposure rather than direct instruction. Every focal student, from Grade 1 to Grade 4, reported noticing English-language posters or vocabulary displays somewhere in the school, and the Grade 2, Grade 3, and Grade 4 students each specified that such displays existed only at school and not at home, a distinction the Grade 1 student did not make. One teacher described the school as a place where “you can see the instruction” everywhere, including designated English zones in shared spaces such as the dining room. The same teacher acknowledged, however, that this expectation was not always met outside supervised instructional time, since children tended to revert to Indonesian in less structured settings such as informal peer conversation. School-based affordances thus created repeated opportunities for retrieval and functional use, but their effectiveness depended heavily on the degree of structure and supervision in a given setting.

Whether children took up these opportunities depended in large part on how

they felt about using English, and affective factors accordingly emerged as a critical dimension of spontaneous use, expressed differently yet consistently across the four grade levels. The younger students described their engagement in simple, unqualified terms of enjoyment: the Grade 1 student reported feeling “Happy,” and the Grade 2 student found the experience fun “because I think I can speak English.” The older students expressed a more mixed and self-aware emotional register. The Grade 3 student admitted to feeling “not good yet, but happy,” and the Grade 4 student described the experience as “fun, but sometimes difficult,” pairing enjoyment with an emerging awareness of his own limitations. Across all four interviews, these emotions were tied to teacher encouragement, peer interaction, and engaging activities such as games and songs. Teachers reinforced this connection, explaining that confidence develops when students can try without fear of error; one teacher reported telling students that what matters is trying, even when an answer is incorrect. Parents observed a parallel trajectory at home, with several noting that their children grew more confident or fluent over successive terms. The convergence of student, teacher, and parent accounts indicates that affective affordances are central rather than peripheral to children’s willingness to engage with English, and that this willingness becomes more nuanced, rather than simply stronger, as children move through the primary grades.

Taken together, these layers show that spontaneous English use was driven by interactions among affordances rather than by any single factor, a pattern the analysis captured through two interactional mechanisms. The first,

termed here the Affordance Cascading Effect (ACE), describes how English input encountered in one environment is reproduced and reactivated in another. The clearest example involved vocabulary such as “bathroom” and “sorry,” which students reported learning from digital sources and then using in classroom communication and daily routines, as both student and teacher accounts independently confirmed. A second instance appeared in the Grade 4 student’s account of words such as “sentence” and “verb,” which were introduced through the school’s structured English Morning Meeting and then carried into other classroom contexts; this shows that cascading was not limited to informally acquired digital vocabulary but also occurred with school-introduced content. A third, more socially mediated instance emerged from teacher reports that praise phrases such as “Very good” and “Go ahead,” first modeled in class, were later repeated by children to their parents at home, who then reinforced them in return. Since the study focuses on four cases, the number of documented instances remains limited. Even so, the recurrence of this pattern across three distinct pathways, from digital media to school, from one school context to another, and from school to home, suggests that affordances tend to operate as a sequential, expanding chain rather than as isolated inputs, although confirming ACE as a robust and generalizable mechanism would require testing with a larger sample.

The third pathway of ACE leads directly to the second mechanism, the Triadic Ecological Reinforcement Loop (TERL), which describes a cyclical pattern in which teachers introduce and model English, students use it at school and

bring it home, parents respond by reinforcing or encouraging its use, and students return to school with increased confidence. This loop was evident in the recurrence of teacher praise phrases across data sources. Several parents recalled their children reporting these exact phrases at home; one noted that her child “told me his teacher said ‘Go ahead’ when he asked in English,” and another recounted that her child “mentioned using English like ‘Sorry’ and ‘Thank you’ at school.” Parents did not merely acknowledge these reports but actively encouraged further use, for instance by asking their children to repeat new words or by practicing short phrases together. Teachers, in turn, observed that students who received this kind of reinforcement outside school tended to respond faster and with greater confidence in class. Although documented through a small number of family cases, the loop plausibly sustains itself through a repeated cycle of modeling, transfer, reinforcement, and renewed classroom use.

The influence of these interacting affordances extended beyond immediate language use to children’s emerging aspirations, which, even at a young age, were linked to English and appeared to sharpen rather than diminish with age. The Grade 1 student expressed a simple, concrete wish: “I want to go abroad.” The Grade 2 student framed his motivation around a specific social skill, saying, “I want to talk to people from other countries,” while the Grade 3 student’s aspiration stayed close to language use itself, wanting simply “to speak English.” The Grade 4 student articulated the most elaborated and instrumental goal, wanting “to become better at speaking English so I can meet people from other countries.”

Parents echoed and in some cases amplified these aspirations, consistently framing English as essential for their children’s future education and global communication; one parent hoped that her child would “communicate with people from other countries as he wishes,” directly mirroring her child’s own stated ambition. This alignment between children’s and parents’ aspirations indicates that ecological affordances shape not only moment-to-moment language use but also the gradual development of longer-term motivational orientations, which become more specific and self-directed as children progress from Grade 1 to Grade 4.

Discussion

The overall pattern in this study suggests that English development among young EFL learners was driven less by formal instruction than by everyday interaction across digital, social, physical, and affective settings. In broad terms, this pattern supports ecological and sociocultural accounts of language development, which locate learning in the relationship between learners and their environments rather than in instruction alone (Bronfenbrenner, 1979; Vygotsky, 1978). The present findings, however, also depart from earlier research in several respects, particularly in the roles played by parents with limited English, by digital media, and by the learners’ first language. The discussion that follows examines these similarities and differences. The interpretations remain tentative because the data came from four student participants together with their parents and teachers.

To organize this comparison, the discussion uses three labels: the Ecological Affordance Interaction Framework (EAIF), the Affordance Cascading Effect (ACE), and the Triadic Ecological

Reinforcement Loop (TERL). These labels describe recurring patterns in the present data and serve as an interpretive lens rather than as validated theoretical constructs. As each label is introduced, the discussion explains how it relates to existing frameworks and how far the evidence supports it.

The first finding concerns how children first encountered English. These encounters occurred before formal schooling, mainly through digital media such as YouTube, songs, and games, and through informal family interaction. This finding is consistent with research highlighting the role of environmental input diversity in early language acquisition (Paradis, 2023; M. L. Rowe, 2022). As in those studies, the children's early development appeared to depend on the range and frequency of input available in their surroundings. The present case differs, however, in the source of that input. Research on early language environments has largely examined input provided by caregivers who are themselves competent users of the language. In this study, the main source of English was digital media, and parents acted mainly as gatekeepers who provided access to that media. Treating this early exposure as the foundational layer of EAIF is therefore a descriptive device for capturing this specific configuration, not a proposal for a new mechanism.

This difference becomes clearer in the role of parents. Even when parents had limited English proficiency, they did not teach English directly, yet facilitating access appeared sufficient to initiate their children's language awareness. Input-focused research tends to associate early language growth with the quality and quantity of caregiver talk (M. L. Rowe, 2022). The present

findings suggest that in an EFL setting, parents can contribute in another way: by making English input available and by acknowledging their children's attempts to use it. This lends some support to the ecological assumption that the availability and frequency of affordances may matter more than instructional expertise in early language development. This access-facilitation role, however, presupposes that a household has a digital device and stable internet access. The present study did not systematically examine socioeconomic variation among participating families. Children in households without such access are unlikely to benefit from this foundational layer.

The incidental vocabulary learning children reported through games, videos, and songs is consistent with earlier studies on digital media and vocabulary development (Chandra et al., 2023; Jing et al., 2023). Like those studies, the present findings indicate that young learners can pick up English words through media use without deliberate instruction. The present study differs in what it shows happening after a word was first encountered. Studies of digital vocabulary learning tend to measure gains associated with a particular medium or activity. Here, the data revealed a recursive pattern. A single digital encounter, such as hearing a word in a video, led children to reproduce that word in other contexts, including home, school, and peer interaction. This reproduction, in turn, led to reinforcement across environments. The pattern resembles transfer and reinforcement mechanisms already documented in the input literature, in which exposure in one setting is carried over and consolidated in another. The label ACE is therefore used as shorthand for this propagation pathway in the present EFL context,

not as a claim to a previously undocumented mechanism. Its contribution lies in identifying digital media specifically, rather than input in general, as the starting point of the cascade, and in following the word beyond the medium in which it was first heard. At Citra Bangsa School Pringsewu, English is not dominant in the wider community, so this cascading pattern seems particularly consequential. It may help compensate for limited exposure to English outside school.

While digital exposure initiated English awareness, school-based affordances helped stabilize and functionalize language use. Classroom routines, teacher discourse, peer interaction, and print-rich environments together created a structured ecological system in which learners could retrieve and experiment with language. This finding agrees with sociocultural perspectives (Vygotsky, 1978), in which interaction and scaffolding mediate learners' transition from passive exposure to active use. It also reflects the Interaction Hypothesis (Long, 1996), which holds that meaning negotiation and feedback facilitate language development through modified input and output. The present findings also echo Thi et al. (2022), who identified motivation and peer support as key factors in EFL learners' autonomous language development. In both studies, interaction with teachers and peers helped sustain learners' engagement with English. The present study differs from Thi et al. (2022) in scope. Their account centers on factors within the learning environment, whereas the present data show that classroom interaction was also extended and reinforced at home.

TERL was used to describe this link between school and home. The cycle began with teacher

input in the form of routines, feedback, and modeled expressions. This input led to student uptake and peer interaction. The cycle was completed through home reinforcement, as parents acknowledged or responded to their children's use of English. These elements interacted recursively, forming a continuous cycle of reinforcement. The dynamic closely parallels Bronfenbrenner's (1979) mesosystem, which already accounts for the interconnection between home and school microsystems. In this respect, the finding confirms rather than challenges Bronfenbrenner's model. TERL is therefore not proposed as independent of the mesosystem. Its contribution is narrower: it specifies how that interconnection appeared to operate in this particular case through three concrete channels. Whether this specification holds beyond the present sample would need to be tested with a larger and more varied group of learners. Consistency between school and home may be particularly relevant in EFL contexts with limited external exposure to English, where it could plausibly help compensate for broader linguistic scarcity. The present study, however, cannot establish the direction or strength of that compensatory relationship.

The findings on translanguaging both converge with and depart from earlier research. Students frequently used Indonesian to scaffold meaning before producing English, particularly during peer interaction and informal communication. This supports the view advanced by Cenoz and Gorter (2022) that multilingual repertoires function as cognitive and communicative resources rather than as obstacles to learning. Consistent with that view, the use of Indonesian in this study did not indicate a deficiency. It served as a strategic

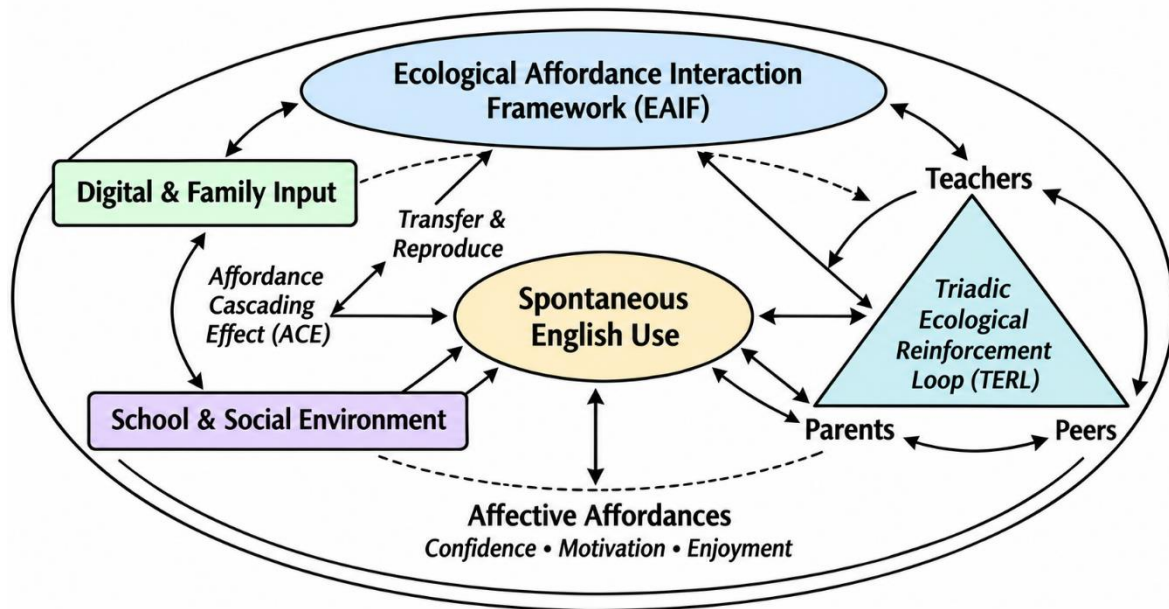
resource that supported comprehension and emerging English production. The present case differs, however, in how translanguaging arose. Cenoz and Gorter (2022) give particular attention to pedagogical translanguaging, which teachers plan and build into instruction. In the present study, translanguaging occurred largely spontaneously and was initiated by students, even though the school operates within a bilingual EFL framework. Even within relatively structured bilingual settings, then, learners appeared to engage in implicit ecological synchronization, drawing on their existing linguistic repertoire as English emerged.

The present study also shows translanguaging intersecting with the other patterns rather than forming a separate layer. When students used Indonesian to scaffold meaning during peer interaction, they were often reusing vocabulary first encountered through digital media. Cross-lingual scaffolding may therefore be one of the means by which a digitally triggered word is retrieved and reproduced in a new context. Within the TERL cycle, Indonesian likewise often served as the medium through which peer and teacher feedback was negotiated before an English form was produced. This point qualifies the Interaction Hypothesis (Long, 1996). Long's account centers on negotiation of meaning in the target language. In the present classrooms, much of the negotiation took place in Indonesian before learners produced an English form. Translanguaging is therefore best understood as a resource embedded within the reinforcement loop rather than one running parallel to it.

The affective findings are broadly consistent with socio-emotional perspectives on language

learning (Mercer, 2012). Children reported enjoyment, confidence, and pride when using English, particularly when teacher feedback and peer responses supported them. As in Mercer's account, these emotions appeared closely tied to learners' sense of themselves as language users. The present findings go further, suggesting that affect may function as an ecological driver in its own right rather than only as a by-product of learning. Affective affordances appeared to interact with both ACE and TERL. Positive emotions encouraged repeated engagement with digital content, which reinforced ACE. Social recognition strengthened participation in classroom interaction, which reinforced TERL. The present study also differs from much motivation research in the age at which future-oriented aspirations appeared. Some children already spoke of studying abroad or communicating globally. Such aspirations are more commonly examined among older learners. This may indicate that motivational trajectories begin forming earlier than often assumed. This observation, however, rests on a small number of children and would benefit from confirmation in a larger sample.

Figure 1 brings these patterns together in five interrelated layers. The digital layer initiates exposure and serves as the trigger for ACE. The home layer then reinforces and contextualizes this input. The school layer stabilizes and functionalizes language use through TERL. Running across these three layers, the affective layer sustains engagement and motivation, while the cross-lingual layer supports meaning-making through translanguaging.

Figure 1*An Ecological Affordance Interaction Model of Spontaneous English Emergence*

As shown in Figure 1, Digital & Family Input and the School & Social Environment are the two entry points, and both feed into Spontaneous English Use through ACE. TERL, which links teachers, parents, and peers, operates around this core together with affective affordances (confidence, motivation, and enjoyment). The whole configuration is nested within EAIF. Compared with Bronfenbrenner's (1979) ecological model, which describes nested systems surrounding the developing individual, Figure 1 focuses more narrowly on the specific resources through which English emerged in this case. This five-layer synthesis was constructed after the thematic analysis as a way of organizing the discussion; it was not derived directly through the coding procedure reported in the Findings. Figure 1 should therefore be read as an interpretive summary of the present case rather than as an independently validated model. Its

transferability to other classrooms or learners has not been tested.

The case can also be compared with EFL contexts in which English instruction is more intensively institutionalized, such as parts of East Asia [citation needed]. Relative to such contexts, the present case may represent a setting in which informal digital and family-mediated exposure carries more weight compared with formal instruction. Whether this difference holds systematically would require a comparative study designed for that purpose.

Because the data were drawn from four students, their parents, and their teachers, EAIF, ACE, and TERL are best regarded as provisional descriptive labels for the Indonesian case examined here. Their theoretical scope has not been established. Their value lies in describing how digital, home, school, affective, and cross-lingual resources interacted in this setting.

Whether they generalize to other EFL populations, or to learners without reliable digital access, remains an open question.

These patterns suggest several directions for future research. Further studies could examine whether the compensatory role attributed to digital media under ACE varies with household digital access, particularly among families with limited devices or unstable internet connections. Researchers could also test whether the three-channel structure proposed for TERL, consisting of teacher input, peer uptake, and home reinforcement, holds when assessed with a coding scheme designed specifically for that purpose. Finally, future work could investigate whether the intersections among translanguaging, ACE, and TERL observed here recur in EFL classrooms with different linguistic compositions or in contexts where English carries greater institutional weight.

Conclusion

This study suggests that the spontaneous emergence of English among young learners in a bilingual EFL primary school in Indonesia was driven less by formal instruction than by the interplay of ecological affordances in children's everyday environments. Digital media first introduced children to English vocabulary and expressions, often before they began formal schooling. Parents, even those with limited English proficiency, supported this early exposure by providing access to digital content and acknowledging their children's attempts to use English. At school, teacher discourse, classroom routines, peer communication, and print-rich environments reinforced and recontextualized what children had first encountered at home and through media.

Within these interactions, children frequently used Indonesian to negotiate meaning before producing English. Throughout this process, enjoyment, confidence, and pride sustained their willingness to use the language. These findings are summarized through three provisional labels. The Ecological Affordance Interaction Framework (EAIF) describes English emergence as a multi-layered system of digital, home, school, affective, and cross-lingual resources. The Affordance Cascading Effect (ACE) captures how a word encountered in digital media was carried into home and school contexts. The Triadic Ecological Reinforcement Loop (TERL) describes how teachers, peers, and parents together sustained children's spontaneous English use.

Because these findings come from four students, their parents, and their teachers at a single school, future research is needed to test how far they extend beyond this case. Longitudinal studies following children over one or more school years could show how digital exposure, home reinforcement, and classroom interaction accumulate and change over time. Studies involving learners from varied socioeconomic backgrounds could examine whether the cascading role of digital media still applies to children with limited device or internet access, or whether other affordances take its place. Researchers could also test the three-channel structure of TERL with a coding scheme designed for that purpose, ideally across several schools. Finally, comparative studies in EFL contexts with different linguistic compositions, or where English carries greater institutional weight, could show whether the links among translanguaging, digital exposure, and home-school reinforcement observed here

recur elsewhere. Such work would help determine whether EAIF, ACE, and TERL can develop from provisional labels for a single case into a more broadly applicable account of how young learners' English emerges.

References

- Aronin, L., & Singleton, D. (2012). Affordances theory in multilingualism studies. *Studies in Second Language Learning and Teaching*, 2(3), 311–331. <https://doi.org/10.14746/ssl.2012.2.3.3>
- Astutik, A., & Suryanto, B. T. (2024). Children's English language acquisition in an Indonesian family: Perspectives from language policy. *Premise Journal of English Education*, 13(2), 609–621. <https://doi.org/10.24127/pj.v13i2.9170>
- Baroody, A. J., Purpura, D. J., Eiland, M. D., & Reid, E. E. (2015). The impact of highly and minimally guided discovery instruction on promoting the learning of reasoning strategies for basic add-1 and doubles combinations. *Early Childhood Research Quarterly*, 30(Part A), 93–105. <https://doi.org/10.1016/j.ecresq.2014.09.003>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp0630a>
- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Harvard University Press. <https://doi.org/10.2307/j.ctv26071r6>
- Cenoz, J., & Gorter, D. (2022). Pedagogical translanguaging and its application to language classes. *RELC Journal*, 53(2), 342–354. <https://doi.org/10.1177/00336882221082751>
- Chandra, J., Djuan, D., & Shieren, R. (2023). Digital media to improve children's English pronunciation: A case study. *Journal of Linguistics, Literature, and Education*, 1(1), 58–63. <https://smarteducenter.org/index.php/Loquela/index>
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th Editio). SAGE Publications, Inc.
- Finders, J., Wilson, E., & Duncan, R. (2023). Early childhood education language environments: considerations for research and practice. *Frontiers in Psychology*, 14. <https://doi.org/10.3389/fpsyg.2023.1202819>
- Ford, A. L. B., Elmquist, M., Merbler, A. M., Kriese, A., Will, K. K., & McConnell, S. R. (2020). Toward an ecobehavioral model of early language development. *Early Childhood Research Quarterly*, 50, 246–258. <https://doi.org/10.1016/j.ecresq.2018.11.004>
- Jing, M., Ye, T., Kirkorian, H. L., & Mares, M.-L. (2023). Screen media exposure and young children's vocabulary learning and development: A meta-analysis. *Child Development*, 94(5), 1398–1418. <https://doi.org/10.1111/cdev.13927>
- Jun, H. R., & Mu, B. (2024). An ecological perspective on agency: L2 learners' sociopragmatic interpretations and strategies in a study abroad context. *Languages*, 9(5). <https://doi.org/10.3390/languages9050174>
- Justice, L. M., Jiang, H., & Strasser, K. (2018). Linguistic environment of preschool

- classrooms: What dimensions support children's language growth? *Early Childhood Research Quarterly*, 42, 79–92. <https://doi.org/10.1016/j.ecresq.2017.09.003>
- Kasbi, S., & Shirvan, M. E. (2017). Ecological understanding of foreign language speaking anxiety: Emerging patterns and dynamic systems. *Asian-Pacific Journal of Second and Foreign Language Education*, 2(2), 1–20. <https://doi.org/10.1186/s40862-017-0026-y>
- Koivula, M., Palojärvi, A., Moate, J., & Mård-Miettinen, K. (2024). Creating early language education affordances in two pre-primary education classrooms. *Journal of Early Childhood Education Research*, 13(1), 122–148. <https://doi.org/10.58955/jecer.129612>
- Kramsch, C. J. (2003). Language acquisition and language socialization: Ecological perspectives. *Continuum*.
- Larsen-Freeman, D. (2016). Classroom-oriented research from a complex systems perspective. *Studies in Second Language Learning and Teaching*, 6(3), 377–393. <https://doi.org/10.14746/ssl.2016.6.3.2>
- Long, M. H. (1996). The role of the linguistic environment in second language acquisition. In W. C. Ritchie & T. K. Bhatia (Eds.), *Handbook of second language acquisition* (pp. 413–468). Academic Press.
- Mercer, S. (2011). Understanding learner agency as a complex dynamic system. *System*, 39. <https://doi.org/10.1016/j.system.2011.08.001>
- Mercer, S. (2012). The complexity of learner agency. *Journal of Applied Language Studies*, 6(2), 41–59. <https://apples.journal.fi/article/view/97838>
- Moustakas, C. (2011). *Phenomenological Research Methods*. SAGE Publications. <https://doi.org/https://doi.org/10.4135/9781412995658>
- Mulyani, P. K. (2022). The effect of parental absence on children's literacy development: A case study of a fourth-grade elementary school student. *Vision: Journal for Language and Foreign Language Learning*, 11(2), 107–124. <https://doi.org/10.21580/vjv12i116052>
- Muslem, A., Fata, I. A., & Saputri, W. I. (2022). The effect of English authentic YouTube videos on students' speaking skills in rural schools. *Journal of Education Technology*, 6(3), 423–430. <https://doi.org/10.23887/jet.v6i3.45412>
- Ollerhead, S., & Pennington, G. (2024). Starting small: Engaging young learners with literacy through multilingual storytelling. *Journal of Early Childhood Literacy*. <https://doi.org/10.1177/14687984241303390>
- Paradis, J. (2023). Sources of individual differences in the dual language development of heritage bilinguals. *Journal of Child Language*, 50(4), 793–817. <https://doi.org/10.1017/S0305000922000708>
- Prošić-Santovac, D., & Rixon, S. (2019). Integrating assessment into early language learning and teaching. *Blue Ridge Summit: Multilingual Matters*. <https://doi.org/doi:10.21832/9781788924825>
- Purnamasari, A. (2018). What EFL learners say about YouTube use to improve pronunciation in a blended learning environment. *Journal of English Teaching*, 4(3), 205–215. <https://files.eric.ed.gov/fulltext/EJ1314960.pdf>

- Rahimi, M. (2024). Learning ecology perspective of instructors to enhance EFL students' speaking skills: A microsystem perspective of Bronfenbrenner's bioecological model. *Vision: Journal for Language and Foreign Language Learning*, 12(2), 115–130. <https://doi.org/10.21580/vjv13i118058>
- Rowe, L. (2018). Say it in your language: Supporting translanguaging in multilingual classes. *The Reading Teacher*, 72. <https://doi.org/10.1002/trtr.1673>
- Rowe, M. L. (2022). Environmental influences on early language and literacy development: Social policy and educational implications. *Advances in Child Development and Behavior*, 63, 103–127. <https://doi.org/10.1016/bs.acdb.2022.04.001>
- Schwartz, M., & Deeb, I. (2021). Toward a better understanding of the language conducive context: an ecological perspective on children's progress in the second language in bilingual preschool. *International Journal of Bilingual Education and Bilingualism*, 24(4), 481–499. <https://doi.org/10.1080/13670050.2018.1484424>
- Setyaningrum, R. W., Setiawan, S., & Anam, S. (2022). Translanguaging as a scaffolded practice in a primary school content and language integrated learning context during the COVID-19 pandemic. *European Journal of Educational Research*, 11(4), 3043–2055. <https://doi.org/10.12973/eu-jer.11.4.2043>
- Sun, P. P. (2023). The influence of cognitive, affective, and sociocultural individual differences on L2 Chinese speech performance: a multiple indicators multiple causes approach. *Journal of Psycholinguistic Research*, 52(1), 217–239.
- Tai, K. W. H. (2022). Translanguaging as inclusive pedagogical practices in English-medium instruction science and mathematics classrooms for linguistically and culturally diverse students. *Research in Science Education*, 52(3), 975–1012. <https://doi.org/10.1007/s11165-021-10018-6>
- Thi, N. A., Tra, N. H., My, N. H., Thuy, P. T., Thao, L. T., Yen, P. H., & Thu, H. T. A. (2022). Empowering Vietnamese EFL learners at tertiary level: Investigating factors shaping learner autonomy in English language acquisition. *Vision: Journal for Language and Foreign Language Learning*, 11(2), 125–138. <https://doi.org/10.21580/vjv12i116406>
- Unsworth, S., Brouwer, S., De Bree, E., & Verhagen, J. (2019). Predicting bilingual preschoolers' patterns of language development: Degree of non-native input matters. *Applied Psycholinguistics*, 40(5), 1189–1219. <https://doi.org/10.1017/S0142716419000225>
- Van Lier, L. (2004). *The Ecology and Semiotics of Language Learning: A Sociocultural Perspective*. Kluwer Academic Publishers. <https://doi.org/10.1007/1-4020-7912-5>
- Van Lier, L. (2010). The ecology of language learning: Practice to theory, theory to practice. *Procedia - Social and Behavioral Sciences*, 3(1), 2–6. <https://doi.org/10.1016/j.sbspro.2010.07.005>
- Vygotsky, L. (1978). *Mind in Society: Development of Higher Psychological Processes* (M. Cole, V. Jolm-Steiner, S. Scribner, & E. Souberman (eds.)). Harvard University Press. <https://doi.org/10.2307/j.ctvjf9vz4>
- Yang, N., Shi, J., Lu, J., & Huang, Y. (2021). Language development in early childhood: Quality of

- teacher-child interaction and children's receptive vocabulary competency. *Frontiers in Psychology*, 12(July), 1–12. <https://doi.org/10.3389/fpsyg.2021.649680>
- Zein, M. S. (2016). Elementary English education in Indonesia: Policy developments, current practices, and future prospects. Cambridge University Press, 33(1), 53–59. <https://doi.org/10.1017/S0266078416000407>
- Zhao, Y., Lu, J., Woodcock, S., & Ren, Y. (2022). Social media Web 2.0 tools adoption in language and literacy development in early years: A scoping review. *Children*, 9(12), 1–29. <https://doi.org/10.3390/children9121901>