Lost in Translation: Early Digital English Exposure and the Delay of Bahasa Indonesia Acquisition in Young Learners

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ABSTRACT

This study explores how exposure to English-language digital media influences the functional development of Indonesian as a first language (L1) among early childhood learners. In today's digital era, children are increasingly exposed to English through television shows, online games, and educational apps, often without adequate parental mediation. Using a qualitative descriptive approach, this study involved 20 children aged 5–12 years and their 20 parents in South Sulawesi, Indonesia. Data were collected through observation and interviews to investigate language use tendencies, interaction patterns, and influencing factors. The findings indicate that children with high English media exposure tend to use English more frequently in daily interactions and may demonstrate limited use of Indonesian in specific contexts. This imbalance is influenced by the duration of gadget use, the dominance of English content, and the lack of consistent parental involvement. While not pathologizing bilingualism, the study highlights the need for balanced language exposure to support children's linguistic and social development. The results offer practical insights for parents, educators, and policymakers to foster additive bilingualism through more intentional and contextually appropriate language learning strategies.

Keywords*: English Exposure, Digital Media, Language Acquisition, Early Childhood, Bilingualism.*

INTRODUCTION

Background

In today's digital era, children in indonesia are increasingly exposed to various forms of media through smartphones, tablets, cable television, and internet-based platforms. This widespread access to digital media not only influences children's daily routines and patterns of interaction but also shapes their language acquisition process. A growing trend has been observed where many young children show greater proficiency in English acquired through digital media compared to their native language, Bahasa Indonesia.

Parents, especially in urban environments, often rely on gadgets as a convenient way to occupy their children due to demanding work schedules. As a result, children are frequently exposed to English-dominant content such as cartoons, educational apps, and online games. While this exposure facilitates incidental learning of English, it can lead to a decreased use of Bahasa Indonesia, particularly when not supported by meaningful interaction in the home or school environment.

Although digital exposure is a significant factor, language acquisition is also influenced by a complex interplay of other variables, including socioeconomic background, the quality and quantity of verbal interaction with caregivers, neurological development, and the broader linguistic environment (Hoff, 2006; Noble et al., 2015). Research by Hart and Risley (1995) famously revealed a "30 million word gap" between children from professional and low-income families by the age of three, which strongly correlates with later vocabulary growth. Further, Rowe (2012) emphasizes that it is not only the quantity but also the quality of parental input that significantly affects children's linguistic development. These findings suggest that digital media should not be viewed as the sole cause of language imbalance, but rather as one element within a broader sociolinguistic and developmental context.

Moreover, early language ability has also been shown to mediate the link between socioeconomic status and executive function development in preschoolers, suggesting that language development is crucial for broader cognitive outcomes (Romeo et al., 2022). Excessive screen time, particularly when unaccompanied by active interaction, has also been associated with lower vocabulary and weaker grammatical skills in children (Tulviste & Tulviste, 2024).

Literature Review

Research has highlighted both the benefits and potential risks of bilingual exposure in early childhood. Bialystok (2001) found that bilingualism can enhance cognitive flexibility and attentional control. Cummins (2000) emphasized that a strong foundation in the first language (L1) is essential for successful acquisition of a second language (L2), supporting the interdependence hypothesis. However, when children are exposed predominantly to a second language without sufficient support for their L1, subtractive bilingualism may occur where the first language is gradually lost or underdeveloped.

Kuhl et al. (2003) further emphasized the role of social interaction in language development, noting that language learning is less effective when interaction is replaced by passive media consumption. Shin and Milroy (2016) observed that overreliance on English-language media without guided use of the home language may hinder children's ability to engage socially and academically in their native environment. This is especially concerning in indonesia, where the dominant societal language is Bahasa Indonesia, and early mastery of the language is crucial for school readiness.

A more nuanced understanding of language delay is also important. Language delay refers to a situation in which a child's language development lags behind age-appropriate milestones, typically in vocabulary acquisition, sentence formation, or verbal comprehension (Paul et al., 2018). It can be expressive (difficulty producing language), receptive (difficulty understanding language), or both. Without early intervention, such delays may affect a child's academic performance and social integration.

Research Focus and Objectives

Although several studies have investigated digital media and bilingualism, few have focused on how English-dominant media exposure affects the development of Bahasa Indonesia as a mother tongue in Indonesian early childhood learners. This study addresses that gap by focusing on:

a. The impact of English language exposure through digital media on delays in Indonesian language acquisition among early childhood learners; and

b. Contributing factors to language imbalance, including gadget usage duration, types of media accessed, and parental involvement in children's language experiences at home.

To explore these aspects, this study adopts a qualitative descriptive approach by observing children's digital media use and conducting interviews with parents and educators. The aim is to gain context-specific insights into how media and home environments influence language patterns.

The findings of this study are expected to contribute both theoretically and practically. Theoretically, it enriches the literature on early bilingualism and language acquisition in informal, media-saturated contexts. Practically, it provides recommendations for parents, educators, and policymakers to foster balanced language development that ensures Bahasa Indonesia remains a strong linguistic foundation amidst the rise of global digital media.

METHODS

Research Approach

This study employed a qualitative approach with a descriptive method to explore the phenomenon of Indonesian language acquisition among early childhood learners who are exposed to English through digital media. This approach was chosen to gain an in-depth understanding of the behaviors, habits, and the impact of children's interaction with digital media in their daily lives.

Research Subjects

The subjects of this study consisted of 20 children aged 5–12 years who frequently play around Syekh Yusuf Field, Gowa, during weekends (Saturday and Sunday mornings). These children were randomly selected based on their habitual use of gadgets and access to digital media such as YouTube videos, online games, and educational apps. The age range of 5–12 years was selected because it encompasses the critical period of early to middle childhood, during which foundational language skills are typically acquired and actively used both at home and in formal educational settings. This range also represents a transitional phase where exposure to structured learning environments begins to shape linguistic competence.

Accordingly, 20 parents, each with a child who was included in the study, were selected through purposive sampling to explore their perspectives regarding their children's gadget usage habits at home and their role in accompanying their children in interacting with digital media. To account for developmental differences, the researchers

adjusted interview formats and questioning strategies to suit the children's age and cognitive level. Furthermore, during analysis, thematic grouping took into consideration age-related linguistic variations to ensure accurate interpretation across participants.

Data Collection Techniques

Data were collected using several techniques, namely:

a. Direct observation of children while playing or interacting with digital media in the field, to observe how they use gadgets, the languages they use, and the types of content accessed;

b. Semi-structured interviews with parents to understand their children's gadget usage habits, the parents' role in accompanying their children, and their perspectives on the impact of gadgets on their children's language abilities; and

c. Direct interviews with children through informal questioning to gain insight into the content they consume and its influence on their proficiency in both Indonesian and English.

Data Analysis Techniques

The collected data were analyzed using thematic analysis, involving the following steps:

a. Data coding based on major categories that emerged during observation and interviews (e.g., language usage, gadget usage duration, types of content accessed, parentales roles, etc.);

b. Grouping findings according to main themes relevant to the research objectives, such as English language dominance, delays in Indonesian language acquisition, parental involvement, and the influence of digital media on language development;

c. Interpreting the results by linking field findings to relevant theories and comparing them with findings from previous studies.

In this study, the concept of "language delay" is not used in a clinical or diagnostic sense, but refers to deviations from generally accepted developmental benchmarks for children's language growth. This includes limited vocabulary, delayed sentence formation, or reduced verbal fluency when compared to typical age-based expectations (Paul et al., 2018). Observations of such delays were based on parent reports and situational use of language during field engagement.

Validity and Reliability

To ensure the validity and reliability of the study, several measures were taken:

a. Data triangulation by combining data from direct observation, interviews with parents, and interviews with children;

b. Member checking by involving several parents to confirm the accuracy and consistency of the collected data; and

c. Extended observation, carried out more than once to obtain a more comprehensive and accurate picture of the children's habits and the impact of digital media on their language acquisition.

Research Ethics

This study was conducted with strict adherence to ethical considerations involving children. All participating parents provided written informed consent for their children's involvement. Interviews with children were conducted in a non-intrusive manner and only after receiving parental permission. The identities of both the children and their parents were kept confidential throughout the research process.

RESULTS AND DISCUSSION

This study investigated the influence of English exposure through digital media on the development of Indonesian language skills among children aged 5–12 years in Gowa, South Sulawesi. The findings, drawn from observation and interviews with both children and parents, are presented thematically to address the two research questions: (1) How does English-dominant digital exposure affect children's Indonesian language acquisition, and (2) What factors contribute to potential imbalances in this process.

The Effects of English-Dominant Digital Exposure on Indonesian Language Acquisition

a. Functional Delay in Indonesian Language Use

Findings indicate that several children exhibited reduced fluency in expressing themselves in Bahasa Indonesia (L1), often relying on English phrases acquired from digital media. For instance, children tended to use expressions such as "blue car" or "I don't know" instead of their Indonesian equivalents. However, it is important to clarify that this study does not claim a clinical diagnosis of language delay. The term "delay" in this context refers to functional language lags relative to age-

appropriate expectations in daily interactions, based on parental reports and observational data.

These findings align with concerns raised in informal environments where L1 input is limited (Paul, 1993).

Rather than portraying bilingualism itself as problematic, this study underscores the lack of balance between the dominant input (English from digital media) and the minority input (Indonesian at home). The critical issue lies not in English exposure per se, but in insufficient support for L1 development through meaningful interaction, as emphasized in Vygotsky's sociocultural theory (1978).

b. Emerging Patterns of L2 Dominance

Children frequently exposed to English-language cartoons, games, and YouTube content tended to show greater confidence in using English, even in interactions with Indonesian-speaking peers. While this reflects a form of early second language (L2) acquisition, it also coincides with observable difficulty in forming coherent and age-appropriate Indonesian sentences. These patterns, when not accompanied by adequate Indonesian input, may result in code-switching or linguistic gaps in both languages, highlighting the importance of balanced bilingual development (Grosjean, 2010).

c. Limited Parental Mediation

One recurring theme was the lack of active parental mediation in children's media consumption. Most parents admitted to allowing unsupervised gadget use due to time constraints. As a result, children's English-language exposure occurred in passive, non-interactive contexts,

without reinforcement or translation into their L1. This aligns with Hart and Risley's (1995) findings on the role of adult-child verbal interaction in language development. Without meaningful use of Bahasa Indonesia at home, children's ability to function effectively in L1 contexts—such as school and social settings—becomes constrained.

d. Impact on School and Peer Interaction

Several children reported communication difficulties in Indonesian-dominant environments such as school. Some described feeling embarrassed, misunderstood, or excluded when peers or teachers struggled to understand their English-influenced speech. This also affected their social confidence, supporting Cummins' (2000) interdependence hypothesis, which posits that strong L1 skills form the foundation for both academic performance and social adaptation in bilingual settings.

However, the potential cognitive benefits of bilingualism must also be acknowledged. Studies by Bialystok (2001) and later research demonstrate that early bilingual exposure can improve cognitive flexibility, metalinguistic awareness, and executive functioning. The challenge, therefore, is not bilingualism itself, but imbalanced bilingualism resulting from environmental and parental factors that neglect the child's mother tongue development.

e. Limitations and Scope of the Study

It is essential to note that this study is based on a small and localized sample of 20 families in one urban area. Thus, the findings should not be overgeneralized to represent the broader Indonesian population. Moreover, this study did not employ standardized linguistic or developmental testing tools; all assessments of functional delay were based on naturalistic observation and subjective parental reports. The results are best understood as exploratory, offering insight into local language dynamics in digitally-saturated environments.

The Factors Contributing to Functional Language Imbalance

The study identified three interrelated factors that may contribute to the observed imbalance in language acquisition:

a. Duration of Gadget Use

Children who used gadgets for over three hours daily, mostly consuming English content, exhibited stronger English vocabulary recall and usage. This prolonged and dominant exposure to English limits opportunities for L1 reinforcement.

b. Type of Media Accessed

Children who frequently engaged with English-only media, such as international YouTube channels, English-language games, and foreign educational apps demonstrated more consistent L2 use. In contrast, those with access to bilingual or Indonesian media showed more balanced language usage.

c. Parental Involvement

Parental support emerged as a crucial moderator. Children whose parents actively promoted Bahasa Indonesia through storytelling, conversation, or media curation, displayed better L1 proficiency. Conversely, children left to navigate media content without guidance tended to favor English, leading to L1 underuse.

CONCLUSION

This study investigated how English-dominant digital media exposure influences the functional development of Indonesian as a first language (L1) among early childhood learners. The findings suggest that children who are heavily exposed to English-language content, especially without adequate parental guidance, tend to demonstrate stronger familiarity with English vocabulary and sentence patterns, while their ability to use Indonesian in everyday contexts may be less developed. This functional imbalance has implications for both language use and social interaction, particularly when children face challenges understanding school materials in Indonesian or struggle to communicate effectively with peers.

Three main factors were identified as contributing to this imbalance: (1) the duration of gadget use, (2) the type of digital content consumed, and (3) the level of parental involvement. Notably, children with strong parental support in maintaining Indonesian language interaction showed more balanced bilingual development. These findings support the interactionist theory of language acquisition and Cummins' interdependence hypothesis, which highlight the foundational role of L1 in enabling sustainable second language learning.

Importantly, this study does not equate English usage with clinical language delay, nor does it position bilingualism as a deficit. On the contrary, the cognitive and social benefits of bilingualism are widely acknowledged in the literature (e.g.

Bialystok, 2001). The concern lies in unbalanced exposure, where one language dominates without adequate support for the other, especially in early developmental stages. While this research draws attention to a growing trend, it recognizes that additive bilingualism—where both languages are nurtured—can offer significant advantages for children's cognitive, academic, and cultural development.

Limitations

This study is exploratory and context-specific, based on a small, localized sample of children in South Sulawesi. The use of qualitative methods, including observation and interviews, may be subject to observer bias and parental self-report limitations. Additionally, the broad age range (5–12 years) introduces variability in cognitive and linguistic development that was not measured using standardized developmental tools. Therefore, findings should be interpreted with caution and not generalized beyond similar contexts.

Recommendations

To support more balanced language development in bilingual digital environments, we propose the following evidence-based recommendations:

a. Parental Mediation Strategies:

Equip parents with strategies to actively engage children in Indonesian-language interactions alongside digital media use, such as co-viewing and post-watching discussions.

b. Bilingual Media Design:

Encourage the production and dissemination of bilingual or Indonesian-

dominant digital content tailored to early childhood learners.

c. Teacher and Curriculum Support:

Train educators to identify signs of unbalanced language development and design responsive learning interventions that reinforce L1 without undermining L2 acquisition.

d. Policy-Level Guidelines:

Develop child-focused digital media guidelines that include language exposure balance, screen time limits, and parental roles, especially for early learners in multilingual settings.

By acknowledging both the potential and the risks of early bilingual exposure in digital contexts, this study calls for a collaborative approach—involving families, schools, and policymakers—to promote healthy, balanced bilingual development among Indonesia's youngest learners.

SUGGESTIONS

Based on the findings and limitations of this study, the following recommendations are proposed to support balanced bilingual development in early childhood:

1. Strengthen Parental Mediation and Awareness

Parents play a pivotal role in shaping children's language environments. Schools and community organizations should initiate parent education programs to raise awareness of the effects of unregulated digital exposure. Practical strategies—such as co-viewing, language-rich interactions in Indonesian, and age-appropriate media selection—should be promoted to help parents foster linguistic balance at home.

2. Encourage Indonesian-Language Digital Content Development

Media developers and educational institutions are encouraged to create interactive, engaging, and culturally relevant digital media in Bahasa Indonesia. Locally produced content can complement children's exposure to English-language media and reinforce their mother tongue skills and identity.

3. Policy Support for Balanced Language Development

Policymakers should incorporate responsible digital media use and mother tongue reinforcement into early childhood education guidelines. Curricula must support additive bilingualism by integrating both Indonesian and English in ways that maintain L1 strength while developing L2 proficiency.

4. Further Research and Broader Validation

Future studies should involve larger and more diverse populations and, where possible, include developmental benchmarks or linguistic assessment tools. Longitudinal research is also needed to explore the long-term cognitive, academic, and social effects of bilingual exposure through digital media.

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