

## Analyzing the Impact of Online Platforms on Gen Alpha's Language Use

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### ABSTRACT

This article analyzes how online platforms influence language use within Generation Alpha. With the rise of social media, Generation Alpha has become the first generation to have unrestricted social media exposure throughout their formative years. This unrestricted exposure raises questions about the developmental consequences of online platforms, particularly their impact on language development. This research utilized an online database and forthcoming social media discourse and text records for qualitative research. As language and communication use online are continually changing, the survey was designed to assess the use of the internet as a communication and language behavior tool within the social context of Gen Alpha participants. This multiple case study utilized descriptive social media discourse on the impact of social media on Gen Alpha participants' language use and synthesized various case studies. The impact of social media predictive text tools and autocorrections and the influence of cyber-social discourse and cross-system social media tools on language development are influences to be considered. Overall, this research allows for a better understanding of the constant exposure and the development of linguistic styles and patterns within Gen Alpha.

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### INTRODUCTION

Childhood experiences across the globe have been fundamentally transformed by the digital revolution. Digital technologies have become a central feature of daily life from social networks to interactive games (Oktarin & Hastomo, 2023). Born from 2010 onwards, Generation Alpha is the first to grow up in an all-pervasive internet, mobile telephony, and algorithmically controlled digital ecosystem (Asaad, 2025). With this cohort, the trend of screen exposure has started exceptionally early, and there is no shortage of global predictions claiming a substantial rise in the daily screen time of children below 12 (McArthur et al., 2022).

Generation Alpha stands apart since their formative years are shaped by a digital and online world (Fernando & Premadasa, 2024). This generation is the very first to spend every waking moment of their early years with pervasive internet access, personalized algorithms, and mobile devices. Immense early technological exposure influences the acquisition and use of language. Communication and language development traditionally involved face-to-face interaction with parents and other relatives, but the rapid spread of digitized, algorithm-driven household technologies may replace these formative interactions with YouTube Kids, TikTok, or other

platforms with designed and optimized digital content. Although these platforms are rich in language and multimodal content, they may also divert attention and language acquisition away from the traditional productive channels. Studies show high levels of screen-based communication are linked to a greater use of shallow language, poor pragmatic skill development, and increased use of simplified and borrowed language structures (da Silva Junior et al., 2025).

Researching older generations, particularly Gen Z, shows how digital tools foster inventive uses of language: new forms of slang, abbreviations, emojis, multimodal elements, and frequent code-switching (Muhammad Tahir et al., 2025). This style of digital communication shows that involvement in the digital context is not only superficial. This also implies that this type of interaction can be constructive when it comes to shaping one's identity and generating a sense of belonging (Bozkurt & Tu, 2016). Observations of the linguistic behavior of Generation Alpha in social media show the use of new abbreviations, unconventional slang and multimodal communicative elements such as hashtags, emojis and short videos. While the social identity dimension of digital interaction, the impact of social communication on the basics of language learning remains unexplored (Alasal, 2025). Similarly, Generation Alpha has largely centered on cognitive development, with little attention to language implications (Höfrová et al., 2024). Given that Gen Alpha is in a critical phase of cognitive and language development, the standards of the online space should be reviewed. Psycholinguistic research indicates that children's language learning is profoundly shaped by their environment, whether they are babbling or applying syntactic rules to organize their thoughts. Online platforms allow for access to various forms of language inputs, but they also bring challenges. Unattended screen time has been associated with restricted vocabulary growth and subsequent first language (FL) acquisition (Massaroni et al., 2023).

The speech of children is a constant echo in their minds of their caretakers' speech. Instead, older theories are drawn upon, particularly from sociolinguistics and language contact theories, to make sense of and investigate the transformations in the digital sphere. For example, it also treats code-switching as an active way to create social meaning (Bao, 2025). Markedness Model also takes a sociolinguistic approach on this behavior of switching representing social relationships and identities. On digital platforms, members of Generation Alpha often combine their native language with global English or web slang to indicate association with an online community or to display a digital identity. In another direction, code-switching conceptualizes this behavior as highly skilled behavior, allowing speakers to place themselves in different contexts of communication, something that in particular can be applied in online interactions (Myslín & Levy, 2015).

The problem that is starting to show is the adoption of foreign words and phrases, especially English, in the daily conversations of children who are native speakers of different languages. Interactions in TikTok, YouTube, Roblox, and the like favor content in English, or in mixed languages, and use of English words has become commonplace. As such, young Gen Alpha will often be found sprinkling foreign words over sentences in their mother tongue when talking informally – and they don't even realize that they're doing it. This fusion, albeit seemingly harmless can create communication rifts between the older generation who are not as exposed to this atmosphere and might find it hard to comprehend these new forms of hybrid language. It also poses questions on if and how this could affect the barrenness, the fluency and communication of language between generations in the long term.

This research plans to examine the impact of social media exposure from platforms such as TikTok, Roblox, and YouTube on the language use of Generation Alpha. This research will build on previous studies on the impact of social media on social and cognitive development, as well as relevant theories, to establish a solid scientific foundation. Based on the description above, this study applies a quantitative approach to examine the impact of social media exposure on the language development of Gen Alpha, furthermore, for the age range of 8–14 years.

## **REVIEW OF LITERATURE**

Haugen's notion of lexical borrowing accounts for the way in which Gen Alpha appropriates foreign and digital lingo in their daily lexicons (Haugen, 1950). Constant exposure to online media generates a compound vocabulary, where words such as; subscribe, like, and unbox are naturally woven into their first language. These integrated words function in the context of the digital world because they are simple and easy to understand, and effective in a digital environment where recognizable words serve as tools to bridge communication across languages and cultures.

The concept of register adaptation explains how individuals modify their speech and writing according to the situation (Halliday & Hasan, 1985). Users of technology adjust their communicative style and language on different platforms and applications. For example, users may speak in a formal tone on school or learning apps and in a playful or casual tone on Roblox and TikTok. Writing in 1983, Bruner described the Language Acquisition Support System (Bruner, 1981). He stated adult interaction is crucial in guided language learning. However, online human interaction is often substituted with contents and profiles created by algorithms. These profiles and contents frequently do not represent a child's social world. Children may imitate and observe other people instead of conversing meaningfully. As a result, the child suffers a poverty of interaction, having ample exposure to language, but receiving little in the way of constructive feedback.

Cognitive development is linked to the development of language (Piaget, 1952). For the Generation Alpha cohort, most of this development is taking place on highly interactive platforms like YouTube and Roblox. These platforms do help children learn new words and improve their speaking skills, but they fail to promote higher-order thinking and reflection regarding the use of language. Halliday's conception of language as a social semiotic system (Halliday, 1978), in which language reflects and is shaped by social relations, aligns perfectly with the previously mentioned phenomenon. Most of the online communication and interaction is functional and goal - oriented, with little consideration to grammar rules, reflecting emotive content, and incorporating visual materials. Slang is created and utilized for communication that serves a specific purpose, and while grammatical rules may be absent, it still holds meaning. Slang may cause problems with children and their ability to converse in a longer, more complex, and analytical manner (Brown, 2006). On the contrary, discussing online material with children is a great way for adults to foster both expressive and critical language development (Reed & Lee, 2020).

Although previous research has been done in analyzing online platforms including, X (formerly Twitter) Instagram Facebook (Laor, 2022; Rogers, 2021), the main focus is on the development of identity or patterns of social interaction, Studies on how these platforms affect actual language development, especially in younger users such as Generation Alpha, are limited. In summary, existing literature and theory provide a possible picture of how social media may influence language and communication in younger generations. Social media can provide learning opportunities outside of traditional channels, but this opportunity is held back by a lack of direct interaction and communication. For Generation Alpha, the result is a unique linguistic profile defined by code switching, lexical borrowing, and register flexibility.

## **METHOD**

A research method is a scientific way of obtaining data for a specific purpose through procedures that are rational, empirical, and systematic. Based on the type of data and analysis, research methods can be categorized into three main types: quantitative, qualitative, and mixed methods. The overarching goal of scientific inquiry is to explain, predict, and control phenomena (Windschitl et al., 2008). In this study, a mixed-methods approach was applied using a sequential explanatory design, in which quantitative data were collected and analyzed in the first stage, followed by qualitative data collection and analysis in the second stage to enrich and strengthen the initial quantitative findings. This approach was chosen to provide a comprehensive

understanding of how digital platforms (YouTube, TikTok, and Roblox) influence Generation Alpha's linguistic development.

The population of this study consisted of Generation Alpha children aged 8–14 years who actively use online platforms such as YouTube, TikTok, and Roblox. The sample was selected using purposive sampling based on three criteria: (1) actively using social media for at least one hour per day, (2) having experience interacting or communicating through online media, and (3) obtaining consent from a parent or guardian to participate. The study involved 30 student respondents drawn from several primary and junior secondary schools in urban areas, who were considered to represent the population of digital-native children in Indonesia.

The research variables were defined as follows: the independent variable (X) was the intensity and type of online platform used by Generation Alpha (e.g., YouTube, TikTok, Roblox), while the dependent variable (Y) was language usage patterns. These patterns included the frequency of foreign vocabulary or slang use, formal language skills (sentence structure, spelling, and standard vocabulary), and the tendency to code-switch.

Data were collected using three techniques. First, an online questionnaire survey was administered through social media using a snowball sampling technique and was intended for parents or guardians. The questionnaire consisted of 45 questions covering the children's profiles, patterns of online platform use (YouTube, TikTok, Roblox), frequency of digital language use (foreign vocabulary, slang, or code-switching), and parental perceptions. Second, content analysis and observation were conducted by analyzing 50 interaction units—such as comments, chats, or posts—randomly selected from YouTube, TikTok, and Roblox to identify digital language forms, their frequency of use, and the contexts in which they occurred. Third, a formal language proficiency test was administered in the form of a simple written test comprising 30 questions to measure respondents' abilities in spelling, grammar, standard vocabulary, and formal sentence structure.

To support these techniques, several research instruments were used. A content analysis sheet was developed to identify and categorize Generation Alpha's digital language forms, including abbreviations, lexical borrowings, spelling modifications (e.g., "subrek"), and multimodal elements such as emojis and stickers. A research questionnaire consisting of 45 Likert-type items was used to measure platform usage intensity, language usage patterns, and perceptions of platform impacts; this instrument was tested for validity and reliability, achieving a Cronbach's Alpha of 0.85. In addition, qualitative observation and analysis guidelines containing 15 guiding points were employed to gather deeper information about language behaviors and communication contexts on online platforms, with attention to the social function of language and code-switching strategies. Finally, the language proficiency test comprised 30 items that assessed spelling (10 questions), grammar/sentence structure (10 questions), standard vocabulary (5 questions), and formal sentence construction (5 questions).

Data analysis was conducted using both quantitative and qualitative procedures. Quantitative data were analyzed using descriptive statistics to summarize respondent characteristics and patterns of platform and digital language use, while inferential statistics were employed to test relationships between variables (e.g., intensity of platform use and formal language proficiency) using SPSS 25. Qualitative data were analyzed through thematic analysis involving transcription of interaction data, coding, categorization, theme identification, and interpretation, supported by NVivo 12 to ensure a systematic and structured analytic process.

Validity and reliability were addressed in both strands of the study. Instrument validity was examined through expert judgment by three Indonesian experts and two quantitative research experts, while reliability was tested using a two-week interval retest method with 30 pilot respondents. For qualitative trustworthiness, validity was ensured through source triangulation across multiple platforms, method triangulation between surveys and content analysis, and member checking through confirmation with parents or guardians. Qualitative reliability was strengthened through the use of an audit trail and consistency in the analysis procedures.

## FINDINGS AND DISCUSSION

### Findings

Of the 30 student respondents who participated in this study, the age distribution ranged from 8 to 14 years old. In terms of educational level, 40% of the respondents were elementary school students (SD), while 60% were junior secondary students (SMP). Regarding daily online platform usage, all respondents reported being active on social media for a minimum of one hour per day. Notably, respondents with higher intensity of use (more than five hours per day) tended to experience greater difficulty producing standardized or formal sentences. The online platforms emphasized in this analysis were YouTube, TikTok, and Roblox.

The content analysis and observation of 500 interaction units revealed that Generation Alpha's digital communication is characterized by a blended linguistic repertoire consisting of Indonesian, English, and digital sign-based elements such as emojis and stickers. The most dominant pattern was the adaptation of foreign language forms (lexical borrowing). Approximately 80% of respondents reported using platform-specific technical terms such as "subscribe," "like," "unboxing," "LOL," and "AFK" in daily conversations, while 72% reported using English slang expressions such as "so cringe," "OMG," "let's go," and "noob." In addition to lexical borrowing, abbreviations and word economy were also prominent, driven by the need for rapid communication. Around 76% of respondents indicated a tendency to write short messages (fewer than five words) and frequently used abbreviations such as "brb" (be right back), "idk" (I don't know), as well as localized laughter forms like "wkwk." Another recurring feature was phonetic spelling modification, in which foreign words were adjusted to fit Indonesian phonological patterns, as seen in examples like "*subrek*" (from "subscribe") and "*ples*" (from "please").

Survey results further indicated that the frequency of digital language use among respondents was very high, particularly on the platforms most commonly used for communication—YouTube, TikTok, and Roblox. Importantly, the findings suggest that platform characteristics shape the type and intensity of language use. YouTube interactions tended to encourage more narrative and descriptive phrasing, likely due to the content format and comment structures. In contrast, TikTok communication was more strongly associated with short, highly expressive language and slang, reflecting its fast-paced and trend-driven environment. Meanwhile, Roblox interactions demonstrated a combination of rapid group communication and frequent foreign-language usage, consistent with real-time multiplayer collaboration and exposure to global gaming discourse.

**Table 1. Frequency Distribution of Digital Language Use (Gen Alpha)**

Type of Digital language Usage	Respondent percentage
Using platform specific technical terms (e.g : Subscribe, like, AFK)	80%
Tendency to shorten phrases and sentences (< 5 words)	76%
Frequency of using foreign phrases (e.g: so cringe, OMG)	72%

These results highlights the high amount of digital and foreign languages in the daily conversations of Gen Alpha. The high percentages (80% and 72%) shows that the integration of these languages is an internalized development of their language learning process. The constant exposure to international content in Youtube and TikTok accelerates this process of Lexical Borrowing. Other than that, the preferences of 76% of the respondents to short form essays confirms the phenomena of Linguistic Economy in Gen Alpha. In the digital environment they interact on, efficiency and quickness takes more importance than structurized or formal sentences.

An analysis on the context of digital language usage indicates that it is most dominantly used on communications with peers of equal age and within specific online communities.

**Table 2. Perception and Linguistic Strategy of Gen Alpha**

Indicator	Respondent percentage
Displaying Code Switching Capabilities	86%
Agreed to feeling “cooler” or more “Chummy” with peers when using mixed languages.	83%

These findings shift attention from what forms are used to why and how these digital dialects circulate. The 83% who answered “yes” to feeling cooler suggests that digital language carries a clear social function. For Generation Alpha, slang and platform-specific terms (for example, within Roblox in-game communities) operate as in-group markers of identity and as tools for building social solidarity. A second key finding is the high capacity for code-switching (86%). This indicates that respondents have strong pragmatic and metalinguistic awareness. They do not “lose” the ability to speak formally; instead, they actively select language varieties according to context—for instance, using standard Indonesian with teachers and parents, then shifting to mixed Indo-English when interacting with peers. Formal speech competency remains uneven. Some participants maintained spelling and sentence structure, whereas heavier users relied on shortened forms and informal patterns. Analysis of the impact on their ability to communicate in formal Indonesian shows varied results across participants.

**Table 3. Formal Speech Capabilities of Respondents**

Type of Digital language Usage	Respondent percentage
Using platform specific technical terms (e.g : Subscribe, like, AFK)	80%
Tendency to shorten phrases and sentences (< 5 words)	76%
Frequency of using foreign phrases (e.g: so cringe, OMG)	72%

These results show a more balanced picture of the impact of digital language exposure on formal English competence. Although grammatical ability (at 70%) appears relatively average, the decline is evident in more complex categories such as constructing formal sentences (60%) and the use of standard vocabulary (50%). These Data suggest that exposure to online platforms does not automatically impair formal language skills, but can affect them. A significant decrease in formal vocabulary (50%) is the most focused, as it indicates a lack of exposure to formal language. This research discovers that children with very high online platform use (more than 5 hours per day) possess a tendency to have more difficulties in formal speech. This phenomenon can be explained as Language Attrition, where a lack of active formal language usage causes a decline of ability in that register category.

## Discussion

The survey and observational data show that the 30 Generation Alpha respondents (aged 8–14) frequently use a hybrid repertoire that combines Indonesian, English, and digital visual language (e.g., emojis, stickers, and abbreviations). Around 80% reported using platform-linked terms such as subscribe, like, unboxing, LOL, and AFK in everyday talk. While this resembles digital slang patterns found in earlier generations, for Generation Alpha these forms appear to be internalized earlier because they are present from the beginning of their language exposure. In addition, each platform forms its own linguistic ecosystem: YouTube tends to encourage more narrative and descriptive phrasing, TikTok promotes short, expressive, slang-heavy language, and Roblox blends interactive, real-time communication with frequent foreign-language use in gaming contexts. Overall, this suggests that Generation Alpha’s language practices go beyond simply copying trends, and instead reflect the construction of a distinct multimodal, interactive style of

communication (Windschitl et al., 2008).

Globalization also shapes Generation Alpha's digital speech. Approximately 72% of respondents stated that they often use English words or phrases without fully realizing it, with common examples including "so cringe," "OMG," "let's go," and "noob." This pattern can be interpreted as a globalization effect, where exposure to international content—particularly through YouTube and TikTok—accelerates lexical borrowing, consistent with Haugen's (1950) account of borrowing processes. At the same time, many children demonstrate the ability to adapt pronunciation and form to Indonesian phonology, such as modifying "subscribe" into "subrek." This reflects phonetic creativity and suggests that globalization may foster productive hybrid developments rather than simply replacing local linguistic resources (Schaefer, 2021).

Another prominent feature is efficiency in digital communication. Online interaction encourages messages that are quick and concise, and the survey indicates that 76% of respondents prefer short messages (fewer than five words) rather than complete sentences. This reflects linguistic economy—the tendency to select the shortest workable form for speed and convenience. Although similar patterns have appeared in previous digital generations, these practices emerge earlier in Generation Alpha due to constant exposure to digital communication. Abbreviations such as "brb" (be right back) and "idk" (I don't know), along with localized forms like "wkwk," "btw," and "lol," have become normalized in daily interaction. These results align with Halliday's (1985) notion of register adaptation, where speakers adjust language forms in relation to context and medium.

Qualitative analysis further shows that digital language serves important social functions in children's online communities. A total of 83% of respondents reported feeling "cooler" or "more familiar" when using digital slang with peers, indicating that these forms function as identity markers and solidarity-building resources. In gaming communities such as Roblox, digital terms and mixed styles operate as in-group markers that signal membership and shared expertise. This pattern is consistent with Labov's sociolinguistic view that language variation can index social status and group identity (Labov, 1972). Digital language also carries an emotional and interpersonal function, because emojis and stickers often substitute for facial expressions and gesture that would normally support meaning in face-to-face communication.

In terms of formal language capabilities, the test results show mixed outcomes across respondents. Proper spelling proficiency was observed in about 70% of participants, formal sentence structuring in 60%, and formal vocabulary use in 50%. These figures suggest that exposure to online platforms does not automatically erode formal Indonesian competence; however, children with very high daily usage rates (more than five hours per day) tended to struggle more with producing formal sentences and complex structures consistently. This pattern can be interpreted through the lens of language attrition, where reduced active use of formal language in everyday contexts may contribute to gradual weakening of formal control.

Code-switching strategies also appear to be well developed. Most respondents (86%) demonstrated the ability to shift between Indonesian and English according to context, using standard formal Indonesian with teachers or parents while switching to a mixed "Indo-English" style with peers. This indicates strong pragmatic and metalinguistic awareness, as respondents not only recognize differences in social context but also adjust their language choices appropriately to fit the interactional setting.

These findings carry implications for Indonesian language education at the primary and lower-secondary levels. First, teachers may need to acknowledge digital dialects as part of students' real communicative ecology rather than treating them solely as deviations from "correct" language. Second, instruction can adopt a more contextual approach by incorporating guided analysis of digital speech (slang, emojis, abbreviations, and shortening) to help students understand language variation and situational appropriateness. Third, educators can explicitly develop students' code-switching awareness by teaching when and why formal or standard language is expected, while still valuing linguistic creativity in informal settings. Finally, parents

can play a supportive role through active guidance—such as discussing online content and language choices at home—to strengthen vocabulary development and promote more reflective, critical language use (Khan et al., 2024).

## CONCLUSIONS

The study concludes that Generation Alpha has developed a distinctive digital language shaped by early and sustained engagement with online platforms such as YouTube, TikTok, and Roblox. Their communication commonly blends Indonesian and English, relies heavily on abbreviations, and incorporates visual symbols (e.g., emojis and stickers). Global exposure further accelerates lexical borrowing from English, but these borrowed forms are often localized through phonetic adaptation—such as “subrek” (from subscribe) and “ples” (from please)—resulting in hybrid expressions that reflect both global media influence and local linguistic creativity. At the same time, digital interaction promotes linguistic economy: short, efficient messages and conventional abbreviations (e.g., “brb,” “btw,” “idk,” “wkwk”) become practical norms in fast-paced online exchanges.

Beyond efficiency, digital language also functions socially by signaling group membership and strengthening solidarity in peer communities, especially in gaming and social-media spaces. However, platform intensity matters: heavier users (more than five hours per day) tended to show weaker performance in formal Indonesian, particularly in grammatical accuracy, spelling conventions, and complex sentence construction, even though the effects were not uniform across all participants. Importantly, most respondents demonstrated strong code-switching ability, selecting standard Indonesian in formal interactions (e.g., with teachers or parents) and shifting to mixed “Indo-English” with peers, indicating pragmatic and metalinguistic awareness rather than simple language loss. These findings imply that Indonesian language education should integrate digital language realities by teaching register awareness and appropriate switching across contexts, while also developing digital-linguistic literacy so students can use online language critically and responsibly as part of their evolving social identity.

## References

- Alasal, M. S. (2025). Investigating the role of social media language in Formation Digital Identity: The mediating effect of social influence. *E-Learning and Digital Media*. <https://doi.org/10.1177/20427530251391105>
- Asaad, I. N. (2025). AI Apps, Usage, and Perceptions Among Gen Z and Gen Alpha in Egypt: A Qualitative Study. *Journal of Media and Interdisciplinary Studies*, 0(0), 0–0. <https://doi.org/10.21608/jmis.2025.366748.1064>
- Bao, P. (2025). Generational linguistic conflict in digital fields: Bourdieu’s cultural capital theory and cross-cultural decoding hegemony of Z-generation internet slang. *International Journal of Multilingualism*, 1–24. <https://doi.org/10.1080/14790718.2025.2579725>
- Bozkurt, A., & Tu, C.-H. (2016). Digital identity formation: socially being real and present on digital networks. *Educational Media International*, 53(3), 153–167. <https://doi.org/10.1080/09523987.2016.1236885>
- Brown, B. A. (2006). “It isn’t no slang that can be said about this stuff”: Language, identity, and appropriating science discourse. *Journal of Research in Science Teaching*, 43(1), 96–126. <https://doi.org/10.1002/tea.20096>
- Bruner, J. (1981). The social context of language acquisition. *Language & Communication*, 1(2–3), 155–178. [https://doi.org/10.1016/0271-5309\(81\)90010-0](https://doi.org/10.1016/0271-5309(81)90010-0)
- da Silva Junior, D. C., Castro, Y. M., Dutra, R. P., Caumo, D. P., & da Silva, M. P. (2025). Impact of the Use of Interactive Screens on Language Development in Children up to 6 Years of Age: A Systematic Review. *Child: Care, Health and Development*, 51(6). <https://doi.org/10.1111/cch.70176>

- Fernando, P. A., & Premadasa, H. K. S. (2024). Use of gamification and game-based learning in educating Generation Alpha. *Educational Technology & Society*, 27(2), 114–132. <https://eric.ed.gov/?id=EJ1421573>
- Halliday, M. A. K. (1978). *Language as Social Semiotic: The Social Interpretation of Language and Meaning*. Edward Arnold.
- Halliday, M. A. K., & Hasan, R. (1985). *Language, Context and Text: Aspects of Language in a Social-Semiotic Perspective*. Deakin University Press.
- Haugen, E. (1950). The Analysis of Linguistic Borrowing. *Language*, 26(2), 210. <https://doi.org/10.2307/410058>
- Höfrová, A., Balidemaj, V., & Small, M. A. (2024). A systematic literature review of education for Generation Alpha. *Discover Education*, 3(1), 125. <https://doi.org/10.1007/s44217-024-00218-3>
- Khan, M. A., Kurbonova, O., Abdullaev, D., Radie, A. H., & Basim, N. (2024). Is AI-assisted assessment liable to evaluate young learners? Parents support, teacher support, immunity, and resilience are in focus in testing vocabulary learning. *Language Testing in Asia*, 14(1), 48. <https://doi.org/10.1186/s40468-024-00324-x>
- Labov, W. (1972). *Sociolinguistic Patterns*. University of Pennsylvania.
- Laor, T. (2022). My social network: Group differences in frequency of use, active use, and interactive use on Facebook, Instagram and Twitter. *Technology in Society*, 68, 101922. <https://doi.org/10.1016/j.techsoc.2022.101922>
- Massaroni, V., Delle Donne, V., Marra, C., Arcangeli, V., & Chieffo, D. P. R. (2023). The Relationship between Language and Technology: How Screen Time Affects Language Development in Early Life—A Systematic Review. *Brain Sciences*, 14(1), 27. <https://doi.org/10.3390/brainsci14010027>
- McArthur, B. A., Volkova, V., Tomopoulos, S., & Madigan, S. (2022). Global Prevalence of Meeting Screen Time Guidelines Among Children 5 Years and Younger. *JAMA Pediatrics*, 176(4), 373. <https://doi.org/10.1001/jamapediatrics.2021.6386>
- Muhammad Tahir, Suardi, & Lista Litta. (2025). Critical Analysis of English Language Use in Social Media on Discourse Structure Changes and Linguistic Identity of Generation Z. *International Journal for Science Review*, 2(10). <https://doi.org/10.71364/ijfsr.v2i10.79>
- Myslín, M., & Levy, R. (2015). Code-Switching and Predictability of Meaning in Discourse. *Language*, 91(4), 871–905. <https://doi.org/10.1353/lan.2015.0068>
- Oktarin, I. B., & Hastomo, T. (2023). Utilizing Critical Discourse Analysis for Developing Students' Digital Literacy: A Need Analysis Approach. *Global Expert: Jurnal Bahasa Dan Sastra*, 11(2), 64–69. <https://doi.org/10.36982/jge.v11i2.3452>
- Piaget, J. (1952). *The origins of intelligence in children*. W W Norton & Co. <https://doi.org/10.1037/11494-000>
- Reed, J., & Lee, E. L. (2020). The Importance of Oral Language Development in Young Literacy Learners: Children Need to Be Seen and Heard. *Dimensions of Early Childhood*, 48(3), 6–9. <https://eric.ed.gov/?id=EJ1293447>
- Rogers, R. (2021). Visual media analysis for Instagram and other online platforms. *Big Data & Society*, 8(1). <https://doi.org/10.1177/20539517211022370>
- Schaefer, S. J. (2021). Hybridization or what? A question of linguistic and cultural change in Germany. *Globalizations*, 18(4), 667–682. <https://doi.org/10.1080/14747731.2020.1832839>
- Windschitl, M., Thompson, J., & Braaten, M. (2008). Beyond the scientific method: Model-based inquiry as a new paradigm of preference for school science investigations. *Science Education*, 92(5), 941–967. <https://doi.org/10.1002/sc.20259>

