

LINGUISTIC ANALYSIS OF INDONESIAN LANGUAGE ERRORS IN ELEMENTARY SCHOOL STUDENTS' WHATSAPP CHATS: A CASE STUDY IN TAMBAK PRING, SURABAYA

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ABSTRACT

This study aims to analyze Indonesian language use in WhatsApp conversations among elementary school students by examining linguistic forms at four levels: phonology, morphology, syntax, and orthography. The study employed a qualitative approach with a case study design. The participants consisted of five female elementary school students from Kampung Tambak Pring VI, Surabaya, Indonesia, identified by the initials DIN, AYU, YUM, YOL, and AGN. The data were obtained from naturally occurring written interactions in a WhatsApp group discussing everyday topics, including K-pop, TikTok video creation, traditional rope-jumping games, and plans to play together. Data were collected through documentation and analyzed through the stages of identification, selection, classification, description, contextual interpretation, and verification. The analysis identified 17 linguistic forms distributed across four categories: phonological, morphological, syntactic, and orthographic. Orthographic forms constituted the most frequent category, accounting for five data points (29.4%), while phonological and syntactic forms each accounted for four data points (23.5%), and morphological forms accounted for four data points (23.5%).

The findings indicate that the students' digital communication combines standard Indonesian with colloquial expressions, pronunciation-influenced written forms, informal morphological constructions, flexible syntactic structures, abbreviations, and expressive orthographic practices. However, not all non-standard forms can be regarded as language errors. Several forms reflect language variation, informality, communicative efficiency, or expressive functions in peer interaction. Therefore, the analysis emphasizes the importance of distinguishing language errors from informal language use and linguistic variation when examining children's digital communication. The study suggests that Indonesian language instruction should develop students' awareness of contextual language use by helping them distinguish between informal digital communication and standard Indonesian required in academic and formal contexts.

Keywords: language error analysis, Indonesian language, elementary school students, whatsapp chat, linguistics, digital communication

Introduction

The development of information and communication technology has transformed patterns of social interaction, including the ways in which elementary school children communicate with their peers. The increasingly widespread access to smartphones and instant messaging applications has made digital communication an integral part of everyday life. WhatsApp is one of the platforms that enables users to interact rapidly and informally through written messages, thereby providing a space in which various linguistic practices may emerge. Previous studies on WhatsApp-mediated communication have shown that the platform functions not only as a medium for conveying information but also as an interactional space in which particular linguistic phenomena may occur, including the use of informal language and linguistic strategies shaped by the context of digital communication (Maria, 2021; Sugianto & Muslim, 2022). Accordingly, WhatsApp communication provides a relevant context for examining how users, including children, employ language in their everyday interactions.

Language use in digital communication has characteristics that differ from those found in academic contexts or formal written communication. Users tend to select forms that are concise, economical, and closely aligned with everyday conversational language. Abbreviations, the omission of certain word elements, spellings that represent pronunciation, informal vocabulary, and inconsistent use of punctuation and capitalization are among the characteristics commonly found in instant messaging communication. Studies of *textese* in WhatsApp communication indicate that instant messaging may exhibit linguistic characteristics that differ from formal writing because users adapt the form of their messages to the demands of rapid and informal communication (Chen). Furthermore, research on digital interaction suggests that users may draw upon various linguistic resources and adjust their language choices according to the context of digital interaction (Dumba et al., 2026). Therefore, linguistic forms found in digital communication should be interpreted within the context in which they are used rather than being assessed solely against formal language standards.

In the context of elementary school children, this issue is particularly important because children are still developing their linguistic abilities. The digital environment provides children with an additional space in which they can use language beyond formal learning contexts. Interaction through social media and digital platforms may constitute part of children's linguistic experiences, making language practices in digital spaces an important aspect of digital and linguistic literacy development. Research on social media use among younger populations indicates that digital environments can serve as spaces for language development and language practices (Apridayani & Sompuwet, 2026). Meanwhile, studies of *texting language* have also drawn attention to the use of digital language forms and their possible relationship with formal writing practices (Ehigie, 2024). These conditions indicate that digital language use among younger users should be examined not only from a technological perspective but also from a linguistic perspective.

However, research on digital language needs to distinguish between *language errors*, *language variation*, *informal language*, and *non-standard forms*. Linguistic forms that differ from standard language conventions cannot necessarily be categorized as language errors. In informal communication, users may select particular linguistic forms based on social proximity, communicative situations, characteristics of the medium, and the purpose of the message. Research on digital interaction demonstrates that users adapt their linguistic repertoires to the communicative context and characteristics of digital media (Dumba et al., 2026). Therefore, forms such as *udah*, *aja*, *capek*, *bikin*, and *nunggu* should not automatically be categorized as errors simply because they differ from the standard forms *sudah*, *saja*, *capai*, *membuat*, and *menunggu*, respectively. Such forms may represent language variation or informal language use commonly found in conversational interaction. Accordingly, this study distinguishes between deviations from linguistic conventions that may be categorized as errors and linguistic forms that represent variation or characteristics of informal digital communication.

From a linguistic perspective, language use can be examined at several levels, including phonology, morphology, syntax, and orthography. Tarigan explains that language error analysis involves identifying, classifying, describing, and explaining forms of deviation produced by language users. Chaer explains that phonology concerns the sound system of a language, morphology concerns word formation, and syntax concerns relationships among words in the formation of larger linguistic units. In the present study, these four categories are employed with operational boundaries adapted to the characteristics of WhatsApp data. Phonological analysis is used in a limited manner to identify written forms that represent or imitate features of spoken pronunciation, rather than categorizing all informal forms as phonological errors. Morphological analysis is used to identify forms related to word formation and word use, while syntactic analysis is used to identify deviations in sentence structure or relationships among sentence components. Orthographic analysis is used to examine the use of letters, word spelling, capitalization, and punctuation according to Indonesian orthographic conventions. These boundaries are necessary because the research data consist of written communication produced in a digital medium, whereas some forms that appear to be deviations in writing may actually represent spoken language or informal linguistic variation.

Previous studies have examined various aspects of language use in digital communication and WhatsApp. Maria (2021), for instance, investigated the occurrence of *code-switching* in WhatsApp communication and demonstrated that

the platform can provide a space for linguistic phenomena related to users' language choices. Sugianto and Muslim (2022) likewise showed that WhatsApp constitutes an important context for digital interaction, particularly in educational communication. Other research on emoji use in WhatsApp interactions has demonstrated that communication through the platform may incorporate multimodal elements as part of meaning-making processes (Racilan & Martins). Meanwhile, studies of *textese* indicate that instant messaging communication has linguistic characteristics associated with informality and the need for rapid communication (Chen). These findings demonstrate that WhatsApp provides a relevant context for investigating linguistic practices in digital communication.

Research on digital language use has also been conducted among younger populations and within educational contexts. Apridayani and Sompuwet (2026) demonstrated that social media can function as a digital environment associated with language development and language practices among adolescents. Ehigie (2024) examined the use of *texting language* and its relationship with academic writing practices among university students, whereas Demirel (2022) investigated the relationship between digital literacy and attitudes toward *digital writing*. These studies demonstrate that digital technology has created new contexts for language and writing practices. However, many of these studies focus on university students, language learners, adolescents, or formal educational settings. Research that specifically uses naturally occurring WhatsApp conversations among elementary school children as data for analyzing linguistic forms across multiple linguistic levels remains relatively limited.

The limitations of previous research indicate a *research gap* in two respects. First, in terms of the research subjects, studies of digital communication have predominantly focused on adults, university students, language learners, or adolescents, whereas the linguistic practices of elementary school children in naturally occurring WhatsApp conversations have received comparatively limited attention. Second, in terms of analytical approaches, digital language forms that differ from standard language are not always clearly distinguished between language errors and informal language variation. This distinction is important because WhatsApp communication is spontaneous and informal, meaning that the use of non-standard forms does not necessarily indicate a lack of linguistic competence. Therefore, an analytical approach that takes the communicative context into account is necessary when determining whether a particular form constitutes an error, a variation, or a characteristic of digital language use.

Building on this *research gap*, the present study positions naturally occurring WhatsApp conversations among elementary school children as a source of data for examining language use at the phonological, morphological, syntactic, and orthographic levels. The novelty of this study does not lie solely in the use of WhatsApp as a research medium, but rather in its analysis of naturally occurring communication among elementary school children while taking into account the conceptual boundaries between language errors, language variation, and informal digital language use. This approach enables the study to provide a more contextualized account of how children use language in digital communication and how the linguistic forms that emerge can be classified from a linguistic perspective.

This study was conducted using a WhatsApp group consisting of five elementary school girls from Kampung Tambak Pring VI, Surabaya. To protect the participants' identities, all names were anonymized using the initials DIN (Grade 4), AYU (Grade 4), YUM (Grade 5), YOL (Grade 6), and AGN (Grade 6). The conversations analyzed concerned the children's everyday activities and experiences, including their interest in K-pop, creating TikTok videos, playing the traditional game *lompat karet*, and making plans to play together after attending Qur'anic learning activities. These topics were selected because they emerged naturally from the participants' interactions and allowed various forms of informal and digital language use to be identified without direct intervention or prompting from the researcher. The use of naturally occurring conversational data also enables the study to capture language use that more closely reflects children's everyday communication practices.

Based on the foregoing discussion, this study addresses the following research questions:

1. What forms of language use are found in WhatsApp conversations among elementary school students at the phonological, morphological, syntactic, and orthographic levels?
2. How can these linguistic forms be characterized when distinguished as language errors, language variations, or informal language use?
3. What patterns of digital language use emerge in WhatsApp conversations among elementary school students in Kampung Tambak Pring VI, Surabaya?

This study is expected to make both theoretical and practical contributions. Theoretically, it extends linguistic research on language use in digital communication by positioning WhatsApp conversations among elementary school children as authentic linguistic data and by distinguishing language errors from language variation and informal language use. Practically, the findings are expected to provide information for Indonesian language teachers, parents, and education practitioners regarding the characteristics of children's language use in digital spaces. Such understanding may contribute to the development of awareness regarding context-appropriate Indonesian language use without treating all informal linguistic forms as errors. Accordingly, this study aims to describe the forms and characteristics of language use at the phonological, morphological, syntactic, and orthographic levels and to explain the patterns of digital language use that emerge in WhatsApp conversations among elementary school students in Kampung Tambak Pring VI, Surabaya.

Research Method

This study employs a qualitative approach with a case study design. The qualitative approach was selected because the study aims to identify, describe, classify, and interpret linguistic phenomena that naturally occur in the digital communication of elementary school students. The qualitative approach enables the researcher to gain an in-depth understanding of social phenomena by considering the natural context in which the phenomena occur (Lim, 2024). A case study design is employed because the study focuses on one clearly bounded case, namely the use of Indonesian in WhatsApp conversations among five elementary school students in Kampung Tambak Pring VI, Surabaya. The case study approach is appropriate when research is directed toward obtaining an in-depth understanding of a phenomenon within a particular context. This study is not intended to produce statistical generalizations concerning all elementary school students, but rather to provide a contextual understanding of the phenomenon of language use in the case under investigation (Lim, 2024).

The study was conducted in Kampung Tambak Pring VI, Surabaya, Indonesia. The research participants consisted of five female elementary school students who were members of the same WhatsApp group, namely DIN (Grade 4), AYU (Grade 4), YUM (Grade 5), YOL (Grade 6), and AGN (Grade 6). To maintain the confidentiality of their identities, all participants' names were anonymized using initials. The participants were selected using *purposive sampling* based on criteria relevant to the objectives of the study. *Purposive sampling* enables researchers to select participants based on specific characteristics relevant to the research focus, so that the data obtained have a direct relationship with the research questions (Ahmad & Wilkins, 2024). The participant criteria in this study included: (1) the participant was an elementary school student in Grades 4–6; (2) the participant was a member of the WhatsApp group serving as the source of research data; (3) the participant actively produced written messages in the group; (4) the messages produced contained linguistic forms relevant to the research focus; and (5) the use of the conversations as research data had obtained consent from the participant's parent or legal guardian. In this study, the term “actively using WhatsApp” is operationally defined as the participant's involvement in producing written messages during the observation period. Thus, active status was not determined solely by group membership but by actual involvement in the written interactions serving as the source of research data. The five participants were considered adequate because they constituted a group specifically established as the research case and met the predetermined criteria.

The research data consisted of written conversations in the WhatsApp group involving the five participants. These conversations represented naturally occurring peer communication and addressed various topics related to everyday life, including interest in K-pop, creating TikTok videos, playing the traditional game *lompat karet*, and making plans to play together after attending Qur'anic learning activities. The use of WhatsApp conversations as a source of research data has methodological relevance because WhatsApp-based communication can generate textual data that can be qualitatively analyzed within the context of digital communication (Mavhandu-Mudzusi et al., 2022). All available messages within the defined data boundaries were first examined to obtain an overall picture of the participants' language use. The data were then selected based on the predetermined linguistic criteria. The data units in this study consisted of words, phrases, clauses, sentences, or particular written forms that demonstrated linguistic phenomena relevant to the research focus. A single WhatsApp message could contain more than one linguistic phenomenon. Therefore, the unit of analysis was not always counted based on the number of messages but rather on the linguistic forms serving as the objects of analysis.

Data collection was conducted using documentation techniques. The data were obtained from written conversations in the WhatsApp group serving as the research object. The conversations analyzed represented the participants' naturally occurring communication; therefore, the data were not obtained through language tasks, interviews, or specific instructions from the researcher. The use of WhatsApp as a source of textual data also enabled the researcher to obtain documented forms of communication within a particular language-use context (Mavhandu-Mudzusi et al., 2022). The researcher first collected and documented the conversations within the predetermined data boundaries. All available messages were examined before the selection process was conducted. This procedure was carried out to ensure that the researcher did not select only messages that had initially been considered to contain language errors. The collected data were then transcribed into the research data sheet. The original language forms used by the participants were retained to preserve the authenticity of the data. Each datum was coded based on the participant's anonymized identity and the sequential data number so that the identification and analysis processes could be conducted systematically.

Data were included in the analysis if they: (1) originated from one of the five participants; (2) were part of the conversations within the defined research data boundaries; (3) contained linguistic forms relevant to the research objectives; and (4) could be analyzed based on the predetermined linguistic categories. Messages containing only visual materials without analyzable written language, messages originating from individuals outside the research participants, duplicate messages, and data outside the research boundaries were excluded from the analysis. The selection process was conducted systematically to ensure that the analyzed data had a direct relationship with the research objectives and were not selected merely on the basis of researcher subjectivity.

This study distinguishes between language errors, language variation, and informal language use. This distinction is important because the object of the study consists of informal WhatsApp conversations among students rather than academic or formal writing. A linguistic form is categorized as a language error when there is a deviation that can be explained based on the linguistic rules used as the basis for analysis. This determination considers the linguistic form, the rules serving as the reference, and the context in which the form is used in the conversation. Conversely, forms that do not conform to standard Indonesian are not automatically categorized as errors. Forms such as *udah*, *aja*, *capek*, *bikin*, and *nunggu* are first analyzed to determine whether they represent informal language variation, representations of spoken language in writing, or actual deviations that can be categorized as errors. Thus, the identification process is not based solely on a comparison between the forms found and their standard forms but also considers their function and context of use in digital communication.

Data analysis was conducted through several stages, namely identification, selection, classification, description, interpretation, and verification. The first stage was data identification, in which the researcher read the entire conversation transcripts and marked linguistic forms that potentially demonstrated relevant linguistic phenomena. At this stage, the identified forms were not immediately considered errors. The second stage was data selection and classification. The identified data were then examined based on the criteria for language errors and grouped into the categories of phonology, morphology, syntax, and orthography. The third stage was data description, in which each classified form was described by comparing the form used by the participants with the reference form. The fourth stage was contextual interpretation, in which each datum was analyzed based on the conversational context to determine whether the form constituted a language error, language variation, or informal language use. The fifth stage was verification, in which the classification results were repeatedly reviewed and compared with relevant linguistic theories and Indonesian language conventions. These stages are consistent with the principles of qualitative analysis, which emphasize the systematic organization, interpretation, and examination of data to develop an in-depth understanding of the research phenomenon (Lim, 2024).

In the classification process, the phonological category includes written forms that represent characteristics of spoken pronunciation, such as the omission, substitution, or alteration of sounds reflected in written forms. Because the data source consists of written communication, this category is used only when there is a clear basis for determining that a form represents an aspect of pronunciation. The morphological category includes forms related to word formation, the use or omission of affixes, changes in morphological elements, reduplication, and other forms of word formation. The syntactic category includes deviations in the arrangement or relationships among words, phrases, clauses, or sentence elements that affect structure or meaning. Meanwhile, the orthographic category includes deviations in the use of letters, spelling, capitalization, word separation, word combination, and punctuation based on Indonesian orthographic conventions.

Particular attention is given to the phonological category because the research data consist of written communication. Forms such as *liat* and *maen* are not immediately categorized as phonological errors merely because they differ from their standard forms. The researcher first determines whether these forms represent pronunciation, informal spelling variation, or orthographic deviation. In this way, phonological analysis maintains a linguistic basis even though the research data are in textual form. After the classification process was completed, the data were organized into an analysis table containing the original form, the standard or comparison form, the linguistic category, the type of phenomenon, the context of use, and the rationale for classification. Subsequently, the linguistic patterns that emerged were compared across participants to obtain an overview of the characteristics of Indonesian language use in WhatsApp conversations among elementary school students.

This study involved elementary school students as child participants; therefore, ethical considerations and privacy protection were of primary importance. Before the WhatsApp conversations were used as research data, the researcher obtained consent from the parent or legal guardian of each participant. The participants were also provided with an explanation of the research objectives, the use of conversational data, and their right to refuse participation or request that their data not be used in the study. The use of WhatsApp-based data requires particular attention to ethical considerations and the protection of personal information, especially when the data involve vulnerable groups or information that could identify participants (Mavhandu-Mudzusi et al., 2022). The confidentiality of the participants' identities was maintained throughout the processes of data collection, transcription, analysis, and publication. The participants' real names were not disclosed and were replaced with the initials DIN, AYU, YUM, YOL, and AGN. Telephone numbers, profile photographs, account names, addresses, locations, links, and other personal information that could identify the participants were not included in the research report. Screenshots of conversations containing personal information were not presented in the article. When excerpts from the conversations were required to support the analysis, only the relevant textual portions were used and the participants' identities were anonymized. Information that was not necessary to address the research objectives was not included in the published data. All research data were stored with restricted access and were used solely for academic purposes.

Results and Discussion

Overview of Research Findings

The analysis identified 17 linguistic forms occurring in the WhatsApp messages exchanged by the participants. The data were classified into four analytical categories: phonological, morphological, syntactic, and orthographic forms. Because the data consisted of written WhatsApp messages, the classification was applied to the linguistic features represented in writing rather than to spoken-language production. The distribution of the findings is presented in Table 1.

Table 1. Distribution of Linguistic Forms in the WhatsApp Data

Category	Data Codes	Frequency	Percentage
Phonological	F-01–F-04	4	23.5%
Morphological	M-01–M-02	2	11.8%
Syntactic	S-01–S-04	4	23.5%
Orthographic	E-01–E-05	5	29.4%
Other/overlapping forms*	M-03	1	5.9%
Total	F-01–E-05	17	100%

Note: M-03 is retained as a morphological form because it clearly demonstrates informal affixation. The table separates it analytically from the two core morphological forms to avoid treating lexical or orthographic variation as morphology.

Figure 1. Distribution of Linguistic Forms Identified in the WhatsApp Messages

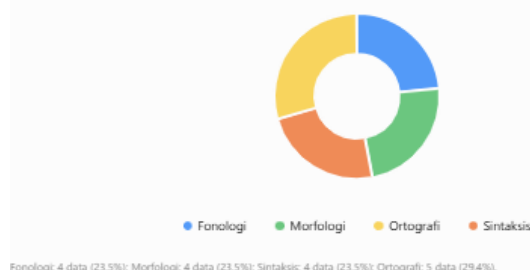


Figure 1 illustrates the distribution of the linguistic forms identified in the dataset. Orthographic forms constitute the largest proportion, accounting for 29.4% of the data, followed by phonological and syntactic forms, each representing 23.5%. Morphological forms occur less frequently. The distribution indicates that deviations related to written conventions are more prominent than those involving sentence structure or word formation. However, frequency alone does not determine the linguistic importance of a category; the qualitative characteristics of each form must also be considered.

The predominance of orthographic forms is particularly relevant in digital communication because written interaction through instant messaging tends to occur without the revision process commonly associated with formal writing. Previous research on Indonesian digital discourse has similarly reported the prominence of spelling, capitalization, abbreviation, and word-separation problems in social-media communication (Sagita et al., 2024; Ginting, 2024; Andriani et al., 2025). Nevertheless, the present findings indicate that not all non-standard forms should be treated as equivalent errors because several forms also perform expressive or interactional functions.

1. Phonological Forms

The phonological category contains four data points: F-01, F-02, F-03, and F-04. Since the research material consists of written WhatsApp messages rather than audio recordings, these data should not be interpreted as direct evidence of phonological production errors. Instead, they represent written forms that appear to reproduce features associated with colloquial pronunciation or spoken-language patterns. This distinction is necessary to prevent the analysis from attributing speech characteristics to participants without direct phonetic evidence.

Table 2. Phonological Forms

Code	WhatsApp Form	Standard Form	Linguistic Feature
F-01	<i>udah ngaji blm?</i>	<i>sudah mengaji belum?</i>	Pronunciation-influenced form and abbreviation
F-02	<i>aja ikut</i>	<i>saja ikut</i>	Initial /s/ deletion in colloquial representation
F-03	<i>capek bgt</i>	<i>capai sekali</i>	Colloquial lexical form and abbreviation
F-04	<i>maen yuk</i>	<i>main, yuk</i>	Pronunciation-influenced representation

In F-01, *udah* represents a colloquial form of *sudah*. The accompanying form *blm* is an abbreviation of *belum*. Although both forms occur within the same message, they represent different linguistic processes. The former reflects the representation of spoken language in writing, whereas the latter reflects digital abbreviation. Their co-occurrence demonstrates that several forms of linguistic compression may operate simultaneously in a short digital message. Similar combinations of shortened and pronunciation-influenced forms have been observed in informal Indonesian digital communication (Defina, 2022).

F-02 contains *aja* in *aja ikut*, corresponding to *saja ikut*. The deletion of /s/ may be interpreted as a representation of colloquial pronunciation. However, *aja* is already widely established in informal Indonesian interaction. Therefore, the form is more appropriately described as a non-standard written representation of an informal lexical form rather than as evidence of an actual phonological deficit. Research on Indonesian slang has demonstrated that informal forms are frequently maintained and reproduced through peer interaction and digital communication (Nainggolan et al., 2024).

F-03 contains *capek bgt*. The form *capek* is common in informal Indonesian, while *bgt* represents an abbreviated form of *banget*. The important feature in this data is therefore the contrast between an informal lexical choice and the formal written equivalent rather than a simple spelling mistake. Such lexical and abbreviated forms may facilitate rapid interaction and simultaneously signal familiarity among interlocutors. Similar patterns of abbreviated and informal language use have been reported in Indonesian social-media discourse (Alfarisy et al., 2022).

In F-04, *maen yuk* corresponds to *main, yuk*. The spelling *maen* can be interpreted as a written representation influenced by colloquial pronunciation. The data therefore demonstrate how characteristics associated with spoken interaction may be transferred into digital writing. Comparable pronunciation-influenced representations have been observed in Indonesian digital communication, particularly in informal online interaction (Gulo et al., 2024).

Taken together, the phonological forms demonstrate the permeability between spoken and written language in digital interaction. However, these findings should not be interpreted as evidence of phonological deterioration. The data instead indicate that participants reproduce familiar spoken-language patterns when communicating through writing. This distinction is important because the study examines written products and therefore cannot establish the participants' actual phonological production.

2. Morphological Forms

The morphological analysis is restricted to forms that demonstrate changes in word formation, particularly the alteration, reduction, or informal realization of affixes. Forms such as *maen* and *liat* are therefore not classified as morphological data because they do not independently demonstrate a change in morphological structure. This analytical restriction strengthens the categorization by distinguishing word-formation processes from pronunciation and orthographic variation.

Table 3. Morphological Forms

Code	WhatsApp Form	Standard Form	Morphological Feature
M-02	<i>aku lagi nunggu kamu</i>	<i>aku sedang menunggu kamu</i>	Reduction of standard prefixal form
M-03	<i>lagi ngerjain video TikTok</i>	<i>sedang mengerjakan video TikTok</i>	Informal affixation and reduction

M-02 contains *nunggu* as an informal alternative to *menunggu*. The form demonstrates the reduction of the standard prefixal structure, resulting in a shorter colloquial verb. In the context of peer communication, the meaning remains transparent and the form is easily understood. The phenomenon illustrates how speakers may reduce morphological material when communicating in informal settings. Similar patterns of morphological simplification have been identified in Indonesian digital communication (Sa'diyah et al., 2023).

M-03 contains *ngerjain*, corresponding to *mengerjakan*. This form provides stronger evidence of informal morphology because it involves a recognizable colloquial affixation pattern. The standard form is replaced by an informal construction involving *nge-* and *-in*. Such patterns are not random combinations of letters but represent productive informal word-formation practices found in contemporary Indonesian communication. Previous research has documented similar informal affixation in social-media discourse (Saniyah et al., 2024).

The two morphological forms demonstrate that informal digital communication permits alternative word-formation patterns to coexist with standard Indonesian morphology. The participants' use of these forms does not necessarily indicate a lack of morphological competence. Rather, it suggests that morphological choices are influenced by communicative context. Similar findings have been reported in studies examining informal affixation in Indonesian online interaction, where forms using *nge-* and *-in* occur systematically rather than incidentally (Fajrin et al., 2024).

From a linguistic perspective, the distinction between morphological variation and morphological error is important. The forms may be considered non-standard when evaluated against formal Indonesian conventions, but they remain functional and comprehensible within peer interaction. For elementary school students, this distinction is pedagogically relevant because students need to learn not only the standard form but also when different linguistic forms are appropriate.

3. Syntactic Forms

Four syntactic forms were identified in the data. These involve omission of a preposition, less effective word arrangement, a conversational interrogative construction, and an informal conjunction-like expression. Unlike the phonological category, which primarily concerns representations of spoken forms, the syntactic findings concern the organization and completeness of linguistic elements within the message.

Table 4. Syntactic Forms

Code	WhatsApp Form	Standard Form	Syntactic Feature
S-01	<i>nanti aku rumah Ayu</i>	<i>nanti aku ke rumah Ayu</i>	Omission of preposition
S-02	<i>aku ikut juga besok main</i>	<i>besok aku ikut bermain juga</i>	Less effective word order
S-03	<i>kamu sudah bikin belum video?</i>	<i>kamu sudah membuat video belum?</i>	Conversational sentence construction
S-04	<i>aku sama DIN mau kesana</i>	<i>aku dan DIN mau ke sana</i>	Informal conjunction-like expression

S-01, *nanti aku rumah Ayu*, omits the preposition *ke* before *rumah Ayu*. Although the construction is structurally incomplete, the intended meaning remains accessible because the interlocutors can infer the destination from the context. The omission demonstrates how contextual knowledge can compensate for missing grammatical elements in informal digital interaction. Comparable omissions of sentence elements have been reported in WhatsApp communication, where users frequently rely on shared contextual knowledge (Febrianti et al., 2024).

S-02, *aku ikut juga besok main*, demonstrates a less conventional ordering of the sentence constituents. The message remains understandable, but its arrangement is less appropriate for formal written Indonesian. The finding suggests that spontaneous digital writing may retain organizational features associated with conversational speech rather than the more carefully structured syntax expected in formal writing.

S-03, *kamu sudah bikin belum video?*, similarly reflects conversational organization. The combination of *sudah* and *belum* produces a recognizable interrogative pattern, although the placement of *video* makes the sentence less effective according to formal written conventions. The use of *bikin* further contributes to the conversational character of the expression. Digital communication research has shown that such constructions are facilitated by the informal relationship between interlocutors and the immediate nature of messaging (Pattipeiluhu et al., 2025).

S-04, *aku sama DIN mau kesana*, requires analytical separation because it contains more than one linguistic phenomenon. The expression *sama* functions as an informal alternative to *dan*, while *kesana* involves word separation rather than syntax. Consequently, only the use of *sama* is discussed as a syntactic or colloquial construction in this category; *kesana* is treated as an orthographic issue. This separation prevents different linguistic levels from being combined into a single error category. Previous research has similarly emphasized the importance of distinguishing grammatical structure from orthographic deviation in digital texts (Karina et al., 2023).

Overall, the syntactic findings suggest that the participants construct messages according to the communicative demands of peer interaction. The messages do not always follow the structure expected in formal written Indonesian, yet their meanings remain recoverable. This indicates that contextual understanding plays an important role in digital communication. The finding is consistent with research showing that informal online interaction allows greater structural flexibility than formal written discourse (Suminar et al., 2026).

4. Orthographic Forms

Orthographic forms represent the most frequent category, consisting of five data points or 29.4% of the dataset. The forms involve capitalization, representation of proper names, expressive letter repetition, non-standard abbreviation, and word separation. Unlike several phonological and morphological forms, some of these deviations can be directly evaluated against established Indonesian writing conventions.

Table 5. Orthographic Forms

Code	WhatsApp Form	Standard Form	Orthographic Feature
E-01	<i>aku suka kpop banget</i>	<i>Aku suka K-Pop banget.</i>	Capitalization
E-02	<i>ayo bikin tiktok bareng</i>	<i>Ayo bikin TikTok bareng.</i>	Proper-name capitalization
E-03	<i>iyaaaaa aku ikut</i>	<i>Iya, aku ikut.</i>	Letter repetition and punctuation
E-04	<i>gk bisa ikut hari ini</i>	<i>Tidak bisa ikut hari ini.</i>	Non-standard abbreviation
E-05	<i>kamu dimana?</i>	<i>Kamu di mana?</i>	Incorrect word separation

E-01 contains capitalization deviations at the beginning of the sentence and in the representation of *K-Pop*. The absence of capitalization indicates limited attention to formal orthographic conventions during rapid message production. Similar capitalization problems have been reported in Indonesian digital texts, particularly in informal social-media communication (Wulandari et al., 2023).

E-02 contains *tiktok* instead of *TikTok*. The deviation concerns the representation of a proper name. Although the intended referent remains immediately recognizable, the written form does not follow the conventional capitalization of the name. This phenomenon illustrates how digital communication may prioritize recognizability over formal orthographic accuracy (Magda, 2024).

E-03, *iyaaaaa aku ikut*, requires a different interpretation. The repeated letters in *iyaaaaa* function as an expressive resource rather than simply reflecting a lack of spelling knowledge. Letter repetition may convey emphasis, enthusiasm, emotional intensity, or interpersonal closeness. However, the absence of punctuation and the extended spelling make the expression inappropriate for formal writing. Digital discourse research has shown that creative linguistic forms may perform interpersonal and emotional functions in online interaction (Hijrah et al., 2024).

E-04 contains *gk*, a digital abbreviation of *tidak*. The form is efficient for rapid interaction but does not conform to the standard written form expected in formal Indonesian. Abbreviations of this type have been documented as recurring features of Indonesian digital communication, particularly in instant messaging environments (Agustini et al., 2024).

E-05, *kamu dimana?*, presents a clearer orthographic deviation. When *di* functions as a preposition indicating location, it must be written separately from *mana*. Therefore, the standard form is *di mana*. This type of word-separation problem is particularly important in Indonesian writing because the distinction between the preposition *di* and the prefix *di-* is governed by grammatical function. Similar problems have been identified in Indonesian digital texts (Andriani et al., 2025).

The orthographic findings therefore contain both conventional writing errors and expressive digital practices. Capitalization and word separation represent clearer departures from standard writing conventions, whereas repeated letters have an additional communicative function. This distinction is essential for interpreting children's digital language without reducing all non-standard forms to deficient language competence.

5. Cross-Category Discussion

The four categories reveal that the participants' WhatsApp messages involve an interaction between standard Indonesian, colloquial language, and digital communication practices. The categories differ in linguistic level but collectively demonstrate that informal digital writing is not characterized by a single type of deviation. Instead, pronunciation-influenced representations, informal word formation, flexible sentence organization, and orthographic variation occur within the same communicative environment.

The distribution presented in Figure 1 indicates that orthographic forms constitute the largest category. This result suggests that the most visible deviations in the dataset concern conventions that are directly associated with writing, particularly capitalization, abbreviation, and word separation. The finding is compatible with research showing that rapid digital interaction encourages users to simplify written forms and reduce attention to formal editing (Rahmawati et al., 2024). Nevertheless, the predominance of orthographic forms should not be interpreted as evidence that participants have weaker orthographic competence than syntactic or morphological competence. The frequency may also reflect the nature of WhatsApp as a rapid writing environment.

A second important finding concerns the relationship between language variation and language error. Several forms identified in the data, including *aja*, *capek*, *maen*, and *iyaaaaa*, function naturally within informal interaction. Their status as "errors" depends largely on the linguistic standard against which they are evaluated. Therefore, the analysis needs to distinguish between forms that violate formal writing conventions and forms that represent socially meaningful informal variation. This perspective is particularly important in digital communication because users routinely adapt their language to their relationship with interlocutors and the communicative purpose.

The findings also demonstrate that linguistic levels should not be conflated. For example, *maen* is more appropriately discussed as a pronunciation-influenced written representation than as morphology, while *kesana* involves word separation rather than sentence structure. Such distinctions improve the analytical validity of the study because each form is evaluated according to the linguistic level it actually represents. This approach also avoids artificially increasing the number of errors by assigning one form to several categories.

The data further indicate that the participants rely heavily on contextual interpretation. In S-01 and S-03, for example, the intended meaning remains understandable even though the structures are less conventional according to formal Indonesian. This supports the view that digital communication is strongly dependent on shared knowledge between interlocutors. Research on online interaction has likewise demonstrated that informal messages can remain communicatively effective despite structural deviations because participants share contextual and interpersonal knowledge (Setiyorini et al., 2025).

The relationship between linguistic form and communicative purpose is also evident in the orthographic data. The form *iyaaaaa* is not simply an inaccurate spelling of *iya*; the repeated letters contribute emotional meaning. Similarly, *gk* is used because it is shorter and faster to type than *tidak*. These forms demonstrate that digital writing possesses communicative resources that extend beyond conventional orthographic accuracy. Consequently, the findings should be interpreted in relation to both linguistic norms and communicative functions.

From a pedagogical perspective, the results suggest that Indonesian language instruction for elementary school students should emphasize contextual language awareness rather than relying exclusively on correction. Students can

be introduced to pairs of informal and formal expressions and asked to determine which form is appropriate in WhatsApp conversations, classroom assignments, official messages, or academic writing. Anonymized examples from digital communication can also be used to develop students' ability to transform informal messages into standard Indonesian. Such activities can connect language learning with students' actual communication practices.

The findings are also relevant to digital literacy education. Digital literacy should not be limited to technical skills or the ability to access information; it should include the ability to select appropriate linguistic forms for different communicative contexts. The students' use of abbreviations, expressive spelling, and colloquial forms demonstrates that they are actively adapting language to the affordances of digital interaction. The educational challenge is therefore not to eliminate informal language but to develop students' awareness of when informal and formal forms are appropriate.

The study further contributes to research on children's digital language by focusing on naturally occurring peer-group WhatsApp communication. Previous studies have investigated digital language among various user groups, including university students and social-media users, but children's peer communication represents a distinct context because elementary school students are still developing their awareness of register and formal language conventions. The present findings therefore provide a small-scale description of how standard, colloquial, and digitally expressive forms coexist in children's written interaction.

The interpretation must nevertheless remain within the boundaries of the research design. The dataset consists of 17 linguistic forms from one WhatsApp group involving five participants. Consequently, the findings describe linguistic tendencies in the observed group rather than representing all elementary school students or establishing a causal relationship between WhatsApp use and language development. The study also does not provide evidence that WhatsApp itself causes language deterioration. Instead, it demonstrates how the affordances of informal digital interaction provide an environment in which non-standard and expressive forms can occur.

Overall, the findings demonstrate linguistic flexibility rather than a simple pattern of language deficiency. Orthographic forms are the most frequent, while phonological and syntactic forms occur at comparable levels, and morphological forms are represented by fewer data points. More importantly, the qualitative analysis shows that the forms serve different functions: some reflect colloquial pronunciation, some involve informal word formation, some arise from contextual sentence construction, and others reflect either deviations from orthographic conventions or expressive digital practices. The results therefore support an interpretation of children's WhatsApp language as a dynamic interaction between linguistic norms, informal variation, and digital communicative practices.

In practical terms, the findings support the integration of digital communication examples into Indonesian language instruction. Teachers can use authentic but anonymized messages to teach students how the same communicative intention can be expressed differently depending on context. Such an approach allows students to retain their ability to communicate naturally with peers while simultaneously developing control over standard Indonesian for academic and formal purposes.

The principal contribution of the study lies in demonstrating that analysis of children's WhatsApp language requires more than identifying non-standard forms. A meaningful linguistic analysis must consider the linguistic level of each form, its communicative function, and the context in which it occurs. By maintaining the distinction between language error and language variation, the study provides a more balanced account of children's digital writing and avoids interpreting every informal expression as evidence of declining language competence.

Conclusion

This study identified 17 instances of language deviation in the WhatsApp conversations of elementary school students, which were classified into four linguistic categories: phonological, morphological, syntactic, and orthographic forms. The findings indicate that the students' digital writing combines standard Indonesian with colloquial, pronunciation-influenced, abbreviated, and expressive forms. The distribution of the data provides a quantitative basis for identifying the most frequently occurring category. Orthographic forms constituted the largest category, with 5 of 17 data points (29.4%), while phonological, morphological, and syntactic forms each accounted for 4 data points (23.5%).

The phonological category consisted of four data points involving written forms influenced by colloquial pronunciation, namely *udah*, *aja*, *capek*, and *maen*. Because the data were obtained from written WhatsApp messages rather than recordings of spoken interaction, these forms are more appropriately interpreted as pronunciation-influenced written representations rather than direct evidence of phonological errors in speech. The findings therefore demonstrate the transfer of spoken-language characteristics into digital writing.

The morphological category also comprised four data points (23.5%). The relevant forms, particularly *nunggu* and *ngerjain*, demonstrated the use of colloquial word-formation patterns through the reduction or alteration of standard affixes. These findings indicate that the students employed informal morphological constructions that are commonly understandable in peer communication but differ from the forms expected in formal Indonesian writing.

The syntactic category contained four data points (23.5%) and was characterized by omitted prepositions, less effective word order, and conversational sentence constructions. Although these forms deviate from formal written conventions, their intended meanings remained understandable because the participants relied heavily on shared contextual knowledge. Thus, the findings suggest that the students' WhatsApp communication permits greater structural flexibility than formal written communication.

The orthographic category was the most frequent, comprising five data points (29.4%). The findings included capitalization errors, inappropriate representation of proper names, excessive letter repetition, non-standard abbreviations, and incorrect word separation. Among these forms, *dimana* instead of *di mana* represents a clear deviation from standard orthographic conventions, whereas forms such as *iyaaaaa* and *gk* also serve expressive and efficiency-oriented functions in digital interaction. The higher frequency of orthographic forms provides the basis for concluding that orthography was the dominant category in the observed data.

Overall, the findings answer the research objective by demonstrating that language deviations in the students' WhatsApp communication occur across multiple linguistic levels rather than being restricted to a single aspect of language. The results also show that these forms should be interpreted in relation to communicative context. Not all non-standard forms necessarily indicate inadequate language competence; some function as colloquial, expressive, or efficiency-oriented strategies in peer interaction. Nevertheless, the distinction between informal digital communication and formal written Indonesian remains important, particularly for elementary school students who are developing their ability to adjust language use according to communicative context.

Therefore, the findings suggest that Indonesian language instruction should not merely eliminate informal digital forms but should strengthen students' awareness of contextual language use. Teachers can utilize anonymized examples of WhatsApp messages to help students identify differences between informal digital expressions and standard Indonesian forms. Such an approach can support students in developing the ability to communicate appropriately across both digital and formal academic contexts.

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