Arifin, M.N., Hariyanto, E., Kurniadi, D. & Arvianti, I. | English Learning Innovation (englie), Vol. 5 Issue 1, 2024, 26-37

Analyzing grammar errors among Hellotalk users and proposing effective correction strategies

Muhammad Nur Arifin[1*], Eko Heriyanto[2], Didit Kurniadi[3], Indah Arvianti[4]
[1]Language and Culture Faculty, AKI University, Semarang, Indonesia; email: 77m.nurarifin@gmail.com
[2]Language and Culture Faculty, AKI University, Semarang, Indonesia; email: eko.heriyanto@unaki.ac.id
[3]Language and Culture Faculty, AKI University, Semarang, Indonesia; email: didit.kurniadi@unaki.ac.id
[4]Language and Culture Faculty, AKI University, Semarang, Indonesia; email: indah.arvianti@unaki.ac.id

ABSTRACT

HelloTalk is a popular social media platform where users from diverse linguistic backgrounds converge to communicate and improve their second language (L2) skills. This study focuses on grammatical errors made by users on the HelloTalk app during English interactions. Employing the observation method. Employing a qualitative approach, the study conducted a comprehensive analysis of 357 instances across 280 posts, showcasing a nuanced understanding of the challenges faced by users in their language learning journey. The identified strategies for addressing these errors encompasses several ways such as providing corrective feedback (CF), categorizing errors, utilizing language learning apps for English, and implementing a systematic approach to monitoring and tracking progress. The study's findings provided valuable insights for educators, language learners, and app developers, offering a basis for targeted interventions. Additionally, future research may explore integrating emerging technologies like artificial intelligence and natural language processing to enhance error correction efficiency and personalized feedback on language learning platforms.

Keywords: *hellotalk*; grammar; errors; correction; strategies

*Corresponding Author:
77m.nurasrifin@gmail.com
Article history:
Received: January 04, 2023
Revised: January 13, 2023
Accepted: January 16, 2023
Published: January 18, 2023

Citation: Arifin, M. N., Heriyanto, E., Kurniadi, D., & Arvianti, I. (2024). Analyzing grammar errors among Hellotalk users and proposing effective correction strategies. English Learning Innovation, 5(1), 26–37. https://doi.org/10.22219/englie.v5i1.31569

P-ISSN 2723-7400
E-ISSN 2723-7419

INTRODUCTION

In the dynamic landscape of language learning, social media has emerged as a powerful platform, fostering interactions and content creation (Davis, 2016). Among the myriad of social media applications, *HelloTalk* stands out as a unique space where users from diverse linguistic backgrounds converge to communicate and improve their second language (L2) skills. Technology's role in second language (L2) learning beyond the classroom has become increasingly significant (Reinders & Stockwell, 2017). Despite its ubiquity, research on the effectiveness of technology in facilitating L2 acquisition has lagged behind the rapid evolution of technology itself (Burston, 2015; Chwo et al., 2018). In the context of writing, which is considered one of the most ch allenging language skills (Richards & Renandya, 2002), technology presents both opportunities and challenges.

Writing, a multifaceted cognitive activity, demands not only the conveyance of ideas but also the meticulous organization of thoughts, grammatical precision, and creative expression (Imeldi, 2001). The writing process involves stages such as organizing, formulating, and developing ideas, requiring a combination of skills, including vocabulary selection, grammar proficiency, and creative thinking. Overcoming obstacles in this process, particularly the challenge of transferring ideas into words, is crucial for effective communication (Silva, 1993).

The debate on the efficacy of written correction in second language writing has persisted for decades, with two contrasting viewpoints. Some argue that correction of errors can

significantly enhance both short-term drafts and long-term writing abilities (Bitchener, 2008; Bitchener & Knoch, 2008; Chandler, 2009; Ellis et al., 2008; Ferris, 2010), while others, such as Truscott (2009), maintains a skeptical stance. This ongoing discourse underscores the complexity of second language writing and its role in communicative competence (Ferris, 2010). This study focuses on grammatical errors made by *HelloTalk* users during English interactions. The choice of *HelloTalk* as a data source stems from its unique nature, allowing users to engage in cross-cultural language exchanges. The examination of grammatical errors on this platform provides valuable insights into the challenges faced by individuals communicating in a language that is not their native tongue.

Several previous researchers have delved into the examination of grammatical errors, with Faiza et al. (2020) being among the pioneers. Their study focused on analyzing grammatical errors within "K-pop Tweets," revealing five distinct types of errors. The primary findings indicated that omission errors constituted the highest percentage at 78%, followed by tense errors at 48%, subject-verb agreement errors at 40%, part of speech errors at 32%, and yes/no question errors at 16%. Notably, omission errors emerged as the most prevalent, comprising 78% of the identified grammatical errors. Beyond academic settings, Yuliah et al. (2020), as well as Sihotang et al. (2021), explored grammatical errors in social media captions, specifically on Instagram. These studies identified weaknesses in caption writing, highlighting a broader need for investigating such errors in various online contexts. This prompted the interest of researchers in exploring Instagram caption errors among individuals in West Kalimantan.

Interestingly, this research introduces a distinctive element by examining grammatical errors on the *HelloTalk* app, diverging from the previously explored platforms such as Twitter or Instagram. This nuanced approach enriches the understanding of how grammatical errors manifest across different online platforms, shedding light on the unique linguistic challenges faced by users of the *HelloTalk* app. In particular, *HelloTalk* provides a unique setting for scrutinizing errors within spontaneous, cross-cultural communication. Acknowledging the significance of error identification, our study goes a step further by introducing practical approaches. These approaches are not mere theoretical suggestions; instead, they are tangible tools extracted from a real-time analysis of user interactions on *HelloTalk*. By understanding the underlying causes of errors and proactively addressing the students' error in the certain EFL setting, this research aims to contribute not only to theoretical discourse but also to the practical application of effective language learning strategies in real-world scenarios.

METHODS

Data Collection Technique

In the methodology employed for this study, the observation method is utilized to gather data, with a specific emphasis on language usage, as outlined by Sudaryanto (2015). The primary data source is interactions on the *HelloTalk* platform. Adopting a non-participant role aligns with Sudaryanto's (2015) definition of the non-participant technique, where the researcher serves solely as a data collector without actively engaging in the observed phenomena on the platform.

The researchers employed qualitative approaches, opting for qualitative research due to its alignment with the nature of the collected data. According to Milles and Huberman (2014), the data gathered through qualitative research are expressed in verbal, non-numerical terms rather than nominal forms. Consequently, the data in this investigation consist of words extracted from posts on the *HelloTalk* platform from October 6th to December 5th, 2023. The qualitative research methods encompassed interviews, observations, document analysis, and investigative techniques for data collection. The study's findings are then conveyed in a descriptive format. Simple calculations are employed to determine the frequency and percentage of errors, following the steps suggested by Ellis and Barkhuizen (2005). These steps encompass data collection, error

identification, classification, explanation, and evaluation. The final stage involves presenting practical strategies to address grammatical errors in language use.

Data Analysis Technique

The analysis of grammatical errors draws upon the theoretical framework proposed by Dulay et al. (1983), as discussed by Rusmiati (2019). These scholars categorize errors within the surface strategy taxonomy into four types: addition, omission, mis-formation, and mis-ordering. Addition errors involve the inclusion of words or items that are not appropriate in a given sentence. Conversely, omission errors occur when necessary words or items are missing from a sentence. The third type, mis-formation, pertains to errors in morpheme or structural composition during sentence construction. Lastly, mis-ordering errors involve the incorrect placement of morphemes within a sentence.

RESULTS AND DISCUSSION

In this comprehensive study, the researcher delved into the intricacies of learners' post errors, meticulously examining the data to discern prevalent patterns. A staggering total of 357 errors were identified, with two predominant categories surfacing—omission and addition.

The most frequent error, observed a remarkable 357 times, was omission, revealing its prevalence in learners' posts. Following closely behind was the second most common error, addition, occurring 64 times. The meticulous analysis of the data unearthed a spectrum of errors made by users on the *HelloTalk* app in their posts, totaling 357 instances across 280 posts. The breakdown of error types included 265 instances of omission, 64 instances of word order errors, 10 instances of mis-information, and 18 instances of mis-ordering. Notably, the data highlighted that omission stood out as the most prevalent error, while users demonstrated a relatively lower frequency of mis-formation errors. In presenting the findings in a succinct manner, the researcher compiled a recapitulation of users' errors in a comprehensive Table 1. The meticulous breakdown illustrated the distribution of error types and their corresponding frequencies.

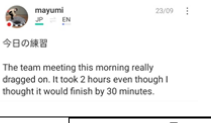
Table 1. Errors findings

Omission	Addition	Mis-information	Mis-ordering
265	64	10	18
74%	18%	3%	5%

Upon closer examination of the data in Table 1, the researcher identified omission as the foremost prevalent error in users' posts, constituting a staggering 74% of the total errors. Addition, manifesting in the form of filler words, trailed behind with an 18% prevalence. Mis-formation errors accounted for 3%, while mis-ordering errors constituted 5% of the identified errors.

It is noteworthy that the data did not reveal instances of unknown words in users' posts, emphasizing a distinct focus on the more prevalent error types. This comprehensive analysis not only sheds light on the types of errors but also underscores the significance of addressing and rectifying the prominent challenges in learners' translation efforts. To elucidate and exemplify these findings, the researcher thoughtfully provided specific instances of errors. A thorough analysis is outlined as follows:

Table 2. Omission example

No.	Evidance	Source Text	Error
36		The team meeting this morning really dragged on. It took 2 hours even though I thought it would finish by 30 minutes.	The team meeting this morning really dragged on. It took 2 hours even though I thought it would finish **by** 30 minutes.

Types of Error				Correction
Omission	Addition	Mis-formation	Mis-ordering	
✔				The team meeting this morning really dragged on. It took 2 hours even though I thought it would finish **in** 30 minutes.

Table 2 provides an illustrative example of omission, wherein omission refers to the absence of a necessary item in a sentence. For instance, in the sentence "It took 2 hours even though I thought it would finish 'by' 30 minutes," an error is evident due to the incorrect preposition used. The accurate choice should be "in" instead of "by."

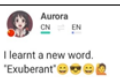
Table 3. Addition example

No.	Evidance	Source Text	Error
12		I went to camping with my family this weekend. My husband's friend camping car was big. The sea smells was good.	I went **to** camping with my family this weekend. My husband's friend camping car was big. The sea **smells** was good.

Types of Error				Correction
Omission	Addition	Mis-formation	Mis-ordering	
	✔			I went camping with my family this weekend. My husband's friend camping car was big. The sea **smell** was good.

Meanwhile, Table 3 serves as an illustrative showcase of addition errors, marked by the inclusion of elements that shouldn't be present in a properly structured sentence. For example, in the sentence "I went 'to' camping with my family this weekend. My husband's friend camping car was big. The sea 'smells' was good," errors become apparent due to these additions. The term "to" should be omitted, and the word "smells" requires correction to "smell" without the additional "s."

Table 4. Mis-formation example

No.	Evidance	Source Text	Error
250		I learnt a new word. "Exuberant"	I **learnt** a new word. "Exuberant"

Types of Error				Correction
Omission	Addition	Mis-formation	Mis-ordering	
		✔		I **learned** a new word. "Exuberant"

Table 4 serves as an illustrative display of mis-formation errors, identified by the utilization of an incorrect form of structure. These errors arise when the learner supplies something that is inaccurate. For instance, in the sentence "I 'learnt' a new word, 'Exuberant'," the mis-formation becomes evident. The term "learnt" should be corrected to "learned," reflecting the accurate past form of the word "learn."

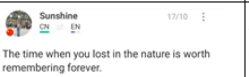
Table 5. Mis-ordering example

No.	Evidance	Source Text	Error
100	 Guess this is where	Guess this is where	Guess **this is where**

Types of Error				Correction
Omission	Addition	Mis-formation	Mis-ordering	
			✔	Guess **where this is?**

Analyzing the next errors, Table 5 functions as an illustrative exhibit of mis-ordering errors, marked by the inaccurate placement of a morpheme or group of morphemes within an utterance. In essence, mis-ordering errors occur when the learner incorrectly positions a grammatical morpheme or group of morphemes in sentence formulation. For example, in the sentence "Guess this is where," the mis-ordering error is apparent. The correct sentence order should be "Guess where this is?"

Table 6. Double errors example

No.	Evidance	Source Text	Error
276	 The time when you lost in the nature is worth remembering forever.	The time when you lost in the nature is worth remembering forever.	The time when you **(are)** lost in **the** nature is worth remembering forever.

Types of Error				Correction
Omission	Addition	Mis-formation	Mis-ordering	
✔	✔			The time when you **are** lost in nature is worth remembering forever.

Table 6 serves as an illustrative display of errors encompassing both omission and addition within a sentence. Take, for instance, the sentence "The time when you lost in 'the' nature is worth remembering forever." In this case, the errors of addition ("the") and omission ("are" before "lost") are evident. The corrected sentence should read, "The time when you are lost in nature is worth remembering forever," rectifying both the omission and addition errors.

EFFECTIVE CORRECTION STRATEGIES

Presented below are various approaches and strategies aimed at enhancing the learning process when it comes to errors in acquiring proficiency in the English language:

1. Providing corrective feedback (CF)

Effective strategies for learning English involve addressing linguistic errors that learners may inadvertently make during the language acquisition process. These errors can manifest in various forms, including lexical, phonological, and syntactic mistakes (Edge, 1989; Hendrickson, 1978). Recognizing the inevitability of such errors, it becomes crucial to implement corrective feedback (CF) as a valuable tool for learners (Loewen, 2012; Sheen, 2007).

Corrective feedback serves as informative input to learners, pinpointing linguistic blunders and guiding them towards improvement (Lee, 2019a). By providing feedback, whether through teachers, peers, computers, or self-assessment (Graham, 2018; Hattie & Timperley, 2007), learners gain insight into their mistakes and acquire the necessary knowledge to avoid repeating them in the future.

In the realm of writing, the feedback process involves a thoughtful analysis by teachers or peers. They not only highlight well-written aspects of the learner's text but also offer constructive guidance tailored to individual needs and learning goals (Graham, 2018). This personalized approach ensures that the feedback is not only corrective but also instructive, fostering a deeper understanding of the language.

Contrary to mere error identification, the overarching goal of corrective feedback is to enhance learners' language skills, fostering autonomy in self-editing (Ferris & Hedgcock, 2013). This process contributes not only to language proficiency but also to the development of confidence in expressing oneself effectively (Lee, 2019a). Ultimately, by engaging with corrective feedback, learners are encouraged to explore different ways of language expression, kindling a curiosity about the intricacies of the language and its usage (Lee, 2019a).

The incorporation of corrective feedback into the language learning process is instrumental in helping learners navigate linguistic challenges. Whether provided by teachers, peers, or through self-assessment, this approach not only corrects errors but also empowers learners to become adept, autonomous users of the English language (Ferris & Hedgcock, 2013; Graham, 2018).

Within the context of corrective feedback (CF) in language learning, the focus extends beyond mere error identification, encompassing elements such as the text's form, sentence structures, and word choices. The overarching objective is to refine learners' accuracy and, to some extent, cultivate their distinctive writing style (Bitchener & Ferris, 2012; Ferris, 2003; Ferris & Hedgcock, 2013).

To better understand the nuances of CF, it is essential to delve into the two primary distinctions: comprehensive and focused Corrective Feedback. Comprehensive (unfocused) feedback involves correcting all errors within a text, a practice advocated by some who argue that such detailed feedback is necessary for learners to grasp the correctness of their writing (Ellis et al., 2008). On the other hand, focused (selective) CF targets a specific range of error types within a learner's text, offering a more limited yet targeted approach (Ellis et al., 2008; Lee, 2019b). Advocates of the focused approach contend that it allows learners to concentrate on addressing their more critical writing issues without overwhelming both them and their teachers (Ferris, 2003). Notably, these two approaches are not mutually exclusive and can be integrated within a writing course for a comprehensive approach.

Delving further into the spectrum of corrective feedback, Tedick and Gortari (1998) identified six types of error correction in their study: explicit correction, recast, clarification requests, metalinguistic clues, elicitation, and repetition. In the oral context, Sheen (2011) classified CF techniques into two groups: delivery of the right form and elicitation of the correct form (Table 7).

Table 7. Types of oral corrective feedback strategies
(Based on Sheen, 2011; cited in Mendez & del Rosario Reyes, 2012)

Correct form is provided	Correct form is elicited
Recast	Repetition
Explicit correction	Elicitation
Explicit correction with metalinguistic explanation	Metalinguistic cue
	Clarification request

2. Categorizing errors

In the realm of language learning, errors constitute a substantial component of the English output by language learners. These errors, varying in significance, provide valuable insights into the language acquisition process. While some align with what one might expect from a native language learner (L1), others exhibit a distinct nature not typical of L1 errors. Acknowledging the importance of errors, they not only offer corrective feedback for learners but also serve as windows into the intricate processes governing second language acquisition. The knowledge derived from understanding these errors can be applied to enhance language instruction in the classroom.

Learners can employ four types of classifications to gain valuable insights into their progress in learning the English language. One classification method is based on the type of linguistic item involved in the error, encompassing phonology/pronunciation, syntax and morphology/grammar, semantics and lexicon/meaning, and vocabulary. This classification aids curriculum developers in organizing language learning coursebooks

and provides researchers with a means to structure their findings (Politzer & Ramirez, 1973).

Another categorization approach considers how the surface structure of a sentence or expression is altered by the error. This includes omissions, additions like regularizations and double markings, misinformation errors subcategorized into regularization errors, archi-forms, and mis-ordering errors. Burt and Kiparsky (1972) exemplify this type of classification.

A third classification centers around the communicative impact of errors on the listener or reader. Burt and Kiparsky (1972) introduced a communicative classification, distinguishing between global errors, which significantly affect overall sentence organization and communication, and local errors, which only mildly impede communication.

Therefore, a comparative classification method involves comparing L2 (target language) learner errors with other types of errors. The most common comparisons are made with errors by children learning their native language and equivalent phrases or sentences in the learner's mother tongue. This comparison yields two primary categories of errors – developmental and interlingual errors, with additional, albeit minor, categories such as ambiguous and other errors. This comprehensive approach to error classification provides a nuanced understanding of learners' language development and facilitates targeted language instruction.

3. Utilizing language learning apps for English

The advent of mobile learning has revolutionized education, bridging the gap between virtual environments and the real world (Traxler & Koole, 2014). In this era, learning communities thrive among individuals on the move, making mobile learning a cornerstone of lifelong and in-service learning (Sharples et al., 2009). The dynamic interaction opportunities facilitated by mobile devices extend education beyond the traditional classroom setting, influencing socio-cultural and cognitive aspects of learning (Pachler, 2009). As learners on the move seek new knowledge and experiences, studies delve into how mobile learning impacts skill acquisition (Sharples et al., 2009).

However, the rapid evolution of mobile technologies brings challenges. Learners grapple with adapting to new device characteristics, and researchers face hurdles conducting longitudinal studies (Pachler, 2009). Furthermore, individuals with mobile devices desire to integrate them into learning settings for personal needs, complicating researchers' control over variables.

Examining the effectiveness of language learning apps, research explores both linguistic and nonlinguistic (Burston, 2015; Rosell-Aguilar, 2018; Smith, 2017). Studies on L2 development yield mixed results, with some noncommercial and commercial apps demonstrating positive outcomes for grammar and vocabulary knowledge (Castañeda & Cho, 2016; Loewen et al., 2019; Vesselinov, 2009). Commercial apps like Rosetta Stone, Duolingo, Babbel, and Busuu tout positive language learning outcomes, emphasizing the receptive knowledge of written L2 vocabulary and grammar.

Various apps claim to enhance speaking skills, with marketing slogans suggesting realistic language proficiency outcomes (www.babbel.com; www.voxy.com; www.busuu.com; www.rosettastone.com). However, learner expectations often lean towards vocabulary, grammar, and receptive language skills improvement (García Botero et al., 2019; Rosell-Aguilar, 2018; Steel, 2012).

Notably, the *HelloTalk* App emerges as a comprehensive tool for learning English across all aspects. According to *HelloTalk* News (2018), it indicates that English is as the most popular language, the app boasts a community of over 12 million users, predominantly aged 18-25. This demographic suggests a significant user base of learners and early career professionals.

While critical commentaries and research studies provide valuable insights, it's crucial to acknowledge that empirical evidence often stems from small-scale, descriptive studies with limited generalizability. Additionally, some SLA theories recognize the facilitative

role of explicit knowledge, challenging skepticism regarding apps' effectiveness in developing communicative abilities (Andringa & Curcic, 2015; DeKeyser, 2015; Gooch et al., 2016; McManus & Marsden, 2018; Saito & Saito, 2017). Despite doubts, discrete grammar and vocabulary instruction in apps may positively impact the development of productive language skills, drawing on implicit language knowledge.

4. Monitoring and tracking progress

In the pursuit of language proficiency, continuous progress monitoring is essential for learners, both in online and offline contexts (Bagunaid et al., 2022). Meanwhile, Murphy (2015) advocates for tailored language objectives, recognizing the diverse needs of individual learners across four language strands. To illustrate, language objectives can focus on:

- Listening: Distinguishing between /ch/ and /sh/; mastering the recognition of plurals.
- Speaking: Demonstrating subject/verb agreement in conversations; articulating and explaining ideas effectively.
- Reading: Proficiently sequencing words; discerning the distinctions between narrative and non-narrative text.
- Writing: Crafting comparisons using connectives; employing sequencing words to enhance written expression.

To facilitate progress tracking, learners can employ language goals and checklists aligned with these objectives. Murphy (2015) provides a concrete example of a language goal, presenting specific points that learners can use as benchmarks for their advancement, as depicted in Table 8. This structured approach empowers learners to systematically evaluate their language skills, fostering a sense of accountability and facilitating targeted improvement.

Table 8. Examples of language goal with some contents (Based on Murphy, 2015)

Month	Literacy Unit	Listening Goal	Speaking Goal	Reading Goal	Writing Goal
September	Creating a focus for reading	Following oral and written directions	Describing a particular activity, book, or memory	Reading and responding to the setting of a story	Creating a personal story using newly learned vocabulary
October	Studying fictional characters	Recognizing point of view when listening to a story	Discussing the traits of a favorite character	Identifying and using basic reading strategies that make text comprehensible	Writing about actions, choices, and decisions in social and academic situations
November	Building comprehension	Making predictions based on text presented orally	Discussing opinions through collaborative activities	Reading and discussing literature of different genres	Applying writing strategies to evaluate a variety of materials
December	Reading with fluency	Listening to and discussing information from various sources	Using appropriate vocabulary, expressions, and language for various audiences	Recognizing how structural features affect readers' understanding of text	Using the process of prewriting, drafting, rewriting, and proofreading to compose written pieces
January	Nonfiction reading strategies	Listening to understand content vocabulary and colloquial references	Discussing the traits of a favorite character	Asking questions to obtain, clarify, and extend information and meaning	Composing personal responses to published writing and the work of their peers, referring to details and text features

CONCLUSION

In summary, the examination of *HelloTalk* user posts has revealed significant insights into prevalent grammar errors and effective correction strategies. Omission emerged as the most pervasive error, constituting a substantial 74% of total errors, emphasizing the need for targeted interventions. The comprehensive analysis, encompassing 357 instances across 280 posts, showcased a nuanced understanding of the challenges faced by users in their language learning journey.

The identified strategies for addressing these errors encompass providing corrective feedback (CF), categorizing errors, utilizing language learning apps for English, and implementing a systematic approach to monitoring and tracking progress. These strategies are designed to not only rectify specific errors but also foster a more structured and effective learning process.

By implementing these effective correction strategies, language learners can enhance their grammatical accuracy, leading to improved language proficiency. The findings of this study contribute valuable insights to educators, language learners, and app developers alike, providing a foundation for the development of targeted interventions to address the identified challenges. Ultimately, this research underscores the importance of tailored and proactive approaches in supporting language learners on platforms like *HelloTalk*, paving the way for more effective language acquisition and communication. In conclusion, while this study lays a solid foundation for targeted interventions on *HelloTalk*, ongoing exploration into the longitudinal effects of correction strategies, the impact of cultural factors, and the integration of emerging technologies will contribute to a more comprehensive understanding of effective language learning in digital environments.

Moreover, given the dynamic nature of language and communication technologies, future research could delve into the adaptation and integration of emerging technologies, such as artificial intelligence or natural language processing, to enhance the efficiency of error correction and personalized feedback on language learning platforms. Assessing the feasibility and effectiveness of incorporating these technologies into HelloTalk or similar platforms may open new avenues for innovative and scalable language learning solutions.

CONFLICS OF INTEREST

The authors declare that there is no conflict of interest regarding the publication of this paper.

AUTHOR CONTRIBUTIONS

Arifin, M.N..: Conceptualization (lead), methodology (lead), writing – original draft (lead), review (supporting), editing (supporting), securing funding. Hariyanto, E.: methodology (supporting), writing – original draft (supporting). Kurniadi, D.: review (lead). Arvianti, I.: review (lead)

REFERENCES

Andringa, S., & Curcic, M. (2015). How explicit knowledge affects online L2 processing: Evidence from differential object marking acquisition. *Studies in Second Language Acquisition*, *37*, 237–268. https://www.jstor.org/stable/26330676

Bagunaid, W., Chilamkurti, N., & Veeraraghavan, P. (2022). AISAR: Artificial Intelligence-Based Student Assessment and Recommendation System for E-Learning in Big Data. *Sustainability (Switzerland)*, *14*(17), 1–22. https://doi.org/10.3390/su141710551

Bitchener, J. (2008). Evidence in support of corrective feedback. *Journal of Second Language Writing*, *17*, 102–118. https://doi.org/10.1016/j.jslw.2007.11.004

Bitchener, J., & Ferris, D. (2012). *Written corrective feedback in second language acquisition and writing*. Routledge.

Bitchener, J., & Knoch, U. (2008). The value of written corrective feedback for migrant and international students. *Language Teaching Research*, *12*, 409–431. https://doi.org/10.1177/1362168808089924

Burston, J. (2015). Twenty years of MALL project implementation: A meta-analysis of learning outcomes. *ReCALL*, *27*(1), 4–20. https://doi.org/10.1017/S0958344014000159

Burt, M., & Kiparsky, C. (1972). *The gooficon: A repair manual for English*. Newberry House.

Castañeda, D. A., & Cho, M.-H. (2016). Use of a game-like application on a mobile device to improve accuracy in conjugating Spanish verbs. *Computer Assisted Language Learning*, *29*(7), 1195–1204. https://doi.org/10.1080/09588221.2016.1197950

Chandler, J. (2009). Response to Truscott. *Journal of Second Language Writing*, *18*, 57–58. https://doi.org/10.1016/j.jslw.2008.09.002

Chwo, S. M. G., Marek, M. W., & Wu, W.-C. V. (2018). Meta-analysis of MALL research and design. *System*, *74*, 62–72. https://doi.org/10.1016/j.system.2018.02.009

Davis, J. (2016). Social media. *The International Encyclopedia of Political Communication*. https://doi.org/10.1002/9781118541555.wbiepc004

DeKeyser, R. M. (2015). Skill acquisition theory. In *Theories in second language acquisition: An introduction*. Routledge.

Dulay, H., Burt, M., & Krashen, S. (1983). *Language two*. Oxford University Press.

Edge, J. (1989). *Mistakes and correction*. Longman.

Ellis, R., & Barkhuizen, G. (2005). *Analysing learner language*. Oxford University Press.

Ellis, R., Sheen, Y., Murakami, M., & Takashima, T. (2008). The effects of focused and unfocused written corrective feedback in an English as a foreign language context. *System*, *36*, 353–371. https://doi.org/10.1016/j.system.2008.02.001

Faiza, D., Bestari, A. C. Y., & Mayekti, M. H. (2020). An analysis of grammatical errors in Kpop tweets. *Jurnal Sinestesia*, *10*(1), 32–40. https://doi.org/10.36232/jurnalsinestesia.v10i1.443

Ferris, D. (2003). *Response to student writing: Implications for second language students*. Routledge.

Ferris, D. (2010). Second language writing research and written corrective feedback in SLA intersections and practical applications. *Studies in Second Language Acquisition*, *32*, 181–201.

Ferris, D., & Hedgcock, J. (2013). *Teaching L2 composition: Purpose, process, and practice*. Routledge.

García Botero, G., Questier, F., & Zhu, C. (2019). Self-directed language learning in a mobile-assisted, out-of-class context: Do students walk the talk? *Computer Assisted Language Learning*, *32*(1–2), 71–97. https://doi.org/10.1080/09588221.2018.1485707

Gooch, R., Saito, K., & Lyster, R. (2016). Effects of recasts and prompts on L2 pronunciation development: Teaching English /ɹ/ to Korean adult EFL learners. *System*, *60*, 117–127. https://doi.org/10.1016/j.system.2016.06.007

Graham, S. (2018). Instructional feedback in writing. In *The Cambridge Handbook of Instructional Feedback*. Cambridge University Press.

Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, *77*(1), 81–112. https://doi.org/10.3102/003465430298487

HelloTalk News. (2018). *Who is on HelloTalk? Get the Data!* https://www.hellotalk.com/blog/hellotalk-user-report/

Hendrickson, J. (1978). Error correction in foreign language teaching: Recent research and practice. *Modern Language Journal*, *62*(8), 387–398. https://doi.org/10.2307/326176

Imeldi, M. (2001). *Facilitating the first semester of English Department students in writing activity*. Universitas Negeri Makassar.

Lee, I. (2019a). Teacher written corrective feedback: Less is more. *Language Teaching*, *52*(4), 524–536. https://doi.org/10.1017/S0261444819000247

Lee, I. (2019b). Teachers' frequently asked questions about focused written corrective feedback. *TESOL Journal*, *10*(3), e00427. https://doi.org/10.1002/tesj.427

Loewen, S. (2012). The role of feedback. In *The Routledge Handbook of Second Language Acquisition*. Wiley Blackwell.

Loewen, S., Crowther, D., Isbell, D. R., Kim, K. M., Maloney, J., Miller, Z. F., & Rawal, H. (2019). Mobile-assisted language learning: A Duolingo case study. *ReCALL*, *31*(3), 293–311. https://doi.org/10.1017/S0958344019000065

McManus, K., & Marsden, E. (2018). Online and offline effects of L1 practice in L2 grammar

learning: A partial replication. *Studies in Second Language Acquisition*, *40*(2), 459–475. https://doi.org/10.1017/S0272263117000171

Milles, M. B., & Huberman, A. M. (2014). Qualitative Data Analysis. In *CEUR Workshop Proceedings* (2nd ed.). Sage Publications, Inc.

Murphy, A. F. (2015). Tracking the progress of English language learners. *Phi Delta Kappan*, *91*(3), 25–31. https://doi.org/10.1177/003172170909100306

Pachler, N. (2009). Research methods in mobile and informal learning: Some issues. In G. Vavoula, N. Pachler, & A. Kukulska-Hulme (Eds.), *Researching Mobile Learning: Frameworks, Tools and Research Designs* (pp. 1–15). Peter Lang Verlag. https://doi.org/10.3726/978-3-0353-0205-9

Politzer, R., & Ramirez, A. (1973). An error analysis of the spoken English of Mexican-American pupils in a bilingual school and in a monolingual school. *Language Learning*, *18*, 35–53.

Reinders, H., & Stockwell, G. (2017). Computer-assisted second language acquisition. In S. Loewen & M. Sato (Eds.), *The Routledge Handbook of Instructed Second Language Acquisition* (pp. 361–375). Routledge.

Richards, J. C., & Renandya, W. A. (2002). *Methodology in Language Teaching: An Anthology of Current Practice*. Cambridge University Press.

Rosell-Aguilar, F. (2018). Autonomous language learning through a mobile application: A user evaluation of the busuu app. *Computer Assisted Language Learning*, *31*(8), 854–881. https://doi.org/10.1080/09588221.2018.1456465

Rusmiati, R. (2019). Surface strategy taxonomy on foreign language writing: A study on verb tense usage. *Jurnal Serambi Ilmu*, *20*(2), 189–201. https://doi.org/10.32672/si.v20i2.1453

Saito, Y., & Saito, K. (2017). Differential effects of instruction on the development of second language comprehensibility, word stress, rhythm, and intonation: The case of inexperienced Japanese EFL learners. *Language Teaching Research*, *21*(5), 589–608.

Sharples, M., Arnedillo-Sánchez, I., Milrad, M., & Vavoula, G. (2009). Mobile learning. In N. Balacheff, S. Ludvigsen, T. Jong, S. Lazonder, & S. Barnes (Eds.), *Technology-Enhanced Learning* (pp. 233–249). Springer Netherlands. https://doi.org/10.1007/978-1-4020-9827-7_14

Sheen, Y. (2007). The effects of corrective feedback, language aptitude, and learner attitudes on the acquisition of English articles. In A. Mackey (Ed.), *Conversation Interaction in Second Language Acquisition: A Collection of Empirical Studies* (pp. 301–322). Oxford University Press.

Sheen, Y. (2011). *Corrective Feedback, Individual Differences and Second Language Learning*. Springer.

Sihotang, A. M., Sitanggang, F., Hasugian, N., & Yunanda, F. (2021). Grammatical Errors on Social Media. *Jurnal Indonesia Sosial Teknologi*, *2*(04), 561–567. https://doi.org/10.36418/jist.v2i4.135

Silva, T. (1993). Towards an understanding of the distinct nature of L2 writing: The ESL research and its implications. *TESOL Quarterly*, *27*(4), 657–677. https://doi.org/10.2307/3587400

Smith, B. (2017). Technology-Enhanced SLA Research. In C. A. Chapelle & S. Sauro (Eds.), *The Handbook of Technology and Second Language Teaching and Learning* (pp. 444–458). Wiley Blackwell. https://doi.org/10.1002/9781118914069

Steel, C. (2012). Fitting learning into life: Language students' perspectives on benefits of using mobile apps. *Ascilite 2012 Conference Proceedings*, 875–880.

Sudaryanto. (2015). *Metode dan Aneka Teknik Analisis Bahasa*. Sanata Dharma University Press.

Tedick, D., & Gortari, B. (1998). *Research on error correction and implications for classroom teaching*. http://www.carla.umn.edu/immersion/acie/vol1/May1998.pdf

Traxler, J., & Koole, M. (2014). The theory paper: What is the future of mobile learning? In I. A. Sánchez & P. Isaías (Eds.), *10th International Conference on Mobile Learning* (pp. 289–293). IADIS Press.

Truscott, J. (2009). Arguments and appearances: A response to chandler. *Journal of Second*

Language Writing, *18*, 59–60. https://doi.org/10.1016/j.jslw.2008.09.001

Vesselinov, R. (2009). *Measuring the Effectiveness of Rosetta Stone*. http://resources.rosettastone.com/CDN/us/pdfs/Measuring_the_Effectiveness_RS-5.pdf

Yuliah, S., Purnamasari, Y., & Yunita, E. (2020). Grammatical errors in social media captions. *International Journal of Language and Literature*, *8*(2), 17–20. https://doi.org/10.15640/ijll.v8n2a3