The Dual Role of Digital Shorthand: Exploring its Impact on Second-Language Learners' Writing Habits Across Informal and Formal Contexts

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Abstract

This paper addresses how shorthand writing practices standard in digital communication may impact second-language learners' ways of writing. It limits itself to linguistic features, semantics, and pragmatics in discussing how experience with shorthand influences learners' switching between informal and formal writing contexts. Based on Sociocultural Theory, this exploratory study has also used a qualitative approach by examining writing samples of L2 learners. The findings showed that shorthand writing contributes more speed and humour in informal writing. However, it also spills over into formal writing, which causes grammatical inaccuracy, less lexical variation, and an inability to switch tone and style. The participants realized these issues and underscored a need for explicit feedback and guidance to reduce the adverse impact. The present study emphasizes the dual function of shorthand: while it facilitates communication, it may well act as one of the barriers to formal language acquisition. These will enable learners to balance informal writing with formal communicative requirements through targeted pedagogical interventions, such as scaffolding and metacognitive strategies. This paper contributes to the literature on digital literacy and language learning by providing some realistic recommendations for educators, researchers, and policy-makers on addressing the emerging linguistic challenges posed by the digital era.

1.Introduction

The use of shorthand writing styles, such as *"u"* for *"you"* and *"plz"* for *"please,"* is very high in most social media and messaging platforms today. As many refer to as *"textese",* this linguistic simplification has reflected the need for brevity and speed in digital communication (Chusanachoti, 2019). While these varieties thus enjoy practical advantages, significant concerns also arise regarding their likely influence on L2 learners in the case of informal written situations such as text messages and comments. Unlike native speakers, however, the L2 learner is still acquiring linguistic structures; therefore, they are likely more susceptible to the influence of non-standard forms of language use (Karimi, 2016; Salimi & Valizadeh, 2015).

Shorthand writing rarely follows ordinary grammar, syntax, and vocabulary that form the basis of language mastery. Abbaspour et al. (2021) support the idea that this is so because some phrases, such as *"c u l8r"* or *"g2g,"* actually replace the regular grammatical structure with shorthand, an abbreviation of words takes away from the process of learning and putting in place formal grammars of writing. While some have argued that such exposure will increase communicative competence through the development of creativity and flexibility in expressing ideas, as Maulida et al. (2022) note, others indicate the possibility of error reinforcement and reduction in the ability to pick up standard linguistic conventions (Ferris, 2001; Wen, 2013).

This study investigates the subtle effects of shorthand writing on the writing habits of L2 learners concerning exposure to switching between non-formal and formal writing contexts. The research study considers the linguistic features that characterize syntax, semantics, and pragmatics as a way of contributing to a deeper understanding of how digital communication shapes language learning.

1.1 Background of the Study

The proliferation of digital communication platforms has transformed how people engage with languages. It has created a new paradigm in writing, featuring an informal, concise, and often

phonetic nature. This is massively presented in social media, instant messaging, and online forums. This has been most pronounced in the younger generation, which is most digital platform users (Hyland, 1990; Chusanachoti, 2019).

Double exposure does not come with unique challenges for the L2 learner, who, besides acquiring a second language, is equally exposed to some new cultural norms. It was indicated that shorthand writing decreases the cognitive load meant for writing; therefore, the information exchange process is quicker and more productive (Salimi & Valizadeh, 2015; Ranalli, 2021). On the other hand, the same idea of simplification can make students less intense in their practice regarding the target language's structural and grammatical rules (Karimi, 2016; Lantolf, 2000).

For instance, if some articles or auxiliary verbs are included in most shorthand writings, those will be fossilized errors, which could be more challenging to correct at higher stages of language acquisition. Equally important, digital communication's sociocultural dynamics critically shape L2 learners' writing (Vygotsky, 1978; Lantolf, 2000). According to sociocultural theory, learning is mediated by the tools and environments available to learners. As digital platforms constitute cultural tools, they afford opportunities and constrain language learning (Ferris, 2003; Wen, 2013). While they provide the opportunity for authentic language practice and interaction, helping to develop communicative competence, their informal nature now and then encourages using non-standard forms that go against formal language norms (Maulida et al., 2022). Some studies have mentioned a possible long-term effect of shorthand writing on L2 learners. Wen (2013) noticed that those exposed to digital shorthand usually find it hard to switch to formal academic or professional writing because informal practice is deeply ingrained in them. In the same way, Ferris (2001) claimed that learners who often use shorthand in digital contexts show less lexical diversity and a tendency to oversimplify complex ideas.

These findings suggest that although the evidence of practicality might exist in a strictly informal context, their implications for formal writing competencies need further review. This is partly because most studies have looked at the general influence of digital communication on language learning without necessarily giving subtle insights into syntax, semantics, and pragmatics. These insights are further confirmed in much of the existing literature, highlighting knowledge gaps regarding understanding specific linguistic features that might be influenced under shorthand exposure.

The significance of trying to address this lacuna provides the basis for elaborating on effective pedagogical strategies that could help, in critical ways, L2 learners surmount the challenges of digital communication without losing proficiency in formal writing.

1.2 Problem Statement

As already stated by Hyland (1990) and Salimi and Valizadeh (2015), the prevalence of different shorthand writing styles in digital communication creates a double-edged opportunity and challenge for language learners. While such a style advances the cause of efficiency in informal communication, it hampers the acquisition and exercise of standard linguistic conventions needed in formal writing. This problem investigates how exposure to shorthand writing influences the linguistic features of L2 learners in terms of syntax, semantics, and pragmatics while describing measures that might be strategically adopted to mitigate the possible adverse side effects while capitalizing on the advantages derived from informal writing practices.

1.3 Research Objectives

The study aims to:

1. Investigate the influence of shorthand writing on L2 learners' mastery of linguistic features, including syntax, semantics, and pragmatics.
2. Examine L2 learners' perceptions of how shorthand writing impacts their formal and informal writing abilities.
3. Identify pedagogical strategies to address the challenges posed by shorthand writing while enhancing learners' overall writing competence.

1.4 Research Questions

1. How does exposure to shorthand writing styles affect L2 learners' mastery of linguistic features such as syntax, semantics, and pragmatics?
2. What are the perceptions of L2 learners regarding the impact of shorthand writing on their formal and informal writing abilities?
3. How can educators mitigate the potential negative effects of shorthand writing on formal language learning while leveraging its benefits?

1.5 Significance of the Study

This is essential research for educators, researchers, and policymakers concerned with second-language acquisition. It aims to address the specific ways shorthand writing may condition L2 learners, thus providing insight into how this digitally communicated writing shapes the conditioning process. For educators, it will provide information used in designing instructional strategies that help respond to the challenges informal writing practices bring to learners while encouraging adaptability in identical learners. The research has filled the critical gap in the literature on informal digital communication and its intersection with formal language learning. Policymakers may use such insights to delineate guidelines for integrating digital literacy into language curricula so learners can adequately navigate informal and formal writing contexts. The study gradually brings about an exhaustive understanding of the emergent linguistic landscape within the digital era and its implications for L2 learners.

2. Literature Review

2.1 Introduction

The prevalence of shorthand writing styles, such as using *"u"* for *"you"* and *"plz"* for *"please,"* in digital communication brings significant linguistic shifts. While such adaptations can be convenient on informal levels, there are questions about their implications for the writing habits of second-language learners of English. Social media has started to act as an analogue communication medium, reducing the barriers between written and oral language and creating new obstacles and possibilities for L2 learners. Significant research findings enable more profound insight into this phenomenon's cognitive, pedagogical, and sociolinguistic dimensions.

2.2 Shorthand Writing within the Digital Era

Digital platforms have indeed opened a way for one to communicate with others using shorthand styles and steer speed. As Chusanachoti (2019) expresses, *"the integration of conventions from digital writing is also a question of evolving discourse conventions, not just style."* These evolving conventions, therefore, present both an opportunity and a challenge to L2 learners as they navigate informal conventions with requirements for formal writing standards in an academic or professional context.

According to Karimi (2016), shorthand writing is efficiency-driven, and this simplification of linguistic structures can lower cognitive demands; hence, it is especially appealing to L2 learners who struggle through the complexities of a new language. On the other hand, such habits could

inadvertently solidify non-standard forms and are expected to render learners less likely to internalize grammatical rules.

2.3 Cognitive Effects of Writing in Shorthand

These different cognitive effects of shorthand writing are closely related to the learner's linguistic development. Shorthand reduces the cognitive burden of writing, which is helpful in informal communications. On the other hand, it can contribute to an inability to go further into the target language because of an overdependence on simplified forms.

Salimi and Valizadeh (2015) state that efficiency and linguistic accuracy have an inverse relationship. Abbreviations and phonetic spellings come at the cost of structural sacrifice for speed, with probable consequences of fossilised errors. Ranalli (2021) shows that such risks can be minimized through feedback mechanisms; automated tools adjusted for shorthand influences may raise the learners' awareness of standard conventions while allowing them to retain their informal writing habits.

2.4 The Role of Context in L2 Writing Habits

Contextual factors play a significant role in shaping the L2 learners' writing practices. Informal settings-for example, text messaging and social media-frequently promote the use of shorthand, while formal contexts require learners to revert to standardized forms. In managing these competing demands, learners face one of the main challenges.

Abbaspour et al. (2021) indicate the sociocultural effects of these contextual changes. As they note, repeated exposure to informal writing diminishes the learners' appreciation of formal contexts. Additionally, as De Brito (2015) mentions, those who get used to this shorthand style will reveal reduced diversity and accuracy in lexical use when writing academically.

2.5 Pedagogical Perspectives on Shorthand Writing

Educators have adopted different methods of handling the impact of shorthand writing. Though some argue that with technological advancement, informal writing practices should be incorporated into teaching, others insist on a distinctive separation between formal and informal writing.

Hyland (1990) believes that pedagogically, shorthand writing can be encouraged among learners to discuss issues related to language registers. This aligns with the more expansive view of literacy, where informal conventions are not rejected but rather subjected to critical consideration. Ferris (2001) emphasises the need for corrective feedback. Teachers must model standard writing conventions to counterbalance the ever-growing presence of shorthand writing in the digital world.

2.6 Linguistic and Social Implications

The grammatical and lexical consequences of shorthand writing are not the only ones. It equally affects pragmatic competence, tone, and register. As Lantolf (2000) explains, the mediated nature of L2 learning amplifies the role of social tools, including digital platforms, in shaping the learners' behaviour. While shorthand writing may nurture a sense of community, it limits the possibilities for learners to express complex ideas in writing.

Maulida et al. (2022) also question the social dynamics in digital communication by indicating how shorthand acts as a facilitator that promotes inclusivity and as a potential barrier to linguistic precision. This will, therefore, underscore the requirement for balanced pedagogical strategies that respect the learners' social realities while reinforcing standard conventions.

2.7 Longitudinal Effects of Shorthand Exposure

Long-term exposure to shorthand writing has lasting implications for L2 learners. Studies have shown that extended use of simplified forms impedes progress in acquiring advanced writing skills. Wen (2013) observes that learners with heavy exposure to digital shorthand are reluctant to form habits for writing norms. This finding supports Ferris's (2003) statement that these shorthand habits are challenging to "unlearn" in the formative stages of language acquisition. These findings highlight how critical early intervention is to minimize the long-term impact of informal writing practices.

2.8 Research Gap

One of the critical research gaps is the determination of linguistic features, semantics, and pragmatics, which are most susceptible to shorthand writing exposure. This would form an important focus in understanding how shorthand digital writing influences the L2 learner in reaching and using language structures. Indeed, learners frequently exposed to the shorthand forms may need help to use some other important syntactic features like articles and auxiliary verbs, leading to grammatical inaccuracies in formal situations. Also, their semantic accuracy may be compromised because they will try to write brief rather than explicit. Pragmatically, the informal nature of the shorthand might affect learners in terms of the appropriateness of tone and style for particular contexts. The research into the gap highlights how digital shorthand restructures core linguistic competencies in L2 learners and informs strategies for balancing informal writing practices with the need for adherence to standard conventions.

2.9 Conclusion

This chapter synthesizes findings from a research study into the impacts of shortcut writing styles on the writing behaviours and practices of L2 learners. Digital communication has exceptional value for promoting learner engagement and efficiency; at the same time, it poses several challenges regarding learners' linguistic development and adaptability. This review has laid a comprehensive groundwork from the cognitive, contextual, and pedagogical perspectives on addressing this issue in research and practice.

3.1 Theoretical Framework

3.1.1 Introduction

The theoretical framework draws a basis for understanding shorthand writing in its work on influencing L2 learners. This paper adopts a sociocultural perspective, finding out how shorthand writing on electronic media mediates language acquisition or changes in learners' writing behaviour. Based on the SCT framework, this study has centred on learners' interrelating with their linguistic environments in informal written settings.

3.1.2 Explanation of the Theory

Sociocultural Theory, developed by Vygotsky (1978), emphasizes social interaction and cultural tools in developing cognition and language. At the same time, it is a mediated learning process wherein the external elements, for example, language, technology, and social norms, shape an individual's inner cognitive processes. It is not only viewed as a communication tool but also as a way of percolating thought. According to SCT, tools like digital communication platforms mediate the learning process and how the novice re-negotiates the target language's acquisition, internalisation, and use.

In L2 learning, SCT emphasises how learners interact with their sociocultural environment to develop linguistic competencies. Shorthand writing is one feature of writing habits in digital communication that is simultaneously influenced by the affordances and constraints offered by the

tools learners use. Though these tools enable language learning through decreased cognitive load, they may reinforce non-standard conventions that resist formal language acquisition.

3.1.3 Support for the Use of Sociocultural Theory

It suits this study well because it befits the dynamic and interactional nature of shorthand writing in digital contexts. This theoretical framework would be conducive to providing an in-depth scrutiny of how L2 learners negotiate their linguistic competence within a mediated environment. This particular theory contrasts with the other theories that rely purely on cognition by considering expanded sociocultural influences on the learners' writing practices. It is immensely applicable in studying how language is influenced and modified by modern digital tools, such as social media or different messaging applications.

This will be the complexity of the L2 learners' experience of shorthand writing using the SCT approach. The theoretical framework will, therefore, ensure a holistic investigation of how learners adapt and are shaped by the linguistic environment regarding cognitive effects and social and cultural dimensions associated with language use.

3.2 Methodology

3.2.1 Introduction

This section outlines the methodology that underlines the research design and the proposed investigation into the effect of shorthand writing on the writing habits of L2 learners. The study will adopt a qualitative method design to provide data for this analysis.

3.2.2 Research Design

The research is designed to locate as many facets as possible of the impact of shorthand writing.

1. Qualitative component

Writing samples capture rich, descriptive data about the learners' experiences and perceptions.

3.2.3 Analytical Approach

Data Collection Methods

The data collection method for this study is discussed below

Writing Samples

Participants are requested to provide both informal writing samples, such as text messages, and formal ones, such as academic essays. These are analyzed to identify the influence of shortcut styles in all such writings.

Data Analysis Methods

1. Qualitative Analysis:

Thematic Analysis: Coding and categorising data from writing samples; identifying recurring themes from experiences and perceptions expressed by participants.

Discourse Analysis

Samples of shorthand writing are analyzed for certain linguistic features, such as omissions, abbreviations, and syntax changes. This analytical framework guarantees that the findings answer the research questions on the one hand and at least some of the broader implications related to shorthand writing for L2 learners' linguistic development on the other.

4. Analysis

4.1 Introduction

This chapter presents and analyzes the data collected through writing samples to understand the influence of shorthand writing on L2 learners' writing habits.

4.2 Data Presentation

4.2.1 Writing Samples

Participant ID	Context	Example	Shorthand Observed	Formal Writing Impact
P01	Social Media	"u gonna come 2morrow?"	Omission of articles, phonetic spelling	Similar omissions in formal essays
P03	Text Message	"b4 I 4get, thnx 4 ur help!"	Numerals replacing words, informal tone	Informality in professional emails
P07	Social Media	"gr8 job! hv fun"	Informal abbreviations	Reduced lexical diversity in essays
P10	Academic Essay	"It's impt to hv a gr8 plan ahead"	Use of "textese" abbreviations	Difficulty transitioning to formal register
P14	Social Media	"lol idk what u mean here"	Informal slang, omission of verbs	Lack of grammatical complexity in essays

4.3.1 Analysis of Writing Samples

Using Sociocultural Theory, the writing samples demonstrate how shorthand acts as a cultural tool that mediates learners' interaction with language in digital spaces. Below is an analysis of the linguistic features observed:

Syntax

Participants frequently omitted articles, auxiliary verbs, and conjunctions in their informal writing. For example, P01's "u gonna come 2morrow?" omits the article "are" and employs phonetic spelling. These habits, influenced by the brevity of digital tools, carried over into formal writing, such as in P10's essay where similar omissions were observed. SCT contextualizes this as the learners' adaptation to the social norms of digital platforms, where efficiency is prioritized over grammatical accuracy.

Semantics

The use of simplified forms, such as "gr8" (great) and "b4" (before), highlights a reliance on phonetics to convey meaning. While these forms are effective in informal settings, they reduce lexical richness in formal contexts, as seen in P07's essays. This aligns with SCT's assertion that the tools learners use shape their cognitive and linguistic outcomes.

Pragmatics

Participants struggled to adapt their tone and style between informal and formal contexts. P14's consistent use of slang ("lol," "idk") in both social media and academic writing reflects a lack of register awareness. According to SCT, this indicates a need for explicit mediation, where learners are guided to recognize the differing demands of various communication contexts.

4.3.2 Additional Writing Sample Analyses

Participant ID	Context	Example	Shorthand Observed	Formal Writing Impact
P08	Social Media	"kewl, thx for info"	Phonetic spelling, informal tone	Informality in professional emails
P11	Academic Essay	"The results r vry impt."	Informal abbreviations	Reduced professional tone

Participant ID	Context	Example	Shorthand Observed	Formal Writing Impact
P13	Text Message	"brb, hv sm work"	Acronyms, omissions	Fragmented sentences in essays
P15	Social Media	"yesterday's prty was lit"	Slang expressions	Inappropriate tone in reports
P16	Academic Essay	"They hv 2 options only."	Use of "textese" abbreviations	Limited vocabulary complexity

Syntax
P13's text "hv sm work" lacks grammatical structure, resulting in fragmented sentences like "Students hv no books" in essays. P11's academic essay "The results r vry impt" omits auxiliary verbs and articles, compromising grammatical accuracy.

Semantics
P08's social media post "kewl, thx for info" reflects phonetic spellings and informal tone. This habit appears in emails as overly casual language, such as "Thx for the docs." P16's academic essay "They hv 2 options only" uses "hv" (have) and "2" (two), reducing lexical sophistication.

Pragmatics
P15's use of "lit" in social media posts highlights their reliance on slang, which infiltrates formal reports and undermines professionalism. P11's tone in academic essays remains overly casual due to frequent use of "r" (are) and "impt" (important).

4.3.3 Integrating Findings with Sociocultural Theory
Using Sociocultural Theory, these patterns reflect how learners' frequent interaction with digital platforms mediates their linguistic behaviour:

1. **Facilitation:** Digital tools enable concise communication at the cost of structural and lexical richness.
2. **Constraints:** The internalisation of informal norms creates challenges in formal writing, particularly in transitioning between registers.

Explicit mediation through scaffolding and feedback is essential to address these issues, ensuring learners maintain the benefits of shorthand while meeting the demands of formal writing.

Conclusion
The present study investigated the impacts of shorthand writing styles, adopted mainly in digital communication, on second-language learners' writing behaviours. Focusing on linguistic features such as syntax, semantics, and pragmatics, it demonstrated that while shorthand writing promotes easy and humorously informal communications, it also presents problems applying its syntax in formal writing situations. Consistent with SCT, the study revealed how learners' frequent exposure to digital platforms mediates their writing behaviour, creating opportunities and constraints in equal measure. These results signal that users internalize the norms of digital shorthand on grammatical inaccuracy, lexical simplification, and pragmatic inconsistency while shifting to formal writing if grammatical accuracy, lexical simplification, and pragmatic inconsistency are considered. Writing samples underlined recurring patterns such as omissions of articles and auxiliary verbs, reduced lexical diversity, inappropriate tone, and category shift in formal contexts. Moreover, the results showed the participants' awareness of such challenges and expressed the need for explicit guidance and feedback to overcome them. The present study indicates the dual

potential of shorthand writing as a tool. On the one hand, this provides efficiency and creative work, while on the other hand, shorthand might create an obstacle to formal language acquisition. In conclusion, the critical pedagogical intervention should focus on scaffolding and metacognitive training, in which learners would balance informal communication development with the requirements imposed by formal writing. This research responds to the critical gap in the literature and gives valuable insights to educators, researchers, and policymakers. It indicates a need for integrated approaches toward digital literacy and language learning, enabling L2 learners to function effectively within an evolving linguistic landscape of the digital era while fostering proficiency in formal writing. The present results should be complemented by investigating other linguistic features, individual differences among learners, and the long-term effects that digital shorthand may produce in language acquisition.

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