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The influence of textese as a paralanguage practice on digital literacy skills among Mandarin-speaking young adults

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Mobile phone technology has fundamentally transformed communication practices. Existing research on “textese” and literacy has predominantly concentrated on its negative impacts within English-dominant contexts. This study addresses this research gap by investigating online literacy within a Mandarin-speaking context, with particular attention to the hybridisation of languages, scripts, and codes in young adults’ use of textese. Adopting paralanguage as the primary theoretical framework, this research foregrounds how non-verbal and extralinguistic features, including tone, emoji use, punctuation, and creative visual manipulation, contribute to meaning-making processes in digital text interactions. Complementarily, insights from New Literacy Studies (NLS) are employed to contextualise these practices within broader social and cultural contexts. The study analysed data derived from Facebook messages exchanged by twelve 20-year-old participants, exploring how they leverage the multimodal affordances of textese. Additionally, a questionnaire, vocabulary task, and semi-structured interviews were employed to evaluate the extent to which frequent use of textese influences literacy skills. The findings reveal that phonetic manipulation plays a pivotal role in young adults’ digital communication practices, with levels of engagement impacting fluency more profoundly than accuracy. Through paralanguage-driven practices, participants demonstrate versatile and creative communicative styles, actively shaping their literacy experiences within digital environments.

Keywords: textese, new literacy studies, hybridised languages, communicative styles

1. Introduction

The popularity of mobile phone technology and text messaging has transformed communication, giving rise to a distinctive set of linguistic features known as “textese” within the broader study of digital and mobile-mediated language use (Crystal, 2011; Gnach et al., 2022). This form of communication is characterised by distinctive linguistic features, including abbreviations, phonetic spellings, and creative use of symbols, and has evolved into a powerful tool for the exchange of information and the construction of social networks (Thurlow & Poff, 2013). By utilising textese, individuals have developed innovative means of navigating and expanding their social relationships within digital spaces. Despite its growing relevance, recent syntheses indicate that research on textese/textisms remains largely concentrated in English and other alphabetic-language contexts, with comparatively fewer studies examining how comparable practices operate in non-English environments (Fernández Juliá & Gómez-Camacho, 2023; Thurlow & Poff, 2013). As a result, there is a notable gap in the literature regarding how textese operates in non-English environments, particularly in Mandarin-speaking communities.

Relatively few empirical studies have examined how Mandarin-speaking youth and young adults use Mandarin textese in mobile-mediated communication, and the existing work has often focused on specific features or platforms rather than offering a consolidated account of how textese is produced and how diverse linguistic elements are mobilised in interaction. Zhou and Wu (2024) analyse “netspeak reductions” in Mandarin CMC and propose a typology (e.g., two-/three-/four-character reductions at lexical and syntactic levels), showing that reduction strategies are systematic rather than random deviation. Complementing work on structural reduction, research on Chinese social media interaction demonstrates that platform affordances support creative and multimodal message construction; Sandel et al. (2019), for example, shows how WeChat interactions draw on text, emoji, and images to build meaning and social action. More directly relevant to multilingual hybridity, Qi and Li (2023) document translanguaging hybrids coined by Chinese university students on WeChat, illustrating how mixed resources are mobilised for language play, stance, and in-group positioning.

In this study, “diverse linguistic elements” refers to a repertoire that includes Chinese characters (standard and stylised forms), pinyin/romanisation and other Latin-alphabet strings, English borrowings and mixed-script sequences and semiotic resources, such as emoji/stickers and creative punctuation. Building on this repertoire, Mandarin textese hybridisation is operationalised as (a) cross-script mixing (characters with pinyin/English), (b) numeral-based meaning making beyond quantity, and (c) multimodal integration of graphic resources alongside text. To address the gap identified above, the present study examines how Mandarin-speaking college students (approximately 20 years old) incorporate textese into online communication, providing an empirically grounded account of (i) the forms they produce (e.g., reductions, mixed-script constructions, numeral/emoji deployments) and (ii) the interactional functions these forms serve (e.g., efficiency, stance, humour, affiliation). Building on this

description of forms and functions, the next step is to consider how such digitally mediated practices relate to literacy development – an issue that remains contested in the textese literature.

Several studies investigating the relationship between textese and literacy skills have yielded inconsistent results. For instance, Grace et al. (2014) found no significant correlation between the frequency of text messaging and literacy skills among undergraduate students. While earlier research had offered mixed findings on whether the use of textese enhanced or hindered literacy development, more recent scholarship has shifted focus toward understanding the role of digital messaging in broader literacy practices. Tagg (2020), for example, explores how young people's engagement with mobile messaging reflects complex, context-sensitive literacy skills that challenge traditional definitions of reading and writing. Similarly, Androutsopoulos (2023) emphasises that digital writing should be understood through the concept of "voice" and "double-voicing," where punctuation and other graphical cues are strategically used to evoke distinct social personae and ideologies, highlighting that screen-based literacy practices must be examined within their sociocultural and multimodal contexts rather than solely via standardised literacy measures. These graphical cues, such as the "indignation mark," are integral to the dynamic, multi-voiced discourse within digital communities. This study seeks to build on these insights by exploring the relationship between textese and literacy skills through a comprehensive framework that accounts for multiple languages and modes within Mandarin-speaking young adults' everyday mobile messaging practices (e.g., routine interactions on popular chat/social platforms). This focus is important because literacy development in contemporary higher-education contexts increasingly involves screen-based, multimodal, and multilingual composing; yet empirical evidence remains limited on how Mandarin textese practices relate to students' literacy skills beyond standardised print-based measures and on what these practices imply for pedagogy.

Building on the theoretical framework of digital paralinguistic cues realised through typographic, graphic, and other non-lexical resources in computer-mediated communication), which aligns with this study's earlier focus on multimodal and hybrid meaning-making in Mandarin textese, this research examines how non-verbal and extralinguistic resources shape meaning construction in online interaction. Digital paralinguistic encompasses features such as emoji and sticker use, typographic and punctuation choices (e.g., repetition, unconventional punctuation, spacing), and visual layout/formatting that contribute to the interpersonal and affective dimensions of text-based communication, particularly in textese-style exchanges (Crystal, 2006). Because Mandarin textese frequently relies on graphic and typographic resources to signal stance, affect, and alignment when face-to-face cues are absent, digital paralinguistic provides a principled lens for analysing how meaning is managed under conditions of brevity and creativity in screen-based interaction. To complement this primary framework, the study also draws on insights from New Literacy Studies (NLS) (Barton & Hamilton, 1998, 2000; Street, 1993), which conceptualises literacy as a socially situated practice. NLS



provides a sociocultural foundation for analysing how individuals engage with digital texts within specific social and cultural contexts (Barton, 2007). In this study, NLS is used as a secondary framing to contextualise participants' textese practices as situated literacy activities embedded in everyday digital routines, rather than as decontextualised linguistic behaviour.

This combined approach enables a more layered exploration of how young adults use textese, accounting for both the multimodal mechanics of communication and the social practices in which these are embedded. Building on this theoretical background, the overarching research questions guiding this study are:

RQ1: What are the distinct linguistic and communicative features of textese identified in the screen-based literacy practices of Mandarin-speaking young adults?

RQ2: How do these textese practices influence the literacy skills, creativity, and communicative competencies of Mandarin-speaking young adults?

This study offers novel insights from three key perspectives: (A) the hybridised characteristics of textese in online contexts, with a particular focus on digital literacy practices that involve the integration of hybridised languages, scripts, and codes within Mandarin-based online environments; (B) the interplay of creativity and playfulness, establishing a connection between these elements and the hybridised features of textese; and (C) the influence of textese on literacy development, specifically its impact on literacy skills in both English and Mandarin Chinese. Having established the theoretical framework and research objectives, the following literature review critically examines existing scholarship to contextualise the present study within broader academic debates on textese and digital literacy.

2. Literature review

2.1 Textese and literacy

Textese, texting language, is typically described as informal, peer-oriented digital writing that departs from standard orthographic and grammatical conventions through features such as abbreviations, phonetic spellings, Internet slang, and emoji-based meaning-making (Ahinasha, 2024; Al-Kadi, 2019; Plester et al., 2009). Rather than treating these forms as random "errors," research commonly frames them as patterned adaptations shaped by speed, space, and interactional goals, with many textisms requiring phonological awareness to encode and interpret (Ali et al., 2022; Powell & Dixon, 2011). In this sense, textese often involves "phonetically plausible" renderings, using standard or stylised pronunciations and comprehension may depend on the reader's ability to map written alterations onto spoken forms.

Empirical findings on the relationship between textese and literacy are mixed and appear sensitive to what counts as "texting," how literacy is measured, and the learner population. One strand of research reports neutral-to-positive

associations, arguing that engagement with phonetic play and print exposure in texting may align with, or even support, skills such as decoding, spelling, and reading (Ali et al., 2022; Angel, 2023; Verheijen & Spooren, 2021). A second strand identifies potential risks under certain conditions, particularly when heavy reliance on textisms co-occurs with weaker control of formal grammar or when informal forms transfer into academic writing (Cingel & Sundar, 2014; Jutba et al., 2024; Manzolim & Dela Cruz, 2024). This mixed evidence has also been reflected in pedagogical debate: some scholars caution that text adaptations may challenge standard norms (Thakur, 2022), whereas others argue that the key issue is register control rather than the existence of textese itself.

To explain these divergent results, earlier cognitive accounts proposed that repeated use of nonstandard forms might compete with standard forms (retroactive interference) or reduce opportunities to rehearse conventional norms (decay) (Drouin & Davis, 2009). In these accounts, frequent reliance on abbreviations or nonstandard spellings may interfere with retrieval of conventional spellings/structures, or decrease reinforcement of standard forms through reduced practice. More recent work, however, suggests that context and register control may be decisive: learners may use textese strategically in informal settings while maintaining awareness of appropriate conventions in formal writing, although “unintentional transfer” can occur. Several studies in school and university contexts report that students sometimes incorporate textese features into formal writing, but many can still distinguish appropriate registers; difficulties tend to arise when learners struggle to shift between informal and academic norms. (Al-Kadi, 2019; Steyn & Evans, 2015; van Dijk et al., 2016). Taken together, the literature indicates that the key issue is less whether textese is inherently beneficial or harmful and more when, for whom, and under what communicative conditions it relates to literacy outcomes.

2.2 *Digital paralanguage and new literacy studies*

Digital paralanguage provides a useful lens for analysing how writers convey stance, affect, and relational meaning through non-lexical and semiotic resources (e.g., emoji/GIFs, punctuation, typographic emphasis, spacing, and layout) in screen-based interaction (Ge & Herring, 2018). In mobile messaging, such resources can compensate for the reduced access to face-to-face cues and may therefore become central to interpersonal meaning-making. Because such cues can shape interpretation and interpersonal dynamics and may also be culturally variable, paralanguage is increasingly treated as central to meaning-making in digital communication (Herring & Androutsopoulos, 2015; Wiggins, 2019). Cross-cultural work further cautions that the meanings of emojis and other cues are not fixed and can vary by community norms and communicative histories.

Methodological and analytic work further supports treating paralanguage as systematically describable such as automated coding approaches while also recognising that cues can sometimes be misread depending on shared norms and expectations (Luangrath et al., 2022; Sidi et al., 2021). This matters for

textese research because the same punctuation pattern or emoji sequence can be interpreted differently across readers, potentially shaping impressions of tone and intention.

To situate these practices socially, New Literacy Studies (NLS) conceptualises literacy as a set of socially situated practices rather than a decontextualised skill (Barton, 2007; Barton & Hamilton, 1998, 2000; Street, 1993). In this study, NLS functions as a complementary frame for interpreting mobile messaging as everyday literacy activity embedded in routine digital life, while paralinguage provides the primary analytic lens for identifying how meaning is constructed through multimodal cues in textese. Together, these lenses direct attention to how digital writing is shaped by participants' purposes (e.g., affiliation, humour, mitigation) and by platform norms, rather than being evaluated only against print-based conventions.

2.3 Text-making practices / textual practices

Text-making practices (TmPs) describe how writers select, transform, and combine semiotic resources to produce texts for particular purposes and audiences (Lee, 2007). This orientation aligns with work on textual practices that treats reading/writing as processes shaped by social context and the linguistic choices used to realise meaning (Crossley, 2020). In digital contexts, this includes not only composing but also interpreting, circulating, and responding to texts within networked interaction.

From a TmP perspective, paralinguistic resources (e.g., emoji, emoticons, and typographic stylisation) are not “add-ons” but integral components of meaning-making in digital writing, supporting interpersonal work such as alignment, humour, and relational stance (Alshenqeeti, 2016; McCulloch, 2019; Pérez-Sabater, 2019; Sampietro, 2021). Studies of everyday messaging (e.g., WhatsApp and other platforms) emphasise that emoji/emoticons can operate performatively, indexing affect, stance, and relational positioning, while also enabling playful interaction and identity performance.

Extending this view to higher-education contexts, digital textual engagement can be understood as distributed across writers, tools, and material conditions, shaping how texts are produced, circulated, and interpreted (Gourlay, 2019). This perspective is particularly relevant for university students whose everyday academic and social communication increasingly occurs through platform-mediated writing. This integrated framing (digital paralinguage and NLS and TmPs) supports analysing textese as a situated, multimodal writing practice rather than evaluating it solely against print-based norms.

2.4 Language, creativity, and playfulness

Creativity and playfulness are widely recognised as central dimensions of digital literacies, particularly in environments where multilingualism and multimodality encourage users to manipulate linguistic and semiotic resources to achieve interactional goals. In everyday mobile and social media communication, users

frequently engage in stylisation, code-switching, and playful orthographic choices, alongside visual resources such as emoji and memes, to express stance, manage interpersonal relations, and signal in-group affiliation (McCulloch, 2019; Pérez-Sabater, 2019; Sampietro, 2019, 2021). From this perspective, “play” is not peripheral: it functions as a pragmatic resource through which users negotiate norms, soften or intensify meanings, and co-construct shared interpretations in fast-paced, screen-based interaction (Georgakopoulou & Spilioti, 2015). Within textese, these playful choices are realised as patterned “textisms” (e.g., creative spellings, stylised abbreviations, and mixed-script forms), which allow users to convey interpersonal nuance efficiently in short, screen-based exchanges. Importantly, creativity here is not simply aesthetic novelty; it can be interactionally purposeful, designed to attract attention, manage face concerns, or create solidarity within a community of practice.

Research on multimodal literacy further suggests that creativity in digital environments often involves the coordinated orchestration of text, image, and platform affordances rather than reliance on alphabetic text alone (Kress & Selander, 2021; Unsworth & Mills, 2020). Studies of digital discourse and participation highlight how such creative practices are embedded in social activity – shaping identity performance, relational work, and community formation across platforms (Georgakopoulou & Spilioti, 2015; Jones et al., 2015). This line of work positions digital composing as both semiotic design and social practice, where linguistic innovation and mode choice are tied to participation and community norms.

Importantly, many creative effects in textese are achieved through digital paralinguage (e.g., emoji/stickers, punctuation patterns, typographic emphasis, spacing), which functions as a semiotic layer for signalling affect, stance, and alignment when face-to-face cues are unavailable. Accordingly, the creativity associated with textese can be understood as a form of situated meaning-making in which linguistic innovation and semiotic design enable users to communicate efficiently while simultaneously enacting voice, humour, and social positioning within digitally mediated interaction (McCulloch, 2019; Sampietro, 2021). Taken together, textese, paralinguage, and language creativity are best viewed as interlocking resources: textese provides the linguistic repertoire, paralinguage supplies interactional cues, and creative practice explains how users combine these resources to construct meaning and identity in digital communication.

3. Research design and data collection

3.1 Study design

This study adopted a qualitative, interpretive design to examine textese as situated screen-based literacy practice in everyday social media interaction. Data collection proceeded in three stages: (1) corpus-based collection of naturally occurring Facebook texts, (2) a questionnaire and vocabulary-based writing task, and (3) semi-structured interviews, to enable triangulation across

text-based and participant-reported evidence. A discourse-analytic approach guided the analysis of the Facebook corpus, focusing on participants' language, script, and code choices and the interactional work performed through these choices.

3.2 Research site and data source

The online research site for this study focused on social practices on Facebook, allowing the researcher to examine textese users and explore how their writing and reading were influenced by screen-based interactions. While there are various interactive platforms enabling individuals, groups, and communities to share, discuss, and co-generate content online, this study specifically draws data from Facebook, one social networking service used in Taiwan for both recreational and academic purposes. However, the messages analysed were part of participants' everyday literacy practices, not posts assigned by the researcher or instructors. In other words, the researcher did not create a dedicated forum or board for the participants. Instead, data were collected from participants' regular screen-based literacy practices, primarily aimed at building friendships and exchanging information within the online community. The messages produced by the twelve participants over six months (one semester) were recorded chronologically and analysed in terms of context, languages, scripts, and code choices.

3.3 Participants

Using convenience sampling, the researcher approached all participants in person, as they were easily accessible and attended the same university. The study recruited twelve second-year undergraduate students (eight females and four males), aged 20, from a university in northern Taiwan. Participants volunteered for the study and provided informed consent prior to participation. Regarding their linguistic background, all participants had been exposed to English since commencing their university studies, as all courses, except a mandatory Chinese course and general education requirements, were conducted in English. Nevertheless, Mandarin Chinese remained their dominant language for everyday communication outside the academic context.

3.4 Tool/instruments

This study drew on four sources of data: (1) a naturally occurring Facebook text corpus, (2) a questionnaire, (3) a vocabulary-based writing task, and (4) semi-structured interviews. The questionnaire, writing task, and interview protocol were developed through a construct-driven process, aligned with the research questions, and refined through a pilot study to enhance clarity, relevance, and coverage of the targeted constructs (i.e., textese practices, literacy-related knowledge, and participants' interpretations). The Facebook corpus comprised participants' naturally occurring posts, including threaded

responses and comments; in total, 522 text-based entries were collected and analysed. Because the corpus was drawn from everyday communication rather than researcher-assigned writing, it offers ecologically valid evidence of textese practices as they occur in the natural setting.

Regarding questionnaire data, the first stage involved administering a questionnaire designed to examine participants' online messaging behaviours and habits. The questionnaire was divided into three sections:

- **Part One:** Background information, such as the average number of hours spent surfing the Internet and using social media platforms like Facebook and other related applications.
- **Part Two:** Language preferences in online communication contexts, including the use of stylised forms of English, Chinese, Taiwanese Minnan (stylised Taigi), or Hakka.
- **Part Three:** Participants' perceptions of Internet expressions and the perceived influence of these expressions on their standardised literacy skills and comprehension in both English and Chinese.

Questionnaire items were developed by mapping each section to the study constructs (online engagement, language choice, and perceived literacy influence) and by adapting wording and categories to the local platform context and the participant profile. To support validity, the questionnaire underwent for clarity and content coverage, and the wording was refined to reduce ambiguity before administration.

Moving to the vocabulary-based writing task data, participants undertook a writing task that involved completing a vocabulary exercise in English (see Table 1). Specifically, a total of twenty to thirty frequently encountered English words were selected, and each participant was required to provide correct spellings and meanings. To ensure relevance to textese, the selected vocabulary was chosen based on common phonetic misspellings and recognised forms of textese like “tonight” (commonly written as “tonite” or “2nite” in informal contexts). The task items were selected to align with the textese categories used in corpus coding (e.g., phonetic spelling, shortening, letter–number homophones), allowing the task to function as a complementary check on participants' literacy-related knowledge relevant to interpreting/producing textese. This alignment supports content validity by ensuring the task assesses knowledge directly connected to the linguistic features observed in the dataset.

Table 1. A writing task

1. FYI I attach a copy of my notes _____.	21. 3Q A: Let me help you with this. B: _____.
2. ASAP Could you tell him to call me _____?	22. fone. Where is my _____? I need to call my friend!
3. OMW I passed the store _____ to the library.	23.thru She has traveled _____ Europe.
4. BFF You are my _____.	24. xoxo See you later, _____.
5. BTW _____ I have something to tell you.	25. HPBD _____ ! I wish you all the best in your life.
6. cu It's time for Christmas holiday! I'll go to France for one week, _____ soon.	26. Nite Good _____, sleep tight!
7. B-day/bday July 4, 1776 was the _____ of the United States of America.	27. wat _____ are you doing?
8. JFY Mom bought it _____.	28. fu I have a lot of _____ about this picture.
9. plz/pls "May I come in?" "Come in, _____."	29. yrs I am 20 _____ old.
10. msg Would you like to leave a _____ for her?	30. ez This is a _____ task, don't worry!
11. gl We wish you _____ in the coming English exam.	31. bz Sorry, I'm a bit _____ now. I'll talk to you later.
12. OMG _____ ! I've never seen a spider like that!	32. pix Can you send me the _____ you took today?
13. afaik _____, they never lost a package from the United States.	33. ttyl I need to leave now. _____
14. 4ever We're sure our friendship will last _____.	34. rite The answer for question 2 is "C", _____?
15. b4 Only two days remained _____ the examination.	35. po I _____ an interesting story on FB.
16. sry I am _____ to hear that your brother passed away.	36. thx _____ for your help!
17. NP A: Try to come early tomorrow. B: _____.	37. abt I'm in a bad mood and I don't want to talk _____ it.
18. lol Her jokes made me _____.	38. HW Can you tell me about the details of the _____?
19. b/c He is absent _____ he is ill.	39. esp. We need to be _____ careful.
20. jk Don't be too sensitive. I'm _____.	40. sth Is there _____ wrong?

The final stage of the study consisted of qualitative interviews, during which in-depth questions were posed to eight participants selected from the original twelve students. Interview participants were selected based on their expressed

willingness to engage in this phase of the study. The interviews, lasting approximately one hour, were conducted following the initial analysis of the corpus of textese, from which the interview questions were constructed.

The interview guide was developed from salient patterns emerging in the corpus coding, with prompts designed to elicit participants' interpretations of specific textese forms (e.g., why particular hybrid forms, symbols, or spellings were used) and their perceived communicative functions. This procedure strengthens interpretive validity by linking interview questions to observed textual evidence rather than relying on decontextualised self-report alone. To enhance credibility, the interviewer used follow-up probes and invited participants to clarify meanings of examples drawn from their own posts; member checking and summary confirmation was used when appropriate.

3.5 Data collection

Data for this study were drawn from Facebook posts, referred to as "textese." Textisms were primarily extracted from messages and threaded responses on Facebook. Semi-structured interviews were conducted after the initial analysis of a corpus of textese, from which the interview questions were constructed. Although this research included some simple quantitative elements, the focus was fundamentally qualitative, as is appropriate to a text-based investigation.

3.6 Data analysis

The preliminary analysis of the texts in this study was conducted using categories adapted from Shortis (2007) and Thurlow (2006), including letter/number homophones, shortenings, contractions, symbols, initialisms, accent stylisations, and non-conventional spellings. Although Thurlow's (2006) categories may appear dated, his framework remains foundational in studies of digital language due to its comprehensive categorisation of linguistic creativity in textese. Given the limited frameworks specifically addressing Mandarin contexts, Thurlow's established categories provided a valuable starting point for systematically exploring textese practices in a new linguistic setting.

In the initial stage of analysis, the primary focus was to evaluate the applicability of English-based textese features within Mandarin-based online communication contexts. The analysis aimed to identify participants' innovative expressions through textese, emphasising their creative use of scripts, symbols, and orthographic strategies as distinctive elements in their digital interactions. The analytical approach employed in this study was based on the triangulation of multiple data sources: text-based data (textisms), participant-based data (the questionnaire, writing tasks, and semi-structured interviews). Textisms were primarily extracted from messages and threaded responses on Facebook, while the questionnaire and writing tasks were used to examine participants' online behaviours and their motivations for employing various linguistic codes and stylistic choices.

4. Findings

This section reports findings addressing the two research questions. RQ1 is answered by identifying recurrent linguistic and communicative features of Mandarin-based textese in participants’ Facebook interactions, including emoticons/symbols, phonological mixtures (e.g., letter–number homophones), and creative respelling/reshuffling practices (Sections 4.1.1–4.1.3). RQ2 is answered by triangulating evidence from the questionnaire, vocabulary task, and interviews to describe how participants perceive and use these practices in relation to literacy-related skills and communicative competencies (Sections 4.2.1–4.2.3).

4.1 Findings for RQ1

A discourse-analytic decoding of the dataset revealed multiple textese features in this Mandarin-based online context on Facebook. To capture both classic and emergent patterns, the analytic categories were adapted from prior textese coding frameworks and applied to the present dataset (Table 2).

Table 2. Textese codes identified in data analysis

Category/coding	Examples from the data
1. Accent stylisation	cuz; wanna
2. Contractions	plz; bday
3. Emoticons and symbols	J; XD
4. Initialisms	NW; BTW
5. Letter/number homophones	4ni
6. Missed capitalisation	mary; tony
7. Missed punctuation	wont; cant
8. Nonconventional/phonetic spelling	good nite
9. Shortening	mon; tues

4.1.1 Emoticons. Among the various categories, emoticons and symbols were the most commonly used by participants in the dataset. In addition to traditional text-based communication, symbols and emoticons emerged as significant features of participants’ online social interactions with peers. The participants frequently employed pre-made icons, such as “<3” or “:D”, as concluding elements in their comment thread responses alongside hashtags.

4.1.2 Phonological mixture. Besides emoticons and symbols, the second most frequent usage within the categories in Table 1 was of letter-and-number homophones. In online contexts, participants selected English letters, words, or numbers to refer to Mandarin characters or vice versa, though the former practice was the most common. The finding indicated that participants tended not to post expressions in standard English regardless of the fact that they were equipped with intermediate writing level. It is important to note that some data were stylised according to the pronunciation of Taiwanese Minnan (Taigi). The results indicated that in order to fully comprehend the meaning of the

Facebook posts, participants needed to be attuned to the phonological structure of the language, demonstrating a strong awareness of phonology. This supports the earlier argument that text messages often incorporate phonetically plausible elements, using either standard or stylised pronunciation, which can only be understood through phonological knowledge (Yépez-Moreno et al., 2025).

4.1.3 Respelling and reshuffling. As previously discussed, the participants’ manipulation and transformation of languages and scripts on Facebook can be viewed as manifestations of creativity. Creative respelling and reshuffling were observed primarily in nonconventional phonetic spellings and shortenings. Table 3 summarises representative examples in terms of shape-based and sound-based manipulation.

Table 3. Phonetic usages of the Mandarin characters: Respelling and reshuffling

Shape	Sound
XD 😍😂😄👍👉	- 拔G毛 - A...謀禮貌 - IT’S BOOOOOOOTYFUL! -der - 女神4ni

Table 3 presents a new framework for understanding possible positions by reinterpreting established references. This conceptualisation of creativity constitutes another key finding of the study. Facebook texts, as examples of everyday digital literacy practices, serve as a rich resource for creative expression. Participants in this study demonstrated a continuous interplay between routine behaviours and innovative practices as part of their creative process. They consistently constructed creative texts through semiotic transformations, including the use of symbols, typography, code-switching, and the blending of these transformative practices with their everyday literacy habits.

As shown in Table 3, emoticons formed by letters or pre-made symbols were frequently observed in the data. Participants employed creative strategies by switching or hybridising symbols and languages to convey meaning. Such creative acts, including language choice, underscore the significance of the relationship between creative communication and collaborative contexts, where interpersonal exchanges are co-constructed (Bethany, 2019; Ge & Herring, 2018). Hybridising languages through code-meshing is defined as the blending of non-standardised dialects and other languages with ‘standardised’ English. This code-meshing can occur at the level of individual words or sentences (Zapata & Laman, 2016). The findings further demonstrate that code-meshing is also present in Mandarin-based digital literacies.

Moreover, the results showed that participants reproduced texts using sound structure. As can be seen in Table 3, a sentence might include Chinese characters as well as a number or letters. The example “女神4ni (nǚ shén sì nǐ)” illustrated that students creatively combined scripts and numbers to tell others,

“You are the goddess”. A digitally literate person indeed needs sensitivity to phonological structures and strong phonological awareness. Although the data were in written form, texts on Facebook involved spoken-language properties and peripheral symbols, which can thus be described as multimodal. Given this multimodal feature, it is crucial to investigate interpretations of orthography and its semiotic representations.

4.2 Findings for RQ2

Using the three phases outlined in the methods section – a questionnaire, a vocabulary task, and an interview – the researcher developed a comprehensive understanding of screen-based literacy practices, encompassing the diverse languages and modes employed on social media.

4.2.1 Questionnaire. Questionnaire responses indicated that most participants spent at least three hours online per day on average. Participants reported engaging in social networking activities (e.g., chatting with peers, posting threaded responses) as part of routine online participation. Several participants described learning new expressions encountered in the community in order to participate appropriately in ongoing interactions.

4.2.2 Vocabulary task. The vocabulary task was aligned with categories in Table 2. Participants showed weaker performance on initialisms, but performed comparatively well on phonetic spelling items. An additional pattern was that the participant with the highest vocabulary-task score was not necessarily the most active Facebook user.

4.2.3 Interview themes. Interview analysis yielded three recurring themes (Table 4): stylised expressions, involvement level, and brevity.

Table 4. Results in qualitative interviewing

Useful results	Summary
Stylised expressions	– a sense of belonging or online identity construction by sharing their language commonalities – the euphemistic use of textese – the mitigation of the possible embarrassment or uneasiness in online interaction
Involvement level	– the degree of how participants engaged in this online community – the connection to informal learning
Brevity	– time saving – the importance of fluency rather than accuracy – the importance of prompt responses

4.2.3.1 Stylised expressions

As can be seen in the findings, participants forge a sense of belonging or

online identity by sharing their language commonalities which can be displayed in online communities via different language codes, modes or in varieties of stylised language expressions. The codes found in the dataset included different characters, words, scripts or letters. Participants employed stylised Mandarin, Taiwanese Min with different varieties in order to communicate with other users in the online community. The findings manifested that the codes or expressions are particularly found in stylised Taiwanese Min and English. Participants tend to employ the English alphabet or Arabic numbers characterised with the homophonous parts in different varieties with the purpose of euphemism. Besides, it is worth mentioning that stylised spelling in Mandarin or Taiwanese Minnan (Taigi) was strongly originated from current news stories or events. According to Machado (2017), students might mix and hybridise traditional genres with those in popular cultures. Hybridising is actually another pedagogical practices that has the potential to cultivate diverse literacy practices in early childhood classroom. What's more, the lens of hybridity is regarded as 'an innovative act,' rather than a sign of confusion (Machado, 2017). Young adults tend to 'reinvent' celebrities or politicians' talk by using expressions in stylised Chinese or stylised Taigi. Furthermore, learning from peers and building a shared community was identified as another significant process of online literacy practices.

4.2.3.2 Involvement level

The extent of participants' engagement in the online community is another factor influencing their online literacy skills. The findings indicate that the longer students engage with social media, the more digitally literate they become within the online community. Online communities centered around participatory media practices are frequently characterised as spaces where individuals collaborate to enhance their work and exchange information (Hills, 2020; Smith & Storrs, 2023).

The concept of 'following' in online applications is another important aspect to explore. Users establish addressivity, meaning they create a readership for their followers, who may be supporters or critics. The researcher examined followers' responses to understand how 'following' helps build a sense of readership in vernacular practices. Vernacular practices in this study are conveyed through code-switching, modes, and stylised Chinese, Taiwanese Minnan (Taigi), or English. As recent studies have highlighted, viewing is not a passive process of receiving texts; rather, comprehension involves the active construction of meaning. Readers' interpretive pathways are shaped by the literacy practices embedded within the texts they engage with (De Souza, 2022; Pahl & Rowsell, 2018). The level of engagement is closely tied to informal learning, which allows participants to enter the online community and become insiders.

4.2.3.3 Brevity

For frequent users of textese, such as the participants in this study, time efficiency was a critical factor in online communication. They viewed textese as an essential form of synchronous online communication, where brevity was

prioritized. One participant noted that to enhance the efficiency of her textese writing, she used abbreviations or emoticons to convey her feelings or thoughts, which she considered indirect forms of expression in screen-based literacy practices. She further explained that the use of abbreviations and emoticons helped alleviate potential embarrassment or discomfort in online interactions. Another participant mentioned that phonetic manipulation in Facebook textese was particularly effective in capturing readers' attention.

In the context of screen-based literacy practices, fluency, rather than accuracy, was emphasized. Achieving fluency required prioritizing prompt responses. A third participant added that, due to the frequent use of textese, he occasionally needed more time to recall the correct spelling of words in both English and Chinese; however, he clearly distinguished between informal online communication and formal academic writing, recognising textese as a distinct genre separate from formal contexts (Zappavigna, 2023).

5. Discussion

This section interprets the findings in relation to prior scholarship and answers both research questions directly. Overall, the results suggest that Mandarin textese in this context is characterised by systematic hybridisation across scripts and semiotic resources (RQ1) and is associated with literacy-related skills and communicative competencies that are shaped by participation, purpose, and register awareness (RQ2). These findings also carry pedagogical implications for EFL and digital-literacy instruction, particularly in helping students develop critical awareness of register, multimodal meaning-making, and cross-script literacy strategies in everyday online communication.

5.1 Answer to RQ1: What features characterise Mandarin textese in these screen-based practices?

The findings indicate three salient feature clusters:

- Digital paralinguage (emoticons/symbols) as a high-frequency resource for stance, affect, and interpersonal alignment in comment threads (Section 4.1.1).
- Phonology-dependent hybridisation, including letter–number homophones and cross-script substitutions, sometimes drawing on Taiwanese Minnan pronunciation (Section 4.1.2).
- Creative respelling and reshuffling, where participants manipulate sound and form (shape and sound) to create playful or compressed meanings (Section 4.1.3).

Together, these patterns show that Mandarin textese in this dataset is not merely abbreviated writing; it is multimodal (text and symbols) and hybrid (characters and Latin letters and numerals), requiring readers to use phonological and semiotic knowledge to interpret meaning. Pedagogically, these feature clusters can be used as teachable resources to develop learners' awareness

of how meaning is constructed across scripts and modes, rather than treating textese only as “nonstandardised” language.

5.2 Answer to RQ2: How do these practices influence literacy skills, creativity, and communicative competencies?

The triangulated findings suggest three implications:

- Literacy-related skills: Stronger performance in phonetic spelling (vocabulary task) aligns with the prominence of phonology-driven decoding in the dataset. Participants’ weaker performance on initialisms suggests that not all English-dominant textese conventions are equally developed or equally relevant in Mandarin-based digital environments. In educational practice, this suggests value in explicitly teaching cross-script decoding strategies (e.g., sound–symbol mapping, letter/number homophones) and in designing vocabulary activities that contrast textese variants with standard forms to strengthen form–meaning connections without framing students’ everyday practices as errors.
- Creativity: Respelling/reshuffling and hybrid scripts function as routine resources for language play and creative meaning-making, especially in posts designed to attract attention or convey humour. Instructionally, teachers can utilise these creative practices through guided “digital remix” tasks (e.g., rewriting a short message for different audiences/purposes) to develop rhetorical flexibility, audience awareness, and multimodal composing skills.
- Communicative competence: Interview themes show that participants use stylised textese strategically for identity/belonging, euphemism/mitigation, and efficiency. Importantly, participants also reported register awareness, distinguishing informal online practices from formal academic writing – suggesting that textese use may coexist with conventional literacy norms when users can separate contexts. This supports pedagogical approaches that emphasise register control (when textese is appropriate vs. when standard academic conventions are expected) through contrastive analysis activities, classroom discussion of “context-appropriate language,” and rubric criteria that reward effective audience- and context-sensitive choices.

5.3 Implications for digital literacy and theory

These findings support viewing Mandarin textese as a form of situated digital literacy in which users coordinate linguistic resources (scripts/languages) and digital paralinguistic cues (symbols/emoticons) to accomplish interactional goals. The results further suggest that “digital literacy” in this setting involves both interpretive competence, the ability to decode and interpret multimodal/semiotic resources in screen-based texts (Álvarez Valencia, 2016; Hinrichsen & Coombs, 2013) and interactional competence, understood as the ability to use

linguistic and semiotic resources to perform social actions and sustain intersubjectivity in interaction (Young, 2011).

From a pedagogical perspective, this framing implies that digital-literacy instruction should address both (a) interpretive skills such as analysing how emoji, punctuation, and cross-script forms cue stance and meaning and (b) production skills (e.g., composing messages that achieve relational goals while maintaining appropriate register). In practice, teachers can incorporate short, low-stakes tasks such as message annotation (identify what cues signal humour/mitigation), register shifting (convert a textese post into an academic sentence and explain changes), and peer discussion of communicative intent to build metalinguistic and metapragmatic awareness.

5.4 Limitations and future directions

The study is based on a specific platform (Facebook) and a specific participant group (Mandarin-speaking university students around age 20). Future research could compare platforms (e.g., Instagram/LINE/WhatsApp), examine broader age groups, and include more systematic outcome measures if the goal is to make stronger claims about literacy development. Future classroom-based studies could also evaluate the effects of incorporating textese-informed instruction (e.g., register-shifting tasks or multimodal cue analysis) on learners' academic writing accuracy, pragmatic competence, and digital composing abilities.

6. Conclusion

This study has sought to provide an empirically grounded account of textese as an interactive, technology-mediated, and hybridised form of writing among contemporary young adults. It highlights the need for continued investigation of young adults' use of textese and advances a deeper awareness of the communication patterns characteristic of the Internet generation. Rather than focusing solely on its linguistic features, this research contributes to understanding how textese influences college students' literacy, creativity, and playfulness, particularly through their manipulation of sound (with phonetically plausible features) and shape (by reformulating and reshuffling letters or symbols). By examining the creative and adaptive uses, this study illustrates how textese may function as part of everyday digital literacy practices, offering insights into how young people navigate and construct meaning in online environments. Ultimately, the findings suggest that educators could selectively and context-sensitively integrate such practices into teaching strategies to address students' digital literacy needs, especially in relation to multimodal meaning-making and register awareness.

Nevertheless, this study acknowledges several potential limitations. The first concerns the low degree of persistence inherent in online contexts, which may result in the eventual disappearance or substantial modification of textese over time. Given the rapid evolution of textese, participants' responses might have

changed during the course of this study. Future research could adopt longitudinal or repeated-sampling designs such as tracking the same group of participants across multiple semesters to examine how specific textese forms emerge, stabilise, and fade, and to determine whether observed patterns are durable or platform- and moment-specific. A second limitation pertains to the sample population. As this study focuses specifically on the relationship between textese use and literacy skills among young adults, the findings cannot necessarily be generalised to other age groups. Moreover, as textese should not be equated with all forms of written interaction, the results of this study might not fully represent broader trends in online communication. Future studies should include broader and comparative samples (e.g., adolescents, older adults, and learners with different proficiency profiles) and examine multiple platforms (e.g., LINE, Instagram, WhatsApp) to test the transferability of the current findings across age groups and communicative ecologies.

An additional limitation concerns the interpretation of specific codes and linguistic expressions. As Mason (2018) argues qualitative research does not claim to represent an absolute truth; rather, it presents a complex and interpretative depiction of reality. Personal assumptions and biases in interpreting data appear unavoidable, indicating that the interpretations presented in this research are inevitably partial. To strengthen analytic trustworthiness, future research could incorporate additional coders, report inter-coder agreement for key categories, and use member-checking procedures including participant validation of interpretations of ambiguous forms when feasible.

The findings demonstrate that young adults' online literacy practices in Mandarin-based contexts involve an active negotiation between local and global influences, as they appropriate and stylize various codes and phonological mixtures within online contexts. Furthermore, their spelling abilities are closely connected to their phonetic awareness, with phonetic manipulation playing an influential role in shaping their literacy practices. By examining textese, this study provides contextualised insights into the everyday literacy practices of young adults and offers evidence that supports a broader understanding of technology-mediated text-making in multilingual settings.

References

- Ahinasha, N. S. (2024). Unveiling the linguistic landscape: examining the influence of digital communication in social media and text messaging on language development. *Smart Moves Journal IJELLH*, 12(4), 1–10.
<https://doi.org/10.24113/ijellh.v12i4.11486>
- Al-Kadi, A. (2019). A cross-sectional study of textese in academic writing: Magnitude of penetration, impacts, and perceptions. *International Journal of Contemporary Educational Research*, 6(1), 29–39.
<https://doi.org/10.33200/ijcer.534692>
- Ali, J., Hasnain, S. I., & Beg, M. S. (2022). Effects of phonological features on texting styles: Future directions. *Journal of English Studies in Arabia Felix*, 1(1), 1–11. <https://doi.org/10.56540/jesaf.v1i1.19>

- Alshenqeeti, H. (2016). Are emojis creating a new or old visual language for new generations? A socio-semiotic study. *Advances in Language and Literary Studies*, 7(6), 56–69. <https://doi.org/10.7575/aiac.all.v7n.6p.56>
- Álvarez Valencia, J. A. (2016). Meaning making and communication in the multimodal age: Ideas for language teachers. *Colombian Applied Linguistics Journal*, 18(1), 98–115. <https://doi.org/10.14483/calj.v18n1.8403>
- Androutsopoulos, J. (2023). Punctuating the other: Graphic cues, voice, and positioning in digital discourse. *Language & Communication*, 88, 141–152. <https://doi.org/10.1016/j.langcom.2022.11.004>
- Angel, M. (2023). Textese as a dialect: Why texting isn't destroying literacy. *Studies in the Linguistic Sciences: Illinois Working Papers*, 2023(1), 100–110.
- Barton, D. (2007). *Literacy: An introduction to the ecology of written language* (2nd ed.). Blackwell.
- Barton, D., & Hamilton, M. (1998). *Local literacies*. Routledge.
- Barton, D., & Hamilton, M. (2000). Literacy practices. In D. Barton, M. Hamilton, & R. Ivanič (Eds.), *Situated literacies* (pp. 7–15). Routledge.
- Bethany, A (2019). A study of phatic emoji use in WhatsApp communication. *Internet Pragmatics*, 2(2), 206–232. <https://doi.org/10.1075/ip.00029.aul>
- Cingel, D. P., & Sundar, S. S. (2014). Texting, techspeak, and tweens: The relationship between text messaging and English grammar skills. *New Media & Society*, 14(8), 1304–1320. <https://doi.org/10.1177/1461444812442927>
- Crossley, S. A. (2020). Linguistic features in writing quality and development: An overview. *Journal of Writing Research*, 11(3), 415–443. <https://doi.org/10.17239/jowr-2020.11.03.01>
- Crystal, D. (2006). *Language and the Internet* (2nd ed.). Cambridge University Press. <https://doi.org/10.1017/CBO9780511487002>
- Crystal, D. (2011). *Internet linguistics: A student guide*. Routledge.
- De Souza, P. (2022). *Multimodal Literacies in Digital Spaces*. Cambridge University Press.
- Drouin, M., & Davis, C. (2009). Ru txtng? Is the use of text speak hurting your literacy? *Journal of Literacy Research*, 41(1), 46–67. <https://doi.org/10.1080/10862960802695131>
- Fernández Juliá, O., & Gómez-Camacho, A. (2023). Textisms and textese: A systematic review. *Revista Fuentes*, 25(3), 305–317. <https://doi.org/10.12795/revistafuentes.2023.23011>
- Ge, J., & Herring, S. C. (2018). Communicative functions of emoji sequences on Sina Weibo. *First Monday*, 23(11). <https://doi.org/10.5210/fm.v23i11.9413>
- Georgakopoulou, A., & Spilioti, T. (2015). *The Language of Social Media: Communication and Identity on the Internet*. Routledge.
- Gnach, A., Weber, W., Engebretsen, M., & Perrin, D. (2022). *Digital communication and media linguistics: With case studies in journalism, PR, and community communication*. Cambridge University Press. <https://doi.org/10.1017/9781108780445>

- Gourlay, L. (2019). Textual practices as already-posthuman: Re-imagining text, authorship and meaning-making in higher education. In C. A. Taylor & A. Bayley (Eds.), *Posthumanism and Higher Education: Reimagining Pedagogy, Practice and Research* (pp. 237–254). Palgrave Macmillan.
https://doi.org/10.1007/978-3-030-14672-6_14
- Grace, A., Kemp, N., Martin, F. H., & Parrila, R. (2014). Undergraduates' text messaging language and literacy skills. *Reading and Writing*, 27(5), 855–873. <https://doi.org/10.1007/s11145-013-9471-2>
- Herring, S. C., & Androutsopoulos, J. (2015). Computer-mediated discourse 2.0. In D. Tannen, H. E. Hamilton, & D. Schiffrin (Eds.), *The Handbook of Discourse Analysis* (2nd ed., pp. 127–151). Wiley.
- Hills, M. (2020). *Digital Media and the Shaping of Participatory Culture*. Routledge.
- Hinrichsen, J., & Coombs, A. (2013). The five resources of critical digital literacy: A framework for curriculum integration. *Research in Learning Technology*, 21, Article 21334. <https://doi.org/10.3402/rlt.v21.21334>
- Jones, R. H., Chik, A., & Hafner, C. A. (Eds.). (2015). *Discourse and Digital Practices: Doing Discourse Analysis in the Digital Age*. Routledge.
<https://doi.org/10.4324/9781315726465>
- Jutba, J. A. E., Kilat, K. V., Dionio, B. B., Clarin, A. S., & Vallejo, J. H. (2024). The use of textism and students' spelling ability. *International Journal of Research and Innovation in Social Science (IJRISS)*, 8(2), 1856–1867.
<https://doi.org/10.47772/IJRISS.2024.802130>
- Kress, G., & Selander, S. (Eds.) (2021). *Learning as social practice: Beyond education as an individual enterprise*. Routledge.
<https://doi.org/10.4324/9781003139188>
- Lee, C. K. M. (2007). Affordances and text-making practices in online instant messaging. *Written Communication*, 24(3), 223–249.
<https://doi.org/10.1177/0741088307301702>
- Luangrath, A. W., Xu, Y., & Wang, T. (2022). Paralanguage classifier (PARA): An algorithm for automatic coding of paralinguistic nonverbal parts of speech in text. *Journal of Marketing Research*, 60(2), 388–408.
<https://doi.org/10.1177/00222437221116058>
- Machado, E. (2017). Fostering and sustaining diverse literacy practices in the early childhood classroom: Reviewing the literature in three areas. *Literacy Research: Theory, Method, and Practice*.
<https://doi.org/10.1177/2381336917718178>
- Manzolim, H., & Michelle Dela Cruz. (2024). HU U? The impact of texting language on the academic writing proficiency of second language learners. *International Journal of Linguistics, Literature and Translation*, 7(8), 19–28. <https://doi.org/10.32996/ijllt.2024.7.8.3>
- Mason, J. (2018). *Qualitative researching* (3rd ed.). Sage.
- McCulloch, G. (2019). *Because Internet: Understanding the new rules of language*. Riverhead Books.
- Pahl, K. & Rowsell, J. (2018). *Multimodal perspectives on literacy in the digital age*. Routledge.

- Pérez-Sabater, C. (2019). Emoticons in relational writing practices on WhatsApp: Some reflections on gender. In P. Bou-Franch & P. Garcés-Conejos Blitvich (Eds.), *Analyzing digital discourse: New insights and future directions* (pp. 129–150). Palgrave Macmillan.
https://doi.org/10.1007/978-3-319-92663-6_6
- Plester, B., Wood, C., & Joshi, P. (2009). Exploring the relationship between children's knowledge of text message abbreviations and school literacy outcomes. *British Journal of Developmental Psychology*, 27, 145–161.
<https://doi.org/10.1348/026151008X320507>
- Powell, D. & Dixon, M. (2011). Does SMS text messaging help or harm adults' knowledge of standard spelling? *Journal of Computer Assisted Learning*, 27, 58–66. <https://doi.org/10.1111/j.1365-2729.2010.00403.x>
- Qi, F., & Li, J. (2023). Chinese university students' translanguaging hybrids on WeChat: Creativity nurtured language play in the context of a Chinese digital social media. *English Today*, 39(4), 297–306.
<https://doi.org/10.1017/S0266078422000256>
- Sampietro, A. (2019). Emoji and rapport management in Spanish WhatsApp chats. *Journal of Pragmatics*, 143, 109–120.
<https://doi.org/10.1016/j.pragma.2019.02.009>
- Sampietro, A. (2021). Emojis and the performance of humour in everyday electronically-mediated conversation: A corpus study of WhatsApp chats. *Internet Pragmatics*, 4(1), 87–110. <http://doi.org/10.1075/ip.00062.samp>
- Sandel, T. L., Ou, C., Wangchuk, D., Ju, B., & Duque, M. (2019). Unpacking and describing interaction on Chinese WeChat: A methodological approach. *Journal of Pragmatics*, 143, 228–241.
<https://doi.org/10.1016/j.pragma.2018.08.011>
- Shortis, T. (2007). Revoicing txt spelling, vernacular orthography, and unregimented writing. In S. Posteguillo, M. J. Esteve, & M. L. Gea-Valor (Eds.), *The texture of internet* (pp. 2–23). Cambridge Scholars.
- Sidi, Y., Glikson, E., & Cheshin, A. (2021). Do you get what I mean!?! The undesirable outcomes of (ab)using paralinguistic cues in computer-mediated communication. *Frontiers in Psychology*, 12, 658844.
<https://doi.org/10.3389/fpsyg.2021.658844>
- Smith, E.E., Storrs, H. (2023). Digital literacies, social media, and undergraduate learning: what do students think they need to know? *International Journal of Educational Technology in Higher Education*, 20(29), 1–19. <https://doi.org/10.1186/s41239-023-00398-2>
- Street, B. V. (1993). Introduction: The New Literacy Studies. In B. V. Street (Ed.), *Cross-cultural approaches to literacy* (pp. 1–21). Cambridge University Press.
- Steyn, H., & Evans, R. (2015). Textese and secondary school learners' formal written English: Is the media hype about language decay justified? *Journal for Language Teaching*, 49(1), 199–221. <https://doi.org/10.4314/jlt.v49i1.8>
- Tagg, C. (2020). *Messaging and digital literacy in mobile communication*. De Gruyter.

- Thakur, R. (2022). Textese and its impact on the English language. *Journal of NELTA*, 26(1-2), 166–178. <https://doi.org/10.3126/NELTA.V26I1-2.45212>
- Thurlow, C. (2006). From statistical panic to moral panic: The metadiscursive construction and popular exaggeration of new media language in the print media. *Journal of Computer Mediated Communication*, 11(3), 667–701.
- Thurlow, C., & Poff, M. (2013). Text messaging. In S. C. Herring, D. Stein, & T. Virtanen (Eds.), *Pragmatics of computer-mediated communication* (pp. 163–190). De Gruyter Mouton.
- Unsworth, L. & Mills, K. A. (2020). English language teaching of attitude and emotion in digital multimodal composition. *Journal of Second Language Writing*, 47, 100712. <https://doi.org/10.1016/j.jslw.2020.100712>
- van Dijk, C. N., van Witteloostuijn, M., Vasić, N., Avrutin, S., & Blom, E. (2016). The influence of texting language on grammar and executive functions in primary school children. *PLoS ONE*, 11(3), [e0152409]. <https://doi.org/10.1371/journal.pone.0152409>
- Verheijen, L., & Spooren, W. (2021). The impact of WhatsApp on Dutch youths' school writing and spelling. *Journal of Writing Research*, 13(1), 155–191. <https://doi.org/10.17239/jowr-2021.13.01.05>
- Wiggins, B. E. (2019). *The discursive power of memes in digital culture: ideology, semiotics, and intertextuality*. Routledge. <https://doi.org/10.4324/9780429492303>
- Yépez-Moreno, A., Núñez-Naranjo, A., Torres-Cordero, C., Lucero-Albán, P., Andrade-Cáceres, X., & Quimbiulco-García, M. (2025). Phonological awareness and reading skills: Impact in the digital society. *Journal of Educational and Social Research*, 15(2), 419–430. <https://doi.org/10.36941/jesr-2025-0070>
- Young, R. F. (2011). Interactional competence in language learning, teaching, and testing. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (Vol. 2, pp. 426–443). Routledge. <https://doi.org/10.4324/9780203836507-30>
- Zapata, A., & Laman, T. T. (2016). I write to show how beautiful my languages are: Translingual writing instruction in English-dominant classrooms. *Language Arts*, 93, 366–378. <https://doi.org/10.58680/la201628590>
- Zappavigna, M. (2023). *The discourse of digital communication: Textese and beyond*. Cambridge University Press.
- Zhou, Y., & Wu, Y. (2024). The reduction of Netspeak in Mandarin computer-mediated communication: a least effort motivation at the utterance level. *Humanities and Social Sciences Communications*, 11, Article 779. <https://doi.org/10.1057/s41599-024-03319-4>