A Cross-Sectional Study of Textese in Academic Writing: Magnitude of Penetration, Impacts and Perceptions

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A Cross-Sectional Study of Textese in Academic Writing: Magnitude of Penetration, Impacts, and Perceptions

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Abstract

This cross-sectional study examined the distribution of electronic texting patterns in academic writing and effects of textese on EFL learners' writing performance. It also explored teachers' perspectives on this phenomenon. Data were gleaned from 60 undergraduates enrolled for a license degree in English language and literature and 10 of their professors who were familiar with writing skills of this body of informants. A corpus of texts derived from exam scripts, assignments, and lecture notes was analyzed, and the teachers were interviewed. The results revealed that learners tend to transfer some patterns of instant messaging (IM) into their writing. However, this remains rather limited to morphosyntactic features and some other paralinguistic features and local-based contents. The phenomenon was pervasive across the sample in a descending order; learners at the entry level e-texted more than their seniors did. Besides, heavy texters used this deformed variety of English to compensate low writing proficiency in terms of spelling, word selection, and sentence structures. Additionally, texting was apparently evident in note-taking more than in answer sheets and assignments. The study concludes that textese is not a surrogate for the Standard English but an addition to it with a variance of scope and purpose of usage.

Keywords: Academic writing, Morphosyntax, Textese, Instant messaging (IM), Texting

Introduction

Although originated outside human bodies, information and communication technology (ICT) has gradually become an integral part of individuals' identities and experiences. It is difficult now to imagine life without ICT gadgets such as mobile phones, tablets, iPad, and many other high-tech gizmos. The invasion of these ICTs has provided electronic platforms for using English (Al-kadi & Ahmed, 2018; Crystal, 2008; Fandl & Smith, 2013; Titanji, Patience & Ndode, 2017). The technology gurus communicate hundred times a day synchronously and asynchronously. They tend to talk to such tiny devices and, by the same token, send and receive short messages more than face-to-face interaction (French, 2017; McSweeney, 2017; Sockett, 2014). This electronic communication, which seems to be perpetual, has brought about a dramatic change in how language is used in various virtual platforms (Boştină-Bratu, 2015; Campbell, 2007; Sockett, 2014; Zappavigna, 2012). For instance, one-to-one connection (messaging) or one-to-many (e.g. chatrooms, twitter, Facebook) have resulted in deviations of the Standard English (hereafter SE). These transgressions tacitly seep into academia and provoked worldwide debate. More and more students are becoming avid texters. They cannot escape text-messaging on a daily basis, and this arguably affects their writing abilities. Excerpts from students' texting display a tendency of using the language in directions that dilute the standard spelling, punctuations, word-formation, and grammatical conventional rules.

Language researchers approach this pressing linguistic issue from different perspectives. For example, debaters have prompted discussions as to whether or not language habits associated with texting (hereafter TXTing or e-texting) interfere with the conventional forms of written discourse. This topic is now the thrust of an array of journals, e.g. Journal of Computer Assisted Learning, Journal of Computer-Mediated Communication, Journal of Foreign Language Education and Technology, Language Learning and Technology, to name but a few.

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Besides journal articles, the topic has been the theme of MA theses and Ph.D. dissertations (Benkorichi 2017; Everett, 2016; French, 2017; Proudfoot, 2011; Wardyga, 2012). Prior research including experimental studies, correlational analyses, and meta-analysis studies varied in scope and purpose. The bulk of such inquiries showed a relationship between text messaging and students' linguistic abilities (Crystal, 2013; Dansieh, 2011; French, 2017; McSweeney, 2017; Wardyga, 2012). These studies maintained that there is still a flawed understanding of some aspects associated with textese. It is quite uncertain whether TXTing enriches modern English by adding a new register to it, or it fractures the language drastically. There is a need to (a) pinpoint both positive and negative effects on language and (b) demystify precisely how students' writing styles change over time under the influence of textese. This area of research merits further investigation and the present study departed from those key findings. On logical grounds, by assessing the performance of EFL undergraduates' writing style, it is possible to demonstrate whether texting yields better or worse academic writing performance.

Objectives

This paper intends to accumulate empirical evidence of dispersal of textese in students' academic writing. It homes in on a sample of lecture notes, exam answer sheets, and assignments. It also uncovers teachers' perceptions about this variety of modern English, which seems to be a weird writing style.

Research questions

The investigation hinges on the following research questions:
1. What is the magnitude of TXTing features in academic writing?
2. Is there any correlation between the frequency of these features and EFL undergraduates' writing performance?
3. How do teachers/examiners perceive e-texting in students' writing?

Literature Review

Actually, the reliance on wired and wireless communication technologies is increasingly evident in all facets of modern life. TXTing has burst into an international modern culture as a preferred method of telecommunication. It is now an ordinary channel of online communication (Boştină-Bratu, 2015; Crystal, 2008, 2013; Gorney, 2012; McSweeney, 2017). It is widely accepted by individuals of all ages (social and professional categories). This deformed type of contemporary English continues to permeate daily communication. The language representation forms- thanks to technology- have been changed from bricks to clicks. Electronic gadgets now enable fingers to do the talking. By simply clicking on a keyboard, texters can send and receive messages in seconds. Although textese is a new writing style developed in the 1990s, its heyday was the early 2000s. All throughout, it has been investigated under a suite of labels: textSpeak, textisms (Crystal, 2004, 2013), internetese (Campbell, 2007), textese (Nenagh & Abbie, 2017), SMS language (Aziz, Shamim, Aziz & Avais, 2013), text messaging (Titanji, et al., 2017), and the like. These terminologies are sometimes used synonymously. In this article, all these synonyms symbolize a medium of communication imbued with highly idiosyncratic abbreviations. It has instigated a litany of new uses of the language out of its ordinary usage (Crystal, 2013; Campbell, 2007; Waldrone, Kemp, & Wood, 2016; Zappavigna, 2012). These deviations, dubbed texting features, refer to orthographic and contextual changes of certain words. These features are divergent from the conventional forms of writing (Bernicot, Goumi, Bert-Erboul, Volckaert-Legrier, 2014; Dansieh, 2011). Compared to the standard varieties of English, TXTing defies traditional linguistic constituents of sentence structures, pronunciation, punctuation, sentence length, and so on. It is rather known for its weird word-formation.

There is a substantial, and still growing, body of literature on orthographical, phonological, morphological and syntactic features that carry messages differently from their normal uses in formal English (Crystal, 2008, 2013; Tagg, 2009; Zappavigna, 2012). Tagg (2009) studied– through a corpus-based approach– linguistic patterns that texters shaped to interact through text messaging. The study identified texting-wise abbreviations and other symbols that delineate texting as a distinctive variety of English. In the same line of research, Lyddy, Farina, Hanney, Farrell, and O'Neill (2014) studied textual characteristics of 936 short messages made of 13391 words as texted by 139 Irish undergraduates. The results revealed that 25% of the words were of nonstandard spelling and less than 0.2% was semantically unrecoverable. Likewise, Adebileje (2014) explored the morpho-syntax of text messaging among Nigerian undergraduates. The study examined the internal structures of words, and how such structures were arranged to form short messages. Analyzing 122 text messages, the study showed that the

frequency of morpho-syntactic features varied across the sample. The participants used logograms, symbols, phonics, and bits of the Nigerian Pidgin English to shape short messages. In a related context, Ali, Hasnain, and Beg (2015) studied the impact of texting on comprehension of 90 participants enrolled at Aligarh Muslim University in India. The study explored the respondents' familiarity with and comprehension of mobile-based messaging. The findings unveiled confusing abbreviations in the dataset. The respondents did not understand all of the abbreviations. This reinforces the claim that TXT-oriented usage also differs from context to context. For instance the acronym *lol* is interpreted differently. It might stand for *laugh out loud* or *lots of love*, both are different from its earliest meaning, *little old lady*. Given this, it can be said that textese is not universal. It enables users to invent their own rules, patterns, and uses which maybe unclear by non-texters who are unacquainted with SMS abbreviations or other English users.

Debatably, the pictograms and logograms are devised to meet certain requirements. Driven by the smallness of screen size of modern gadgets, texters innovatively develop a set of techniques including abbreviation, graphones, word or phrase shortening, and so forth (Crystal, 2008; Gorney, 2012; Kool & Agrawal, 2016; Waldrone et al., 2016; Zappavigna, 2012). Nonetheless, Nenagh and Abbie (2017) traced 728 Australian undergraduates' textisms (from 2009 to 2015), and the findings showed a decline of textese. The TXTing features tailed off with the passage of time but did not disappear completely in students' writing. The authors noted that texting was initially driven by the screen sizes, but larger phone screens, keyboards, and input methods now enable students to reduce abbreviations.

The impact of texting on writing has received a mixture of views. For instance, reporting from the Arab Open University (AOU), Al-Salman and Saeed (2017) explored (a) the effect of text-messaging on Arab EFL learners' English academic writing and (b) teachers' attitudes towards it. The study reported a limited number of violations including uncommon abbreviations, contractions, emoticons, erroneous grammar, and spelling. However, the volume of these deviations insignificantly affected the learners' writing performance. The study rested on students' writing at the entry level, which suggests revisiting the topic employing advanced learners. Unlike Al-Salman and Saeed's (2017) study, Benkorichi (2017) reported a strong relationship between textese and university students' writing in the Algerian context. The students' production of academic writing was negatively affected by the overuse of TXTing features. Likewise, textese has been made a scapegoat for writing underperforming as indicated by the findings of a line of research. Some authors voiced concern that the increasing use of text messaging by students is a real menace to the quality of writing (Aziz et al., 2013; Benkorichi 2017; Boştină-Bratu, 2015; Campbell, 2007; Dansieh 2011; Yousaf & Ahmed, 2013; Sockett, 2014; Wardyga, 2012). These studies reported indiscriminate uses of TXTing style that manifests itself in several forms: carefree spelling, poor punctuation, less grammar, paucity of vocabulary, and so forth. The common adverse impacts reported in this body of research included using typographic symbols, logograms, figures, phonics, broken grammatical rules, fads of unusual contracted words, emoticons (symbols representing emotions), and odd punctuation (e.g. missing comma, wrong uses of commas, semi-colons, full stops, and apostrophes). Arguably, this tendency erodes L2 learners' abilities to spell and punctuate correctly and thus wrecks the standard structures of the language.

Other researchers stand on the other extreme of debate. For instance, Crystal (2013), Gorney (2012), Waldrone et al. (2016) argued that regarding TXTing as detrimental to the language is an overstated view. Notwithstanding doom-laden prophecies, textese according to these studies, extends the lexicon of the language. It contributes a whole lot of imaginative and innovative techniques and increases rules and uses of the language, not only vocabulary (Crystal, 2008; Everett, 2016; McSweeney, 2017; Ta'amneh, 2017). It also boosts literacy skills of learners and helps them to discriminate between the standard and the nonstandard English (Javed & Mahmood, 2016). According to Crystal (2013), the reported effects are rather limited; textese has affected only a tiny fraction of English, and it has not replaced the old standard varieties. Following Crystal's (2008) argument, some authors believe texting has sobering effects on literacy in general. For instance, in a meta-analytic study, Everett (2016) reviewed the influence of text messaging on students' writing. The study utilized 17 sets of data from 14 studies recruiting 1652 students. It concluded that short messaging significantly impacts writing outcomes. In a similar vein, Ta'amneh (2017) conducted an experimental study in the Saudi EFL context. The experiment was designed of two groups: a control group (n=21) and an experimental group (n=19). The former was taught traditionally and the latter underwent a combination of traditional and WhatsApp-based learning paradigm. The findings showed that learners in the experimental group outperformed their counterparts. This positive effect, Ta'amneh argued, stemmed from integrating WhatsApp in teaching English. Additionally, Javed and Mahmood (2016) examined textese in daily life of a sample of Pakistani graduates highlighting its effects on the standard forms of the language. The findings showed that the participants were able to distinguish textese from formal English. The author argued that TXTing was evident in academic writing by students whose level of proficiency was quite low. Despite positive perspectives, texting-based literacy remains a forgotten

proficiency that is hardly recognized by pedagogues and evaluators (Al-Kadi, 2017). In this regard, Proudfoot (2011) pinpoints that English teachers today use formal English in classroom but this variety "does not reflect the world view of their learners … which is influenced by technology" (p.3). The author goes a step further saying that "learners often converse and communicate in a form of written and spoken English that has not been standardized" (p.3).

Apart from the positive and negative effects, which seem to be an ongoing debate, textese arguably falls within the realm of bilingualism (Crystal, 2008; McSweeney, 2017). Texters may be referred to as bilinguals for they develop dual literacies: they can communicate through texting as well as Standard English. They switch between these two varieties on a daily basis. Texting may also be taken as an informal variety of modern English or a genre of ESP infused with jargons, registers, and terminologies. Bernicot, et al. (2014) advocated that textese has a set of rules that define it as a unique variety of contemporary English. Along similar lines, McSweeney (2017) analyzed a corpus of 44597 text messages, and the findings showed that bilinguals who texted more messages in English and chose English for the settings on their mobile phones had higher English academic skills.

To sum up, texting which is a fairly new means of communication and research venue has been explored with a quite big body of research on its linguistic features. Several studies have pinpointed its negative influences on the standardized status of the language (e.g. Benkorichi, 2017; Boştină-Bratu, 2015; Campbell, 2007). The literature generally shows that e-texting has degenerated conventional norms of morphology and syntax of the language. Perhaps, textese transgresses grammatical rules and word-formation and, according to this perspective, it subverts the Standard varieties. As a rebuttal to this stance, Crystal (2013) and Gorney (2012) hold a positive view that TXTing enhances texters' literacies. The studies born in this vein maintain that good texters are actually good spellers – the more they text, the better their writing literacy becomes. The third stride of this debate is germane to textese with possibilities of positive and negative impacts on the structure and usage of the language (e.g. French, 2017; Titanji, Patience & Ndode, 2017). The diversity of results of prior research could be attributed to differences in the design of those studies. The association between texting and writing abilities of undergraduates is a continuing controversy. The correctional analysis failed to warrant conclusions about causality. There is no general consensus on TXTing pros and cons, and absolute research conclusions have not surfaced yet. In the context under scrutiny, text-messaging is discussed in contrast to academic writing across a cohort of English learners enrolled for a 4-year English program. Probing data from this body of undergraduates helps to capture the breadth of the phenomenon in the Yemeni context in comparison with other contexts. The inquiry is grounded on the assumption that academic writing abilities decline under the influence of TXTing features. The writing skills under scrutiny include spelling, sentence structure, language uses, and word choices that match the forms of standard modern English. Hopefully, the findings will solidify previous evidence and bring to the foreground insightful ideas for further research.

Method

This paper touches on text messaging features across students' academic writing at the university level. It adopted a mixed-method research paradigm with an aim to decipher pervasiveness of textisms across academic texts written by learners of different levels. Guided by cross-sectional design, a corpus of 60 half-page texts (lecture notes, exam answer sheets, and research reports) were randomly collected from a body of 60 EFL undergraduates enrolled for a license degree in English language and literature at a public university in Yemen. Besides bite-sized pieces of exam scripts and research reports which are, by their nature, highly structured, excerpts of classwork/exercises and lecture notes were incorporated to check the learners' written performance in a natural setting.

In addition to the learners' writing outputs, the study disclosed teachers' beliefs about effects of textese on students' writing. Ten senior professors of English - familiar with the learners' academic writing - were interviewed. An interview protocol was prepared based on prior research findings, viz. Al-Salman and Saeed (2017), McSweeney (2017), and Benkorichi (2017). The interviewing agenda was structured with some space for spontaneous elaborated questions. The interview was of two structured parts. The first part addressed three questions: (a) Do your students use texting in their writing?, (b) If you find any of the texting features in your students' assignments, do you accept or reject it? Why? (c) Do you think textese aggravate your student's writing performance? The second part of the interview was about teachers' perceptions on e-texting.

Data Analysis

Data were treated in three steps. First, the package of data (excerpts of lecturing-notes, exam scripts, and written assignments) were assembled, amassed, and converted into electronic spreadsheets. Textisms were marked and classified. For instance, *lol* and *bt* were considered spelling errors wherein the former was featured as 'acronyms' and the latter includes 'vowel deletion'. All the TXTing entities were calculated. Features of similar categories were clustered under four subcategories: orthographic, morpho-syntactic, paralinguistic, and local content-based features. The package of features was divided into two thematic categories. The first category was almost free of TXTing elements and the second was imbued with texting components. Each sub-category was measured by taking the number of orthographic changes as a whole and dividing it by the total number of words per instant messaging. Second, the informants' writing was evaluated by considering the results of final examinations in writing-based courses. The participants' scores were saved electronically. Each score was tabulated against each informant's name. Again, the linguistic backgrounds of the texters in both categories (writing-based vs. null-texting) were examined by looking into their academic records. Relevant data obtained from academic records reinforced the numeric results. Third, numeric data were displayed in the forms of figures and tables, and the non-numeric data were analyzed qualitatively. In the analysis, extracts from the participants' written scripts and teachers' interview were quoted to highlight salient points. By examining the informants' lecturing notes, exam answer sheets, and research reports, it was possible to measure the variance of textisms across the sample.

Results

Research Question #1: What is the magnitude of TXTing features in academic writing?

The first research question is appertained to the dispersal of texting features in the students' writing. As data in Table 1 indicates, the disproportionate amount of features included graphones, truncation, alphanumeric homophony, punctuation 'errors' and initialization. Noticeably, graphones and punctuation errors were the most common linguistic features in the collected data. Punctuations per se constituted 78% of the package of features. This could be attributed to the fact that English lays heavy emphasis on punctuation marks. However, e-texting dictates new functions to the conventional punctuations. The feature of graphones refers to letter/alphanumeric homophony. It makes 67% of the features in the dataset. Phonetic replacements included 'ur' instead of 'your', 'plz' for 'please', 'gd' for 'good'; and acronyms, such as 'lol' laugh out louder', and the like. Moreover, abbreviations, logograms (e.g. ampersand), shortened words (e.g. pic for picture) and nonstandard spellings were also evident in the corpus. Nonstandard spellings– apparently deliberate– involved re-spelling words phonetically (e.g. nite= night; c u =see you; l8r=later; gr8=great). In these mutilated spellings, consonant sounds resisted removal while most vowels were deleted. Like truncation, vowel deletion is often used in texting for the purpose of brevity, e.g. Thx (thanks), ths (this), hv (have), etc. While the vowels were deleted in these instances, the consonants represented the given words.

Table1. Distribution of texting features in students' writing

TXT features	Classwork Occureences %	Answer sheets Occureences %	Research reports Occureences %	Total
Graphones	63%	3%	1%	67%
punctuation	76%	7%	4%	78%
initialization	52%	9%	2%	63%
Truncation	42%	2%	2%	46%
Alphanumeric homophony	34%	3%	3%	40%
Emoticons	2%	4%	1%	7%
Code-alteration	17%	1%	0%	18%

The other minor features included emoticons and code alteration. The use of emojis such as smiley face 😋 , thumbs up 🙌 , and victory ✌ was patent in the corpus with a percentage of 17%. Such emojis were mainly found in typed assignments. The corpus also contained local cultural contents. Code-alteration– or what might be called code-switching– was apparently observed in such a way of using Arabic numbers, letters, and words in

lieu of English words. The illustrations extracted from the dataset (42%) reflect some aspects of local cultural and linguistic backgrounds such as code-alteration and dialectal expressions. For example, *winek* was used instead of 'where are/were you?' and *walah* in lieu of 'I swear'. Both examples demonstrate how Arabic style influenced shaping textese. Other examples included some sentences beginning with English and ending with Arabic, or vice versa.

Figure 1 displays the dispersion of TXTing features in the corpus. 80% of the participants' textisms were evident in on-the-spot writing exercises (lecture notes). The other two categories (answer sheets and assignments) contained 20% of the TXTing features. More pointedly, the participants e-texted while scribbling lecture notes more than they did in writing assignments and answer sheets. The textisms in the participants' classwork were apparently chancy and patchy. There were no obvious patterns in the corpus. The participants abbreviated words and sentences in their own way.
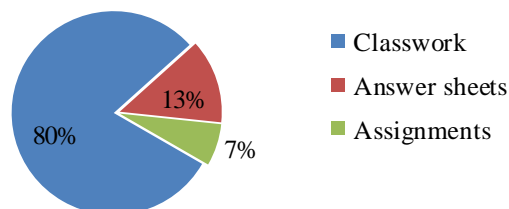

Figure 1. Magnitude of textese in the sample's writing

The phenomenon descended across the sample as shown graphically (Figure 2). Students at the entry level tend to overuse TXTing features in their writing. For instance, the corpus collected from the freshmen (n=15) constituted the biggest part of TXTing features. The sophomores (n=15) were amenable to pictograms, logograms, initialism, nonstandard spellings, omitted letters, and shortenings more than their seniors. This suggests that the cohort of learners were cognizant with such textisms.
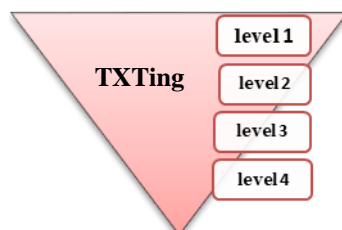

Figure 2. Descending of TXTing features in the sample's writing

Research Question #2: Is there any correlation between the frequency of TXTing features and EFL undergraduates' writing performance?

Addressing this question, the magnitude of text messaging discussed above was correlated with EFL writing performance. The link between these two variables: e-texting and academic writing was ascertained. The inquiry was based on an assumption that textese ruins students' writing abilities. To test this hypothesis, descriptive and inferential statistics were applied. Extracts infused with TXTing features (n=76) were set apart from the texts with null-texting features (n=18). The performance of the texting-based group and the null-texting group were compared. The minimum and maximum values and mean scores of writing skills of both groups were obtained by analyzing their academic records. The accumulative scores of the writing-based courses are arranged in Table 2. As data in the table indicates, the proficiency rate of the texting-based group was less than that of the null-texting group (48% vs. 87%). It implies frequent occurrences of texted language in the former and a rarity of TXTing in the latter. It also indicates that low level of performance could be attributable to textese, which ultimately led to erroneous spelling and ill-structured sentences, among other flaws. Students with high proficiency level, unlike their counterparts, hardly texted in their formal writing.

Table 2. Texters' vs. non-texters' writing proficiency

Group	No.	Min. score	Max. score	Average score
Texting-based	76	34	71	48%
Null-texting	18	56	92	87%

In order to strengthen evidence of the correlation between the amount of TXTting and academic writing, the inferential procedure (Pearson correlation) was applied with the following hypotheses in mind:

- H_0: There is no significant correlation between textese and writing performance of the EFL learners ($p=0$)
- H_1: There is a significant correlation between textese and writing performance of the EFL learners ($p \neq 0$).

The test of Pearson correlation entertains these two hypotheses. The results are displayed in Table 3. As data in the table exhibits, the correlation coefficient is 0.521 (p-value>.05) which suggests a positive relationship between the variables in question. In statistical terms, the null hypothesis (H_0) is rejected, and the alternative hypothesis (H_1) is accepted. That is, the texting scores were positively correlated with English performance insofar as academic writing is concerned.

Table 3. Pearson correlation between textese and writing performance

Correlations	e-texting	writing
Pearson Correlation	1	0.205
Sig. (2-tailed)		0.521
N	60	60
Pearson Correlation	0.205	1
Sig. (2-tailed)	0.521	
N	60	60

Research Question #3: How do teachers/examiners perceive e-texting in students' writing?

To answer this question, perceptional data were collected from the teachers' interview. Responses to the interview questions varied: Teachers aged between 25 and 45, who represented 45% of the sample, stated that they were tolerant of TXTing patterns. These teachers have grown up with this technology-based variety of contemporary English. They thought that it is a linguistic phenomenon. As outlined in Figure 3, the informants generally believe that texting is a day-to-day communicational tool and a channel of worldwide interaction. The majority asserted that TXTing inadvertently seeps into academia.
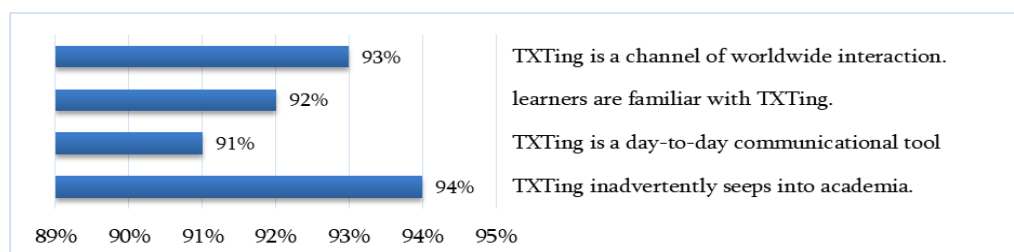

Figure 3. Teachers' perceptions on e-texting

One of the respondents commented that e-texting has become a daily practice, providing examples from real life situations, e.g. businesses taken over text messaging and job applicants' activities on social networking sites. These texting-based business activities encourage texters to use electronic English. These respondents, who hold a positive view of TXTing, admitted that they themselves e-text sometimes, even when they use the whiteboard. They do so keeping in mind that their learners are familiar with such fangled abbreviations. These informants, chiefly the middle-aged teachers, suggested introducing a texting-oriented English course in the curriculum (English for TXTing purposes), or it could be a part of an existing course such as English Morphology and Syntax courses. This may address students' needs to distinguish grammatical and ungrammatical English, the same way they differentiate between ESP and general English.

On the other extreme, the other respondents, aged between 50 and 70, were irritated by the fads of semiotic abbreviations and symbols that distinguish textese from the SE. This is probably because aged teachers were assumingly inept at electronic platforms (non-digital natives). They got their higher studies certificates during the period of 1980-1995 when textese was not already onboard. That is, they were trained on the pre-TXTing norms of the language. Generally speaking, the teachers in focus disparage texting in academic settings. They belittle textese arguing that it is an imminent threat to the standard form of language. In contrast, younger teachers were more lenient towards texting in their students' writing.

Discussion

This subsection aptly discusses the findings with a flashback on the literature. Besides descriptive and statistical analysis of the magnitude of penetration of textese across students' writing, the investigation was triangulated by exploring teachers' perceptions. To begin with, the magnitude of TXTing features in academic writing (outlined in Table 1 & Figure 2) indicates that the texting features were distributed in students' writing unevenly. The informants e-texted differently and inconsistently. In textese, punctuations are fairly used as messages with unique usage, not merely punctuation marks. Although textese can do without punctuations, it "runs the risk of ambiguity" (Crystal, 2008, p. 81). In the corpus of this study, the punctuation errors ranged from missing commas to wrong uses of full stops. Compared to Crystal's (2004) textSpeak abbreviations in his book *A Glossary of Textspeak and Netspeak*, the extracts taken from the dataset included incorrect uses of apostrophe, comma, full stop, and missing (semi)colons. In the dataset, some punctuation marks were used as 'messages' by themselves, not as formal English punctuation marks. For instance, texters used the question mark (?) to give a complete sense, meaning *I didn't get you* or *I wonder why you said so*, etc. In this regard, Gorney (2012) voiced concern that (a) the use of certain punctuation marks and lack of some others, (b) the meaning that capital letters convey, and (c) the numerous misspellings endanger the future of SE drastically, especially when individuals become unable to recall SE or use it properly. Crystal (2013) argued that these changes had not occurred for long enough to be treated as linguistic flaws.

Besides punctuation errors, abbreviations were marked throughout the corpus. Although abbreviations facilitate fast communication, they "take away the eloquence of the language and lead to a less professional impact and potentially a loss of understanding between people" (Gorney, 2012, p.39). Putting the concept of abbreviations in its historical perspective, English has abbreviated words for centuries. Words such as exam, vet, fridge, cox and bus₋ among others₋ have effectively become new words in the English lexicon. When they first came into use, such abbreviated words were severely criticized but they were accepted later on. With the passage of time ₋owing to language change ₋textisms may become normalized, the same way those abbreviations were introduced, criticized, and finally acknowledged (Al-Kadi, 2017; Nenagh & Abbie, 2017). In brief, while the morphological structure of the textisms used in the participants' text messages slightly diverged from that applicable to the Standard English, the syntactic structures generally remained unchanged. Add to that graphones and emojits as they were remarkable in the dataset. In the literature, graphones were the thrust of a plenty of studies (e.g. Adebileje, 2014; Lyddy, et al., 2014; Proudfoot, 2017; Tagg, 2009). These studies reported graphones as a common feature of e-texting. As for emojis, they are governed by the nature of electronic English in which informal expressions are conveyed with supportive emojis. Online communication lacks substantive features of face-to-face communication (e.g. facial expressions, body language, postures, tone of voice, etc.) and emojis, by and large, compensate the absence of such paralinguistic elements. This is in line with findings from prior research that the informal style of written discourse is profusely used in emails, Facebook postings, IMing, etc. (Al-Kadi, 2017; Crystal, 2013; Javed & Mahmood, 2016).

Over-texting while taking notes during lecture could be attributed to two reasons. First, students at the university level are wary of the formal and informal genres; they avoid texting in formal writing. Second, texting by its nature is akin to written speech, which is orthographically economized. The TXTing genre, which is essentially a written form of speech, fits the classroom English more than writing assignments. In class, students write under pressure of time whereas the research papers and scripts are liable for revision/redrafting. While taking notes, students use symbols, semiotic abbreviations, etc. as a drafting strategy (Fandl & Smith, 2013; Sockett, 2014). This has echoes in Tagg's (2009) study that textese resembles spoken English. It suits situations of normal speech, which is structurally simple, concrete, situation-based, and fragmented. It is to be noted that TXTing features decrease in academic writing as learners make progress in their English studies. This is quite the contrary with Wardyga's (2012) study wherein correlation between high and low text users' scores was nonexistent. Wardyga expected some cultural factors that influenced the results.

Overall, the collected corpus contained morphological and syntactic features dissimilar to those of the standard varieties of English. The texting features dispersed arbitrarily in the students' writing. Noticeably, the bulk of features were reported in several studies, i.e. they are unexclusive to the context of the present study. However, the bulkiness of textisms in the context under scrutiny is relatively small. Texting penetrated into the contexts of similar studies was quite sizeable (e.g. Ali et al., 2015; Aziz et al., 2013; Benkorichi, 2017; Boştină-Bratu, 2015; Yousaf & Ahmed, 2013). Further, the respondents who used English as an L2 tend to text at a low rate. They appear more cautious (texting less) than learners whose English is an L1. For instance, Lyddy et al. (2014) reported that native speakers were carefree to text whereas ESL/EFL learners obeyed the rules of the target language. Noticeably, textese has features from both the written and spoken forms of English, making it a new species of communication- more than just a hybrid of speech and writing. It is heralded as a third medium of

communication (Crystal, 2001). In an informal discussion, some informants acknowledged that they used to see this type of English online on a daily basis, and this informal style of English has been normalized; it represents the written language in its naked form. It has evolved as an extra dimension to the language to meet technology-based needs (Crystal, 2013). Boștină-Bratu (2015) pointed out that "texting is just one of many factors influencing the way language is changing, and there is no reason to worry about the future of standard written English" (p.549).

The correlation between the frequency of textese features and EFL undergraduates' writing performance is discussed with reference to the correlational results in Table 3, which is in accordance with previous findings. For instance, Everett (2016), Ta'amneh, (2017), and Javed and Mahmood (2016) contend that textese correlates positively with academic writing. Likewise, Crystal (2013), in a video interview, maintains that texters are better writers. Crystal goes a step further saying that as e-texting involves reading, good texters are necessarily good readers. Yet, Crystal's stance contradicts some other findings. For example, French (2017) found no significant predictive writing outcome ensued from textisms. Taken in combination, the data in Tables 2 and 3 exhibit contradictory results. Table 2 shows no significant association, and Table 3 is the other way around. A similar contradiction was reported in the literature as well (see Crystal, 2013; French, 2017; Proudfoot, 2011).

The correlational results were strengthened by perceptional data collected from the teachers' interviews. The teachers in focus voiced concern that L2 learners being frequently exposed to English through technology. The young learners may not have intuitions about what constitutes the standard vs. the nonstandard English. Nonetheless, the problem arises when textese becomes a writing habit. Students might grow up oblivious of the fact that textese is different from the SE conventions. Without proper instruction, learners may end up learning the informal forms in lieu of the standard varieties. Excessive TXTing features delude learners into believing that the TXTing they commonly use is the correct variety of English. In the literature, Proudfoot (2011) asserted that the Standard English (SE) the educators use in the classroom today does not reflect the worldview of their learners who often converse in a form of written and spoken variety of English, which has not been standardized. In this landscape, Sockett (2014) noted that such "informal language is often mentioned by learners as being a characteristic of their online interaction, especially when communicating with people they know personally" (p.57). However, Campbell (2007) claimed that the language required in the technology-shaped registers is incongruent from what it was before these new semiotic, colloquial and informal symbols and abbreviations were created. Campbell referred to textese, internetese, and emailese as "trash forms of communication where good spelling and grammar are irrelevant" (p.2). On the contrary, recent views (e.g. Crystal, 2013; Javed & Mahmood, 2016; Ta'amneh, 2017) conceptualize text messaging as a new force of language change. It is the type of English that people widely use nowadays at the international level.

Despite the fact that teachers by and large are aware of textese being a newly growing genre of English, the majority disregard it when evaluating students' writing performance. Based on the teachers' interviews, the majority of the teachers considered textisms in students' writing a sign of poor writing abilities. A senior professor asserted that textese is "*an informal English means of daily interaction but not for academic writing,*" a view endorsed by a professor who straightforwardly said, "*I don't stand it in academic writing*". Another fellow asserted that despite the fact that people today text more than they make calls, texting is rejected in academia because it undermines academic writing conventions and encourages arbitrariness and chaos in writing.

Despite caveats ensued from TXTing-oriented research, instant messaging could be a useful teaching tool to ameliorate academic writing: (a) separate textisms from SE and (b) learn some linguistic patterns and (c) compare the mobile device-based texting to the correct spelling (Yousaf & Ahmed, 2013). Some modern devices include autofill applications so that spelling mistakes could be mitigated. The Microsoft Word, mobile phones, iPod, tablets, for example, have the auto correction features that could be set up to correct wrong spellings automatically (Nenagh & Abbie, 2017). Students should be aware of such features so that standard spelling could be sustained. The findings support the idea that textese does not change the SE substantially; it is one of several factors that gave ground to new uses of the language. It is envisaged that textese will continue growing as an addition to, not a surrogate for, the SE. The results of the current study, combined with other relevant research findings, suggest re-conceptualizing this deformed type of language. Accumulative evidence resulting from corpus analysis encapsulates it as a unique genre of modern English with features of an outlet for creativity and ingenuity– which is part of English evolution (Al-kadi 2017; Al-kadi & Ahmed, 2018; Crystal, 2012; Waldrone et al., 2016). Although textese varies in purpose and scope from context to context, this paper supports the dogma that it is a developing register of English– like the many other genre-based registers.

Limitations and Further Research

The findings are limited to the compilation, storage, and exploitation of a corpus of student's lecture notes, exam scripts, and assignments. The results may not be generalizable to other contexts as TXTing is arbitrary and not universal; texters follow no certain patterns and thus textese differs from context to context. This provides impetus for future researchers to employ a larger dataset and/or other data collection tools. Regardless linguistic effects, TXTing has social and psychological dimensions, which is beyond the scope of the current study. It warrants further exploration within the scope of sociolinguistic, psycholinguistic maxims of texting, language choice, and language development. It allows users to create a "haven wherein they may even maintain a self-image incongruent from their real self" (Kool & Agrawal, 2016, p.195). Texters have a sense of security in a world beset by various types of exigencies, and this provides room for other researchers to explore uncharted areas of relevant research.

Conclusion

The paper contributes to the existing body of literature by discussing texting-wise features in academic writing. It delved into debate on whether the frequent uses of digital language benefits or hampers academic performance of advanced learners (university students). The study did not aim to prepare a compendium of texting. It rather problematized major features of it and the impacts these features overshadow on students' writing. This attempt showed that textese dilute a tiny fraction of the language, and most of these transgressions were at the morphological and syntactical levels. That is, not all words in the corpus were abbreviated. Only a portion of the language was represented as symbols, initials, etc. While previous studies reported hampering effects of texting in students' writing at an early level of English learning, the data from this study suggest that texting intrinsically affects the writing performance of those whose proficiency is low. Likewise, textese tails away across time. Textisms dwindle in learners' writing as they make progress in language learning ‒the more they make progress in their English, the less they use textese in their academic writing. This is consistent with similar conclusions of previous studies. Last but foremost, the negative impacts of TXTing, though undeniable, bring to the foreground insightful ideas to the language teachers to sensitize students on both its benefits and pitfalls. Giving students clear, distinctive examples on formal and informal writing helps them distinguish the formal and non-formal writing conventions.

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