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TEXTISMS, GRAMMATICAL FEATURES, AND SENTENCE TYPES IN THE SMS AND IM PARAGRAPHS OF EFAL LEARNERS

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This study investigated the writing of short message service (SMS) and instant message (IM) paragraphs through mobile phones by 29 participants. The latter were Grade 8a English first additional language learners at a junior secondary school in Mthatha. Participants were assigned two topics – one on each paragraph mode - from which they had to produce the two specified modes of paragraphs. The two activities occurred outside of the normal school hours for a day each. Employing a case study design and using voluntary and criterion sampling techniques, the study had four research questions, two of which were: what is the length of SMS and IM paragraphs produced by participants on the two topics they are given to write about?; and what types of textisms will participants use in their SMS and IM paragraphs, and what will be the density of such textisms? Some of the findings of the study are as follows: participants' SMS and IM paragraphs displayed linguistic and contextual textisms, and errors in varying degrees; SMS paragraphs had more contextual textisms than IM paragraphs, while the latter had more linguistic textisms than the former; the overall textism density for both paragraph modes was lower vis-à-vis the total word count in both cases; and IM paragraphs had more compound and complex sentences than SMS paragraphs.

Keywords
SMSs and IMs, message length, textisms, textism density, grammatical features, sentence types

INTRODUCTION

Short message services (SMSs) are employed for communication purposes by diverse mobile phone users ranging from young to adult users. In addition, they are used by educational institutions (e.g., schools) as tools for notifications and alerts for learners. In this context, instant messages (IMs) as deployed especially on MXit, are used largely by young users in the 15-25-year age group segment (Chaka, 2013). In this case, MXit functions as a mobile social network within this user segment. Unlike SMSs, MXit powered IMs enable a real-time text-based instant communication between users that is cheaper than SMSs from all mobile phones, anytime and anywhere.

Most importantly, SMSs have become a fertile area of study for many projects in the field of mobile learning in recent years. Many of these projects have been undertaken on a trial, pilot, or experimental basis, and have mainly focused on young users (Chaka,

2012a, 2012b, 2013; Dansieh, 2011; Deumert & Masinyana, 2008; Dyers, 2014; Freudenberg, 2009; Geertsema, Hyman & van Deventer, 2011; Ngesi, 2012; Oyinloye, 2009; Plester, Wood & Bell, 2008; Winzker, Southwood & Huddlestone, 2009). Against this background, this study investigated the use of mobile phone SMSs and MXit-based IMs as mobile applications for writing short English paragraphs on two topics by 29 Grade 8a English first additional language (EFAL) learners at a junior secondary school, in South Africa. Specifically, it focused on the message length (see Deumert & Masinyana, 2008; Goumi, Volckaert-Legrier, Bert-Erboul & Bernicot, 2011); the types of textisms (see Bushnell, Kemp & Martin, 2011); textism density (see Bernicot, Volckaert-Legrier, Goumi & Bert-Erboul, 2012a; Rosen, Chang, Erwin, Carrier & Cheever, 2010); spelling errors; grammatical features; and sentence types these paragraphs had, as its units of analysis.

On the one hand, a message length is the number of both characters and words per message. On the other hand, textisms are orthographic changes to words, and contextual innovations which are specific to SMS and IM language, but which diverge from traditional forms of writing (Bernicot, Volckaert-Legrier, Goumi & Bert-Erboul, 2012b). There are two types of textisms: linguistic textisms (logograms) and contextual textisms (pictograms) (see Bernicot et al., 2012a; Dansieh, 2011; Plester & Wood, 2009; Rosen et al., 2010). For its part, textism density is the number of orthographic changes divided by the total number of words in a message (Bernicot et al., 2012a).

STATEMENT OF THE PROBLEM

There are now several studies that have investigated text messaging (SMS) and instant messaging (IM) textisms, e.g., message length, textism length per message, textism types and textism density (e.g., Bernicot et al., 2012a, 2012b; Bushnell et al., 2011; Deumert & Masinyana, 2008; Goumi et al., 2011; Ling & Baron, 2007; Plester & Wood, 2009; Segerstad, 2002; Thurlow & Brown, 2003). At the same time, the impact of textisms on young users' literacy, school literacy, or spelling has been investigated (e.g., Aziz, Shaim, Aziz & Avais, 2013; Butgereit, Botha & Van Den Heever, 2012; Bushnell et al., 2011; Dansieh, 2011; Drouin & Davis, 2009); Plester et al., 2008; Rosen et al., 2010; Vosloo, 2009). Most of these studies, except for a few such as Deumert and Masinyana (2008), Geertsema et al. (2011), Vosloo (2009) and Winzker et al., (2009), have occurred outside South Africa. In the South African context, other than studies such as Butgereit et al.'s (2012), Chigona, Chigona, Ngqokelela and Mpofu's (2009), and Deumert and Masinyana's (2008), there are even fewer studies that have investigated learner SMS and IM language in relation to message length, textisms, grammatical features, and sentence types. In addition, there is a paucity of research that has concurrently examined and compared these aspects of learner SMS and IM language in a single study. The current study was an attempt to contribute to this still uncharted area.

Most significantly, in South Africa, mobile phones - and MXit - are completely banned from most schools including the school under study here (Chaka, 2012b; Ngesi, 2012; Porath, 2011). As a result, this study had to be conducted outside the normal school

teaching schedule. Moreover, SMS and IM language is often blamed for the deterioration of learner writing and spelling proficiency. So, while the current study did not explore the latter aspect, it nonetheless set out to investigate the message length, textisms (especially textism types and textism density), grammatical features, and sentence types as language features of the SMS and IM paragraphs of the learners who participated in it.

RESEARCH QUESTIONS

In the light of the above, this study sought to answer the following questions:

- What is the length of the SMS and IM paragraphs produced by participants on the two topics they are given to write about?
- What types of textisms will participants use in their SMS and IM paragraphs, and what will be the density of such textisms?
- Which specific textisms will participants prefer most in their SMS and IM paragraphs?
- What grammatical features and sentence types will characterise participants' SMS and IM paragraphs?

TEXTISMS IN SMSs AND IMs: AN OVERVIEW

There are studies that have investigated the SMS and IM length, and textisms in SMSs and IMs. Among them are Thurlow and Brown (2003); Ling and Baron (2007); Deumert and Masinyana (2008); Goumi et al. (2011); and Bernicot et al. (2012a). Thurlow and Brown's (2003) study investigated the use of text messages (SMSs) of 135 teenagers (whose mean age was 19) who had enrolled in a first-year Language and Communication course at a university in Wales. Of these, 75% were females, while 25% were males. About 544 SMSs were generated from participants after they had been asked to retrieve and transcribe five SMSs they had sent or received the previous week. These SMSs had the average length of about 14 words and 65 characters.

On this score, Ling and Baron's (2007) study investigated American college students' text messages (SMSs) and IMs in relation to transmission length, emoticons, lexical shortenings, and sentence punctuation. There were two groups of undergraduates. One group consisted of 25 participants (22 females and 3 males) from a mid-western US university, and texting (SMS) data was collected from the university in Fall 2005. Only the female data, which comprised 191 text transmissions and 1,473 words, was analysed. The other group was made up of undergraduates from a mid-sized private university in the east coast; 191 female IM transmissions, containing 1,146 words, were randomly sampled from this group in Spring 2003. The mean character number per message for text transmissions was 34, while that for IM transmissions was 29. Additionally, the mean text message length was 7.7 words as compared to that of 6 words for IM transmissions. Moreover, text transmissions contained more multiple sentences and acronyms than IM transmissions. However, text transmissions had fewer emoticons and

contraction apostrophes than IM transmissions, albeit, overall, there was a low incidence of emoticons and acronyms in both data types (Ling & Baron, 2007).
For its part, Deumert and Masinyana's (2008) study examined 312 SMS messages collected from 22 bilingual (isiXhosa/English) participants, in 2006, in South Africa. The participants' ages ranged between 18 and 27. In particular, participants were asked to transcribe or send to one of the two researchers, SMS messages that they had sent the previous week. The resultant messages were written in isiXhosa or English, or in a mixture of both languages. The mean length of these messages was 133 characters and 22.6 words, with girls and boys producing 23 and 19 words, respectively. In all, the two researchers argue that the English SMSs produced by the participants contained many features (e.g., abbreviations, non-standard spellings, and paralinguistic restitutions) similar to those reported for English SMS communication globally (Deumert & Masinyana, 2008).

In a different but related scenario, Goumi et al.'s (2011) study set out to investigate a large corpus of French-language SMSs from 115 adolescents aged between 13 and 18. The study took place at a university in Belgium. The participants were divided into three age groups: 13-14, 15-16, and 17-18. In addition, they were assigned to two contrasting groups: the experienced and inexperienced groups. In all, 1,131 messages were collected: 802 and 329 messages from these two groups, respectively. Even though the study does not mention what the length of message was for the experienced group, it nonetheless, points out that, the message length for the inexperienced group for both boys and girls was between 90 and 130 characters. For boys and girls at 15-16 years of age, the mean length of message was between 17 and 25 words (Goumi et al., 2011).

The last study which is of relevance to the current study, is Bernicot et al.'s (2012a) on textisms. The study consisted of 19 adolescent participants - 10 girls and 9 boys – whose average age was 11.79. The participants were from a public secondary school in France, and were requested to donate at least 20 French SMSs that they had written per month. In the end, a total of 4,524 messages were received from the participants. In terms of textisms, three broad categories were identified: simplifications, complexifications, and substitutions. The average proportion of textisms in relation to the messages was .52. The researchers in this study argue that this meant that, marginally, more than half of the words generated by the participants contained a change concerning traditional spelling, and that, slightly, less than half of the words had no changes. One major finding of this study is that the average density of textisms observed, was greater than that reported in certain longitudinal studies (Bernicot et al., 2012a).

THEORETICAL FRAMEWORK

This paper is informed by a theoretical framework consisting of two mobile learning approaches: *conversation theory* and *new media literacy*. In this context, conversation theory conceptualises mobile learning – deployed through applications such as SMSs and IMs – as a perpetual conversation consisting of what Pachler and Daly (2009) refer to as narrative trails. It views learners as learning through chunks of conversations. Both SMSs

and IMs as leveraged in this study served as chunks of conversations (see Chaka, 2012b; Ngesi, 2012). In the same vein, new media literacy refers to contemporary literacy practices – common especially among young mobile technology users - influenced by new media applications such as SMSs and IMs, and social networks like Facebook, Twitter and WhatsApp. This form of literacy is part of the emerging mashed literacies comprising online, digital and mobile literacies (Goodfellow, 2011; Greenhow & Gleason, 2012; Schmied, 2012).

METHODOLOGY AND RESEARCH DESIGN

The research methodology for this study was anchored in a qualitative research paradigm. Therefore, it followed an interpretivist orientation. The preference for this research paradigm was determined by the nature of the data collected: it consisted of bite-sized written paragraphs (SMSs) and written conversation exchanges (IMs). Accordingly, the research design appropriate for this study was a case study research design (Griffee, 2012; Yin, 2003). As posited by Griffee (2012) and Yin (2003), a case study design needs to have data from more than one source, examine phenomena in a real-life context, and employ a theory to discuss results. The current study generated its data from two sources: SMSs and IMs. Moreover, some of the important ingredients of a case study design are: case, context, and boundaries. A case study, according to Griffee (2012), collects data from more than one source, examines phenomena in real-life situations, and employs theory to reflect on its findings. In this regard, a case can comprise one person/object, or a group of people/objects.

Participants

This study consisted of 29 isiXhosa first language participants who were Grade 8a English first additional language (EFAL) learners at a junior secondary school in Mthatha. The 29 participants (16 girl learners and 13 boy learners) belonged to a Grade 8a class that a research assistant taught EFAL. Participants' ages ranged between 14 and 16 years (mean = 15 years, 4 months; SD = 1 year, 4 months). All the participants were selected by means of voluntary and criterion sampling techniques (Green, 2007) by a research assistant because she was close to them, and because she knew they were avid texters in their private personal lives. Voluntary sampling entails participants taking part in a given research study of their own volition; and criterion sampling involves allowing participants to take part in a study so as to investigate closely the different aspects of a specific trait or behaviour they display (Green, 2007).

Instruments, Materials and Procedures

Mobile phones and SMSs on the one hand, and MXit and IMs on the other hand, were mediational instruments employed to collect data for this study. These data were gathered in two different stages. In the first stage, participants were assigned the topic, *My role model*, on which they were required to write an SMS paragraph. This was done through an SMS on the 31st August 2010. They were then told to SMS their written responses to

the research assistant's mobile phone (see *Figure 1*) anytime, anywhere. In the end, all the participants SMSed their paragraphs accordingly. During the second stage, participants took part in an instant messaging session in which they were requested to write a short paragraph on the topic, *What you liked and didn't like about the teachers' strike*, using MXit. This activity took place on the 1st September 2010. The two activities occurred outside the normal school hours.

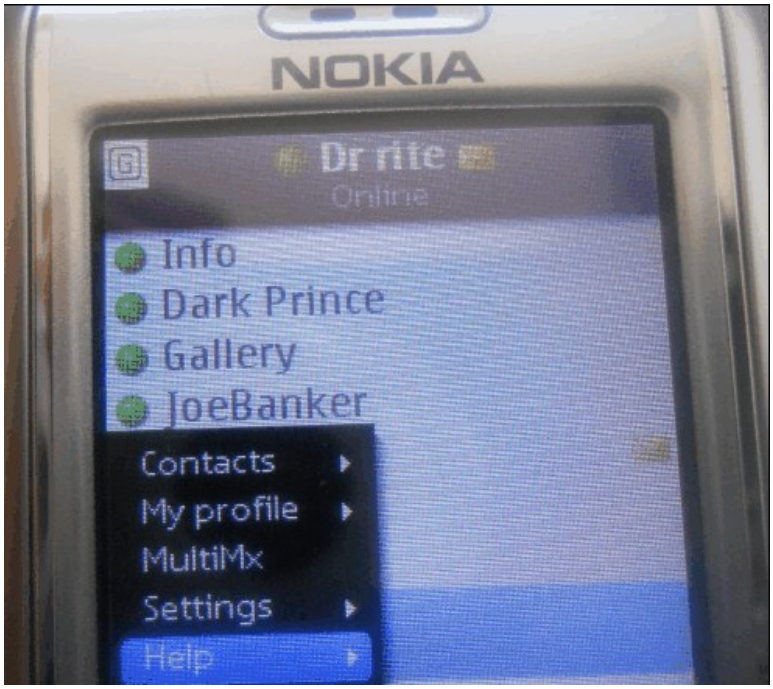

Figure 1: A screenshot of one of the researchers' mobile phones showing some of MXit's features, a dropdown menu, and one participant's MXit alias (Dark Prince)

MODEL OF ANALYSIS FOR SMS AND IM DATA, AND UNITS OF ANALYSIS

The model of analysis of SMS and IM data sets drew on aspects of the modes of communication displayed in Table 1. It also embodied features of content analysis. Content analysis, as employed here, involved isolating units of analysis such as textisms, words and sentences applicable to participants' SMSs and IMs. In this regard, participants' SMS and IM data were analysed by using some of the language variables thought to have a bearing on conventional writing, text messaging, and instant messaging as reflected in Table 1:

Variables	**Modes of Communication**		
	Conventional Writing (CW)	Text Messaging (TM)	Instant Messaging (IM)
Mode of Occurrence	- Asynchronous - Monological, one-	- Asynchronous - Dialogical, two-	- Synchronous -Dialogical/Multilogical,

	way (non-interactive) - Single channel - Linear and non-instantaneous - No time pressure	way (interactive) - Single channel or multiple channels - Linear and non-instantaneous - Time pressure	(interactive) - Simultaneous channels - Non-linear and instantaneous - Time pressure
Means of Expression	- Monomodal channel - Optical visual (written signs) - Permanent, persistent	- Monomodal channels (rich mode) - Acoustic (speech) + visual - Persistent	- Multimodal channels (rich mode) - Acoustic (speech) + visual - Fleeting, ephemeral
Linguistic features	- Lack of errors or visible self-corrections. More organised and structured than TM and IM - Formal vocabulary and syntax - Clearly defined sentence and paragraph boundaries - Proper use of spelling and punctuation marks - No use of discourse markers (e.g*., you know*, *you see*, etc.)	- Some errors or visible self-corrections. More organised and structured than in IM, but less so than CW - Less formal vocabulary and syntax - Less defined sentence and paragraph boundaries - Occasional use of proper spelling and punctuation marks - Occasional use of discourse markers	- Non-fluency features such as hesitations, false starts, self-corrections, repetitions and fillers - Informal vocabulary and speech-like syntax - Fluid or no clearly defined sentence and paragraph boundaries - Incorrect spelling and no use of proper punctuation marks - Use of discourse markers

Table 1: Modes of communication for conventional writing, text messaging and instant messaging (Adapted from Segerstad, 2002: 40 & Tagg, 2009: 34-35)

The language variables used in this table are borrowed from Segerstad (2002: 40), and the modes of communication are adapted from Segerstad (2002: 40) and Tagg (2009: 34-35). The reason for using these modes of communication together with the language variables underscoring them is that they aptly represent features characterising SMS and IM language, and conventional writing as investigated in the current study.

In addition, SMS and IM data sets were compared with regard to the following attributes: total number of words; total number of characters; longest message per word; shortest message per word; mean length of words per message; mean number of characters for messages; mode (frequently occurring word count per message); range; and standard

deviation (SD) (see Table 2). Second, the two message data sets were compared in terms of the following three textism categories (together with their respective mean, SD and range in each case): linguistic textisms, typing errors and contextual textisms. The types of textisms exemplifying each of these categories, and the specific examples of each textism are depicted in Tables 3 and 4, respectively. Third, the two data sets were compared with reference to their respective grammatical features and sentence types (see Table 5). Fourth and last, the following aspects of the two data sets served as units of analysis for this study: message length; textisms; grammatical features; and sentence types.

FINDINGS

This section discusses the findings presented here by responding to the four main research questions cited above. Thus, the findings are divided into sub-sections informed by these questions**.**

Length of SMS and IM Paragraphs Written by Participants

In response to the SMS task, *My role model*, participants produced 29 messages in all. These messages were short paragraphs which together consisted of 1,377 words and 5,428 characters (see Table 2). The mean length of words per message was 48, whereas the mean length of characters per message was 187. Of these messages, the longest had 97 words (see an unedited version in Exemplar 1), while the shortest had 23 words (see an unedited version in Exemplar 2). The mode (the frequently occurring word count) for all SMS paragraphs was 36.

Message Length Features	**SMS Paragraphs**	**IM Paragraphs**
Number of messages	29	29
Total number of words	1,377	1,815
Total number of characters	5,428	7,600
Longest message per word	97	102
Shortest message per word	23	19
Mean length of words per message	48 words/mess.	63 words/mess.
Mean number of characters for messages	187 char./mess.	262 char./mess.
Mode (Frequently occurring word count per message)	36 words/mess.	60 words/mess.

Table 2: Message length features for both SMS and IM paragraphs
Note: N = 29, SMS = short message service, IM = instant message

Exemplar 1:

Role model is someone that you love. Some that you would like to be one day. Some who play a special place in your heart. Someone that never lets you down. Role model is some that cares about you. Some that is special in your life. My role model is my grandmother because she has tough me so many great things in my life ahead, she has show me love and kindness. Because everytime I need she pay's attension not because I need it just because she cares about me and she has never let me down.

Exemplar 2:

A role is a person that you see something good and you to do My is S'fiso because he is a gospel singer

In respect of the IM task, *What you liked and didn't like about the teachers' strike*, again 29 messages, comprising short paragraphs, were produced by participants in response to this task. These messages together consisted of 1,815 words and 7,600 characters (see Table 2). The mean length of words per message was 63, while the mean length of characters per message was 262. Of these messages, the longest had 102 words (see an unedited version in Exemplar 3), whereas the shortest had 19 words (see an unedited version in Exemplar 4). Their mode was 60.

Exemplar 3:

Stryk:ts wen ppl r demanding dar certain tngz lyk money,skul materialz etc..4rm da government til thy gt bt durin da teachrz stryk gvnment waz vry vry sting n da gvnment didnt tot abwt our eductn..we az learnrz hv alt o4 wrk 2 d en we r als lft behind bcz of da stryk..even our president knw nthn abt eductn c0z evrytng dat hz tokn ts written by sm ada ppl s dat he cn read..i tnk teachrz culd b gvn dis 8,5% dat evn wen they r teachng us cn be wth pleasure n&on wt dy r dng

Exemplar 4:

I didnt lyk the way teachers reactd bcz zuma was about 2 satisfy teachers but teachers didnt ecept tht

Types of Textisms Participants Used in their SMS and IM Paragraphs and the Density of Such Textisms

Participants' SMS and IM paragraphs displayed textisms in varying degrees (see Table 3). These textisms were classified into three broad typologies: linguistic textisms, contextual textisms and errors, and their related sub-categories as represented in the self-same table. This typology, as reflected in Table 3, dovetails with the textism typologies by Bernicot et al. (2012a), Rosen et al. (2010) and Varnhagen, McFall, Pugh, Routledge, Sumida-MacDonald and Kwong (2010):

Textisms	**SMS Paragraphs***		**IM Paragraphs***	
	Total number of textisms	*Mean*	*Total number of textisms*	*Mean*
Linguistic Textisms {.036} [3.6%]/ {.0975} [9.75%]	50 (18%)°	3.57	177 (82%)°	9.75
Shortenings	2	0.15	0	0
Alphabetisms/Consonant writing/Vowel omissions	9	0.65	50	2.75
Apostrophe omissions	4	0.29	20	1.10
Clippings/Aphaeresis	2	0.15	10	0.55
Initialisms/acronyms	0	0.0	0	0.0
Letter/Number homophones	4	0.29	9	0.50
Phonological/Phonetic approximations	0	0.0	18	0.99
Accent Stylisation/Respellings	14	1.01	60	3.31
Word combinations	15	1.03	10	0.55
Typing Errors {.0094} [.94%]/ {.013} [1.3%]	32 (12%)°	2.32	24 (11%)°	1.32
Misspellings/Typographical errors	32	2.32	24	1.32
Contextual Textisms {.107} [10.7%]/ {.0077{.77%]	148 (70%)°	10.74	14 (7%)°	0.77
Graphic emoticons	0	0.0	6	0.33
Emoticon words	0	0.0	0	0.0
Typographical emoticons	1	0.07	0	0.0
All upper/All lower cases and other keyboard characters	147	10.67	8	0.44

Table 3: Types of Textisms for both SMS and IM paragraphs
Note: N = 29; SMS = short message service (* = 1,377 words); IM = instant message (* = 1,815 words); {}= textism density for both SMSs and IMs respectively; []= textism percentage for both SMSs and IMs respectively; ° = percentage per textism type

On this score, with reference to SMS paragraphs, participants produced 50 linguistic textisms whose density and percentage were .036 and 3.6% each. Their total mean was 3.57. These linguistic textisms were: shortenings (2); alphabetisms/consonant writing/vowel omissions (9); apostrophe omissions (4); clippings/aphaeresis (2); letter/number homophones (4); accent stylisations/respellings (14); and word combinations (15). Additionally, participants produced 32 typing errors – all of which were misspellings or typographical errors – and 148 contextual textisms. Of the latter,

147 were upper or lower cases, while one (1) was a typographical emoticon. In all, the typing error density and percentage were 0.0094 and 0.94%, apiece, with 2.32 as the mean for all typing errors. Contextual textisms had the overall mean of 10.74. Their density was 0.107, which translated into 10.7%. Of the 29 SMS paragraphs, 25 had textisms, but 4 did not have them.

In respect of IM paragraphs, participants generated 177 linguistic textisms, with the total mean of 9.75. The density and percentage of these textisms were 0.0975 and 9.75%, each. These linguistic textisms consisted of the following features: alphabetisms/consonant writing/vowel omissions (50); apostrophe omissions (20); clippings/aphaeresis (10); letter/number homophones (9); phonological/phonetic approximations (18); accent stylisations/respellings (60); and word combinations (10). Moreover, participants produced 24 typing errors (with the total mean 1.32) whose density and percentage were 0.013 and 1.3%, respectively. They also generated 14 contextual textisms (with the overall mean of .77) for which the density and percentage were 0.007 and 0.7%, singly. Overall, contextual textisms comprised graphic emoticons (6), and upper or lower cases (8). Of the 29 IMs, 20 had textisms, while 9 did not have them.

Specific Textisms Participants Preferred Most in their SMS and IM Paragraphs

There are specific textisms that participants employed in both their SMS and their IM paragraphs. With reference to SMS paragraphs, participants used contextual textisms - all of which, except for one, were upper/lower cases and other keyboard characters - the most (see Tables 3 and 4). This accounted for 70% of all textisms. Their use of contextual textisms was followed by linguistic textisms (making up 18% of all textisms) comprising mainly word combinations, accent stylisation or respellings, and alphabetisms, consonant writing or vowel omissions (see Tables 3 and 4). By contrast, in connection with IM messages, participants used more linguistic textisms (which accounted for 82% of all textisms) than any other textism types. In terms of the usage frequency, accent stylisation/respellings topped all other linguistic textisms, followed by alphabetisms, consonant writing or vowel omissions, apostrophe omissions, and phonological/phonetic approximations. Table 4 displays all the specific examples of the textisms that participants used in their SMS and IM paragraphs:

Textisms	**SMS Textism Examples***	**IM Textism Examples***
Linguistic Textisms		
Shortenings	S'fiso (Sifiso); shez (she is)	None
Alphabetisms/Consonant writing/Vowel omissions	bcz (because); hw (how); gvs (gives)	ppl (people); bcz (because); tngz (things); wrk (work); lft (left); knw (know)
Apostrophe omissions	hes (he is); its (it is); thats (that is); shes (she is)	dont (do not); didnt (did not)
Clippings/Aphaeresis	cause (because); coz (because)	durin (during); c0z (because)
Initialisms/Acronyms	None	None

Letter/Number homophones	4sm1 (for someone); 4 (for); 4rend (friend); 2 (to)	4rm (from); 4 (for) 2 (to); r (are)
Phonological/Phonetic approximations	None	skul (school); culd (could); gud (good)
Accent Stylisation/Respellings	iz (is); dat (that); evn (even); smtimz (sometimes); duz (does)	stryk (strike); waz (was); gvnment (government); abwt (about); dat (that); evn (even); dis (this)
Word combinations	Iwant (I want); infront (in front); nshez (and she is); datgvz (that gives); andenvn (and even); alot (a lot)	4rmda (from the); vryvry (very very); datevnwen (that even when); smadappls (some other people); cnread (can read)
Typing Errors		
Misspellings/ Typographical errors	looser (loser); HI (he); ADVIS (advice); idore (adore); suts (suits); voce (voice); special (special); peaple (people); ignore (ignore); attension (attention)	Firs (First); trail (trial); delaid (delayed); materialz (materials); reactd (reacted); ecept (accept)
Contextual Textisms		
Graphic emoticons	None	☹
Emoticon words	None	None
Typographical emoticons	!!	None
All upper/All lower cases and other keyboard characters	A ROLE MODEL IS A PERSON …; MY ROLE MODEL IS …; a rolemodel is a	… the teacher's strike also affected the private schools even …

Table 4: Examples of the textisms participants used in their SMS and IM paragraphs

Grammatical Features and Sentence Types Characterising Participants' SMS and IM Paragraphs

The grammatical features and the sentence types detected in participants' SMS and IM paragraphs are illustrated in Table 5. For example, in terms of grammatical features for SMS paragraphs, all of them displayed the conventional English subject-verb-object (SVO) word order, and none of them omitted subject pronouns, possessive pronouns, or prepositions. However, one SMS message omitted a verb *to be* form and a copula verb. Other grammatical features characterising participants' SMS paragraphs are as indicated in Table 5:

Grammatical Features	SMS Messages	IM Messages
Omission of subject pronouns	None	None
Omission of prepositions or possessive pronouns	None	None
Omission of verb phrases (auxiliary, copula, or modal verb)	2 cases (omitted *to be* and *is*) (in 2 messages)	None
Omission of third person singular present tense forms	13 cases of omitted -s forms (in 12 messages)	25 cases (in 16 messages)
Wrong subject-number agreement forms	1 case (in 1 message)	None
Omission of relative pronouns	1 case (in 1 message)	None
Exchanging long words for shorter ones	17 cases (in 6 messages)	36 cases (in 18 messages)
Mistaking one form for another	8 cases (in 5 messages)	22 cases (in 13 messages)
Colloquial vocabulary	2 messages with colloquial features	34 cases (in 10 messages)
Sentences and sentence features		
Word order	Subject-verb-object (SVO)/Subject-Predicate	Subject-verb-object (SVO)/Subject-Predicate
Sentence types	Complex = 76; compound = 15; simple = 48	Complex = 112; compound = 34; simple = 23
Reduced sentences	1 case (in 1 message)	36 cases (in 15 messages)
Run-on sentences	20 cases/sentences (in 18 messages)	25 cases (in 16 messages)
Incomplete sentences/Sentence fragments	16 cases (in 9 messages)	10 cases (in 5 messages)
Unpunctuated sentences	11 cases (in 8 messages)	20 cases (in 13 messages)
Wrongly punctuated sentences/Wrongly used punctuation marks	33 cases (in 16 messages)	38 cases (in 15 messages)
Repetition of punctuation marks	5 cases (in 3 messages)	20 cases (in 10 messages)

Table 5: Grammatical features and sentence structure of SMS and IM texting (Adapted from Segerstad, 2002: 235)

This table is adapted from Segerstad's (2002: 235) table which deals with linguistic features of computer-mediated communication, and not with linguistic features of SMS and IM as is the case with the current table.

With regard to IMs, all of them, too, displayed the conventional English subject-verb-object (SVO) word order, and none of them omitted subject pronouns, possessive and relative pronouns, prepositions, and verb phrases (see Table 5). In addition, they had no instances of wrong subject-number agreement forms. In this context, the further grammatical features characterising participants' IM paragraphs, and the occurrence frequency that they have vis-à-vis those detected in participants' SMS paragraphs are displayed in Table 5.

DISCUSSION

The first question of this study wanted to establish the length of the SMS and IM paragraphs that participants would produce on two given topics. When comparing the two paragraph versions, it was discovered that IM paragraphs substantially exceeded SMS paragraphs in five areas of length as a variable. These areas were: total number of words; total number of characters; mean length of words per message; mean number of characters for messages; and mode (frequently occurring word count per message) (see Table 2). On the other hand, IM paragraphs marginally exceeded SMS paragraphs in one area of length as a variable: longest message per word. In the SMS-IM equation, this particular finding is not surprising since standard SMSs are restricted to a 160 character quota per message in line with the requirements set by mobile phone service providers. Battestini, Setlur and Sohn (2010), Chen and Kan (2012), and Thurlow and Brown (2003) echo the same sentiment about the SMS character quota globally, and Freudenberg (2009), Geertsema et al. (2011), and Winzker et al. (2009) do likewise about the situation in South Africa. By contrast, IMs as applicable to MXit at the time the study was conducted, had a 1,000 character limit per message. One aspect that needs to be factored into the SMS-IM mix is that SMSs are asynchronous by nature, and allow users to step back and think about what they are writing about offline. In contradistinction, IMs are synchronous, and allow little room for reflection, especially when mounted instantaneously as was the case with the participants in this study.

However, one area of length in which SMS paragraphs marginally exceeded their IM counterparts was: shortest message per word. That is, the shortest SMS paragraph was marginally longer than the shortest IM paragraph. This is an unexpected result given the distinction drawn between SMSing and IMing in the preceding paragraph, and considering that the opposite ought to have been the case. This particular occurrence is even more perplexing in that participants were supposed to have written short paragraphs in response to a given topic – and not to have sent to the researcher any SMS or any IM they had either received from or sent to someone else. The inference to be made from this particular occurrence is that mobile communication applications such as SMSs and IMs can, at times, have some drawbacks when they are used for an extended form of writing, despite the contrary evidence provided in the preceding paragraph. In the case of MXit

powered IMs – as is the case with IMs deployed through other applications such as WhatsApp and WeChat – once a message (whatever its length) is sent through, it cannot be recalled for revision or editing. Another feature of length is that the mean number of characters of SMS paragraphs was longer than the 160 character quota for standard SMSs. Besides, with the character count of 396 and 81 for both the longest and shortest paragraphs, respectively, the former is almost two-and-a-half more than the maximum character quota for standard SMSs, while the latter is nearly half that quota. Of course, the SMS length limit can be compensated for by concurrent multiple messages that can serve as a single message.

One critical factor about SMS and IM paragraphs is their length variability: their lengths varied considerably within each of the two paragraph versions (SMS versus SMS paragraphs and IM versus IM paragraphs), and across the two paragraph versions (SMS versus IM paragraphs) (see Table 2). The idea of the SMS and IM paragraph length variability as highlighted here tends to indicate that it is possible to produce paragraphs of varied lengths using SMSs and IMs as is the case with a real-life paragraph writing scenario. Notwithstanding this, SMS paragraphs - with the mean length of 187 characters for messages, the mean length of 48 words per message, and the mode of 36 - seem to compare better than instances of SMS lengths reported, especially, by Bieswanger (2006) and Tagg (2009). For example, Bieswanger (2006) points out that the reported average message lengths of English and German SMSs for personal communication is around 95 and 91 characters, respectively. For her part, Tagg (2009) reports detecting an average of 17.2 words per message in her SMS corpus of 11,067 messages drawn from a CorTxt corpus. In this regard, the average message length detected in the current study is possibly longer than that reported by both Bieswanger (2006) and Tagg (2009) because it relates to SMS paragraphs, and not to SMSs used for everyday personal communication. In the latter case, users send an SMS or respond to an SMS without having to contemplate whether or not a given message should have a paragraph length. This observation does not, nevertheless, gainsay the fact that users can use longer messages in their personal communication. They can, depending on the purpose of the message, and on the context under which such a message is written.

Similarly, IM paragraphs - with the mean length of 262 characters for messages, the mean length of 63 words per message, and the mode of 60 - seem to compare better than cases of IM lengths reported, particularly, by Ling and Baron (2007) and Segerstad (2002). For example, Ling and Baron (2007) pinpoint that in their study, IM transmissions (messages) averaged 6.0 words, while Segerstad (2002) makes an observation that in her study, synchronous IMs averaged 13.45 words. As is the case with SMS paragraphs, the higher average message length observed in the present study vis-à-vis that reported by Ling and Baron (2007) and Segerstad (2002), is possibly attributable to the types of IMs which formed part of the data for this study: they were IM paragraphs, and not ordinary IMs for personal communication.

With respect to the first part of the second question, it is evident from Table 3 that linguistic textisms, typing errors, and contextual textisms appeared in the participants'

SMS and IM paragraphs. Firstly, SMS paragraphs had fewer linguistic textisms (18% in all) than IM paragraphs (which had 82% of all linguistic textisms in both paragraph types). This observation is consistent with the two mobile phone communication environments – asynchronous and synchronous environments - in which these two modes of paragraphs were written. In this case, the types of linguistic textisms that predominated in SMS paragraphs were word combinations – also collectively known as lack of inter-word spacing (Elvis, 2009) - (e.g., infront (in front) and alot (a lot) – see Table 4 for more examples) and accent stylisation/respellings (e.g., iz (is) and dat (that) – see Table 4 for further examples). Pertaining to IM paragraphs, linguistic textisms that featured prominently were accent stylisation/respellings (e.g., dat (that) and dis (this) - see Table 4 for additional examples) and alphabetisms, consonant writing or vowel omissions (e.g., ppl (people) and bcz (because) - see Table 4 for other examples). In this regard, some of the accent stylisation/respellings that both SMS and IM paragraphs shared in common are dat (that) and evn (even).

Secondly, SMS paragraphs had more errors (which were 12% of the aggregate SMS textisms) – all of which were misspellings or typographical errors - than IM paragraphs. This feature seems to contradict conventional wisdom that SMSs would have fewer misspellings or typographical errors than IMs as the former are asynchronous (and, thus, less prone to errors), while the latter are synchronous (and, therefore, more prone to errors). It also contradicts the fact that the SMSs, in this context, were in response to a primed task – a written paragraph – of which participants were aware in advance.

Thirdly, SMS paragraphs had more contextual textisms (70% of the total SMS textisms) - all of which, except one, were all upper or all lower cases - than IM paragraphs. This particular incidence runs counter to the view that SMSs – like e-mail messages - tend to use orthographic features that approximate written language because of their asynchronous nature as opposed to IMs, whose spontaneous and synchronous nature tends to predispose them to use convenient keyboard features such as all upper or all lower cases. This is particularly so, as IM communication is largely determined and constrained by contextually medium-bound rapid responses. In fact, the smaller number of IM paragraphs using upper cases only seem to be in line with Varnhagen et al.'s (2010) study of Canadian adolescents' instant messages in which a few participants used upper case only: those that had been used were meant to convey a pragmatic meaning (e.g., to express shock or a given emotional state). In the current study, however, the use of all upper case or all lower case by some participants has less to do with expressing shock or an emotional state: it seems to be something that participants did unconsciously as the topics they had to respond to did not have much to do with shocking emotions or experiences.

In relation to the second part of the second question, even though SMS paragraphs had more contextual textism density than IM paragraphs, and the latter had more linguistic textism density than the former (see Table 3), in the main, the overall textism density in both cases was lower vis-à-vis the total word count in both cases. This low textism density or low textism use, seems to correspond with Rosen et al.'s (2010) study that found a low textism use among participants who belonged to two groups (1,319 and 1,226 participants). Moreover, the low density (low prevalence) of errors in both

participants' SMS and IM paragraphs tends to tie in with Varnhagen et al.'s (2010) study in which there were few typographical errors and misspellings in their IM corpus complied from forty adolescent participants.

When comparing the low textism density in the current study to Rosen et al.'s (2010) study, it is worth noting that the objective of the latter study was to investigate whether the reported use of textisms in daily electronic communication (e.g., e-mail, text messaging, and IM) was related to the quality of either informal or formal writing of the participants concerned. It then employed the following measures: a reported use of communication tools; a formal writing sample; an informal writing sample; and a reported general daily use of textisms (Rosen et al., 2010). For its part, Varnhagen et al.'s (2010) study required participants – mainly adolescents – to collect their instant messaging conversations over a week, and contribute them as data to the study. Its main purpose was to work out a taxonomy of textisms from such data. But as stated earlier on, the current study set out to investigate the message length, textisms (particularly textism types and textism density), grammatical features, and sentence types as language features of the SMS and IM paragraphs of the learners who participated in it. In addition, it used participants' live SMS and IM paragraphs as its data. Therefore, on this basis, it can be surmised that the low textism density had to do with the fact that participants knew in advance that they had to write SMS and IM paragraphs in response to given topics. In other words, they were primed to produce certain message forms and, consequently, tried to avoid the use of excessive textisms.

Concerning the third question, for SMS paragraphs, participants used contextual textisms (e.g., all upper or all lower case) and linguistic textisms (e.g., alphabetisms, consonant writing, or vowel omissions, and accent stylisation or respellings) more, respectively (see Tables 3 and 4). However, for IM paragraphs, participants used linguistic textisms (e.g., accent stylisation or respellings, and alphabetisms, consonant writing, or vowel omissions) and typing errors (e.g., misspellings or typographical errors) more, in that order (see Tables 3 and 4). In Rosen et al's (2010) study, the most frequently used linguistic textisms were the lower case "i", followed by apostrophe omissions (apostrophe removals). Similarly, in Varnhagen et al.'s (2010) study, the lower case "i" was the most frequently used linguistic textism, but it was followed by abbreviations such as *doin*, a feature which in the current study was classified as an instance of clipping. Nonetheless, in the present study, contextual and linguistic textisms as used by participants in each set of paragraphs may have to do with the differences between the two mobile phone communication environments – asynchronous and synchronous environments – in which participants were required to produce their paragraphs. In this case, the use of more linguistic textisms is expected to be more prevalent in IM paragraphs than in SMS paragraphs. What is unexpected, though, is that SMS paragraphs had more misspellings or typographical errors than IM paragraphs, which is the observation mentioned earlier on.

Regarding the last question, IM paragraphs had more cases of omitted third person singular present tense forms, more cases of long words exchanged for shorter ones, and

more forms mistaken for others than SMS paragraphs (see Table 5). This finding is consistent with the nature of the two paragraph forms: the former (IM paragraphs), as stated earlier, involve concurrent and spontaneous responses, while the latter (SMS paragraphs), also as mentioned earlier, entail asynchronous and delayed responses. In addition, IM paragraphs had more compound and complex sentences than SMS paragraphs. This finding is incompatible with the nature of the two paragraph types, given the contrasting environments of the platforms on which these two paragraph forms were written (the SMS and IM platforms). In fact, one would have expected the reverse situation to be true: SMS paragraphs to have more compound and complex sentences than IM paragraphs.

However, both paragraph types had more complex sentences than simple and compound sentences, with simple sentences ranking lower in IM paragraphs than they did in SMS paragraphs (see Table 5). This finding, too, tends to be incompatible with the nature of the two paragraph modes as written in a mobile phone communication environment. Again, this observation runs counter to conventional belief that simple and compound sentences should have predominated in the two paragraph modes, in lieu of complex sentences. It also contradicts the belief that SMSs and IMs are characterised, mainly, by simplified and reduced grammar. Even the finding that SMS paragraphs had more incomplete sentences or more sentence fragments than IM paragraphs negates the conventional wisdom related to the two paragraph forms.

CONCLUSION

Given the points discussed in this section, there are tentative conclusions to be drawn from the present study. First, it was possible for participants to produce SMS and IM paragraphs of varied lengths within the asynchronous and synchronous mobile phone and MXit communication environments. IM paragraphs had, overall, longer paragraphs (in terms of both the average word count and the frequently occurring word count (mode), and the higher linguistic textisms than SMS paragraphs. Second, participants were able to produce all the three main English sentences types (e.g., simple, compound and complex sentences) – albeit in varying degrees – within the mobile phone SMS and IM communication environments, as is the case in a real-life writing environment. However, some of the participants' SMS and IM paragraphs had incomplete sentences or sentence fragments, and spelling and punctuation errors.

Finally, since this study employed a small sample, there is a need for future research to focus on larger samples. Above all, the current study investigated learners' SMS and IM paragraphs as deployed only through mobile phones and MXit as a mobile application. Future research, then, needs to study learners' SMS and IM paragraphs in relation to learners' real-life written samples for comparative purposes.

REFERENCES

AZIZ, S, M SHAIM, MF AZIZ & P AVAIS. 2013. The impact of texting/SMS language on academic writing of students - What do we need to panic about? *Elixir Linguistics and Translation* 55:12884-12890.

BATTESTINI, A, V SETLUR & T SOHN. 2010. A large scale study of text messaging use [Online]. Available from http://www.battestini.net/blog/wp-content/uploads/fp217-battestini.pdf. [Accessed: 3 March 2014]

BERNICOT, J, O VOLCKAERT-LEGRIER, A GOUMI & A BERT-ERBOUL. 2012a. SMS experience and textisms in young adolescents: presentation of a longitudinally collected corpus. *Lingvisticae Investigationes*, 35(2):181–198.

BERNICOT, J, O VOLCKAERT-LEGRIER, A GOUMI & A BERT-ERBOUL. 2012b. Forms and functions of SMS messages: a study of variations in a corpus written by adolescents. *Journal of Pragmatics*, 44:1701-1715.

BIESWANGER, M. 2006. 2 abbrevi8 or not 2 abbrevi8: a contrastive analysis of different shortening strategies in English and German text messages [Online]. Available from http://studentorgs.utexas.edu/salsa/proceedings/2006/Bieswanger.pdf. [Accessed: 10 April 2014]

BUSHNELL, C, N KEMP & FH MARTIN. 2011. Text-messaging practices and links to general spelling skill: a study of Australian children. *Australian Journal of Educational & Developmental Psychology*, 11:27-38.

BUTGEREIT, L, RA BOTHA & M VAN DEN HEEVER. 2012. Key identifiers and spelling conventions in MXit-lingo as found in conversations with Dr Math. *The Journal for Transdisciplinary Research in Southern Africa*, 8(1):30-50.

CHAKA, C. 2012a. Presence platforms, sociability, M4L, and presence awareness learning in the South African context. In Taiwo R & I Chiluwa (Eds), *Linguistic perspectives on computer-mediated communication in Africa*, pp. 1-18. New York: Nova.

CHAKA, C. 2012b. Mobiles for sustainable learning environments: mobile phones and MXit within a South African school context. *Communitas*, 17:161-182.

CHAKA, C. 2013. Digitization and consumerization of identity, culture, and power among Gen Mobinets in South Africa. In Luppicini R (Ed), *Handbook of research on technoself: identity in a technological society*, pp. 399-418. Hershey: IGI Global.

CHEN, T & M-Y KAN. 2012. Creating a live, public short message service corpus: the NUS SMS corpus. *Language Resources & Evaluation*, 47(2):299-335 doi:10.1007/s10579-012-9197-9

CHIGONA, W, A CHIGONA, B NGQOKELELA & S MPOFU. 2009. MXIT: Uses, perceptions and self-justifications. *Journal of Information, Information Technology, and Organizations,* 4:1-16.

DANSIEH, SA. 2011. SMS texting and its potential impacts on students' written communication skills. *International Journal of English Linguistics*, 1(2):222-229.

DEUMERT, A & SO MASINYANA. 2008. Mobile language choices: the use of English and isiXhosa in text messages (SMS). *English World-Wide*, 29(2):17-147.

DROUIN, M & C DAVIS. 2009. R U txting? Is the use of text speak hurting your literacy? *Journal of Literacy Research*, 41:46–67.

DYERS, C. 2014. Texting literacies as social practices among older women. *Per Linguam: A Journal for Language Learning/Tydskrif vir Taalaanleer*, 30(1):1-17.

ELVIS, FW. 2009. The sociolinguistics of mobile phone SMS usage in Cameroon and Nigeria. *The International Journal of Language Society and Culture*, 8:25-40.

FREUDENBERG, K. 2009. Investigating the impact of SMS speak on the written work of English first language and English second language high school learners [Online]. Available from http://scholar.sun.ac.za/bitstream/handle/10019.1/2052/freudenberg_investigating_2009.pdf?sequence=1. [Accessed: 10 February 2014]

GEERTSEMA, S, C HYMAN & C VAN DEVENTER. 2011. Short message service (SMS) language and written language skills: educators' perspectives. *South African Journal of Education*, 31:475-487.

GOODFELLOW, R. 2011. Literacy, literacies, and the digital in higher education. *Teaching in Higher Education*, 16(1):131–144.

GOUMI, A, O VOLCKAERT-LEGRIER, A BERT-ERBOUL & J BERNICOT. 2011. SMS length and function: a comparative study of 13 to 18 year-old girls and boys. *European Review of Applied Psychology*, 61(4):175-184.

GREEN, J. 2007. A guide to using qualitative research methodology [Online]. Available from http://fieldresearch.msf.org/msf/bitstream/10144/84230/1/Qualitative%20research%20methodology.pdf. [Accessed: 10 February 2014]

GREENHOW C & B GLEASON. 2012. Twitteracy: tweeting as a new literacy practice. *The Educational Forum*, 76:463–477.

GRIFFEE, DT. 2012. *An introduction to second language research methods: design and data*. Berkeley: TESL-EJ.

LING, R & N BARON. 2007. Text messaging and IM: a linguistic comparison of American college data. *Journal of Language and Social Psychology*, 26(3):291–298.

NGESI, N. 2012. Mobile phones and MXit as supplemental mobile teaching and learning tools after school: A case study of Grade 9 English as additional language learners at a junior secondary school in Northcrest. MA dissertation. Mthatha: Walter Sisulu University.

OYINLOYE, GO. 2009. Assessing the need for mobile communication mediated instructional strategy in the teaching of writing skills [Online]. Available from http://medwelljournals.com/fulltext/ijsc/2009/39-44.pdf. [Accessed: 9 April 2014]

PACHLER, N & C DALY. 2009. Narrative and learning with Web 2.0 technologies: towards a research agenda. *Journal of Computer Assisted Learning*, 25:6–18.

PLESTER, B, C WOOD & V BELL. 2008. Txt msg n school literacy: does texting and knowledge of text abbreviations adversely affect children's literacy attainment? *Literacy*, 42(3):137-144.

PLESTER, B & C WOOD. 2009. Exploring relationships between traditional and new media literacies: British preteen texters at school. *Journal of Computer-Mediated Communication*, 14:1108-1129.

PORATH, S. 2011. Text messaging and teenagers: a review of the literature. *Journal of the Research Center for Educational Technology (RCET)*, 7(2):86-99.

ROSEN, LD, J CHANG, L ERWIN, LM CARRIER & NA CHEEVER. 2010. The relationship between "textisms" and formal and informal writing among young adults. *Communication Research*, 37(3):420-440.

SCHMIED, J. (2012). Social digital discourse: new challenges for corpus- and sociolinguistics [Online]. Available from https://www.tu-chemnitz.de/phil/english/ling/download/JS2013_Topics10Nitra.pdf. [Accessed: 28 March 2015]

SEGERSTAD, YH. 2002. *Use and adaptation of written language to the conditions of computer-mediated communication*. Doctoral thesis. Göteborg: Göteborg University [Online]. Available from http://www.ling.gu.se/~ylvah/dokument/ylva_diss.pdf. [Accessed: 21 March 2014].

TAGG, C. 2009. A corpus linguistics study of SMS text messaging [Online]. Available from http://etheses.bham.ac.uk/253/1/Tagg09PhD.pdf. [Accessed: 21 March 2014].

THURLOW, C & A BROWN. 2003. Generation txt? The sociolinguistics of young people's text-messaging – Discourse Analysis Online [Online]. Available from http://extra.shu.ac.uk/daol/articles/v1/n1/a3/thurlow2002003.html. [Accessed: 15 January 2014]

VARNHAGEN, CK, GP MCFALL, N PUGH, L ROUTLEDGE, H SUMIDA-MACDONALD & TE KWONG. 2010. lol: new language and spelling in instant messaging. *Read Writ*, 23:719–733.

VOSLOO, S. 2009. The effects of texting on literacy: Modern scourge or opportunity? [Online]. Available from http://vosloo.net/wp-content/uploads/pubs/texting_and_literacy_apr09_sv.pdf [Accessed: 24 February 2015].

WINZKER, K, F SOUTHWOOD & K HUDDLESTONE. 2009. Investigating the possible effects of SMS speak on the written work of English first language and English second language high school learners. *Per Linguam*, 25(2):1-16.

YIN, RK. 2003. *Case study research: design and methods*. Thousand Oaks, CA.: Sage.

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