

**Textese and secondary school learners:
identifying textisms in formal written English**

by

HERCO JACOBUS STEYN

submitted in partial fulfilment of the requirements for the degree

PHILOSIPHAE DOCTOR

in the Faculty of Education

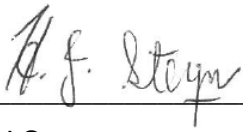
UNIVERSITY OF PRETORIA

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June 2015

DECLARATION

I, Herco Jacobus Steyn, student number 23159032, declare that my thesis titled "Textese and secondary school learners: identifying textisms in formal written English", which I hereby submit for the degree Philosophiae Doctor at the University of Pretoria, is my own work and has not previously been submitted by me for a degree at this or any other tertiary institution.



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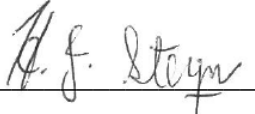
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ETHICS STATEMENT

The author, whose name appears on the title page of this thesis, has obtained, for the research described in this work, the applicable research ethics approval. The author declares that he has observed the ethical standards required in terms of the University of Pretoria's *Code of ethics for researchers and the Policy guidelines for responsible research.*"



HJ Steyn

15 June 2015

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SUMMARY

This inquiry employs a purposefully designed proofreading protocol to obtain empirical data on the ability of the target population (i.e. South African secondary school learners aged 13 to 17 – grades 8 to 11 – with English first-language *proficiency* from the upper-middle class socio-economic sphere in the urban Pretoria region) to *identify* textisms in formal written Standard English. The proofreading protocol is supplemented by a teacher survey to obtain attitudinal data on teachers' views on textese and their learners' written work, and the data obtained from the two research instruments are compared.

It is argued that the target audience of secondary school learners, as part of the 'digital native' generation, might have reached the 'point of saturation' and will therefore struggle to identify textisms in a formal writing context because they are so used to seeing them in informal writing contexts. Register theory is accordingly used to argue that due to the target population's frequent exposure to and use of textese, they might not have a precise grasp of register and will therefore struggle to identify textisms in formal written Standard English.

The results indicate that the 288 secondary school learners who participated in this study do, in fact, have a precise grasp of register and will *not* struggle to identify textisms in formal written Standard English. The results further suggest that textese does not currently pose a threat to Standard English in South Africa as it merely reveals English's remarkable ability to adapt to its users' ever-changing demands and needs.

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Soli Deo Gloria

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LIST OF ACRONYMS AND ABBREVIATIONS

ECD	electronic communication device
p-plot	probability plot
p-value	probability value
SASSLATS	South African secondary school learners aged 13 to 17 (grades 8 to 11) with English first-language <i>proficiency</i> from the upper-middle class socio-economic sphere in the urban Pretoria region
SMS	short message service
UK	United Kingdom
USA	United States of America

1 OVERVIEW

1.1 Introduction

Textese, also called ‘textspeak’, ‘txtese’, ‘chatspeak’, ‘txt’, ‘txtspk’, ‘txtk’, ‘txto’, ‘texting language’, ‘netspeak’, ‘Internet speak’, ‘txt lingo’, ‘SMSish’, ‘txtslang’, ‘txting’ or ‘txt talk’, is the writing convention of shortening words so that the maximum amount of information may be conveyed in the shortest possible time and at the lowest cost as mobile phone users pay for each 160 character text message sent (Kemp 2010, p.53). Due to the limitations of space and time, communicators try to maximise expressivity of words, phrases and sentences without compromising comprehensibility (Bodomo 2009, p.113, Balakrishnan & Yeow 2008, Hård af Segerstad 2005, pp.40-46). While messaging platforms such as BlackBerry Messenger and WhatsApp have lowered the cost of texting, the time constraints remain. The use of textisms therefore remains as strong as it always has (Wood, Kemp & Plester 2014, p.99). Accordingly, although textese has its origin in cellular technology and used to refer predominantly to the writing conventions used when typing a short message service (SMS), I use the term to refer to the linguistic phenomenon of shortening and amending words by any intelligible means possible to cram the maximum amount of information into the smallest possible space in the shortest amount of time, irrespective of the medium or platform through which it is used. I also focus in this inquiry on English textese exclusively. ‘Textese’ shall therefore denote English textese specifically unless explicitly stated otherwise. In addition, ‘textism’ shall denote the deliberate shortening of a word by either saving the person typing the message time by minimising the amount of key presses (e.g. it may require an additional key press to capitalise ‘I’, but to save time it might be typed as ‘i’), or by saving characters (e.g. ‘great’ spelt as ‘gr8’, thus ‘saving’ two letters – though this will save time too), subject to the condition that the textese form must still be intelligible.

Some sources (see Wood et al. 2014a, p.5) place the date of the first SMS or ‘text’ message sent as early as the mid-1980s, with others (see Thomas 2012) placing it as late as 1993. Irrespective of the date of its first use, since its introduction texting has been steadily replacing voice calls as the preferred method of communication, especially among the 13- to 24-year-old age group (Drouin & Davis 2009, p.49, Gomez & Dudt 2009, p.84). More specifically, the International Telecommunications Union (ITU 2010, p.3) estimates that global text messaging tripled between 2007 and

2010,¹ from an estimated 1.8 trillion to an estimated 6.1 trillion text messages, or approximately 200 000 per second. It is estimated that approximately 8 billion texts were sent in 2013 (Gordon 2013). At the end of 2012, there were approximately 6.4 billion (ITU 2012) active cellular subscriptions worldwide. At the end of 2013, there were 6.8 billion active cellular subscriptions worldwide (ITU 2013, p.2), and it is expected that this number will reach approximately 7 billion by the end of 2014. Moreover, the number of global Internet users has almost tripled between 2005 and 2013, from an estimated 1.1 billion in 2005 to approximately 2.8 billion users at the end of 2013 (ITU 2014, p.5). It is estimated that approximately 1.6 billion people had access to the Internet from their homes by the end of 2010 (ITU 2010, p.4), and it is estimated that 3 billion people will have access to the Internet by the end of 2014 (ITU 2014, p.5). In the United Kingdom (UK) alone, more than 3 billion texts were sent per week in 2012, an average of 50 texts per person per week (Thomas 2012). However, among UK teenagers aged 12 to 15, the number of texts sent increased drastically to an average of 193 texts per week during 2012 as the popularity of texting as means of communication kept on growing (Cooke 2012). In the United States of America (USA), young adults between the ages of 18 and 24 sent and received an average of 109 text messages per day in 2011 (Pew Internet 2011, p.4). This significant global increase in access to cellular telephone networks and Internet services has been referred to as the 'Knowledge Society' and the 'Information Age' (Bodomo 2009, p.113), but will simply be referred to as the 'technology explosion' in this thesis.

In moving to the local context, it may be noted that the technology explosion has not only had a marked impact on global communications, but also specifically in South Africa. By the end of 2009 an estimated 5.3 million South Africans had access to the Internet (Internet World Stats 2009), while 12.3% of South Africa's population was using the Internet by the end of 2010, more than double the 5.4% reported in 2000 (ITU 2011a, p.1). This subsequently almost quadrupled to 41% by the end of 2012 (ITU 2012). With regard to mobile phone usage, the number of South African subscriptions increased from 8.3 million in 2000 to 50.3 million in 2010 (ITU 2011b, p.1), to 68.4 million by the end of 2012, effectively meaning that there is more than one mobile phone for each South African.

¹ Statistics for up to 2014 included where available. Statistics used in this section are the most recent available.

It may accordingly be expected that the introduction of what is today known as textese (see section 1.9 for full definition) would have followed the introduction of the mobile telephone and greater Internet accessibility following the aforementioned technology explosion. However, the following poem by Charles Bombaugh (1867, p.69), published in the late 1860s, proves otherwise:

“An Essay to Miss Catherine Jay”

An S A now I mean 2 write
2 U sweet K T J,
The girl without a ||,
The belle of U T K.
I 1 der if U got that 1
I wrote 2 U B 4
I sailed in the R K D A,
And sent by L N Moore. . . .
This S A, until U I C
I pray U 2 X Q's
And do not burn in F E G
My young and wayward muse.

Now fare U well, dear K T J,
I trust that U R true--
When this U C, then you can say,
An S A I O U.

Other observers (see Zimmer 2010), however, place the origins of textese-related writing conventions as early as 1813. Textese may also be likened to telegraphese, the language of telegrams used following the invention of the telegraph around 1800, which also features abbreviations to minimise costs by using words economically (Barton 1998, p.39). The concomitant question is then why did textese, to use an anachronism, not catch on in the nineteenth century? The answer is simple: because there was not a functional or social need for it. However, that has changed following the technology explosion and the introduction of cellular, Internet and electronic communication technology. The evolution of textese is therefore driven by functional and technological demands (Shortis 2007a, Crystal 2005, p.363), in turn resulting in language doing what it has to for efficiency, and being as it is because of what it has to do (Halliday 2003, p.309). Since necessity is the most probable driver of language change (Aitchison 2001, p.145), a change in the manner in which we communicate will thus necessitate an attendant change in our language to keep on meeting our needs (Crystal 2005, p.462).

1.2 Rationale

During my initial discussions in the second term (April to June) of 2012 with secondary school English teachers on the potential impact of textese on their learners' formal written English, they confirmed that learners seemed to have become desensitised regarding the use of textisms. The teachers did, however, not believe learners added textisms intentionally as they knew they would be penalised for using them. This 'desensitisation' is referred to as the 'point of saturation' (Nadeem, Mohsin & Ali 2012, p.1234, Hamzah, Ghorbani & Abdullah 2009, p.6, O'Connor 2005, p.2, Brown-Owens, Eason & Lader 2003, p.17, Lee 2002, p.3), in terms of which learners no longer notice textese spelling variations as they have become so used to seeing them. Baron (2007) refers to this phenomenon as 'linguistic whatever-ism', which essentially means that less emphasis is placed on writing 'correctly' when using textese for texting, electronic mails (e-mails) and social media such as Facebook, Twitter, BlackBerry Messenger, Mxit, WhatsApp, Instant Messaging, and Windows Messenger. Moreover, there is already a general and increasing tendency to use informal forms of English in the public domain, with 'public' English increasingly using the linguistic resources of informal or 'private' discourse (Goodman 1996, p.145). Accordingly, my early hypothesis is that due to the aforementioned ever-increasing popularity in the use of textese in different electronic communication mediums, textese, as a driver of language change, could be contributing to the general informalisation of English noted by Goodman (1996).

The notion of the informalisation of English is predicated upon the assumption that the distinctive linguistic features used when writing textese are different (i.e. necessarily more informal) than those used when writing formal Standard English. But what is Standard English,² and what is formal written Standard English? From the outset, it may be noted that 'standardisation' is a historical process that, to a greater or lesser degree, is always in progress, and that the only fully standardised language is a dead language (Milroy & Milroy 1999, p.19). According to Crystal (2003b, p.110), the term resists easy definition but is used as if most educated people know *precisely* what it refers to. However, in a broad sense, Standard English is generally accepted

² I initially used the term throughout this thesis as 'Standard' English to denote its protean qualities and to remind the reader that the concept itself is fluid and dynamic (meaning that it can only describe what Standard English is at a specific point in time and within a certain society or geographical location). However, I have decided to use the term consistently without quotation marks to prevent any potential ambiguity and confusion in this regard. Readers are thus reminded to keep the protean qualities associated with the term in mind.

to represent the communicative norm throughout the English-speaking world at a particular point in linguistic history (ibid.). In this regard, Shortis (2007a, p.26) notes:

We learn to write in [S]tandard English spelling for credibility and transparency in formal 'high stakes' social contexts where failure to comply will carry social and economic penalties. But other spelling options are available, and in certain situations, with certain participants, such options may be more pleasurable, efficient and appropriate. The teaching of standard spelling is a project concerned with giving students credibility and access rather than intelligibility.

However, Standard English today, in either its written or spoken form, is not the same as it was a century ago, and will be different again a century hence – a considerable amount of variability therefore still exists even in a supposed 'standard' variety (Crystal 2004b, p.254). Gunn and Candelaria (2005, p.x) analogously use the term 'snapshot' to refer to instances where the definition of a term might change over time. Although initially used in assigning a definition to the evolving genre of science fiction, Gunn and Candelaria's term is useful to distinguish between varying perceptions of what constitutes Standard English. Evidently, the snapshot of Standard English 30 years ago would be slightly different from the snapshot of it today. It is therefore appropriate to speak of standardisation more abstractly as an ideology; an idea in the mind rather than a reality and essentially a set of abstract norms to which actual usage may conform to a greater or lesser extent (Milroy & Milroy 1999, p.19). Standard English is therefore not identical everywhere – the differences between American and British spelling being an obvious example (Crystal 2004c, p.37). However, for the purposes of this inquiry Standard English will denote South African Standard English unless indicated otherwise.

Nevertheless, in order to describe a linguistic system, a linguist has to assume that the target population and its use of language are largely homogenous, and that the language system he or she wishes to investigate is more or less stable at a given point in time (Görlach 1997, p.9). Therefore, for the purposes of this inquiry a satisfactory baseline definition of Standard English, or snapshot of contemporary formal written Standard English, is required, and relevant markers of informal English need to be identified for use as a point of reference for the remainder of this inquiry. It may therefore be noted that Standard English is a term used in Sociolinguistics to refer to the prestige variety of a language, with the opposite term being 'non-standard' or 'substandard' (Crystal 2008d, p.450). The difference between Standard

and non-standard English is that Standard English is the codified variety generally accepted as the 'correct' or most appropriate form of English typically used in formal settings, when writing and for educational purposes, while non-standard English, such as textese, is not (Campbell & Mixco 2007, p.192, Trask 2000, p.323). Accordingly, the following characteristics of Standard English have been adapted from Crystal (2008d, p.450):

Table 1: Characteristics of Standard English

Number	Characteristic
1	It is a variety of English and is a distinctive combination of linguistic features with a particular role to play. It is in a sense a special kind of English dialect, with the exception that it has no local base.
2	Its main written linguistic features relate to grammar, vocabulary and orthography (spelling and punctuation).
3	It is the variety of English that carries the most prestige, with 'prestige' being defined as a social concept.
4	The prestige attached to it is recognised by well-educated citizens and this motivates them to recommend Standard English as a desirable educational target. It is the chosen variety used by the community's leading institutions, such as government, law courts and the media.
5	Although Standard English is widely understood, it is not widely produced. Most people reserve Standard English for writing – in itself a lesser-used activity – only in certain tasks (such as a letter to a newspaper, but not necessarily to a close friend). More than anywhere else, Standard English is found in print.

As a dialect, Standard English is referred to as 'educated' English (Freeborn 1998, p.1). Similarly, for Quirk, Greenbaum and Leech (1985, p.18):

Educated English naturally tends to be given the additional prestige of government agencies, the professions, the political parties, the press, the law court and the pulpit – any institution which must attempt to address itself to a public beyond the smallest dialectal community. It is codified in dictionaries, grammars, and guides to usage, and it is taught in the school system at all levels. It is almost exclusively the language of printed matter. Because educated English is thus accorded implicit social and political sanction, it comes to be referred to as Standard English ...

On this basis, Standard English may be defined as a minority variety, identified chiefly by its vocabulary, grammar and orthography, which carries the most social prestige and is most widely understood. Textese is therefore a special dialect of Standard English, with dialect being defined as a socially distinctive variety of language, characterised by a particular set of words and grammatical structures (Crystal 2008d, p.142). In contrast to 'standard' language, which is prestigious, correct, uniform and follows the rules of grammar, dialects generally lack prestige,

are seen as incorrect, substandard and fail to obey grammatical rules (Hock & Joseph 2009, p.308). For observers such as Spatafora (2008, p.34), Rankin (2010, p.58) and Hamzah et al. (2009, p.6), the dialect (in this instance textese) is seen as incorrect and having a corrupting influence on the presumed 'standard' of formal written Standard English.

Formal language is measured on a scale or continuum (Heylighen & Dewaele 1999, p.8), with 'formal' and 'informal' representing the two opposite sides of the scale. Some of the markers of informal language include contractions of negatives (wouldn't, can't etc.) and auxiliary verbs (he'll, she'll etc.); an increased use of more informal vocabulary, such as colloquialisms and slang forms (for example *so this guy comes up to me and says...*); and the use of active rather than passive verbs. The characteristics of textese are as follows (adapted from Wood et al. 2014b, p.285, Houser 2012, pp.66-69, Rosen et al. 2010, p.433, Rankin 2010, p.58, Freudenberg 2009, p.42, Plester, Wood & Joshi 2009, p.151, Crystal 2008a, pp.22-62, Hård af Segerstad 2005, pp.40-46, Thurlow 2003, Bodomo & Lee 2002, p.23, Kasesniemi 2003, p.41).

Table 2: Characteristics of textese

Number	Characteristic	Example
1	Shortenings, including omitted hyphenation	'bro' for 'brother' and 'tues' for 'Tuesday'
2	Contractions	'plz' for 'please' and 'watcha' for 'what are you'
3	G-clippings	'goin' for 'going' and 'doin' for 'doing'
4	Other clippings	'hav' for 'have' and 'wil' for 'will'
5	Omitted apostrophes	'cant' for 'can't', 'dads' for 'dad's', and 'ur' for 'your/you're'
6	Omitted articles	Omission of both 'the' and 'a/an'
7	Acronyms and initialisms	'SA' for 'South Africa' and the reduction of words to their initial letters such as 'tfn' for 'ta ta for now'
8	Symbols and emoticons	'@' for 'at', '&' for 'and', '#' for 'number' and ☺/☹
9	Letter and number homophones	'2moro' for 'tomorrow' and 'b4' for 'before'
10	Non-conventional spellings	'fone' for 'phone', 'rite' for 'right/write', and 'skool' for 'school'
11	Informal tone and register	Informal address such as 'Hi' instead of 'Dear' and slang terms used
12	Lack of capitalisation	At the beginning of a sentence or for proper nouns
13	Lack of punctuation	Missing commas and full stops

In contrast, Standard English is predominantly found in formal written expressions of English, most notably in newspapers and books (Honey 1997, p.1). A quick glance at the South African newspaper with the largest circulation, the *Sunday Times*, and the printed version of the South African Minister of Finance's 2013/14 budget speech, as sources where standard language use could readily be expected to be found, revealed none of the above-mentioned 13 characteristics of textese. This is mainly because official or institutional English is generally associated with a formal, impersonal style (Goodman 1996, p.144). Formal English involves carefully organised discourse, often with complex syntax and vocabulary, which closely follows the conventions of Standard English and is often sensitive to prescriptive judgements (Crystal 2008d, p.195). By contrast, informal language is loosely structured, involving a high level of colloquial expression and often departing from standard norms (ibid.). The context will therefore dictate the formality of language use, with 'context' denoting the physical surroundings, the relationship between participants, their past shared experience and current conversational goals, the social events of which the conversation is a part, and their broader cultural values and expectations (Maybin 1996, p.12).

There are accordingly different 'registers' used for formal and informal contexts, with 'register' being a variety of language defined according to its use in social situations, for example religious, scientific or formal register (Crystal 2008, p.409). Register is essentially the set of linguistic features that characterises texts in different contexts (Koester 2004, p.7). Similar to formal and informal language use, formal and informal register also present the two opposite sides of a continuum. Depending on the context and the person with whom they are communicating, language users will switch between different registers appropriate for the context (Crystal 2008, p.410). Although the term 'code-switching' is normally used to refer to the ability to use two different codes (languages) seamlessly and without impeding intelligibility (Bullock & Toribio 2009, p.1), Hock and Joseph (2009, p.360) and Campbell and Mixco (2007, p.33) use it to refer to the ability to switch between two different registers. This ability is also called 'monolingual style-shifting' (Bullock & Toribio 2009, p.2) and 'border crossing' (Fairclough 1996, p.78), but this inquiry shall prefer 'code-switching'.³

³ I acknowledge that the term 'code-switching' is generally used to refer to linguistic code-switching, namely language users' ability to alternate successfully between two different languages in which they are proficient (Bullock & Toribio 2009, p.1). I also acknowledge Giroux's (1992, p.3) use of the term to denote shared intellectual and political concerns of academic disciplines. However, for the duration of this thesis I shall use the term specifically to refer to textese users' ability to tailor their register appropriately for different contexts.

1.3 Contextualising the phenomenon of texting

Personally I frequently use textisms when I write text message communiqués to my close friends and family. I do, however, like to think that I retain a more formal register when communicating via SMS with someone I know professionally, for example with acquaintances from the academic environment or colleagues from work. Nevertheless, I have caught myself using textisms in decidedly inappropriate situations, when a formal register was unequivocally required. Also, when I entered the professional workplace in 2008, I noticed that attitudes towards the use of textisms differed markedly: younger employees would think nothing of writing ‘thanx’ for ‘thanks’ and include emoticons (‘smiley faces’ – ☺) in work-related e-mails, while older employees (mostly the managers of the younger employees) would express complete and utter surprise at the inclusion of such textisms. I remember my initial aversion to using textisms, even when texting a close friend or relative, when I received my first mobile phone in 2000 at the age of 16. I thought of myself as a language purist and I remained optimistic that I would not bow to what I deemed to be social pressure to use textisms. However, after only a few days I realised two important things: one, it was taking me incredibly long to write a single text message, and two, I had to pay for significantly more text messages because if I had used textisms, I would be able to say in one text message what was taking me two or even three messages using Standard English. I accordingly started using textese to save myself both time and money. At first, it was not difficult to distinguish between the informal register required when writing texts and when writing for school (and later university). Even at 16, it was clear in my mind that there were various writing contexts that accordingly required varying degrees of formality as per the aforementioned formality continuum, with certain forms and lexical items decidedly inappropriate in certain contexts.

It was only years later that I started wondering whether the distinction between formal and informal contexts would be as clear for children who went to school after the year 2000 – approximately the time when mobile phone ownership became the norm rather than the exception – than it would be for people who had finished their schooling some years earlier. According to these children’s *Weltbild*,⁴ there never was a time before mobile phones. As a result, I was of the opinion that these children’s sense of appropriateness of language use given the context would be

⁴ The German word *Weltbild* means ‘world view’. It is also called *Weltanschauung*, which means ‘world outlook or perception’. Both words are used to denote a comprehensive world view and an informed worldwide perception (Tulloch 1993, p.1786).

different from mine, which, in turn, would most likely be different from the older generation who were already adults prior to the technology explosion. I accordingly started wondering: could textese, in fact, be a driver of language change, and if so, among which age groups would this change be most apparent? Reading on the subject revealed that children aged 6 to 12, or the so-called 'pre-adolescents', gradually move away from parental influence and become progressively swayed by their contemporaries (Aitchison 2003, p.738). Specifically with regard to English first language acquisition, a significant leap in the size of children's vocabulary is noted around the age of 14 – an increase that is associated with the acquisition of rules for word derivation (Aitchison 2003, p.739). It therefore comes as no surprise that the age group that is responsible for the greatest increment of language change is younger teenagers (Labov 2001, p.449). In the US, teenagers aged 13 to 17 also send more text messages than any other age group, averaging 3 339 per month (The Nielson Company 2010), and globally numerous studies have found that many of the distinctive linguistic features used when writing textese are creeping into secondary school learners' formal writing (Rankin 2010, p.58, Hamzah et al. 2009, p.6, Spatafora 2008, p.34, Massey, Elliott & Johnson 2005, p.435, O'Connor 2005, p.2, Lee 2002, p.3). I therefore decided to narrow my scope to focus on this age group, specifically South African secondary school learners aged 13 to 17 (grades 8 to 11) (henceforth collectively referred to as 'SASSLATS').⁵ Also, considering the possibility that my target population may already have reached the point of saturation (Nadeem et al. 2012, p.1234, Hamzah et al. 2009, p.6, O'Connor 2005, p.2, Brown-Owens et al. 2003, p.17, Lee 2002, p.3),⁶ I decided to focus on SASSLATS' ability to *identify* textisms in a formal writing context rather than on their actual *production* of textisms when writing as I believe any desensitisation to textisms will be more evident using this approach. Drawing on Jauss's (1982, pp.21-22) 'rezeptionsästhetik' (reception theory), I argue that written texts are not devoid of context and that their meanings are contingent on the circumstances in which they are read (McCormick 1992, p.7). Moreover, in view of the theory of recognition versus recall, in terms of which recall is considered the more difficult of the two as no retrieval cues are provided as is the case with recognition (Mickes, Wixted, Shapiro, Scarff 2009, p.755), testing

⁵ I coined the term 'SASSLATS' to avoid clumsy, repetitive and wordy sentence constructions. In my inquiry 'SASSLATS' shall invariably and specifically refer to SASSLATS with English first-language *proficiency* from the upper-middle class socio-economic sphere in the urban Pretoria region.

⁶ It is acknowledged that these studies were conducted within a developed-country context while my inquiry will be conducted within a developing-country context. Please refer to section 1.7.1 for a more detailed discussion regarding the homogeneity of secondary school learners in a developed- and developing-country context.

SASSLATS' ability to identify textisms was deemed to be the most appropriate approach for the purpose of my study.

As I immersed myself in my subject matter I went about obtaining a general sense of what people's perceptions were of textese and its potential impact on secondary school learners' formal written English. When I told friends, family members, colleagues and acquaintances that I was conducting a study on textese, they would invariably respond that it was a topical subject as children's spelling and writing had most assuredly deteriorated severely when compared to their own. Everyone, and I really do mean *everyone*, I spoke to about textese had an opinion on the potential impact it had on language in general and on English in particular. My acquaintances would almost without fault produce a text message written in textese sent to them by their child, niece, nephew or other younger acquaintance before lamenting the difficulty they had in deciphering it.

In search of a more credible opinion, I approached the Head of the English Department at the University of Pretoria in October 2011 via e-mail and asked his opinion on questions relating to the standard of English observed in students' written essays compared to ten or twenty years ago. Other questions related to whether he saw textisms in students' essays; whether he thought students had difficulty in distinguishing between the different registers required for formal and informal contexts; and whether he thought that textese might have a permanent effect on English and lead to English becoming more informal over time. While Wessels (2011, pers. comm., 11 October) indicated that he had observed a general decline in English students' written essays compared to ten or twenty years ago, textisms such as 'gr8' or '2morrow' had not been widely noted. However, a lack of capitalisation and omitted apostrophes were singled out as the most notable changes observed. Wessels (ibid.) also confirmed that in his view, students were finding it increasingly difficult to distinguish between when a more formal register was required and when informal language was acceptable. However, despite these observations, he reiterated that quality publications still maintained the distinction between formal and informal register very effectively and those who ignored the distinction or appeared unaware of it did so at their peril, and were still likely to be dubbed as ignorant or uneducated, or at least as careless, by an educated public. While it could be argued that such views are akin to linguistic imperialism, which in this inquiry means that one

assumes one's own use of language is superior to someone's else's,⁷ it does seem that the line between formal and informal contexts might be becoming increasingly blurred among students in the South African tertiary environment.

After considering the points raised by Wessels, and thinking back to my discussions with friends, family, colleagues and acquaintances, it became apparent that cell-phone owners broadly fell into two categories, namely those who used textese and those who did not. Moreover, the most notable difference between texters and non-texters appeared to be age, with younger people being markedly more inclined to employ textese than older people. Older people almost invariably confirmed that they viewed text messages as a form of writing and thus typed text messages as they would write, while younger people used textese to save time and cost; rather viewing texting as talking as found by previous studies (UK Department of Education 2012, p.5, Lenhart, Arafeh, Smith & Macgill 2008, p.13, Jacobs 2008, p.207).

1.4 Statement of the problem

Ever since the arrival of printing – thought to be the invention of the devil because it would put false opinions into people's minds – people have been arguing that new technology would have disastrous consequences for language. Scares accompanied the introduction of the telegraph, telephone, and broadcasting. But has there ever been a linguistic phenomenon that has aroused such curiosity, suspicion, fear, confusion, antagonism, fascination, excitement and enthusiasm all at once as texting?

(Crystal 2008b, p.1)

Since the development of the personal computer in the 1970s and the mobile phone in the 1980s, there have been concerns about the negative impact of these technologies on children's language ability (Watt 2010, p.141, Turner 2009, p.61, Subrahmanyam, Kraut, Greenfield & Gross 2000, p.124). Moreover, since the introduction of textese, researchers from across the globe have been debating the impact thereof on writing skills, specifically the impact of textese on secondary school learners' writing skills (Omar & Miah 2012, p.9, Nadeem et al. 2012, p.1234, Thomas & McGee 2012, p.20, Freudenberg 2009, p.3, Bodomo 2009, p.24, Hamzah et al. 2009, p.6, Lenhart et al. 2008, p.13, Mphahlele & Mashamaite 2005, p.9). Other less

⁷ 'Linguistic imperialism' may also denote the transfer of a dominant language to speakers of other, less-dominant languages (Phillipson 1992, p.47), but this meaning shall not be used for the purposes of this inquiry.

scholarly observers such as James Billington (2008), the USA Librarian of Congress, are concerned that the quality of American secondary school learners' writing is being degraded by their electronic communication, with its carefree spelling, lax punctuation and grammar, and its acronym shortcuts. Contrastingly, researchers such as Plester, Wood and Bell (2008, p.138) are treating this concern with suspicion because it is merely based on anecdotes and reported incidents of text language used in schoolwork. Rosen, Chang, Erwin, Carrier and Cheever (2010, p.421) add that "educators and the media have decried the use of these [textese] shortcuts, suggesting that they are causing youth ... to lose the ability to write acceptable English prose".

Previous research conducted mostly in the USA and the UK has confirmed that secondary school learners with ready access to mobile phones are (1) exposed frequently to texting, sending and receiving an average of 109 text messages per day (Pew Internet 2011, p.4); (2) invariably use textese when writing text messages (Rankin 2010, p.58, Spatafora 2008, p.34); and (3) are highly adept at reading and writing textese (Nadeem et al. 2012, p.1233, Massey et al. 2005, p.435, O'Connor 2005, p.2, Lee 2002, p.3). Secondary school learners may therefore already have reached the point of saturation (Nadeem et al. 2012, p.1234, Hamzah et al. 2009, p.6, O'Connor 2005, p.2, Brown-Owens et al. 2003, p.17, Lee 2002, p.3). The concomitant unease about textese and its potential impact on formal written English are captured succinctly by Wood et al. (2014a, p.41):

Today's children are growing up learning to read and write text messages soon after – or even during – the period in which they are developing the skills to read and write conventionally. Children's knowledge of sounds, spellings and word structure continues to develop into adolescence, and so there is scope for texting to influence standard literacy, or vice versa, throughout the school years. However, most adults of today have largely consolidated their conventional literacy skills before being introduced to text messaging, which has meant that the two writing systems were learned at different times, and in quite different ways.

By contrast, and in moving to empirical studies suggesting a positive correlation between texting and literacy skills, there is evidence that "young adults are generally aware of when it is appropriate to use textisms and when it is not" (Wood et al. 2014a, p.50), which displays metalinguistic knowledge on their part (Plester et al. 2008, p.143). Moreover, secondary school learners generally know that textisms are

decidedly unacceptable in formal writing (Lee 2011, p.84). However, this does not necessarily mean that they will be able to identify textisms in formal written English. Accordingly, no study has yet tested SASSLATS' ability to *identify* textisms in formal written English, and no study has yet employed a proofreading protocol.

Furthermore, as noted earlier, the age group that is responsible for the greatest increment of language change is younger teenagers aged 13 to 17 (Labov 2001, p.449), thus my decision to focus on this age group. Evidence-based research (see Bushnell, Kemp & Martin 2011, p.27, Pew Internet 2011, Plester & Wood 2009, pp.1109-1112, Ling 2008, pp.335-336) also confirms that teenagers use more textese than any other age group. My research problem is therefore to ascertain whether the ability of SASSLATS to identify textisms in formal written Standard English has been impeded in view of the fact that they might already have reached the point of saturation and the supposedly detrimental effect of textese on teenagers' traditional literacy skills as highlighted by Omar and Miah (2012, p.9), (Nadeem et al. 2012, p.1234), Thomas and McGee (2012, p.20) and Hamzah et al. (2009, p.6).

1.5 Research hypotheses and question

In view of my research problem described in the previous section, I formulate my null hypothesis as follows:

SASSLATS will struggle to identify textisms in a formal writing context.

Concomitantly, my alternate hypothesis may be formulated as follows:

SASSLATS will not struggle to identify textisms in a formal writing context.

In order to quantify the opposing concepts of 'struggle' and 'proficient' in the context of my inquiry, I have decided that a score of more than 50% on the research instrument will indicate that learners are 'proficient' in terms of identifying textisms in formal written English as it simply denotes that more textisms were corrected than overlooked. By contrast, learners will be deemed to have 'struggled' to identify textisms in a formal writing context if they did not correct more than 50% of the textisms on the research instrument as they would then have 'missed' more textese errors than they corrected. Although the 'point of saturation' cannot be related directly to the rather narrow confines of 'struggle' or 'proficient' explained above, for the

purposes of this inquiry, learners would not be seen to have reached the point of saturation unless they failed to correct more than 50% of textisms on the research instrument.

In addition, girls consistently outperform boys in spelling and writing tests (Sadowski 2010, p.10, Twist & Sainsbury 2009, p.283, Horne 2007, p.47, UK Department of Education 2012, p.19, Denton & West 2002, p.35, Justice, Invernizzi, Geller, Sullivan & Welsch 2005, p.24). I am therefore also interested in ascertaining whether female SASSLATS will identify more textisms in formal written Standard English than their male counterparts. Although studies have shown that girls send and receive more text messages than boys (Faulkner & Culwin, 2005, p.183, Massey et al. 2005, p.435), I am of the view that girls will identify more textisms in formal written Standard English. I have therefore formulated the following secondary hypothesis:

Female SASSLATS will identify more textisms in formal written Standard English than male SASSLATS.

Furthermore, a study by Wood, Jackson, Hart, Plester and Wilde (2011, p.436) and a review of their work on children up to 12 years by Plester and Wood (2009) revealed that from a target population of 9-to-12-year-old children, textism use was highest among the 12-year-olds. This suggests that textism use among primary school learners peaks at the end of primary school.⁸ Although Plester and Wood (2009) did not test for textism use beyond the age of 12, I am also interested in determining whether secondary school learners' ability to identify textisms in formal written Standard English will increase as they progress academically from their first year in secondary school (grade 8 and aged 13) to grade 11 (aged 17). I have therefore formulated a second secondary hypothesis:

SASSLATS will identify more textisms in formal written Standard English as they progress academically from grade 8 to grade 11.

⁸ To clarify an apparent contradiction between Labov's (2001, p.449) claim that teenagers aged 13 to 17 are responsible for the greatest increment of language change and the claim that textism use among primary school learners peaks at the end of primary school: it does not necessarily imply that even if textese use generally peaks at the end of primary school (around the age of 12 years) this age group of younger teenagers, as opposed to the age group aged 13 to 17 as posited by Labov, is responsible for a greater increment of language change.

In addition to my above-mentioned hypotheses, my research question is formulated as follows:

What are the implications for formal written Standard English in South Africa in terms of SASSLATS' ability to identify textisms in formal written Standard English?

1.6 Ethical considerations, reliability and validity

1.6.1 Ethical considerations

By means of the learner and parental consent letters (Addenda G and H respectively), all learner respondents and their parents, caregivers or guardians were informed fully of the nature and purpose of the research project. They also understood that they were under no obligation to participate in my study. The letters of consent stated explicitly that no learner was required to participate against his/her will, and that no parent, guardian or caregiver was obliged to grant consent for the relevant learner under his/her care to participate in the study. I also emphasised that non-participating learners would not be penalised or discriminated against in any way, and that participation was completely voluntary. Even if a parent, guardian or caregiver granted consent for the learner to participate in my study, the final decision of whether or not to participate vested with the learner.

Learners were also specifically instructed not to write their names on the research instruments. I further labelled the different research sites as 'Site A', 'Site B' etc. and the respondents sequentially as '1', '2', '3' etc. to ensure that there was no way of determining from which research site, grade, class or individual a particular response had emanated. While I acknowledge that this might have resulted in a loss of specificity as it gave only one score, it also ensured that no single response could be traced back to any specific respondent, thus ensuring respondents' anonymity.

1.6.2 Reliability and validity

In essence, reliability and validity testing aims to ensure replicability or repeatability and accuracy of the results or observations (Golafshani 2003, p.598). Reliability refers to the extent to which results are consistent over time and whether the results of a study can be reproduced under a similar methodology, while validity determines whether the research truly measures that which it was intended to measure and how truthful the results are (Joppe 2000, p.1). Factors that could influence the reliability of my research instruments could include some learners misreading the instructions (or

in fact not reading them at all); some learners not having had a sufficient night's sleep before completing the research instrument; or environmental factors (such as the instruments being completed on an excessively hot day or certain distractions occurring, such as a draught bothering certain learners during the completion of the instrument) (Frisbie 1988, p.25). Such random errors will unfortunately always be present on a particular testing occasion (Frisbie 1988, p.26), but I believe my approach to designing the actual research instrument as detailed in Chapter 3 will address such concerns as far as possible. I also acknowledge that the authentic classroom context in which the learners would complete the instruments might have been reduced when completing my research instruments, it could influence my instruments' validity as explained in greater detail in Chapter 3.

Furthermore, in view of the fact that my proofreading protocol is an original and newly designed instrument, it will benefit from a rigorous process to test both its validity and reliability. In addition to the conventional statistical analysis I employed in Chapter 4, I applied further statistical techniques to verify the instrument's use and the inferences that can be made from the results (Messick 1989, pp.29-34). To this end, and as for reasons explained in Chapter 5, the Rasch measurement model was deemed to be the most appropriate tool to achieve this objective.

1.7 Assumptions, limitations and delimitations

1.7.1 Assumptions

I acknowledge that secondary school learners (specifically the target age group of 13-to-17-year-olds) in South Africa, the USA and the UK with English first-language proficiency are not homogenous, most notably as South Africa is a developing country while the UK and the US are developed countries. I therefore concede that there will be differences between the textese used by secondary school learners with English first-language proficiency in the USA, the UK and South Africa (and other English-speaking countries), and most likely even between the textese used in various regions of the same country. Due to different accents and dialects used in, for example, the states of Texas, Alabama and Mississippi in the USA; the north of England, the south of England, Ireland, Scotland and Wales in the UK; and in the provinces of Gauteng, the Free State and the Western Cape in South Africa, it is highly likely that the textese used by secondary school learners in these various geographical areas will differ. However, due to the fact that my proofreading protocol will focus on SASSLATS' ability to *identify* textisms, I posit that secondary school

learners with similar socio-economic backgrounds and English first-language proficiency in my target age group across the world will be similarly proficient in *identifying* textisms in a formal writing context. I postulate this theory as (1) there is no 'house style' or 'standard' for textese (various textese variants may exist for the same word) (Crystal, 2008a:32); (2) even though there is no 'standard' for writing textese, it still needs to be understood as there is no point in sending a message if it breaks so many rules that it ceases to be intelligible (Crystal 2008b, p.1); and (3) textese can be readily deciphered and understood by those who do not text (Drouin & Davis 2009, p.60). Therefore even respondents without any knowledge of textese will be able to identify the textisms in my proofreading protocol as being non-standard even if they do not expressly know the textisms are textese. The texting behaviour of my targeted age group across the globe should thus be similar as English remains the base language, and it cannot be modified too drastically irrespective of accent or dialect for fear of becoming unintelligible. My claims are supported empirically to some extent by the research of Grace, Kemp, Martin and Parrila (2012), who investigated whether conclusions about textism use are influenced by participant country, text message collection method, and categorisation method. These researchers (2012, p.167) found that "significantly higher proportions of textisms were observed in messages written by Australians than Canadians, and in messages collected experimentally than naturalistically".

In view of the above, I have assumed that although secondary school learners (specifically the target age group of 13-to-17-year-olds) in South Africa, the USA and the UK with English first-language proficiency are not homogenous in terms of their textese *usage* (i.e. their actual *production* of textese) due to different accents and dialects, their ability to *identify* textisms (irrespective of accent or dialect) in a formal writing context will be similar. Therefore while my inquiry will focus specifically on SASSLATS, I posit that my proofreading protocol can be used with similar success within an equivalent American, British or similar English secondary school context with learners of the same age, background and English first-language proficiency. This assumption will allow me to generalise my findings to a limited extent.

Furthermore, in 2013 more than 75% of South Africans with an income below R432 (approximately US\$40) per month per household member who were 15 years or older owned a mobile phone (Peyper 2013). I therefore assumed that this percentage would increase further for upper middle-class households. I thus identified research sites that formed part of the upper-middle class socio-economic sphere and assumed

that the learners attending them would not only be likely to have their own mobile phones, but also enough airtime (prepaid or contract) to use them as frequently as they pleased. Although my study was conducted within a developing-country context, while similar studies in the USA and UK had been conducted within a developed-country context, I assumed that all respondents firstly either possessed or had ready access to a mobile phone, and secondly that they would be able to identify textisms in formal written English even if they did not use textese when writing text messages. This assumption was based on similar studies (see Wood et al. 2014b and Plester et al. 2009), which found that up to two thirds of children already owned their own mobile phones by the age of ten. Although such similar studies were conducted in the UK, for the reasons mentioned above I assumed that my target population would either own or have ready access to a mobile phone.

For the purpose of my inquiry, I assumed that as the selected research sites formed part of the upper-middle class socio-economic sphere, the learners attending them would not only be likely to have their own mobile phones, but also enough airtime (prepaid or contract) to use them as frequently as they pleased. In legal terms, to draw a parallel, the term 'judicial notice' is used to denote that something is so generally accepted as a truth that it needs no substantiation. More specifically, judicial notice is the acceptance "of any fact which is so commonly known or so easily or reliably ascertainable that it is virtually incontestable" (Joubert 2005, p.556). According to my personal frame of reference, I assumed that my target population texted, had cellular phones and used textese or at least could read textese even if they did not use it. I based this decision on the fact that when I finished school in 2002, every single learner in my class had a cellular phone and used textese when texting each other. Also, every single person I text frequently uses at least some textisms sometimes. I also currently do not know a single person over the age of ten who does not own a cell phone. The schools I selected were also more affluent than the school I attended; I therefore simply did not consider the fact that the selected learner respondents would not have a cell phone (or at least ready access to one). I also did not want to include questions relating to respondents' cellular phone behaviour as I did not want to 'cue' respondents that they were looking specifically for textese errors. Upon reflecting on my study it was perhaps not the right decision simply to assume this and with the benefit of hindsight I would have included these questions in my survey as it would have been almost no effort to include them.

The research sites were also limited to those where the medium of instruction was English. I acknowledge that not all respondents at the various research sites necessarily spoke English as their first language; however, I assumed that as they were proficient enough in English to be educated via this medium, they possessed English first-language proficiency. This assumption did, however, pose the question as to whether non-native speakers of English in South Africa, whose home language would most likely be either Afrikaans or one of the other nine official languages (IsiNdebele [Ndebele], IsiXhosa [Xhosa], IsiZulu [Zulu], Sepedi [Northern Sotho], Sesotho [Southern Sotho], Setswana [Tswana], SiSwati [Swati] Tshivenda [Venda] and Xitsonga [Tsonga]), would then not send text messages in their home language and thus be less exposed to English textisms. However, given (1) the status of English as lingua franca in South Africa; (2) the concomitant higher prestige associated with English; (3) different mother tongues among learners; and (4) the extended system of agreement underlying the grammatical structure of South Africa's nine official indigenous languages seemingly complicating the shortening of words as per textese conventions (E Taljard 2014, pers. comm., 31 July), learners indicated that they rarely sent texts in their home language. Subject concord, for example, is crucial to link the subject of a sentence to the verb. However, because the nine official indigenous languages' subject concord consists of either only a single vowel, or a consonant and a vowel, it cannot be shortened by omitting (1) the vowel as it will either mean omitting the subject concord entirely or rendering the remaining consonant insufficient to transfer the intended meaning; or (2) the consonant as the remaining vowel will not transfer the intended meaning in isolation (*ibid.*). This concurs with a study conducted by Deumert and Masinyana (2008) on text messages written by South Africans in English and Xhosa, who found that the Xhosa messages differed markedly from the writers' English messages in that the Xhosa text messages contained no abbreviated material or non-standard spellings. However, Bock (2013, p.82-84) provides an alternative position to the argument that Xhosa text messages do not frequently employ shortening strategies, arguing that since the study by Deumert and Masinyana (2008), new practices for texting in Xhosa specifically have emerged with shortening strategies now more commonly employed than previously thought. For the purposes of my inquiry, I nevertheless assumed that non-native speakers of English, but with English first-language skills, would frequently write text messages in English as English is the common language denominator (Crystal 2003, pp.3-4).

Previous studies (see Veater, Plester & Wood 2011) have focused on the impact of textese on dyslexic children's literacy skills; however, the scope of my inquiry is limited to children with age-appropriate linguistic skills.

1.7.2 Limitations and delimitations

The objective of the study is not to investigate whether there is a direct causal relationship between textese (and the use thereof) and respondents' ability to identify textisms. It is simply to investigate whether or not the target population of SASSLATS will struggle to identify textisms from the aforementioned 13 categories of textese as drawn from the relevant literature. My inquiry therefore does *not* focus on secondary school learners' ability to read or write (produce) textese, but only investigates their ability to *identify* textisms in formal written Standard English. As Salem (2013, p.65) points out, the actual act of physically writing is quite different from typing a message on the various electronic communication devices (ECDs) such as mobile phones, laptops, touch-screen tablets or desktop computers. For example, if I type a colon (:) followed by a round bracket (either '(' or ')'), the word processor I am using will automatically change it to an emoticon:⁹ ':' + ')' = ☺, while ':' + '(' = ☹. However, a colon followed by a bracket will obviously not automatically change into an emoticon when physically writing on paper. The electronic devices are therefore conducive to using certain textisms, whereas physical writing is not. I am therefore of the opinion that written texts produced by SASSLATS will not necessarily contain certain textisms (such as emoticons) as they are difficult to replicate in physical writing. This feature influenced my decision not to use the written texts produced by secondary school learners. It also prompted me to use a proofreading protocol compiled electronically but printed for the purposes of my research because, from a visual perspective, the research instrument (printed from the electronic version) resembles more closely the typed font produced by electronic devices such as mobile phones, laptops, touch-screen tablets and desktop computers. My target population's ability to produce textese on ECDs such as mobile phones, laptops, tablets and computers is thus also excluded from my scope. Similarly, the possible impact of predictive text input (where the device anticipates and provides possible words as one types) and secondary school learners' use thereof fall wholly outside the scope of this inquiry.

⁹ This holds true for the Microsoft Office suite of programs. While it also holds true for most mobile devices, there will be exceptions. This is also the default setting in the MS Office suite but it can be switched off.

I decided to focus only on urban respondents in Pretoria, thus wholly excluding the rural, arguably poorer and possibly less exposed, population. I also deliberately excluded schools that had historically not excelled academically from the scope of my inquiry as I am of the view that these learners would have a less acute grasp of formal written Standard English than learners attending stronger academic schools. Moreover, my target population and research sites were not selected at random but according to specific criteria as described in greater detail in Chapter 3. The texting conventions associated with other languages and their potential impact on such languages fall wholly outside the scope of this inquiry.

Given that the age group that is responsible for the greatest increment of language change is younger teenagers (Labov 2001, p.449), the scope is limited specifically to SASSLATS, thus wholly excluding primary school learners, final-year secondary school learners (grade 12s) and university students. Moreover, in view of the fact that language change largely occurs when casual styles of speech become accepted in more formal settings (Aitchison 2003, p.739), the scope of inquiry is limited to SASSLATS' ability to identify textisms in formal written Standard English, and not their ability to identify formal written Standard English in textese.

1.8 Explanation of key terms

I elucidate the following key terms, listed alphabetically, as they are used in this study so that readers may share my scientific frame of reference (Evans 2005, p.11).

1.8.1 Context

All use of language has a context (Halliday 1985, p.45). Halliday (2007, p.283) further distinguishes between the context of the situation and the context of culture, which he perceives not as two different concepts, but rather as the same concept seen from two different depths of observation. This notion of what is 'with the text' goes beyond what is said and written to make a bridge between the text and the situation in which texts actually occur (Halliday 2007, p.271). Among other things, context thus dictates a text's required level of formality.

1.8.2 Digital immigrant/native

Prensky (2001a, p.1) believes that the technology explosion is viewed differently by people from different age groups. He categorises people comprising the younger generation, that is roughly people who entered secondary school from the year 2000 onwards, as 'digital natives' as they grew up being constantly exposed to mobile

phones, e-mail, the Internet and computer games (2001a, pp.1-2). Concomitantly, ‘digital immigrants’ are people from the older generation, namely those people who had already grown up by the year 2000, as they were not born into the digital world (Prensky 2001a, p.1-2). See section 2.2 for a broader contextualisation of the terms.

1.8.3 Point of saturation

During initial discussions with the English teachers at the various research sites, they confirmed that learners seemed to have become desensitised regarding the use of textisms and that they did not believe learners added textisms on purpose as they knew they would be penalised for using them. This ‘desensitisation’ is referred to as the ‘point of saturation’ (Nadeem et al. 2012, p.1234, Hamzah et al. 2009, p.6, O’Connor 2005, p.2, Brown-Owens et al. 2003, p.17, Lee 2002, p.3), in terms of which learners no longer notice textese spelling variations as they have become so used to seeing them.

1.8.4 Register

In Sociolinguistics, which is the context in which I use the term in this inquiry, ‘register’ refers to a variety of language defined according to its use in social situations, for example religious, scientific or formal register (Crystal 2008, p.409). Register essentially refers to grading linguistic use appropriately according to the situation’s context and purpose (Crystal 2006a, p.6). The effectiveness of a selected register should be assessed in relation to given aims and environments, thus a monolithic register of ‘good’ or ‘proper’ English – a mythical register assumed to be superior for all purposes and in all contexts – simply does not exist as a language derives its dynamic qualities by its ability to assume various styles in response to different needs (Halliday 2007, p.30).

1.8.5 SASLATS

South African secondary school learners aged 13 to 17 (grades 8 to 11) with English first-language *proficiency* from the upper-middle class socio-economic sphere in the urban Pretoria region.

1.8.6 Standard English

I believe that Standard English may only be defined at a specific moment in time as “Standard English today, in either its written or spoken form, is not the same as it was a century ago, and will be different again a century hence” (Crystal 2004b, p.254). I

therefore believe that Standard English is in a constant, although almost imperceptible, state of flux and as a result its definition will vary according to whom the question is posed. I therefore use the term to indicate this fluid quality I associate with the concept. In addition, for the purpose of this inquiry, Standard English will, where applicable, denote South African Standard English. See also pages 4 to 8 for a more detailed discussion of Standard English.

1.8.7 Textese/textism

‘Textese’ refers to the collective linguistic phenomenon of shortening and amending words by any intelligible means possible to cram the maximum amount of information into the smallest possible space in the shortest amount of time, irrespective of the medium or platform through which it is used. Unless explicitly stated otherwise, ‘textese’ shall denote English textese specifically. ‘Textism’ shall denote a single instance of textese use by deliberately shortening a word to either save the person typing the message time by minimising the amount of key presses, or by saving characters, subject to the condition that the textese form must still be intelligible.

1.9 Overview of study

Framed by an objective approach, my inquiry aims to answer my research question of what the implications are for formal written Standard English in South Africa in terms of SASSLATS’ ability to identify textisms in formal written Standard English. In this chapter I provided an overview of the origins of texting, its rise to prominence, concerns over its impact on formal written Standard English, a baseline definition of Standard English and the characteristics of textese. In the next chapter I review the existing global and South African-specific literature on textese in relation to secondary school learners’ English literacy. Relevant studies conducted on younger and older target populations (primary school learners and university students respectively) are also considered where appropriate. Due to the limited number of studies conducted on textese and secondary school learners in the South African context (let alone on SASSLATS), studies conducted globally are also referenced where appropriate. The main focus of Chapter 2 is on the portrayal of textese in the media, on the conclusions reached by previous studies and on the validity of research instruments used by previous studies. Chapter 2 concludes with a summary of the relevant literature and of the salient findings, and an overview of the most notable gaps identified. In the third chapter I justify the choice of a quantitative research design and the methodology used to investigate the phenomenon of

textese. Chapter 3 further explains my decision to use two theoretical frameworks. A detailed discussion of the factors that informed the design of my research instruments is also included in this chapter. Chapter 4 details the transcription, verification, analysis and interpretation of my results. It also provides an overview of the pilot study conducted and it addresses matters related to the reliability and validity of my research instruments. Chapter 4 concludes with an overview of my main findings and the mapping thereof onto my two theoretical frameworks. Chapter 5 is dedicated to applying the Rasch measurement model to the data obtained from the learner respondent cohort, providing a general overview of the Rasch model and explaining how it is applied in the context of this inquiry. My sixth and final chapter acknowledges the methodological limitations of my inquiry and recommends avenues for further research. It also outlines the contribution my study makes to the existing body of knowledge and highlights certain implications for the classroom based on my findings.

2 LITERATURE REVIEW

2.1 Introduction

Textese and its potential negative impact on secondary school learners' language use have globally received substantial bad press in recent years, with articles by Prigg (2012), Cooke (2012), Thomas (2012), Campbell (2008), Barker (2007), Uthus (2007) and Bolowana (2005) all claiming that textese has a detrimental effect on English, and in particular on secondary school learners' ability to use Standard English. In this chapter, I first consider whether textese and its potential impact on English are viewed differently by people from different generations, followed by a discussion of whether textese is more akin to writing or to talking. The most substantial part of this chapter, however, is devoted to a critical overview of how textese is portrayed in the media, the approaches employed by and findings of other empirical studies both globally and specifically in the South African context, and the validity of the research instruments employed in these studies. The findings and possible limitations of such studies and instruments will accordingly be identified to inform my research and instrument design in Chapter 3.

2.2 Protean perspectives

The distinction between when the use of textisms is appropriate or inappropriate is not as clear for younger people as for older people (Schaller 2007, p.2). In this regard, Crystal (2006c, p.408) is of the view that:

We seem to be at a transitional point between two worlds. The 'old world' is one where a tiny number of rules, selected and defined by prescriptive grammarians, totally conditioned our sense of acceptable 'standard' usage, so that all other usages were considered to be inferior or corrupt, and excluded from serious consideration. The 'new world' is one where non-standard regional usage is achieving a new presence and respectability within society ... It is not a question, in this new climate, of non-standard replacing standard. Rather, the two dimensions of language use are being brought into a new relationship, in which the essential role of the standard language (as a means of guaranteeing intelligibility and continuity among educated people) is seen to complement the essential role of the non-standard language (as a means of giving expression to local identities).

Prensky (2001a, p.1) provides a plausible explanation for the different attitudes between the 'younger' and 'older' generations towards textisms and their ability to use formal and informal language appropriately given the context. Prensky (ibid.) posits that the technology explosion mentioned earlier is viewed differently by people from different age groups. He uses an analogy to argue that people comprising the younger generation, that is people who entered secondary school from the year 2000 onwards, are 'digital natives' as they grew up being constantly exposed to mobile phones, e-mail, the Internet and computer games, while people from the older generation are 'digital immigrants' as they were not born into the digital world (2001a, pp.1-2). The generation gap concomitantly develops when children identify more strongly with peer groups than with their parents, which commonly happens in adolescence (Aitchison 2003, p.738).

Specifically with regard to language change between generations, it is noted that children's Standard English vocabulary escalates in their teenage years and often at this age starts to diverge from the language of their parents (Aitchison 2003, p.739). For the most part, however, language changes because society changes (Crystal 2005, p.459), thus leading to variation between the different generations. These differences between generations' language use represent language change (Hale 2007, p.34).

This view is shared by Ringe and Eska (2013, p.56), who maintain that due to imperfect language acquisition, children bring changes in the form of errors into the language community, some of which are copied by peers. However, individuals who are already adults will not copy those errors or participate in those changes. A child's mother may therefore be oblivious to the latest round of changes, thus viewing them as errors rather than changes (ibid.). It is in this manner that changes in different generations' language usage may be accounted for, as well as their varying perspectives on what constitutes 'appropriate' language use. Given the different 'inputs' that played a role in the language acquisition of the digital native generation when compared to the inputs to the language acquisition of the digital immigrants, most notably the ready availability of cellular, electronic and Internet technology, it is to be expected that the language used by the two generations will vary. While not suggesting that the answer to the research problem can simply be reduced to the generation gap, the debate concerning textese as possible contributor to the

informalisation of English certainly seems to be one in which personal frames of reference play an integral part. Accordingly, for Bolter (1991, p.37):

Each culture and each age has its own economy of writing. There is a dynamic relationship between the materials and the techniques of writing and a less obvious but no less important relationship between materials and techniques on the one hand and the genres and usage of writing on the other.

I am therefore of the view that digital natives' exposure to the more informal language contexts offered by texting might, over time, result in the more formal aspects of formal written Standard English becoming more informal. This informalisation was also alluded to by Wessels (2011, pers. comm., 11 October), who indicated that university students were increasingly likely to confuse the different registers required by different contexts and would use words such as 'kids' and 'dad' in formal academic writing rather than the conventionally acceptable 'children' and 'father'. Supporting this view is a 2005 study by the University of Cambridge, which found that British secondary school learners were ten times more likely to use textisms in written exams in 2005 than in 1980 (Schaller 2007, p.2). In fact, the registers of English associated with certain situations are now also being used in other situations, as evidenced by billboards and other written advertisements including textisms, with informal English crossing over into professional relationships (Goodman 1996, p.145). Professional encounters are also increasingly likely to contain informal forms of English, thus becoming more 'conversationalised' (Fairclough 1994, p.147). It should be noted, however, that the issue is not formal language use encroaching on informal language use, but specifically informal language infringing upon formal contexts. Moreover, although language change largely occurs when casual styles of speech become accepted in more formal settings, and not the other way around, it does not necessarily imply that language is becoming increasingly informal (Aitchison 2003, p.739).

2.3 Is textese writing or talking? Understanding how textese functions

Through his now-famous sentence 'you cn rd ths txt wtht vwls' (even though there are two vowels in the sentence), Pinker (1994, p.162) demonstrates that language has redundancy built into it. This view is shared by Crystal (2008a, p.26), who explains that consonants carry more information than vowels – a practice previously unfamiliar to English, but perfectly normal in languages such as Arabic and Hebrew.

Crystal (2008a, p.27) uses the following two sentences to show that words without vowels can more easily be understood than words without consonants:

ths sntnc hsnt gt ny vwls.

i eee a o a ooa (= this sentence hasn't got any consonants)

Textese therefore opportunistically exploits this redundancy inherent in English to shorten the writing process, affirming that while texting may be a new technology, its linguistic processes are centuries old (*ibid.*). The concern, however, remains that the more informal aspects associated with textese might over time infringe upon the more formal contexts of language use (Rankin 2010, p.58, Spatafora 2008, p.34, Massey et al. 2005, p.435). Keeping in mind that textese is viewed as a more informal dialect of formal written Standard English, Jacobs (2008, p.207) found that it is possible to code-switch if textese users manage to keep the conventions of the two worlds of textese and conventional English separate. Eschewing this view, however, is Hansen (2011, p.7), who believes that code-switching is a myth and represents a double standard which the brain can only cope with for so long before mixing registers. Nevertheless, Jacobs's (2008, p.208) findings support those of Lenhart et al. (2008, p.2), namely that adolescents do not view online and textese communications as writing, but rather as a way of talking. This finding is corroborated by a study conducted by the UK Department of Education (2012, p.5), which found that even though teenagers engage in technology-based writing, they do not think of it as 'writing'. These findings are also confirmed by a study by Houser (2012, p.81), who found that university students write the way they talk. In turn, this view is shared by Crystal (2005, p.138), who considers writing as a medium where there is time to reflect, to re-think and to use language as a way of shaping thought. Learners therefore need to allow sufficient time for drafting, revising and editing in order to obtain the most desirable form of written expression. Moreover, Crystal (2005, p.147) asserts that as the medium of literature, writing is a source of standards and linguistic excellence, and it provides language with permanence and authority. Crystal (2005, p.148) adds that as a medium of communication, writing and speaking should not be compared by viewing the one as intrinsically 'better' than the other. However, if secondary school learners do not view the 'writing' of textese as actually writing, they will not apply the normal writing refinement process of revising and editing their 'written' textese.

Identifying the actual differences between written and spoken language, Crystal (2005, p.149) notes that the structure of written and spoken language varies significantly, with the most obvious difference being that writing uses a graphic structure, while talking uses a phonic structure. This is evidenced by the fact that even a fluent speaker produces utterances that do not read well when written down (ibid.). The most salient characteristics of writing are that it is space-bound, static and permanent. Writing is also generally the result of a situation in which the recipient is typically distant from the producer, and often the writer may not even know who the recipient is. In contrast, talking is time-bound, dynamic, transient and part of an interaction in which typically both participants are present, and the speaker has a specific addressee in mind (Crystal 2005, p.149-150).

According to Crystal (ibid.), the differences between writing and talking hold the following consequences:

1. The permanence of writing allows for repeated reading and close analysis. It promotes careful organisation and more intricately structured expression. Sentences and paragraphs are clearly identified through layout and punctuation. The spontaneous and rapid nature of speech, on the other hand, minimises the opportunity for complex preplanning and promotes looser construction. Speaking also tends to include repetition, rephrasing and the use of intonation.
2. Due to the fact that the participants in written interaction cannot usually see each other, they cannot rely on the context to express themselves as clearly as they could when talking. Writers also have to anticipate the delay between production and reception, and therefore have to take care to minimise the effects of vagueness and ambiguity in the absence of immediate feedback.
3. Written language displays unique features such as punctuation, capitalisation and other spatial effects. There are no true corresponding features in talking apart from the occasional prosodic feature, for example a question mark may be indicated by rising intonation and an exclamation mark by increased loudness.
4. Certain lexical items, such as arcane legal terms, are very rarely or never spoken, while others are not normally written, such as slang or words with no standard spelling (such as *whatchamacallit*).
5. Written language tends to be more formal than spoken language and it has a special status mainly due to its permanence.

Crystal (2005, p.153) posits that the electronic medium employed by textese is neither exactly like talking nor exactly like writing. Although electronic communication is text-based, such electronic texts do not display the characteristics of traditional print genres – they rather display the spontaneity and informality of spoken language (Yates 1996, p.118). Textese accordingly displays all the characteristics of talking as it is time-bound (it is expected that the recipient of a text message will respond sooner rather than later but often almost immediately), dynamic (by virtue of being interactive), transient (as few messages would be kept for a long period of time) and both participants are present (although not physically, both participate actively in the communication). In contrast, textese does not conform to Crystal's (2005, p.149) characteristics of writing:

1. Textese does not really lend itself to repeated reading or close analysis, nor does it promote careful organisation or intricately structured expression. The spontaneity of speech is, however, retained when using textese as the focus is on the conveyance of information rather than the manner in which it is conveyed. In other words, textese, like talking, favours substance over form.
2. Following the introduction of instant messaging platforms such as BlackBerry Messenger, WhatsApp and Mxit, which allow users to log on to a real-time platform, there is a minimal, almost negligible, delay between production and reception, which is more akin to talking than to writing (for example, when sending a hand-written letter via post and waiting for a reply).
3. Unlike writing, textese does not always display the unique writing features such as punctuation, capitalisation and other spatial effects. There is no use of paragraphing when using textese, and textese writing conventions such as a lack of capitalisation ('i' for 'I') and punctuation (omitted full stops, commas question marks etc.) are common.
4. Textese is saturated with slang and non-conventional spellings, which are normally associated with talking rather than writing. Similarly, the more 'formal' constructions (such as the passive voice) usually reserved for writing do not often feature in textese.
5. Like talking, textese tends to be more informal than written language and it does not really have a special status due to its temporary nature.

Wood et al. (2014a, p.2) agree that writing is different to talking as the writer is unable to know the exact context in which the reader will read the words because the recipient would read the words in a future unknowable at least to some extent to the

writer, by which time the context in which the writer wrote the words would have changed in ways similarly unknowable to the reader. However, cellular technology and the resultant diminished time lag between producing and reading a text place textese more firmly within the realm of talking. Consequently, although textese is a medium of communication expressed in written guise, the processes used to create such communiqués are decidedly more akin to those associated with talking. It can thus be expected that the conventions used for textese ‘writing’ are different from those used for school and academic writing (Jacobs 2008, p.207). Textese users have therefore generally abandoned many of the constraints of formal written language as they are not part of informal conversation (Wood et al. 2014a, p.7).

2.4 The portrayal of textese in the media

When textese first made its way into the public domain, the media coverage thereof was generally negative and critical (Wood et al. 2014a, p.12). Public understanding of how textese relates to traditional literacy skills therefore does not accurately reflect empirical research evidence on the topic (Wood et al. 2014a, p.xiii). Similarly, public opinion is mostly shaped by speculative media coverage, which has promoted discussion of “how declining literacy standards amongst younger people *must* be linked to their increased use of, and addiction to, new technologies and technological practices” (ibid., emphasis original). Accordingly, instead of celebrating the linguistic creativity exuded by textese, the popular media seem to have focused on the assumed negative impact that the use of such language must inevitably be having on language in general, and on children’s and young people’s literacy skills in particular (Wood et al. 2014b, p.281). The following extract from Woronoff’s (2007) online article captures the most salient details of textese’s portrayal in the media:

There is no problem among older people because their spelling skills are more established. Children are more prone to commit errors because they have read less, and prefer to play games, or watch TV, etc. ... Texting has come along with a flourish, making a big impact among them. This habit forming menace can influence kids to spell incorrectly or get confused about the correct usage. We should not tolerate these activities, else it might endanger their progress. ... It is likely that it might affect much of their ability to spell, since their minds are in the formation stage.

With regard to textese’s frequent portrayal as ‘misspellings’ in the media (Wood et al. 2011, p.432), one example is the publishing of a 13-year-old Scottish schoolgirl’s

essay, which had been written completely in textese (“Text message essay baffles British teacher” 2003). The textese version of the essay reads as follows:

My smmr hols wr CWOT. B4, we used 2go2 NY 2C my bro, his GF & thr 3
:-@ kids FTF. ILNY, it's a gr8 plc.

Translated into Standard English, the essay reads as follows:

My summer holidays were a complete waste of time. Before, we used to go to New York to see my brother, his girlfriend and their three screaming kids face to face. I love New York. It's a great place.

Supporters of the decay theory such as John Humphrys (2007) pounced on it, presenting it as irrefutable proof that textese was tantamount to language decay. In a newspaper article entitled “I h8 txt msgs: how texting is wrecking our language”, Humphrys (2007) asserts that people who use textese are “doing to our language what Genghis Khan did to his neighbours eight hundred years ago. They are destroying it: pillaging our punctuation; savaging our sentences; raping our vocabulary”. Presumably the ‘they’ targeted by Humphrys is predominantly the digital native generation of texters. Even celebrities, most notably actor Sir Ralph Fiennes, have joined the chorus blaming textese for reducing the richness of the English language to “a world of truncated sentences, soundbites and Twitter” (Jones 2011).

Eschewing Humphrys’s theory of textese wrecking English, Crystal (2008a, p.25) notes that the sentences used in the textese essay are (informal) Standard English grammar, and that the second sentence is quite complex in terms of tense, co-ordination and word order. Crystal (ibid.) adds that he would have given the student 10 out of 10 for linguistic ingenuity, but 0 out of 10 for her sense of appropriateness, which according to Wood et al. (2011, p.432) is exactly the problem: “Even where children are observed to use textisms knowingly, the fear is that these ‘misspellings’ crossover [sic] into children’s schoolwork and replace their knowledge of conventional forms”. Such concerns have resulted in there being a widely voiced concern that textese is fostering a decline in literacy (Crystal 2008a, p.7).

In his reply to Humphrys’s above-mentioned article condemning the evils of texting, Crystal (2008b, p.1) notes that “although many texters enjoy breaking linguistic rules, they also know they need to be understood. There is no point in paying to send a message if it breaks so many rules that it ceases to be intelligible”. Keller (1994, p.108) concurs with this postulation, confirming that communication needs to follow a

sufficient structure or run the risk of not being fully understood. This view is also supported by Halliday (1985, p.40), who states that:

There is no situation in which the meanings are not to a certain extent prescribed for us. ... Even the most informal spontaneous conversation has its strategies and styles of meaning. We are never selecting with complete freedom from all the resources of our linguistic system. If we were, there would be no communication; we understand each other only because we are able to make predictions, subconscious guesses, about what the other person is going to say.

While Halliday might not have made the observation with textese in mind, his premise is similar to that of Crystal's (2008b, p.1) assertion that textese must follow 'a' set of rules to avoid being incomprehensible. Accordingly, despite the initial observation that textisms are seemingly blatant 'misspellings', it should be noted that they are (mostly) perfectly acceptable phonological and orthographical forms of English (Plester et al. 2009, p.148).

Nevertheless, the popular perception created in the media is that textese is detrimental to spelling and writing performance, with articles by Prigg (2012), Cooke (2012), Thomas (2012), Campbell (2008), the Associated Press (2007), Barker (2007), Uthus (2007), Bolowana (2005) and Sutherland (2002), among others, all claiming that the use of textisms is negatively associated with school learners' spelling and writing performance in their respective countries. In his article entitled "How texting made history but ruined our language – and plenty of marriages", Thomas (2012) generalises that "texts have changed the way we write, obliterating conventional punctuations and replacing properly spelled words with abbreviations, initials and 'emoticon' smiley symbols." Cooke's article (2012), entitled "SMS SOS!" asserts that "politicians have blamed the abbreviated language on the demise of literacy among the youth as punctuation, grammar and capitalisation are largely ignored in favour of brevity". Conversely, two articles published within months of each other by the same newspaper, the *Daily Mail*, entitled "OMG! Txts make u gd at writing? Srsly? How 'text speak' can help pupils write essays" (Edwards 2012) and "OMG: Researchers say text messaging really is leading to a generation with poor grammar skills" (Prigg 2012), completely contradict each other regarding the impact of textese on British school learners' spelling and writing performance. Specifically with regard to the South African context, Angela Bolowana's (2005) article entitled "R 2day's teens eroding English?" states that textese is a cause for concern among

English teachers and academics alike, and quotes an English lecturer from the University of South Africa as expressing concern that English is deteriorating as a result of South African secondary school learners' textese use.

Eric Uthus (2007), in his article "Text messages ruining our language", "knew the end was near" when he first received a text message containing textese. However, he inadvertently assumes an evolutionary view of language change, indicating that he too would read older works and perceive the writing style as being decidedly dated. However, his formal standpoint is that English has necessarily deteriorated since the introduction of cellular technology and text messaging. What Uthus fails to observe, however, is the fact that while he views the change from his conception of Standard English (as predecessor of textese) to textese necessarily as decay, he does not then also judge Standard English as being the decayed form of the older form of English he referred to earlier, but rather views this as evolution. Similarly, another article, published in *The Pioneer* ("SMS, Internet texts are destroying English" 2013), laments the degeneration of 'proper' English and grammar and fears that if something is not done soon, the younger generation will become completely "habituated" to textese.

In a more comprehensive review of the portrayal of textese in the media, Thurlow (2006) conducted a study of more than 100 media articles. Thurlow (2006, pp.671-672) came to the conclusion that the perspective the media created regarding textese was "decidedly negative and often exaggerated, published with little regard to the actual uses of text messaging, and often in the face of evidence to the contrary", and that textese was portrayed as representing a "decisive and dramatic break with conventional practice". However, Thurlow (2006, p.677) acknowledges that later media articles have started to report on academic work indicating a positive effect on literacy. Nevertheless, it is fair to assume that, to the casual reader, the media remains sceptical to some extent of any report suggesting a positive correlation between textese, and spelling and writing attainment (Tagg, Baron & Rayson 2012, p.3).

In view of the above, it would seem that in general observers of textese display a form of bias either one way or the other. The popular view, that is the one portrayed in the media as per Humphrys's article (2007), still seems to be that textese is a derogatory evil that is pillaging Standard English (Tagg et al. 2012, p.4). However, there is mounting evidence that texting can, in fact, aid literacy and actually requires

advanced metalinguistic knowledge to read and write (Crystal 2008b, p.1, Plester et al. 2008, 2009, Wood et al. 2014a). The debate then seems to be one of perception, with the relevant inquirer's view of Standard English playing an integral part in the matter. Other empirical studies on the impact of textese on English are discussed below.

2.5 Other empirical studies and gaps this inquiry aims to fill

As mentioned in Chapter 1, there is a global concern that textese could affect formal written Standard English negatively and that many people, educators included, believe that textese is destroying Standard English and secondary school learners' ability to write 'properly' (Nadeem et al. 2012, p.1234, Omar & Miah 2012, p.9, Thomas & McGee 2012, p.20). This, coupled with the above-mentioned negative portrayal of textese in the media, has resulted in recent research considering how knowledge and use of textisms might be related to 'traditional' literacy skills (Wood et al. 2014b, p.283). In one of the first of these studies, Plester et al. (2008) assessed knowledge of textisms via a simple translation task and found that the children aged 10 to 12 years who tended to use more textisms when converting a Standard English sentence into a text message had better verbal reasoning and spelling ability. Similarly, Plester et al. (2008) requested 10-to-12-year-olds to construct text messages in response to hypothetical situations, and found that those who used more textisms tended to have better reading skills, larger vocabularies and better phonological awareness. Plester et al. (2008) theorised that the reason for this finding was that decoding and creating most textisms required a certain level of phonological awareness.

In general, however, research on textese has yielded variable results. Most notably, it would appear that the link between textism use and traditional literacy skills is different for children than for adults. The research conducted thus far may broadly be categorised as focusing on three age groups, namely younger children aged 8 to 12 (see Bushnell, Kemp & Martin 2011, Wood et al. 2011, Coe & Oakhill 2011, Kemp & Bushnell 2011, Plester, Wood & Bell 2008, Plester et al. 2009), teenagers or adolescents aged 13 to 18 (see De Jonge & Kemp 2010, Durkin, Conti-Ramsden & Walker 2011) and young adults aged 19 to 24 (see Drouin 2011, De Jonge & Kemp 2010, Drouin & Davis 2009, Kemp 2010, Ling & Baron 2007, Powell & Dixon 2011). Research has, however, tended to focus on children (up to the age of 12) and young adults (undergraduate students aged 19 to 24), with little research on the in-between

age group of 13-to-17-year-olds being focused on in this thesis. Moreover, there is a growing body of research that suggests textese use and literacy among children show a positive correlation (see Bushnell et al. 2011, Wood et al. 2011, Coe & Oakhill 2011, Plester et al. 2008, 2009), while textese use and literacy among young adults and adults show either no correlation (see Drouin & Davis 2009, Massengill-Shaw, Carlson & Waxman) or a negative correlation (see Drouin 2011, Rosen et al., De Jonge & Kemp 2010). Even though these studies had different focus areas, such as grammar, spelling, reading, writing, or a combination of these elements, and diverse means of assessing the relevant focus area, they yielded vastly different results. It is therefore necessary to look more closely at the specific research instruments employed, the approaches followed and the specific focus areas of these studies. This section thus provides an overview of the approaches followed, the various instruments employed, and the limitations and recommendations of previous empirical studies on the potential impact of textese and literacy skills.

In what is arguably the most authoritative and complete review of the literature on textese and its impact on the literacy skills of children and parents, conducted by arguably the foremost authorities on the topic, Wood, Plester and Kemp (2014a, pp.79-84) identified four approaches to data collection on the phenomenon of textese: (1) self-reporting (the respondent provides information on his/her perceived texting behaviour); (2) message translation (the respondent translates messages from Standard English into textese and vice versa); (3) message elicitation (the respondent writes a text message based on a scenario provided by the researcher); and (4) naturalistic messages (the respondent provides examples of actual messages sent without having been prompted to respond to a particular scenario). For the purpose of this literature review, I include the completion of questionnaires and similar research instruments under the self-reporting approach as by completing such instruments, respondents 'self-report' to a certain extent. I also include studies where teachers or lecturers were requested to rate their learners' or students' textese use as per their perceptions under this approach. This section of the literature review is therefore broadly grouped into previous studies that employed the same data collection approaches. In instances where a combination of two or more of the aforementioned approaches was used, the approaches are discussed jointly. Where studies employed purposefully designed research instruments, these are discussed where most appropriate.

I therefore start with Drouin's (2011) study, which I classify under the self-reporting approach. Drouin requested 152 university students with a mean age of 21.2 years to report on their own use of textese. Students' actual production of textese was not tested, but rather their own perceptions of their texting behaviour. Respondents reported their use of text messaging and access to social networking sites on a frequency scale ranging from 'never' to 'very frequently' (Drouin 2011, p.70). As my scope does not include self-reporting of texting behaviour, it will suffice to note that on reflection, Drouin (2011, p.73) concluded that a significant limitation of the study was that "the texting behaviour measures were based on self-reports". Should respondents therefore have become desensitised in respect of textism use, they would not be aware that this desensitisation had occurred and would therefore not report this having happened.

Employing a mixture of the self-reporting and elicitation approaches, Rosen et al. (2010) questioned 718 young adults about their use of textese and their texting habits in general. Respondents were then asked to complete two writing exercises, one formal and one informal. The formal writing task was contextualised as follows:

Pretend that you want to complain to a company from which you bought a product. Write a letter to the company manager complaining about the quality of service that you received or the product itself and what you want them to do about it.

Moreover, the informal writing task was contextualised as follows:

Please describe in detail what it feels like to be unhappy. What should a person do to become happy again? What have you done in the past when you were unhappy?

While the informal writing task leans towards a reflective or philosophical narrative and requires more explicit contextualisation, I share Rosen et al.'s (2010, p.435) view that the respondents must be provided with the context in which to write so that it may be investigated whether textese could potentially affect the more formal writing registers. Importantly, Rosen et al. (2010, p.436) did not explicitly encourage or discourage students to use or avoid textisms, but relied on the context they provided to guide the students in terms of the appropriate register to use. Rosen et al. (2010, p.433) also categorised respondents' use of textese, and found that a lack of capitalisation was the most prevalent textese-related error, followed by omitted apostrophes. They also found that there was a difference in the relationship between writing and textese for formal and informal writing, concluding that their "results

suggest that there is a difference in the relationship between writing and textisms for formal versus informal writing as well as a difference between those with differing levels of education. There is a negative impact in writing a formal letter but a positive relationship with informal writing” (Rosen et al. 2010, p.434). It would therefore seem that while texting is negatively associated with *formal* writing, it is positively associated with *informal* writing. However, by their own admission, Rosen et al. (2010, p.437) found negative associations between the *reported* use of textisms in everyday electronic communication and writing skills, particularly for formal writing, while the *reported* daily use of textisms was, by and large, related to better informal writing. Rosen et al. did thus not consider that respondents might have reached the point of saturation and thus have become desensitised to identifying textisms in formal written Standard English.

In a similar study on university students’ ability to distinguish between ‘appropriate’ and ‘inappropriate’ use of language in different contexts, Lee (2011) requested 33 Canadian university students to make certain acceptability judgements as to whether certain textese spelling and writing forms were acceptable in formal contexts. Respondents were presented with various words or phrases as part of a task and were asked to judge these as either acceptable or unacceptable forms given the context (Lee 2011, p.4). The textese errors included omitted apostrophes, contractions (writing two words or a hyphenated word as one), shortenings (omitting a letter or letters to shorten a word), clippings (omitting the last letter or letters to shorten a word) and non-conventional spellings (usually phonetically plausible alternative spellings such as ‘skool’ or ‘skul’ for ‘school’) (Lee 2011, p.47-48). Lee (ibid.) found that students frequently identified textese forms, such as abbreviations, non-conventional spellings, letter and number homophones and emoticons, as decidedly unacceptable. However, students who admitted to more frequent textese use in their personal time were more inclined to label textisms as acceptable than those students who reported less frequent textism use (Lee 2011, p.ii).

Similar studies using the self-reporting approach on people’s distinctions between appropriate and inappropriate uses of textese revealed that students’ use of abbreviations in an e-mail had a significant influence on perceptions of the student writer (Lewandowski & Harrington 2006, p.224). Lewandowski and Harrington (ibid.) concluded that it is possible that the “abbreviated style activates a schema for laziness that leads the perceiver to believe the sender put forth less effort, or is a less motivated, less intelligent, or less dependable person”. In their study of 150

undergraduate university students in Western Canada and 86 in South Eastern Australia, Grace et al. (2013, p.1353) found Australian students who thought that using textisms was more appropriate had poorer non-word reading and reported having had more difficulty learning to read than those who found it less appropriate. Grace et al. (2013, p.1367) further found that appropriateness ratings correlated significantly and positively with textism use, and that students who rated textism use as more appropriate used more textisms in their naturalistic messages. Other similar studies on the appropriateness of textism use (Drouin 2011, Drouin & Davis 2009) found that undergraduates considered it inappropriate to use textisms in their emails to professors, but appropriate for writing to friends, and that 75% of students believed that using textisms is appropriate in informal communication. Also, students who rate textism use as less appropriate in more formal contexts tend to use fewer textisms in their messages (Grace et al. 2012, p.180).

Also making use of the self-reporting approach, Houser (2012) set out to study whether electronic communication impacted the written communication skills of undergraduate American university students and whether there was a particular type of electronic communication that was perceived as having a greater impact on these students' written communication. Although Houser (2012) does not demarcate her study as focusing on formal writing skills, this is, in fact, the case. Houser (2012, p.13) usefully includes both students and their lecturers in her research sample to allow her to compare the two data sets. Houser's (2012, p.52) findings indicate that the undergraduate students used in her study used texting as their preferred method of electronic communication, with 91% indicating they did not use textese in formal written communication. Moreover, 54% of student respondents indicated that they did not believe that electronic communication media had any effect on their language skills. Approximately 75% of student respondents reported that they noticed a difference in their writing styles as they switched between formal and informal writing (Houser 2012, p.58). These respondents explained that they carefully edited their formal communication when compared to their informal communication. With formal communication, respondents reportedly took the time to think through their messages and use a broader vocabulary. In addition, respondents noted that they attempted to sound more professional in their formal written communication, while they could be more relaxed in terms of writing style in informal communication. With informal communication, respondents felt they could be more expressive and often utilised textese spelling and writing conventions (Houser 2012, p.58).

With regard to the results obtained from the lecturers, Houser (2012, pp.66-67) found that approximately 42% of the lecturer respondents had reported that their undergraduate students did not incorporate text slang and abbreviations in their written communication. This concurs with Wessels's (2011, pers. comm., 11 October) observations about the University of Pretoria's undergraduate students. However, 52.6% of the lecturer respondents reported that they 'often' found misspellings, a lack of capitalisation, a lack of a salutation (informal register), incorrect punctuation, textisms, and abbreviations in their undergraduate students' electronic written communication (mainly e-mails and text messages). Houser (2012, pp.66-69) further found that 68% of lecturers were of the view that textese negatively influenced their undergraduate students' formal written communication, and that lecturers identified a lack of capitalisation (most notably lower case 'i' for the pronoun 'I'), a lack of punctuation (most notably run-on sentences) and letter homophones (for example 'u' for 'you') as being perceived in their students' written work. Moreover, the lecturer respondents indicated that students generally used informal writing in formal, academic contexts and that students did not appear to differentiate between formal and informal writing contexts. Lecturer respondents also indicated that students struggled to distinguish between the different registers required for formal and informal writing, with informal register often observed in their students' formal writing (Houser 2012, p.82).

Concurring with the views expressed by the lecturer respondents, student respondents also indicated that they were of the view that textese had a negative impact on their formal Standard English writing. This concurs with the findings of Drouin and Davis (2009, p.59), who found that half of the 80 university undergraduate respondents aged 18 to 48 in their study believed that texting might have a negative influence on literacy. Although essentially individual, self-reported comments, one student respondent indicated that he/she used textisms "in school papers without realising [he/she] was doing so"; another admitted that textisms carried "over into the writing in my papers"; while yet another indicated that he/she often did not use capital letters because he/she did not use them when texting (Houser 2012, pp.75-81). While no definitive conclusions can be drawn from such limited, individual and self-reported comments, Houser's findings appear to concur with those of Drouin and Davis (2009) regarding perceptions on the impact of textese on literacy.

In a similar study, Clayton (2012, p.27) requested university students to self-rate the appropriateness of textese use in different contexts and with different recipients. Respondents indicated that textisms were more appropriate for friends than for fellow students, and more appropriate for fellow students than for lecturers. Similarly, respondents rated Standard English as more appropriate for communicating with lecturers than for fellow students, and more appropriate for fellow students than with friends (Clayton 2012, p.51). Clayton's findings underscore Wood et al.'s (2014a, p.96) recommendation that the intended recipient of each text message should be taken into account when investigating appropriateness.

In moving to the South African context under the self-reporting approach, Geertsema, Hyman and Van Deventer (2011, p.481) employed a qualitative research design to determine secondary school teachers' perspectives on the impact of textese on learners' written language skills regarding spelling, sentence length and punctuation. One teacher respondent is quoted saying that "Learners make use of abbreviations. This style is becoming the norm due to constant use of SMS language, especially Mxit", with the mean results indicating that teachers perceive textese as having a negative effect on learners' written English (ibid.). Making use of different categories of textese use to classify textese, Geertsema et al. also found that grade 8 and 9 teachers had, ordered in descending order from the perceived most problematic to the least problematic types of textisms, identified (1) non-conventional spellings ('skool' for 'school'), (2) g-clippings ('goin' for 'going'), (3) letter homophones ('b' for 'be'), (4) number homophones ('2' for 'too/two/to'), (5) acronyms and initialisms ('lol' for 'laugh out loud'), (6) shortenings ('info' for 'information'), (7) contractions ('gonna' for 'going to'), and (8) emoticons (☺/☹) (2011, pp.481-483). It was concluded that it was probable that the use of textese would change academic formal writing into a more informal style, and that textese use was negatively influencing the written language skills of English first-language grade 8 and 9 learners' written English (2011, pp.481-485). However, a strong negative bias underscored Geertsema et al.'s (2011, p.481) study, and the view that textese was necessarily having a degenerative effect on learners' written English was assumed from the outset. The questions used in the research instrument were also decidedly negative, for example, respondents were requested to indicate the extent to which they agreed with the statement "the negative influence of SMS language on written language skills causes learners to achieve poor grades in English Home Language as a subject" (2011, p.481), thus underscoring the negative bias in Geertsema et al.'s inquiry.

An earlier study in the South African context by Hyman and Van Deventer (2009, p.45) investigated whether teachers were of the view that textese necessarily negatively influenced grade 8 and 9 learners' written English. They employed a qualitative research design, using a questionnaire to obtain teachers' views on the frequency with which they observed several categories of textese use in their learners' writing and the impact that textese had on their learners' writing. Hyman and Van Deventer (2009, p.45) found that textese negatively influenced the selected South African secondary school learners' written English, identifying g-clippings and non-conventional spellings as the most problematic categories of textese use. The results concur with the later findings of Geertsema et al. (2011).

Also within the South African context, but making use of both the self-reporting and naturalistic approaches, Freudenberg (2009) examined the impact of textese on the written schoolwork of English first- and second-language secondary school learners to establish how widespread textese use was among the selected secondary school learners, and to assess whether there was any evidence of the use of textese in the formal English writing of these learners. Also employing a qualitative research design, Freudenberg (2009, p.29) used a questionnaire to ask the participating secondary school learners how often they texted; whether they felt that texting had an effect on their formal school writing; and to identify characteristics of textese that they used when texting. Similar to the results obtained by Plester et al. (2008, 2009) and Drouin and Davis (2009) discussed later in this section under the translation approach, Freudenberg found that the South African secondary school learners who participated in the study were, in fact, able to translate textese into Standard English and vice versa with relative ease, and frequently used textese when texting. Freudenberg obtained data from the learners on their reported use of textese, their perception of the impact textese had on their formal writing and actual writing samples. Freudenberg (2009, p.42) found that actual textisms most often produced by learners were, in descending order, spelling errors, over-punctuation and a lack of punctuation, while textisms least often produced were emoticons and slang. Subsequent to Freudenberg's study, Winzker, Southwood and Huddleston (2009, p.11) used Freudenberg's data to reveal that the respondents were avid texters and users of textese. Winzker et al. (2009, p.4) examined respondents' English writings for various features deviating from Standard English, and found that respondents mostly made spelling and punctuation errors. Overall textisms did not occur frequently. Winzker et al. (2009, p.13) inferred that textese had a modest negative

effect on written schoolwork, but significantly also that students could generally gauge when it was inappropriate to use textese.

In Cingel and Sundar's (2012, p.1305) study, which for the purpose of this study I include under the discussion of studies using the self-reporting approach, they used the following instrument to determine whether there was a causal relationship between poor scores on a standardised grammar test and excessive textese use:

Figure 1: Cingel and Sundar's (2012) research instrument

Appendix A: Grammar assessment	
1.	There (is, are) two ways to make enemies.
2.	One of the men forgot to bring (his, their) tools.
3.	Gail and Sue (make, makes) friends easily.
4.	The coach thought he had (tore, teared, torn) a ligament.
5.	During the flood, we (dranked, drank, drunk, drunked) bottled water.
6.	The boy called for help, and I (swum, have swam, swam) out to him.
7.	Fortunately, Jim's name was (accepted, excepted) from the roster of those who would have to clean bathrooms because he was supposed to go downtown to (accept, except) a reward for the German Club.
8.	I don't know how I could (lose, loose) such a big dress. It is so large that it is (lose, loose) on me when I wear it!
9.	The man around the corner from the sandlots (come, comes) to our meetings.
10.	The man and his little girls (was, were) not injured in the accident.
11.	The pictures in this new magazine (shows, show) the rugged beauty of the West.
12.	The orders from that company (is, are) on your desk there.
13.	The (boys, boys', boy's, boys's) hats were lost in the water because they were careless in not tying them to the side of the boat.
14.	(Its, It's, Its') an honor to accept the awards certificates and medals presented to the club.
15.	Worried, and frayed, the old man paced the floor waiting for his daughter. (Correct/Incorrect)
16.	The boy yelled, 'Please help me'! (Correct/Incorrect)
17.	She got out of the car, waved hello, and walked into the house. (Correct/Incorrect)
18.	When Suzie arrived at the dance, no one else was there. (Correct/Incorrect)
19.	Dad and I enjoyed our trip to new york city. (Correct/Incorrect)
20.	The boy's mother picked him up from school. (Correct/Incorrect)

My concern regarding the instrument is that it cannot be proven irrefutably that an incorrect answer is specifically as a result of the relevant respondent's exposure to *textese* as the statements are not undeniably *textese*-related. An incorrect answer may therefore be due to several other factors, such as poor grammar skills. Nevertheless, Cingel and Sundar (2012, p.1305) found that "routine use of textual adaptations by current and future generations of 13 to 17-year-olds may serve to create the impression that this is normal and accepted use of the language and rob this age group of a fundamental understanding of [S]tandard English grammar". Although Cingel and Sundar's (2012, p.1315) results indicate a negative correlation

between adolescents' use of textese and their performance on a grammar test, their research scope excluded a focus on register. Cingel and Sundar (2012, p.1313) conclude that there is no doubt that textese has crept into classrooms, and that most adolescents are unable to switch between writing text messages and using 'correct' English grammar for classwork, again emphasising their focus on grammar in particular. Also suggesting that the point of saturation might already have been reached, Cingel and Sundar (ibid.) posit that adolescents may not be using word adaptations consciously, with a great deal of forethought, in real writing tests or tasks. Recognising that it is impossible to stop the use of textese entirely, Cingel and Sundar (ibid.) recommend that adolescents should be educated to understand the differences between textese and Standard English grammar for them to recognise that there are appropriate contexts for both forms of communication.

I share a similar concern over Gann, Bartoszek and Anderson's (2010) research instrument to my concern voiced over Cingel and Sundar's instrument discussed above. Using a more traditional approach to assess spelling ability in the form of a verbally dictated spelling test, Gann et al. selected 30 words to investigate the correlation between textese use and spelling ability in 106 university and non-university students (individuals of university-going age but not attending a tertiary institution). Table 3 presents the 30 words selected by Gann et al., along with the percentage of respondents who got the spelling correct.

Table 3: Gann, Bartoszek and Anderson's (2010) 30-item word list

Number	Word	Percentage correct spellings
1	idiosyncrasy	3%
2	florescent (fluorescent)	10%
3	accommodate	15%
4	privilege	33%
5	discrepancy	34%
6	poignant	42%
7	rhythm	47%
8	definitely	51%
9	pageant	51%
10	interrogative	53%
11	exaggerate	56%
12	bankruptcy	57%
13	equilibrium	58%
14	guarantee	59%
15	withhold	59%
16	eligible	59%
17	catastrophe	61%
18	gauge	63%
19	haphazard	65%
20	defendant	66%
21	council	72%
22	necessary	74%
23	scissors	75%
24	grotesque	76%
25	accumulate	77%
26	acknowledgment (acknowledgement)	57%
27	arrangement	83%
28	numerator	86%
29	critique	91%
30	serial	92%

While the validity of the 30 lexical items in isolation cannot be disputed, a concern regarding the appropriateness of the list may be raised in view of the fact that the objective of the instrument is to determine whether the use of *texting* is related to lowered spelling ability. There is little doubt that selected words such as 'idiosyncrasy', 'fluorescent', 'discrepancy', 'poignant', 'interrogative', 'equilibrium', 'grotesque' and 'numerator' would pose considerable problems for anyone to spell; however, one can hardly imagine that the predominantly young adults who participated in the study would be sending text messages containing many, indeed any, of the 30 lexical items. It is simply not plausible that a young adult sending a text to his/her friends would choose to use 'idiosyncrasy' over 'weird', 'discrepancy' over 'difference' (or most likely 'diff'), and 'poignant' over 'sad'. An upside down 'smiley

face' or emoticon is certainly not called a 'poignant' face, but simply a 'sad' face. The difficulty with selecting lexical items in instruments such as spelling tests not generally used by respondents while texting is that it becomes difficult to trace the origin of the erroneous spelling back to texting as the misspellings may be as a result of various factors (including the selection of too complex a word list in the first place). By their own admission, Gann et al. (2010, p.71) had specifically selected 15 of the 30 words for their instrument from a selection of the 100 most frequently misspelled words in the English language. There can consequently be no irrefutable conclusions drawn that the misspellings were due to the use of textese as the words may have been misspelled regardless of textese use or not. Ultimately, Gann et al. (2010, p.75) found no evidence that textese use was correlated to lowered spelling performance. They did, however, retrospectively acknowledge that in addition to their 30-item word list being too difficult, the specific words they selected would in all probability very rarely, if at all, feature in text messages.

In moving towards the translation approach, Plester et al. (2008) requested sixty-five 11-year-old children to translate a passage written in textese into Standard English and vice versa. Plester et al.'s research instruments are reflected as follows:

Figure 2: Plester et al.'s (2008) first research instrument

Box 1:

The children were asked to translate a standard English passage into text language: *Hello! What are you up to? Would you like to go out tonight? I have to stay in and look after my little brother. Maybe another night? That's a shame. We were going to go and see a film. It is the cheap night at the cinema tonight.*

Some of them translated like this:

What r u up 2? Would u like 2 go out 2night. I av 2 stay in 2 look after me bro mayb another night? dats ashame we were going 2 c a film it's a cheap night at the cine 2night.

LO! What r u ↑ 2 Woud u like 2 go out tonight I av 2 sta in & look after mi brov mbe another night ☺ We wre goin 2 see a film It's the ceep night in da cinma tonit.

LO! WUU2? U wanna go out 2nite? I av 2 stay in & look after lil bro. Mayb nother nite ☺ We were gunna c a film cheap nite @ movies

Figure 3: Plester et al.'s (2008) second research instrument

Box 2:

The children were asked to translate text language into standard English:
LO! How R u? I havnt cn U 4 ages
hi m8 u k?-sry i 4gt 2 call u lst nyt-y dnt we go c film
2moz. hav U dn yor h/w?
Im goin out w my bro & my best frNd tomorrow 4 a <).
Do U wnt 2 cum along?
 Some of them translated it like this:
laugh out how are you I havnt seen you for ages hi mate
are you OK sorry I forgot to call you lats night why dont
we go and see a film tomorrow. have you done your
homework I am going out with my brother and my best
friend tomorrow for a walk. Do you want to come with us.
Hello How are you I havent seen you in ages hello mate
are you ok sorry I forgot to call you last night why dont
we go and see a film tomorrow have you done your
homework I'm going out with my brother and my best
friend tommrow for a bit Do you want to come along?
Hello! How are you? I havn't seen you for ages! Hi mate,
are you OK? Sorry I forgot to call you last night-why
don't we go to see a film tommorrow? Have you done your
homework? I'm going out with my brother and my best
frent tomorrow for a bit Do you want to come
along?\cell

Plester et al.'s (2008, p.140) results indicate that respondents whose writing contained a higher textism density (the ratio between textisms and words) when translating from Standard English to textese and whose samples revealed fewer errors when translating from textese to Standard English had higher verbal reasoning scores. However, no relationship between verbal reasoning and textese translation errors could be ascertained. Similarly, respondents who texted frequently scored lower on verbal and non-verbal reasoning tests than those who had reported infrequent texting.

In the same study, but with a different sample population, Plester et al. (2008) used a sample of thirty-five 10-to-11-year-olds to perform similar translation passages as described above, but with lengthier passages. This time, they found that the ratio of phonological textisms (phonetically plausible textisms, for example 'sum1' for 'someone') was positively related to spelling. It was also found that respondents who used the highest number of textisms in the translation exercise scored the highest on standardised spelling tests. Moreover, Plester et al. (2008, p.148) found that knowledge of textisms was positively associated with spelling attainment, and that the more phonologically based forms of textisms accounted for the greatest variance from conventional spellings. Although based only on anecdotal evidence from a few

respondents (thus not specifically and systematically tested like the rest of the study), Plester et al. (2008, p.143) also found that some respondents knew that textisms were decidedly inappropriate, which displayed metalinguistic knowledge on their part as they could switch between different registers depending on the context. Plester et al.'s findings generally concur with those of Wood et al. (2014a, p.41), who found that creating and deciphering textese are generally associated with better, not poorer, reading and spelling skills, indicating that children who demonstrated the greatest knowledge of textese also demonstrated the greatest knowledge of conventional spellings.

Drouin and Davis (2009) followed a similar approach in designing their research instruments. Although focusing on students in the tertiary environment in the USA, they too requested respondents to translate a passage written in Standard English into textese and vice versa as per the following research instruments:

Figure 4: Drouin and Davis's (2009) first research instrument

<p>Text Speak to Standard English</p> <ol style="list-style-type: none"> 1. Ur not gonna bleve wot i saw i saw ur bro out w/ that grl frm gr8 xscape im not 2 sure if he saw me tho i hope he saw me 2 cuz hes such a Qt!!! bbfm! 2. Btw im not gonna becum 1 of thOs stalker grls whol C a Qt boi & trn all crAz like ur sis did w that boi n ur class but I cud! LOL l8r 3. Wassup? ur bros leving & i cant Blevr ur leving me 2 2nite do u no ne1 who wans 2 C me wn ur away? i dont no Y im even frnds w u jk. ttyl! 4. i dont no wn ur gonna b hom but i cant wAt 2 c u. ur trips lasted 4ever! il admit that i mostly miss ur msgs cuz ther gr8 but I miss u 2 lylas, ur frnd carla. 5. Ruok? Doncha tink ur gonna get all dese rlt? im not 2 sure u r il bet dat u dont no 2 or mayB more theres no wA im gonna hlp u w dese tho sry!

Figure 5: Drouin and Davis's (2009) second research instrument

<p>Standard English to Text Speak</p> <ol style="list-style-type: none"> 1. You're not going to believe what I saw! I saw your brother out with that girl from Great Escape. I'm not sure if he saw me though. I hope he saw me too because he's such a cutie! Bye, bye for now! 2. By the way, I'm not going to become one of those stalker girls who will see a cutie boy and turn all crazy like your sister did with that boy in your class. But I could! Laughing out loud. Later. 3. What's up? Your brother's leaving and I can't believe you're leaving me too. Tonight! Do you know anyone who wants to see me when you're away? I don't know why I'm even friends with you. Just kidding. Talk to you later! 4. I don't know when you're going to be home, but I cannot wait to see you! Your trip has lasted forever! I'll admit that I mostly miss your messages because they are great, but I miss you too! Love you like a sister. Your friend, Carla. 5. Are you ok? Don't you think you're going to get all these right? I'm not too sure you are. I'll bet that you don't know two or maybe more. There's no way I'm going to help you with these though. Sorry!
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Drouin and Davis's (2009, pp.58-60) results show that respondents' scores did not differ significantly between those who used textese and those who did not. However, it should be noted that in addition to the translation exercise, Drouin and Davis (2009, p.61) also requested students to report on their own use of textese – thus the students' actual textese use was not tested, but rather their own perceptions of their texting behaviour. Nevertheless, they concluded that (1) there appeared to be no significant differences in literacy between people who texted and people who did not; (2) the written vocabulary of textese could be readily recognised by those who did not use textese; (3) self-reported frequency of use of textese was not related to lower levels of literacy, more spelling errors of common textese words, or slower literacy processing; and (4) half the respondents indicated that they believed that texting might have a negative influence on literacy. Drouin and Davis (2009, p.60) also found that 18% of the 80 student respondents had used textisms in e-mails sent to professors. While the study provides some empirical support for the media's assertion that textese has made its way into communication environments, 93% of respondents indicated that they were aware that textese belonged to an alternative register and that its use was inappropriate in formal communications. Reflecting on their study, Drouin and Davis (2009, pp.62-63) indicated that the results had to be interpreted with the following considerations in mind:

1. It was unlikely that textese abbreviations such as 'you' ('u') or 'great' ('gr8') could lead to a deterioration of performance in standardised literacy tests. Moreover, shorter words were often abbreviated, while longer words were not as they ceased being comprehensible as posited by Crystal (2008b, p.1).
2. It was unlikely that a decline in performance would be seen immediately.
3. The data showed no negative relationship between textese and literacy.

Drouin and Davis (2009, p.65) further recommend that a protocol involving target words be used because declines in literacy were more likely to be seen in this area than in standardised tests. In other words, the research instruments should be designed in such a manner that they reveal whether or not the error was made due to the respondent's exposure to textese. They also suggested that the topic be explored in younger populations, that is, secondary school learners.

In a similar study by Plester et al. (2009), but using the elicitation approach, they investigated the impact of textisms on eighty-eight 10-to-12-year-olds' writing skills by requesting them to send text messages in response to a selection of 10 scenarios. In

order to relate their approach to designing a research instrument to my argument, I again present the research instrument:

Figure 6: Plester et al.'s (2009) research instrument

<p><i>Situation 1</i> It is a Saturday morning, it is a sunny warm day, and you don't have any plans, but you'd like to go somewhere with your best friend. Your parents have told you its ok with them if you go out with your friend.</p> <p><i>Situation 2</i> You are on your way to meet your friend, waiting at the bus stop, and the bus has just gone by and not stopped, so you are going to be late.</p> <p><i>Situation 3</i> It is Tuesday. You just got home from school, and you have so much homework to do that you don't think that you will be able to go to the club you usually go to on Tuesday nights, but you know one of the others in the club will be coming by to pick you up. [You decide what kind of club: swimming, judo, tennis, music, scouts, guides, and the local youth club.]</p> <p><i>Situation 4</i> Your best friend's birthday is at the weekend, and he or she is having a party [you decide what kind of party]. You aren't sure what you want to wear to look great and another friend is always good at helping you decide. You also aren't sure what to get for a present, and want to see if you might buy something together with this other friend if that's ok with him or her.</p> <p><i>Situation 5</i> There is a new person in your class at school, and he or she hasn't talked to anyone yet, but you know he or she is from another country somewhere. You think he or she looks nice enough but you're not sure about just going up and talking to them. Your best friend would also like to talk to them, but is a little unsure. Both of you feel silly about feeling unsure because you're usually confident. Your friend has just sent a text saying maybe together somehow you could get to know him or her, and wants to know what you think.</p> <p><i>Situation 6</i> Your sister's cat was just hit by a car up the road from your house. It was killed instantly, so you couldn't even try to take it to the vet. You know she doesn't know, because she hasn't come home from school yet, but you don't want her to see it on the way home.</p> <p><i>Situation 7</i> You know a secret [you make one up], and you're dying to tell someone you can trust not to tell anyone else.</p> <p><i>Situation 8</i> Your friend's Gran has just presented him or her with a homemade jumper that she's worked really hard to knit, and you and your friend know that her arthritis makes it hard for her to use her hands. But it's a really awful and she's going to insist that your friend wears it. Your friend has sent you a text asking what he or she should do.</p> <p><i>Situation 9</i> You've just had a text from your Mum. She's in the middle of the supermarket and wants to know what you'd like for dinner. She's also forgotten to feed the dog and you know he's out of food.</p> <p><i>Situation 10</i> You've just seen your friend riding in his or her Dad's brand new car [you decide what kind] and it's brilliant. You'd love to have a ride because it's a really sporty, fast one and you love cars. Your friend's Dad is pretty good natured and very proud of his car.</p>
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While Plester et al.'s ten contextualisations vary and will therefore require slightly different registers, the initial instruction is to communicate via *textese*. I am accordingly of the view that one would be inclined to use textese when texting. I

therefore believe that when contextualising the different scenarios, it must be stated unambiguously to the respondent that the formal scenario is unequivocally formal as Plester et al.'s 2009 study contextualises the scenarios as informal. Thus it might be argued that their results do not reveal anything about the relationship between textese and *formal* written Standard English. Nevertheless, similar to Plester et al.'s 2008 study, it was found that textism density was positively related to learners' ability to spell individual words, their vocabulary and their phonological awareness. The children with the highest ratio of textisms to total words were found to also have the highest verbal reasoning scores (Plester et al. 2009, p.148). Plester et al. concluded that texting did not contribute to the demise of pre-teen children's literacy.

Also using the elicitation approach in a PhD study in the USA, Wardyga (2012) set out to determine whether there was a relationship between (1) students' average monthly volume of text messaging and their formal writing performance on the Scholastic Aptitude Test (SAT) writing placement test; (2) male students' average monthly volume of text messaging and their formal writing performance on the SAT writing placement test; (3) female students' average monthly volume of text messaging and their formal writing performance on the SAT writing placement test. Wardyga (2012, pp.106-108) found no significant relationship between the average number of text messages sent and received per month by the sample population and their formal writing performance, and no significant relationship between the average number of text messages sent and received per month by the male or female student respondents and their formal writing performance. Wardyga's (2012, pp.106-108) study concluded that university students revealed mostly no positive correlation between text message volume and formal university writing scores.

Employing a mix of data collection approaches, Kemp (2010) used 61 second- and third-year Australian university students with a mean age of 22 years. Students were first given five minutes to write down as many textisms and their conventional English translations as they could. A spelling test and a textese questionnaire were then administered to the students. Kemp (2010, p.67) found no evidence to suggest that textese use was negatively related to writing ability. Kemp concluded, as did Perea et al. (2009, p.1565) and Crystal (2004b, p.226), that there was a 'reading cost' associated with textese as it took longer to read than conventional English in normal print, irrespective of textese writing proficiency.

In moving to the naturalistic approach, Massey et al. (2005) investigated the quality of writing samples obtained from standard language exams taken by all British 16-year-olds between 1980 and 2004. Although Massey et al. (2005) did not collect naturalistic text messages sent and received by respondents, they used actual exams written under examination conditions (i.e. timed and supervised). They tested three hypotheses: (1) that young female adults would use more linguistic and contextual textisms more frequently than young male adults; (2) that there would be a significant positive relationship between textism use and informal writing, and a negative correlation with the quality of formal writing; and (3) that actual textism use in writing samples would be low. Massey et al. (2005. p.435) concluded that (1) young female adults did indeed use more textisms than their male counterparts, although only marginally; (2) greater reported general use of textisms, specifically shortenings, was related to worse formal writing, while the use of smileys (emoticons) was specifically related to better informal writing; and (3) one in four respondents used between two and three textisms in their writing samples, with respondents who had progressed further academically using fewer textisms. Massey et al.'s findings are similar to those of Grace et al. (2013, p.1370), who found that respondents' textism appropriateness ratings were significantly positively related to their actual use of textisms. Massey et al.'s results did, however, suggest that textism use might be carried over into actual writing samples. Their results firstly suggest a difference in the relationship between textese and writing for formal and informal contexts, and secondly indicate that texting has a negative impact on formal writing but a positive impact on informal writing. Massey et al.'s (2005. p.435) findings concur with the findings of Androutsopoulos (2006), Ferreira da Cruz (2008), Paolillo (2001) and Plester et al. (2008), namely that certain individuals are naturally more adept at code-switching, that is, writing for a specific audience or context.

In a more recent study using the naturalistic approach, Wood et al. (2014b, p.281) requested respondents to capture all text messages they had sent within a recent two-day period, exactly as they had written them. The study examined (1) the interrelationships between 243 children and undergraduate students' grammatical violations made when text messaging, and (2) these individuals' performance on assessments of spoken and written grammatical understanding, orthographic processing and conventional spelling ability. Importantly, for the primary and secondary school children there was no relationship between the tendency to make grammatical violations when texting and their understanding of conventional

grammar or orthography. For the young adult sample, there was some evidence of an association between the tendency to make capitalisation and punctuation errors when texting, and poorer performance in selecting the grammatically correct orthographic representation of a pseudo-word. Overall, Wood et al. (2014b, p.285) found little evidence that ungrammatical texting behaviour was linked to grammatical understanding or knowledge of orthographic representations of language in children. However, they did find some evidence that young adults' violation of grammatical conventions when texting might be linked to limited understanding of grammatically related orthographic conventions.

In a similar study making use of the naturalistic approach, Wood et al. (2011) investigated the textese use of 119 learners aged between 8 and 12 years in the UK. The learners were asked to copy the text messages they had sent over a specified weekend. Their results revealed that textism use peaked at the end of primary school, with the lowest textism usage occurring among younger children (2011, p.436). They also found that respondents' textism use in spontaneous texting was positively related to their concurrent and longitudinal reading and spelling skills. The study suggests that textism use may contribute causally to changes in spelling attainment.

Wood et al.'s 2014a synthesis of previous research saw them review different instruments to test respondents' orthographical and phonological attainment, and texting behaviour. Wood et al. (2014a, p.93) found little relationship between mobile phone behaviours and written language skills. What was significant in their study, however, was that on reflection, one of Wood et al.'s (2014a, p.96) limitations was that they did not take into consideration the intended recipient of each text message. I have duly noted Wood et al.'s findings and recommendations, and I shall discuss how this information contributed to shaping the rationale behind, and actual design of, my research instruments in section 3.7.

In her PhD thesis within the American context, Rankin (2010) employed a mix of the naturalistic and elicitation approaches. Rankin (2010, p.6) set out to answer (1) how university students used language shortcuts in their academic writing; (2) how language shortcuts influenced students' spelling and grammar skills; (3) how well students were able to differentiate between casual writing and academic writing; and (4) how the use of language shortcuts influenced the amount of writing students created. Using a qualitative research design framed within the social constructivist

theory, Rankin (2010, p.4) argued that university students would use what they were most familiar with, which broadly concurs with my postulation that SASLATS might fail to notice textisms because they might already have reached the point of saturation and are so used to seeing them. Rankin (2010, p.58) found that (1) respondents frequently used text messaging and language shortcuts; (2) language shortcuts had become common in students' academic assignments; (3) students agreed that language shortcuts had hurt spelling skills; and (4) the respondents often had academic deficiencies that went beyond errors presented through text messaging and language shortcuts. Importantly, Rankin (2010, p.58) further found that students sometimes used textisms without realising they were doing so, thus supporting later claims (see Nadeem et al. 2012, p.1234, Hamzah et al. 2009, p.6) that the point of saturation might already have been reached.

The studies discussed in this section reveal that there are numerous approaches to conducting research on textese. Wood et al. (2014a, p.93) thus note that the wide variation in data collection approaches and research instruments emphasises the need for standardised instruments to be used. Having critically engaged with the instruments and data collection approaches used in previous studies, I have duly noted their successes and limitations. I shall use the insights gained from the literature review and my engagement with the research instruments employed by previous studies to inform my research design as discussed in the following chapter.

It is worth mentioning at this point that the rapidly changing nature of technology contrasts sharply with the unquestionably longer time frame required to conduct and publish research (by which time new technologies prompting new research scopes might have been invented). While I have endeavoured to provide a succinct critique of the available literature, I acknowledge that there may be new research that I am as yet unaware of, specifically research conducted in Asia (a hub of technological innovation), and that such research may not be accessible to me as it might not have been translated into English. My research focus is therefore biased towards the Western, English-speaking world. Similarly, studies conducted on English textese within the Asian, African and South American contexts would possibly have focused on English as a second or foreign language as per English's status in these regions. Accordingly, as mentioned in Chapter 1, textese in relation to English as a second or foreign language falls wholly outside the scope of my inquiry.

A summary of the most notable and relevant empirical studies reviewed as part of my literature review is provided in the following table. As the various studies investigated different aspects of textese in relation to literacy (for example reading, writing and spelling attainment, phonological awareness, knowledge of conventional orthography, literacy skills development and attainment on various standardised literacy tests), the ‘findings’ column essentially only indicates whether the studies found a positive, negative or no correlation between textese and literacy skills. The studies are listed in descending order of publication date.

Table 4: Summary of literature review pertaining to textese, and learners' and students' English language usage

Year	Researchers	Location (country)	Textese data collection method used	Literacy skill tested	Target age group	Number of respondents	Findings
2014	Wood, Kemp, Waldron & Hart	UK	Naturalistic	Spoken and written grammatical understanding, orthographic processing and conventional spelling ability	89 primary school learners aged 8-10 (mean age 9.9 years) 84 secondary school learners aged 11-15 (mean age 12.8 years) 70 university undergraduates aged 18-30 (mean age 20.8)	243	Little evidence that ungrammatical texting behaviour is linked to grammatical understanding or knowledge of orthographic representations of language in children. Some evidence that young adults' violation of grammatical conventions when texting may be linked to limited understanding of grammatically related orthographic conventions.
2013	Salem	Kuwait	Self-reporting	Vocabulary, spelling, grammar	118 intermediate school learners aged 11-15 93 secondary school learners aged 16-18	211	Negative correlation between textese and formal writing skills
2013	Grace, Kemp, Martin & Parrila	UK and Australia	Naturalistic	Reading and spelling	UK: 150 university undergraduates (mean age 22.5 years) Australia: 86 university undergraduates (mean age 23.3 years)	236	Inconsistent evidence for negative relationships between adults' use of textisms and their literacy skills, and that these associations may be influenced by attitudes towards the appropriateness of textism use.
2012	Nadeem, Mosin & Ali	Pakistan	Self-reporting and naturalistic	Spelling, grammar, syntax	University graduates (age range and mean age not given)	100	Generally negative correlation between textese and spelling, grammar and syntax skills.
2012	Drouin & Driver	USA	Naturalistic	Vocabulary, reading, spelling and reading fluency	University undergraduates (mean age 21.2 years)	183	Use of textese indicative of lower literacy achievement.
2012	Cingel & Sundar	USA	Self-reporting	Grammar	10-to-14-year-olds	228	General negative relationship between the use of textese in text messages and grammar assessment scores.
2012	De Jonge and Kemp	Australia	Translation and elicitation	Reading, non-word reading, spelling and morphological awareness	52 secondary school learners aged 13-15 53 undergraduate university students aged 18-24	105	Use of textisms negatively correlated with scores for reading, nonword reading, spelling and morphological awareness.

Year	Researchers	Location (country)	Textese data collection method used	Literacy skill tested	Target age group	Number of respondents	Findings
2011	Wood, Jackson, Hart, Plester & Wilde	UK	Naturalistic	Reading, spelling and phonological awareness	Primary school learners aged 9 to 10	114	Text messaging does not adversely affect the development of literacy skills. Respondents' use of textisms when text messaging positively related to improvement in literacy skills, especially spelling.
2011	Wood, Meachem, Bowyer, Jackson, Tarczynski-Bowles & Plester	UK	Naturalistic	Reading, spelling, rapid phonological retrieval, and phonological awareness	Primary school learners aged 8-to-12-year-olds	119	Some evidence of a causal contribution of textism usage to spelling performance in children aged 8–12 years. Positive correlation between textese and reading and spelling skills both concurrently and longitudinally.
2011	Bushnell, Kemp & Martin	Australia	Translated, elicited and self-reporting	Spelling and writing	10-to-12-year-olds	227	Positive correlation between textese and general spelling ability.
2011	Powell and Dixon	UK	Dictated spelling test	Spelling	Undergraduate university students with a mean age of 24.4	94	Positive correlation between textese and spelling skills.
2011	Lee	Canada	Self-reported acceptability judgements	Spelling	Undergraduate university students aged 18 to 21	33	Negative correlation between textese and acceptability judgements.
2011	Geertsema, Hyman & Van Deventer	South Africa	Self-reporting	Writing and spelling	Secondary school teachers (age not given)	22	Negative correlation between textese and literacy skills.
2011	Drouin	USA	Self-reporting	Spelling, reading fluency, reading accuracy	Undergraduate university students with a mean age of 21.2	152	Positive correlation between text messaging frequency and spelling and reading fluency, but negative correlation with reading accuracy.
2010	Kemp	Australia	Translation	Reading and writing	Undergraduate university students (age not given)	61	Positive correlation between textese and reading and writing scores.
2010	Gann, Bartoszuk & Anderson	USA	Dictated spelling test	Spelling	62 university undergraduates and 44 young adults aged 18 to 78 (mean age 25.5)	106	No correlation between textese and lowered spelling performance.

Year	Researchers	Location (country)	Textese data collection method used	Literacy skill tested	Target age group	Number of respondents	Findings
2010	Rankin	USA	Naturalistic	Spelling and grammar	Undergraduate university students (age not given)	25	Some negative correlation between textese and academic writing.
2010	Rosen, Chang, Erwin, Carrier & Cheever	USA	Elicited and self-reporting	Writing	Young adults aged 18 to 25	718	Negative correlation between textese and formal writing but positive correlation between textese and informal writing.
2009	Winzker, Southwood & Huddleston	South Africa	Self-reporting and naturalistic	Spelling and writing	Secondary school learners grades 8 and 11 (age not given)	88	Marginally negative correlation between textese and literacy skills.
2009	Plester, Wood & Joshi	UK	Elicited and self-reporting	Vocabulary, reading and spelling	10-to12-year-olds	88	Ratio of textisms to total words used positively associated with word reading, vocabulary, and phonological awareness.
2009	Drouin & Davis	USA	Elicited and translation	Reading fluency and spelling	University undergraduates aged 18-48 (mean age 21.8)	80	No negative correlation between textese and literacy skills
2009	Freudenberg	South Africa	Self-reporting and naturalistic	Spelling and writing	Grade 8 and 11 learners (aged 13/14 and 16/17)	88	Marginally negative correlation between textese and literacy skills
2009	Perea, Acha & Carreiras	Spain	Naturalistic	Reading	University undergraduates with a mean age of 19	26	Negative correlation (reading cost involved with reading textese)
2008	Plester, Wood & Bell	UK	Translated, elicited and self-reporting	Spelling and writing	11-and-12-year-olds and 10-and-11-year-olds	65 and 35 respectively	Positive correlation between textese and spelling and writing skills; knowledge of textisms not associated with poor written language outcomes
2008	Spatafora	Canada	Naturalistic	Writing	16-to19-year-olds	4	Negative correlation to formal writing but positive correlation to informal writing
2005	Massey, Elliott & Johnson	UK	Naturalistic	Vocabulary, spelling and punctuation	16-year-olds	Sample of all British 16-year-olds	Negative correlation between textese and literacy skills

In view of the tabulated summary provided, the most salient findings of previous studies may be generalised and summarised as follows:

1. In general, secondary school learners are “aware of when it is appropriate to use textisms and when it is not” (Wood et al. 2014a, p.50), which displays metalinguistic knowledge on their part (Plester et al. 2008, p.143). Secondary school learners therefore generally know that textisms are decidedly unacceptable in formal writing (Lee 2011, p.84). However, this does not necessarily mean that they will be able to identify textisms in formal written English.
2. However, despite knowing that textisms are inappropriate in formal and academic writing, it has been found that secondary school learners in the USA and the UK sometimes use textisms inadvertently (Rankin 2010, p.4, Carrington 2005, p.161).
3. Actual textism use in writing samples produced by secondary school learners in general is low (Freudenberg 2009, Baron 2008, Massey et al. 2005, Thurlow & Brown 2003). This is due to the physical act of writing being different from typing a message on the various ECDs (Salem 2013, p.65).
4. There is a difference in the relationship between textisms and writing for formal and informal contexts: while texting is negatively associated with *formal* writing, it is positively associated with *informal* writing (Plester et al. 2008, Spatafora 2008, Massey et al. 2005, p.435).
5. The written vocabulary of textese can be readily recognised by those who do not use textese (Drouin & Davis 2009, p.60).
6. It is possible to ‘code-switch’ if textese users manage to keep the conventions of the two worlds of textese and conventional English separate (Jacobs 2008, p.207), and certain individuals are naturally more adept at ‘code-switching’ than others (Ferreira da Cruz 2008, p.101, Plester et al. 2008, p.143, Androutsopoulos 2006, p.425, Massey et al. 2005, p.435, Paolillo 2001, p.183). Accordingly, secondary school learners should be made aware of the different registers available when making decisions about writing (Mohapatra & Bose 2010, pp.138-139).
7. It is unlikely that a decline in spelling and writing performance as a result of textese use will be seen immediately (Drouin & Davis 2009, p.63).
8. Secondary school learners generally do not view online and textese communications as writing, but rather as a way of talking (UK Department of

Education 2012, p.5, Jacobs 2008, p.207, Lenhart et al. 2008, p.13). The conventions used for 'writing' textese are therefore different from those used for academic writing.

9. Shorter words are often abbreviated, while longer words are not because they cease being comprehensible (Drouin & Davis 2009, p.63, Crystal 2008b, p.1). Shorter words are therefore conducive to being shortened as textisms.
10. Children who demonstrate the greatest knowledge of textese also demonstrate the greatest knowledge of conventional spellings (Wood et al. 2014a, p.92).
11. A protocol involving target words should be used because declines in literacy are more likely to be seen in this area than in standardised tests (Drouin & Davis 2009, p.65).

To conclude this section, I reiterate the following gaps identified after reviewing other empirical studies on the impact of textese on literacy skills:

1. None of the studies tested secondary school learners' ability to *identify* textisms in formal written Standard English.
2. Previous studies employed four data collection approaches, namely self-reporting, message translation, message elicitation and naturalistic messages (Wood et al. 2014a, pp.79-84). While many studies employed different purposefully designed research instruments, no study has therefore yet employed a proofreading protocol.

2.6 Conclusion

In this chapter I have shown that textese is generally portrayed in a negative light in the media and that the public opinion on textese is that it has a degenerative effect particularly on secondary school learners' formal writing skills. The literature further revealed that textese is more akin to talking than to writing despite it being expressed in written form.

I have also critically engaged with the literature and specifically reviewed the research instruments and data collection methods employed by previous empirical studies in relation to the findings produced by these studies. Given my reservations regarding the reliability and validity of some of the research instruments employed by previous studies, I have meticulously noted the researchers' conceded limitations

and captured in detail the gaps that my research instruments will aim to fill. In Chapter 3 I will therefore show how this information contributed to shaping the rationale behind, and actual design of, my research instruments. This chapter concluded with a succinct, tabulated review of previous empirical studies, including their research design and main findings. In the next chapter I will first explain how the two theoretical frameworks of register theory and historical linguistics underpin my inquiry before detailing my research design.

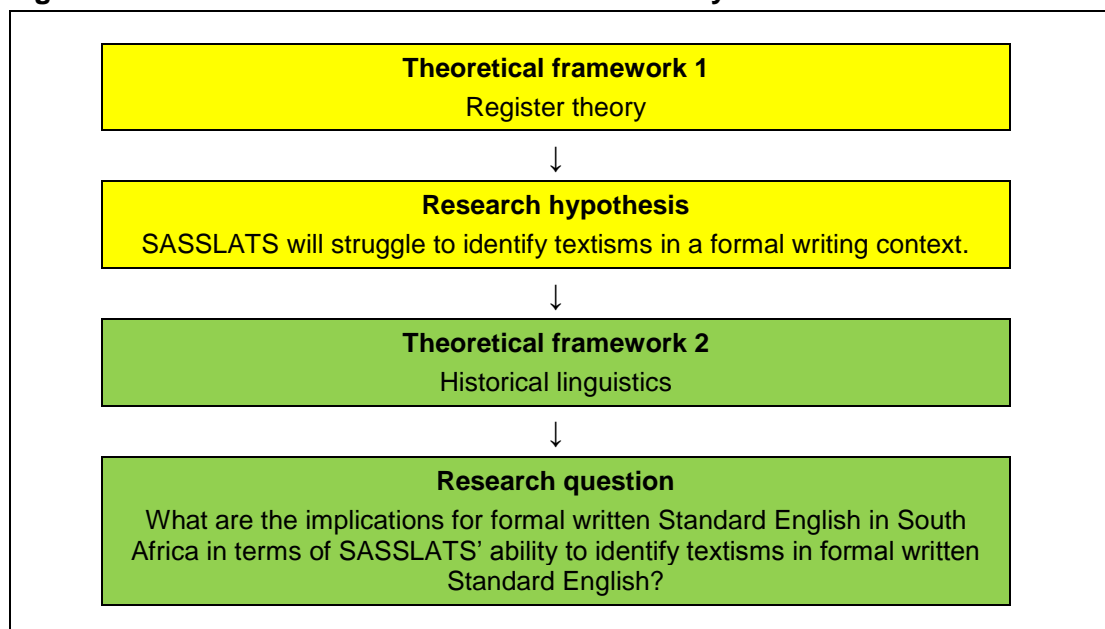
3 THEORETICAL FRAMEWORK AND RESEARCH DESIGN

3.1 Introduction

I frame my inquiry within two distinct theoretical frameworks: I use register theory to argue that the distinction between when the use of textisms is appropriate or inappropriate is not as clear for younger people as for older people (Schaller 2007, p.2). I thus posited that SASLATS would not have a precise grasp of register and would therefore be inclined to read over textisms in a formal writing context. Register theory is therefore used to test my research hypothesis that SASLATS will struggle to identify textisms in a formal writing context.

My second, supporting theoretical framework is historical linguistics – essentially the study of language change. In this regard I argue that all living languages, including English, are constantly changing and that textese is a driver of language change. I then use historical linguistics to answer my research question of what the implications are for formal written Standard English in South Africa in terms of SASLATS' ability to identify textisms in formal written Standard English. A simplistic illustration of how my two theoretical frameworks will be used to test my research hypothesis and answer my research question is provided in the following figure:

Figure 7: Theoretical frameworks used in this study



I have thus deemed it appropriate to use two theoretical frameworks as one was not sufficient to test my research hypothesis and answer my research question. My two theoretical frameworks are discussed in greater detail in the next sections.

3.2 Register theory

In view of the point of saturation possibly already having been reached, I use register theory for the first part of my inquiry as my research lens. Because all use of language has a context (Halliday 1985, p.45), I am of the opinion that due to my target population of SASSLATS' constant and arguably excessive exposure to textese, the different registers required for different contexts are not as clear to them as digital natives, as it might be for digital immigrants. Observers such as Hansen (2011, p.2) therefore fear that if secondary school learners in general are not properly taught the importance of separating formal and informal register, the level of writing skills as measured against the conventions of Standard English will continue to decline significantly as the technology age flourishes.

I therefore deemed it appropriate to use register theory as first theoretical framework as it endeavours to uncover the general principles that govern the various situation types so that we can begin to understand which situational factors determine which linguistic features (Halliday 1978, p.32). Register is determined by what is taking place, who is taking part, and what part the language plays (ibid.). The term 'register' only came to prominence in the 1960s, and was succeeded by the introduction of the term 'context of situation' (Halliday 2007, p.271). Malinowski first introduced the term 'context of situation' in 1923 to substantiate his claim that any given text is necessarily always accompanied by a 'con-text', or 'with-text' (Halliday & Hasan 1985, pp.5-6), meaning that no text exists in isolation. Halliday (2007, p.283) further distinguishes between the context of the situation (situational factors influencing meaning) and the context of culture (social and cultural factors influencing meaning), which he perceives not as two different concepts, but rather as the same concept seen from two different depths of observation. According to Halliday (2007, p.271), this notion of what is 'with the text' goes beyond what is said and written "to make a bridge between the text and the situation in which texts actually occur".

A decade later, Firth endorsed the theory purported by Malinowski and similarly claimed in 1935 that all linguistics were the study of meaning, and that all meaning was implicitly dependent on the context (Halliday & Hasan 1985, p.8). A theory of language in context is therefore a theory about the nature and evolution of language (Halliday 2007, p.274). Accordingly, while the above developments were essentially precursors to the evolution of the term 'register', and subsequently to register theory, the actual term 'register' was first used to indicate context by Reid in 1956, after which it was taken up and further developed by Ure (Halliday 1978, p.110). The term

was subsequently refined by Halliday and his associates in 1964, who formulated a theory of register which holds that:

... the language we speak or write varies according to the type of situation. This in itself is no more than stating the obvious. What the theory of register does is attempt to uncover the general principles which govern this variation, so that we can begin to understand *what* situational factors determine *what* linguistic features. It is a fundamental property of all languages that they display variation according to use; but surprisingly little is yet known about the nature of the variation involved, largely because of the difficulty of identifying the controlling factors.

(Halliday 1978, p.32, emphasis original)

Following the establishment of register theory by Halliday (1985, p.12), he identified three factors that determine the choice of register:

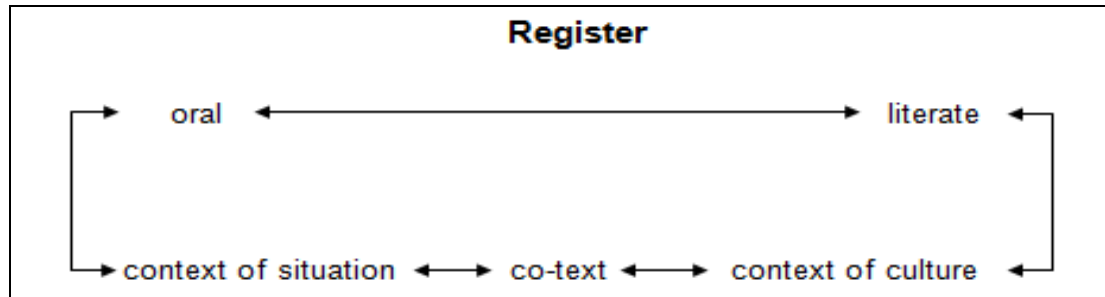
1. The field of discourse: what is happening; what is the nature of the social action taking place; and what are the participants engaged in?
2. The tenor of discourse: who is taking part; what is the nature of the relationship between the participants; and what are the participants' statuses and rules?
3. The mode of discourse: what part is language playing; what is it that the participants expect language to do for them in the situation; and what is the channel of the communication (written, spoken or a combination of the two)?

These three factors are used to decide on the most appropriate register to be used for a given context. Halliday (1985, pp.39-40) further distinguishes between 'closed' and 'open' registers: a closed register is one in which the total number of possible messages is fixed, finite and without scope for individuality, while an open register is one normally used for informal and spontaneous communication. However, we are never completely free from the constraints of a linguistic system as messages would otherwise cease being intelligible (Crystal 2008b, p.1). Textese thus would evidently make use of an open register as it caters for individuality and is decidedly informal.

Leckie-Tarry (1995, p.2) further distinguishes between oral and literate registers, as well as context of situation, context of text and context of culture. While certain linguists are inclined to restrict the context of a text to the context of the situation, Leckie-Tarry (1995, p.3) argues that "no precise understanding of the linguistic process is possible without taking into account all levels of context". The different

components comprising register are depicted in Figure 8. Accordingly, Leckie-Tarry (ibid.) argues that any text will principally be governed by any one of the components of context of situation, context of text, and context of culture as depicted:

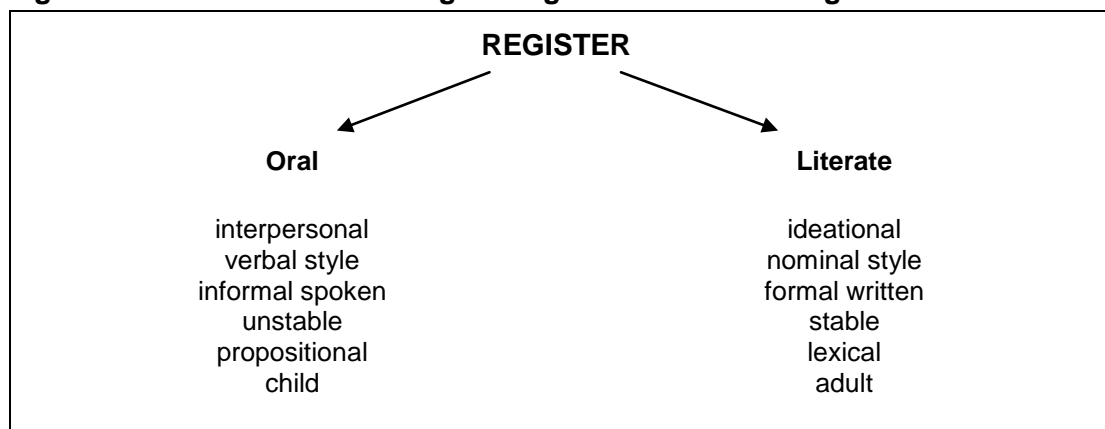
Figure 8: Leckie-Tarry's (1995) model of register



Adapted from Leckie-Tarry (1995)

Furthermore, registers are defined in terms of their functional components, which may usefully be captured on Leckie-Tarry's (1995, p.63) 'cline of register'.¹ Attributing distinctly different characteristics to oral and literate (written) registers, Leckie-Tarry (1995, p.64) distinguishes between the two registers:

Figure 9: Characteristics distinguishing oral and literate registers



Adapted from Leckie-Tarry (1995, p.64)

The six characteristics of an oral register described in Figure 9 are applicable to textese as it is indeed (1) interpersonal, as secondary school learners interact with each other via the various social media contexts in which textese is used predominantly; (2) verbal, as research has shown that secondary school learners view texting as talking rather than writing (UK Department of Education 2012, p.5, Jacobs 2008, p.207, Lenhart et al. 2008, p.13); (3) informal spoken, as secondary

¹ Although 'cline' is normally used to denote the graded sequence of differences within a species from a biological point of view, Leckie-Tarry employs the word in a linguistic sense to denote different registers.

school learners predominantly use the social media platforms to interact with friends (thus not for academic purposes); (4) unstable, as various different textese abbreviations may be used to denote the same word (for example, 'mayb', 'mybe', 'myb', 'mab', 'mAB', 'mabe', and 'mAbe' could all present the word 'maybe' (Crystal 2008a, p.32); (5) propositional, as textese frequently proposes new writing and spelling conventions; and (6) uses a register preferred by the younger digital native generation. Conversely, the more formal register associated with written Standard English is (1) ideational, meaning that written English should represent the ideal form of the language; (2) nominal, being the self-styled ideal form that language users should strive to attain; (3) formal, signifying a decidedly more formal context of use; (4) stable, as the lexical items used in formal written Standard English are necessarily recognised in the English lexicon; (5) lexical, as the words used in formal written Standard English have already been incorporated into the English lexicon; and (6) the register predominantly used by adults.

Due to the fact that texting is viewed as an oral mode of expression, albeit in written form, it employs a predominantly oral register, and thus relies heavily on phonetic writing, that is, writing words as they would be spoken. Applying Halliday's three aforementioned factors to determine the most appropriate register to be used for a given context, namely field, tenor and mode, it may be asserted that the field of textese discourse is informal, social conversation; the tenor is the digital natives who want to communicate as quickly and efficiently as possible with their peers; and the mode is the use of language to convey information through an oral register, but expressed in written form. It may thus be inferred that the collective perception of secondary school learners, who globally comprise the most significant user group of texters, view texting as talking, assigning all the above-mentioned elements associated with an oral register to it. However, the digital immigrant generation views texting as a form of writing, thus *expecting* that the more formal elements of a written register will be retained by the younger generation of texters, but this evidently does not happen.

As mentioned in Chapter 1, young adults in the USA between the ages of 18 and 24 sent and received an average of 109 text messages per day in 2011, which translate into 763 per week, 3 270 per month and 39 785 per year (Pew Internet 2011, p.4). This number will naturally far exceed the combined number of school assignments, homework tasks, tests and exams written by any secondary school learner. While it is difficult to estimate an accurate ratio of the number of times an act of texting

exceeds a formal academic task, it will suffice to note that globally, both in developed and developing countries, the average secondary school learner will engage in the act of texting far more often than he/she will in completing an academic writing task (Hansen 2011, p.3). This is due to digital communication allowing for a larger number of people to be drawn into individuals' communicative circles, in which casual writing and a more informal register are often the norm (Wood et al. 2014a, p.96). It is then natural that secondary school learners might sometimes confuse the two different registers used for formal (academic) and informal (textese) writing, as they might have become desensitised and potentially have reached the point of saturation (O'Connor 2005, p.2, Brown-Owens et al. 2003, p.17), and could therefore use textisms inadvertently (Rankin 2010, p.4, Carrington 2005, p.161). However, Crystal (2008c), and Thomas and McGee (2012, p.20) disagree with this position, asserting that children in general have a very precise grasp of context, with Kasesniemi (2003, p.208) agreeing that most secondary school learners are in possession of several different repertoires. It could then be that it is "the ability to modulate one's use of textisms according to the intended recipient" (Wood et al. 2014a, p.97) that requires investigation. It is this ability of SASSLATS to modulate and decide on the most appropriate 'repertoire' given the context with which my inquiry is concerned.

I have therefore identified register theory as my theoretical framework to test my null hypothesis, namely that SASSLATS will struggle to identify textisms in a formal writing context. My research question, which relates to the potential of textese to drive language change, will be considered within the ambit of my second theoretical framework of historical linguistics as discussed in the next section.

3.3 Historical linguistics

For the second part of my inquiry I shall use historical linguistics to argue that textese is a driver of language change. Historical linguistics is the branch of linguistics concerned with the processes of language change and was also the first branch of linguistics to be placed on a firm scholarly footing (Trask 2000, p.150). Relevant aspects of sociolinguistics will also be discussed and included in my theoretical framework as and when appropriate. As indicated by the extracts provided below of formal written Standard English throughout the ages, it may be asserted with some confidence that English has constantly been changing, and indeed is still changing (Hock & Joseph 2009, p.8, Hale 2007, p.3, Denison & Hogg 2006, p.5, Crystal 2005, p.357, Aitchison 2001, p.251).

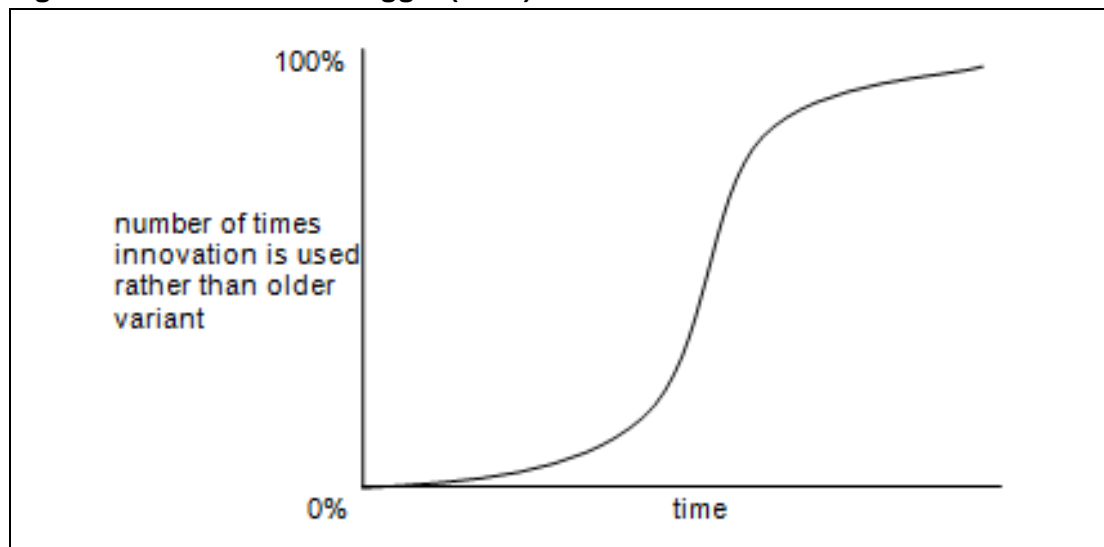
When looking at a language over an extended period of time, one notable observation is that language change does not occur in distinct phases but may instead be observed along an historical continuum (Schendl 2001, p.5). This essentially means that users of the English language are able to understand easily the language of generations immediately before and after them, but find it increasingly difficult to understand language the further it is removed chronologically from their own variant (ibid.).

Confirming that variability is inherent in language, some of my older colleagues at work still write words such as 'today' and 'tomorrow' as 'to-day' and 'to-morrow'. There is no difference in meaning but when I saw the words written as such for the first time I realised that the spellings must have been the Standard English (i.e. the dictionary form) spelling some time ago before dropping the hyphen to constitute the Standard English spelling we know today as 'today' and 'tomorrow'. This example accounts for variation in language use, albeit very simplistically. The mere fact that textese spelling and writing conventions are different from Standard English indicates that there is undoubtedly variation, and variation is, in turn, indicative of change taking place (Schendl 2001, p.72). Language users will therefore have different 'variants' of many different lexical items at their disposal, which they will use at different times depending on the situation and context (Schendl 2001, p.68). The fluctuating use of these variants can be associated with certain groups of language users so that the collective preference of a group of people of a certain age, race, sex or social class may be generalised to reveal what their typical usage would comprise (ibid.). Going back to my simplistic example of the spelling variation of the word 'to-day/today', one may observe that there is a period of variation and coexistence between new and old forms in the process of change. This period of variation has often been ignored in historical linguistics under the assumption that language change cannot be observed directly (Wolfram & Schilling-Estes 2003, p.716). Croft (2010, p.2) describes language change as being a two-step process: the first step is innovation, which inevitably leads to the second step, namely that of variation.

Accordingly, Denison and Hogg (2006, p.37) describe the mechanism of language change as being either innovative or diffusive in nature, with innovation being "the introduction of a new variant, *possibly initially characterisable as an error* [emphasis mine]". Innovations may therefore either become preferred or not. In contrast, diffusion is the spread of a variant from the point where it has become a viable option

for a number of language users. Denison and Hogg (2006, p.37) use an idealised S-curve to represent competition between two variants as depicted in Figure 10.

Figure 10: Denison and Hogg's (2006) idealised S-curve



Adapted from Denison and Hogg (2006, p.37)

The horizontal axis represents linear time, while the vertical axis depicts the number of available occasions, expressed as a percentage, on which an innovation is used rather than the older variant. At first, the innovation is used sporadically, with its frequency increasing very slowly while remaining low for an extended period of time. Only once the innovation is used around 20% of the time does its rate of use begin to increase dramatically (Denison & Hogg 2006, p.37). As the curve of the growth rate of the use of the innovation becomes steeper, the innovation relatively quickly replaces the older variant as the dominant form. However, once the use of the innovation's growth rate reaches approximately 80%, it starts falling again, thereby allowing the older variant to survive at a low frequency (Denison & Hogg 2006, p.38). Linguistic changes therefore tend to be the result of two equivalent forms coexisting as variants for some time before one gives way to the other (Schendl 2001, p.3). The steepest part of the S-curve, that is the point at which actual language change essentially occurs, is driven predominantly by the subject group of this inquiry, namely younger teenagers (Labov 2001, p.449). It is crucial to note, however, that once a change has entered a language, it can be accelerated, slowed down or even reversed by both social and linguistic factors (Aitchison 2000, p.161).

Specifically with regard to my inquiry, it may be noted that textese forms would constitute 'innovations' as per Denison and Hogg's model of language change, with the perceived threat posed by textese to the digital immigrant generation's Standard

English being that the textese forms are slowly starting to replace the older Standard English variants as the dominant form (Nadeem et al. 2012, p.1234, Omar & Miah 2012, p.9, Rankin 2010, p.58, Bodomo 2009, p.113). Because 'standard' language is measured against a set, as opposed to an evolving, benchmark, language change is generally perceived negatively and a view of language's supposed 'fall from grace' is generally assumed (Hock 1991, p.1-2). Not surprisingly, and concurring with the popular view of textese portrayed in the media, the most prevalent view on linguistic change is therefore that it is a matter of decay caused by:

... slovenly or imprecise speech habits which violate the rules of language. And these rules, in turn, are considered sacrosanct, established for all eternity, at a certain stage of the language which is believed to have been its Golden Age. Or sometimes they are considered to have been established in another language which is considered the most and whose grammar is thought to be the model for the grammars of all other languages.

(Hock 1991, p.627)

Similarly, the traditional canon of English literature, which includes the writings of Chaucer, Spenser, Shakespeare, Milton, Pope, Wordsworth and Shaw, is often invoked as an image of a better past – a set of standards from which contemporary use has sadly fallen (Maybin 1996, p.239). Moreover, language users sometimes compare one language to the rules established in another language – a practice that holds true for English and is evidenced by the fact that to this day language purists frown upon splitting infinitives because it is impossible to do so in Latin (a highly prominent influence on English in the Elizabethan era). This despite there being no conclusive argument for not splitting them in English (Birchfield 2004, pp.736-738). For example, historical linguists in the nineteenth century would have been introduced to the field of linguistics by means of a thorough study of the classical European languages, namely Latin and Greek (Hock & Joseph 2009, p.6). They would then have been persuaded that these tongues of classical antiquity were the most perfect on earth, while their contemporary language was but a poor imitation of the bygone perfection (ibid.). As a result, many language users tend to view their language use as inferior or worse than that of their predecessors, viewing language use as unavoidably decaying or declining as time passes (Schendl 2001, p.6). There is therefore a widely held belief that language change must necessarily mean deterioration and decay (Crystal 2005, p.458). The digital immigrants thus observe the casual language use of the younger generation, and automatically conclude that

standards have fallen markedly (ibid.). It is accordingly common for the digital immigrant generation to perceive contemporary language usage as illustrating the problem of ‘decay’ at its worst, but this view is shared by every generation (ibid.).

Furthermore, language change has historically been viewed as gradually declining (Aitchison 2001, p.251), and users of English have a long tradition of complaining about the way in which English is developing (Crystal 2004b, p.249). It therefore comes as no surprise that “the conviction that [English] is decaying is so much more widespread than the belief that it is progressing” (Aitchison 2001, p.7). Eighteenth century England was particularly hostile to the idea of language change, advocating regularity and order (Schendl 2001, p.6). Indeed, many of the foremost intellectual and literary figures of the eighteenth century, including Jonathan Swift and Samuel Johnson, vigorously opposed the idea of language change. In 1712, Jonathan Swift wrote *A Proposal for Correcting, Improving and Ascertaining the English Tongue* in a letter to the Earl of Oxford and Mortimer. Swift (1712, p.8) complains that “our language is extremely imperfect; that its daily improvements are by no means in proportion to its daily corruptions; and that the pretenders to polish and refine it, have chiefly multiplied abuses and absurdities; and, that in many instances, it offends against every part of grammar”. Summing up the prevailing perspective of the time, Swift wanted to stop English from changing any further as he could “see no absolute necessity why any language should be perpetually changing” (1712, p.16). Resonating the assumed threat posed by textese, Swift (1712, p.22) informs us that “most of the books we see now a-days [sic], are full of ... *manglings and abbreviations* [emphasis added]”. Swift (1712, p.31) was so opposed to language change that he thought it “better a [l]anguage should not be wholly perfect, than that it should be perpetually changing”.

In planning his famous *Dictionary of the English Language* (1755), entitled *The Plan for a Dictionary of the English Language* (1747), Johnson labels all linguistic change as being “of itself an evil” (1747, p.36), and wrote in the preface that “tongues [languages], like governments, have a natural tendency to degeneration” (1755, pp.5-6). Moreover, disgust about the ‘appalling’ state of the English language and remedies to improve were at their height in the eighteenth century (Aitchison, 2001:8). In the nineteenth century, linguists and philologists were inclined to see language change strictly as either progress or decay, with decay being the predominant view (McMahon 1994, pp.315-316). Even professional linguists in the nineteenth century were inclined to view language as a growing organism with an

evolutionary stage, a brief period of evolutionary perfection, and inevitable subsequent decay (Schendl 2001, p.7). Up to the 1870s, most historical linguists subscribed to the idea that language change was tantamount to language decay (Hock & Joseph 2009, p.6).

Later, in 1947, Sifferd (1947, p.340) noted that “for some years the question of whether children are as proficient in spelling today as they were a generation or two ago has been debated pro and con”, while Furness expressed the following opinion in 1958 (1958, p.390): “Yes, it is true. Businessmen, industrialists, and laymen have complained about the poor spelling of young people whom they employ”. Moreover, in 1980, the literary editor of *The Times* complained that English grammar was becoming “simpler and coarser”, while a 1982 newspaper article expressed the opinion that “the standard of speech and pronunciation in England has declined so much ... that one is almost ashamed to let foreigners hear it” (Aitchison 2001, p.5).

Language change and its perceived degeneration has even featured in poetry as captured in Ogden Nash’s poem entitled “Laments for a Dying Language” (1962):

Coin brassy words at will, debase the coinage;
We’re in an if-you-cannot-lick-them-join-them-age,
A slovenliness provides its own excuse age,
Where usage overnight condones misusage.
Farewell, farewell to my beloved language,
Once English, now a vile orangutangage.

As evidenced by the extract from more than 50 years ago, concern over the standard of English language use in general, and the younger generation’s language use in particular, is not a new development. For centuries, books have lamented the degeneration of the English language, with the authors warning that language use will inevitably become worse should the conventions disapproved of by them run rampant (Hock & Joseph 2009, p.5).

The proponents of the aforementioned language decay theory often hold up the language of Shakespeare, and later Milton, as a standard against which subsequent writings should be judged. However, Shakespeare himself was a linguistic innovator and user of slang, popularising words such as ‘nervy’, ‘rancorous’, ‘puke’, ‘assassination’ and ‘sanctimonious’ (Webb 2010). Similarly, as part of a project started in 2000, every single word in the Oxford English Dictionary is currently being revised to ensure that the lexicon of the English language reflects its *current* usage

(Oxford English Dictionary 2012). In addition to this substantial revision, the Oxford English Dictionary republishes its entire database online every three months, with “new words added for the first time and older entries revised according to the exacting standards of modern historical lexicography” (Oxford English Dictionary 2012). In each quarterly revision, approximately 1 600 words are added or amended to continually reflect the most relevant and current lexicon of the English language.

This approach followed by the Oxford English Dictionary of continually updating and amending the English lexicon concurs with the position assumed by scholarly observers on the topic of language change, such as Aitchison (2003, 2001), Baugh and Cable (2012), Crystal (2008a, 2006a, 2006b, 2006c, 2005, 2004b, 2001, 2000), Hale (2007), Joseph and Janda (2003) and McMahon (1994), who are of the view that any language that is spoken is alive and must therefore necessarily adapt and evolve Crystal (2005, p.357). Indeed, as early as the Middle English period writers started noticing that the English language was evolving (Crystal 2004b, p.169), and McMahon (1994, pp.316-318) accordingly proposes that we assume an evolutionary view of language as language should continually adapt to reflect the ever-changing environment in which it is used. The call to assume an evolutionary stance on language change is also shared by Baugh and Cable (2012, pp.2-3), according to whom it is natural for a language to evolve constantly, incorporate new words and spelling variations, and discard the outdated ones. This stands in stark contrast to Jonathan Swift’s (1712, p.31) view that language should rather be “imperfect than constantly changing”. However, Crystal (2008a, 2005, 2004b), and Baugh and Cable (2012) caution against viewing contemporary English in absolute terms as representing the pinnacle of linguistic evolution rather than merely being part of a larger, continuous process. Languages do not develop, progress, decay, evolve or act according to any of the metaphors which imply a specific endpoint and level of excellence: they simply change as society changes (Crystal 2005, p.459).

As mentioned in Chapter 1, I am therefore of the view that secondary school learners’ exposure to the more informal language contexts offered by texting might, over time, result in the more formal aspects of formal written Standard English becoming informalised (Goodman 1996, p.145) or ‘conversationalised’ (Fairclough 1994, p.147). It is reiterated that although language change largely occurs when casual styles of speech become accepted in more formal settings, and not the other way around, it does not necessarily imply that language is becoming increasingly informal (Aitchison 2003, p.739).

Textese is therefore a driver of language change, with its detractors claiming it is tantamount to language decay, while its supporters believe it is simply language change, or even the natural evolution of language. Accordingly, my research question of what the implications are for formal written Standard English in South Africa in terms of SASSLATS' ability to identify textisms in formal written Standard English relates to this debate: if I can answer my research question satisfactorily, I might be in a position to express an informed opinion on the debate of whether textese constitutes language evolution or language decay. While language evolution shall be dealt with presently, it may be noted that for the purpose of this inquiry 'language decay' shall necessarily denote a deterioration in language's ability to perform its primary function, namely that of facilitating communication and ensuring intelligibility. The notion of language decay is discussed hereunder as an opposing concept to the notion of 'language evolution'. Although not explicitly part of my research scope, this precipitates the question: what is the difference between 'language evolution' and 'language change'? Is there, in fact, a difference?

In order to provide satisfactory answers to these questions, I refer to Crystal's (2008a, 2006a, 2006b, 2006c, 2005, 2004b, 2001, 2000) numerous books on language change, in which he assumes an evolutionary point of view *in the post-Darwinian sense of the term*. Unlike pre-Darwinian, early nineteenth-century linguists and intellectuals, who saw linguistic change as language necessarily *progressing* from a more primitive to an ideal, necessarily more complex state of language, followed by an inevitable period of decay (Schendl 2001, p.83), Crystal assumes a post-Darwinian perspective: he does not see language evolution as either progress or decay, but as a natural process leading to variation and natural selection among the existing variants which, in turn, leads to language change. Crystal's use of the word 'evolution' does therefore not strictly correlate to the dictionary form, with a synonym for Crystal's use of 'evolution' being 'change', 'adaptation' or 'development', rather than 'progression' or 'improvement'. Crystal views language evolution, specifically English evolution, as the language's ability to adapt to the ever-changing demands imposed upon it as a global language rather than becoming increasingly adept at fulfilling its primary function of conveying meaning. This view is shared by McMahon (1994, p.315), who recommends that a post-Darwinian view of evolution be assumed when addressing the topic of language change.

It would therefore seem that, as a driver of language change, textese does not represent language evolution in the *pre-Darwinian* sense of the word, nor does it

represent language decay. This is the same conclusion reached by Aitchison (2001, p.253), who found that “we must conclude therefore that language is ebbing and flowing like the tide, but neither progressing nor decaying, as far as we can tell”. Accordingly, in order to show that language is evolving in the pre-Darwinian sense of the word, it must be shown that language is improving – thus becoming ‘better’ at performing its primary function. The primary functions of language are to convey meaning by acting as facilitator of communication, with the greatest threat to this function being incomprehensibility (Crystal 2004b, p.222, Dunbar 2003, p.219), and to communicate ideas and transmit information from one person to another (Crystal 2005, p.462). If the primary function of language is to convey meaning, it is extremely difficult to prove that Modern (contemporary) English is more ‘evolved’ than Middle English or Old English by virtue of the fact that it is better at fulfilling language’s primary function of conveying meaning and facilitating communication. It accordingly stands to reason that Old English would have been just as accessible to its target audience (users of Old English) than Middle English would have been to its target audience (users of Middle English) and than Modern English is to us as users of Modern English. Therefore the actual function of language cannot evolve and the effectiveness with which language fulfils its primary functions of conveying meaning and facilitating communication cannot be determined in terms of varying degrees – language simply conveys meaning or it does not (although it would presumably do so with varying degrees of success). Aitchison (2001, p.13) concurs with this notion that “the language of Chaucer’s or Shakespeare’s time was no better and no worse than that of our own – just different”.

In view of the above, I consider my research question of what the implications are for formal written Standard English in South Africa in terms of SASSLATS’ ability to identify textisms in formal written Standard English within the debate of whether textese, as a driver of language change, constitutes language evolution (in the post-Darwinian sense of the term) or language decay.

3.4 Research philosophy

As per the key attributes of positivism (Phillips & Burbules 2000), I believe that objective data, evidence and rational considerations shape knowledge, where the researcher collects information through the use of instruments based on measures completed by respondents or observations recorded by the researcher. However, as absolute objectivity is ultimately unattainable, I subscribe more to the postpositivist

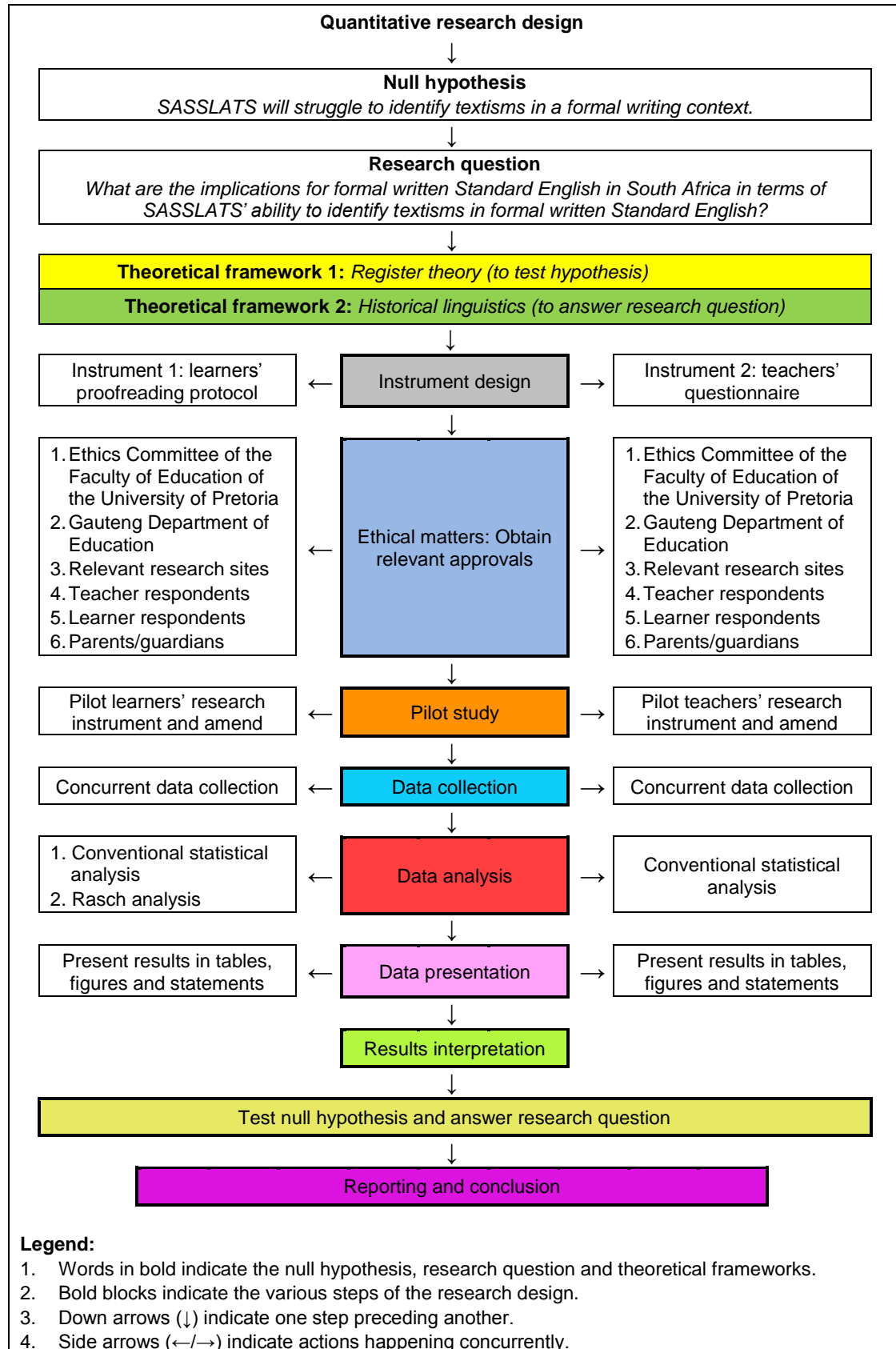
worldview as it realises this truth; acknowledging that the social scientist can never be absolutely certain about knowledge claims when studying the behaviour and actions of humans (Mertens 2010a, p.12, Creswell 2009, p.7).

As mentioned in Chapter 1, I believe that my research hypothesis can be tested objectively by means of statistical analysis of the data obtained. Accordingly, although all efforts were made to ensure that I remained as objective as possible during my research, I acknowledge that I cannot be completely 'positive' about my claims of knowledge (Creswell 2009, p.7). Nevertheless, my ontological view is that while absolute objectivity is impossible, there is indeed one 'truth' for my inquiry as I believe that my results will reveal that SASSLATS either do or do not struggle to identify textisms in a formal writing context. I accordingly believe in the postpositivist assumption that there is one reality for my inquiry, but that this reality can only be known within a certain level of probability (Mertens 2010a, p.12). Owing to the fact that I focused heavily on the objective, statistical results provided by the data (as will be discussed in Chapter 4), I opted for a quantitative research design as explained in section 3.5. Postpositivism as philosophical worldview was deemed to be the most appropriate worldview for my inquiry as its assumptions generally hold true more for quantitative than for qualitative research (Creswell 2009, p.6).

3.5 Research design

I employed a quantitative research design as such an approach is appropriate in instances where the researcher intends to test objective theories by examining the relationship among variables (Creswell 2009, p.4). These variables are usually measured by instruments so that the data can be analysed using statistical procedures. A quantitative approach was therefore used to test my null hypothesis and answer my research question. Although not part of the explicit focus of my inquiry, qualitative elements were included as and when appropriate. These elements are discussed in greater detail when analysing and interpreting the results. A diagrammatical presentation of the research design employed in this inquiry is provided in Figure 11.

Figure 11: Diagrammatical presentation of the research design



Adapted from Creswell and Plano Clark (2011, p.205)

3.6 Research sites and respondents

3.6.1 Research sites

For ease of reference, Pretoria's geographical location in Gauteng Province (in red), South Africa is provided in the figure below:

Figure 12: Map of South Africa



Pretoria is South Africa's administrative capital and is part of the province of Gauteng – South Africa's wealthiest province both in terms of per capita income and gross domestic product measured by province. The Old East of Pretoria is home to many embassies, upmarket shopping malls and restaurants, top schools (primary and secondary) and the University of Pretoria, while the newer affluent southern suburbs of Pretoria boast several new upmarket security and golf estates, and gated communities. Pretoria has seen several English private schools open since democracy in 1994, and several of these private schools were approached to participate in the study. I approached a total of nine both private and public schools, five of which agreed to participate in the study. Of these five schools, four furnished me with completed instruments. Of these four schools, one school omitted to request the learners and their parents to complete the letters of consent. The data obtained

from this school were therefore inadmissible, meaning that three schools were ultimately used as research sites: two public schools and one private school.

All the research sites excelled academically and were consistently placed within the top 20 academic schools in the Pretoria region in terms of the number of distinctions achieved per learner, exit examination pass rates and university exemption (delivering students eligible to apply for university admission based on minimum entry requirements). It was therefore assumed that their learners' English writing and spelling abilities represented the upper end of the spectrum, with the assumption that schools that did not excel as much academically would probably have scored lower on the learners' proofreading protocol. At the time of the study, the three research sites, henceforth labelled Site A, Site B and Site C, had had 100% exit examination pass rates for the past several years, with one of the research sites boasting a 100% exit examination pass rate since opening in 2007. In terms of learning resources, all three research sites had computer laboratories, low staff-to-learner ratios of approximately 1:25 and a wide variety of extramural activities ranging from business, bridge, angling and film clubs, to diverse sports such as fencing and water polo. Given that the public schools were situated in the affluent Old East of Pretoria, with accompanying higher school fees, the selected public schools were more akin to a private school in terms of the quality of education and school facilities.

3.6.2 Respondents

Learners

All the respondents used in my study attended the research sites discussed in section 3.6.1. The respondents were selected based on their age (between 13 and 17 years old), their grade (from grade 8 to 11), the fact that they were schooled in English and their socio-economic background (given their attendance of the research sites mentioned above). Respondents' gender was not a criterion for selection, although one of the research sites was a single-sex boys' school. One of the reasons why I had elected to use respondents attending the historically stronger academic schools in the Pretoria region was that, at least in my mind, learners attending these schools would in years to come probably go on to fill numerous qualified positions in leading institutions where one might expect to find Standard English to be used, such as government, the professions, politics, law courts and the media (Crystal 2008d, p.450, Quirk et al. 1985, p.18). I had therefore selected them as the most probable standard-bearers of Standard English in years to come as the learners at upper

middle class schools would likely have aspirations where mastery of Standard English would be required. Furthermore, by virtue of the research sites being located in the more affluent suburbs of Pretoria, I argued that respondents attending these schools would most likely have their own mobile phones. I argued this based on the fact that in 2013 already more than 75% of South Africans with an income of below R432 (approximately US\$40) per month per household member who were 15 years or older owned a mobile phone (Peyper 2013). I therefore assumed that the learners attending the selected research sites would be extremely likely to have their own mobile phones, or at least ready access to one.

Based on the public image of the schools and after discussions with several educators, I assumed for the purposes of this study that the academic proficiency of, for example, a grade 10 learner in the selected private schools would be similar to the academic proficiency of a grade 10 learner in the selected public schools. In addition, I originally intended to include grade 12 learners as respondents; however, given their preparation for their examinations, it was considered prudent not to involve them. I therefore narrowed my scope to focus on SASSLATS specifically.

Teachers

As shown in section 3.6.1, the research sites were selected with very specific criteria in mind. I accordingly deemed it appropriate to use teacher respondents who taught the actual learner respondents at the selected research sites so as to draw the most relevant comparisons between their responses and those of the learner respondents. The teachers who participated in the study were therefore the teachers of the participating learners. As a result, the teacher respondents were not selected at random, but were approached based on the fact that they taught relevant subjects at the selected research sites. To this end, ten teachers were approached from each research site: four English language teachers, two History teachers, two Life Science teachers and two Economic Science teachers. The English teachers were the English teachers of the learner participants, while the teachers of the other subjects (History, Life Science and Economic Science) were also from the selected research sites but not necessarily the actual subject teachers of the learner respondents. The English teachers therefore answered the questionnaire in terms of the exact same learners who participated, while the teachers of the other subjects would have answered the questionnaire in terms of a largely similar, but not identical, group of students from the same research site. The rationale behind this decision was to determine whether language teachers observed more textisms in their learners'

writing than other subjects where substantial writing was produced by learners, such as History or Economic Science. I postulated that content teachers would possibly observe textisms more often as learners would focus more on content than form in subjects such as History and Life Science. However, I also considered the possibility that language teachers might be more sensitive to textese use and would thus perceive instances of textism use to be more frequent or problematic. For the purpose of my inquiry, the two groups of teachers are denoted 'language' and 'content' teachers respectively.

3.7 Instrument design

3.7.1 Learners: proofreading protocol

Rationale

As mentioned in Chapter 1, I decided to employ a proofreading protocol (Addendum A). I also decided to compile the proofreading protocol electronically in Microsoft Word, but to print it for the purposes of my research because, from a visual perspective, it resembled more closely the typed font produced by electronic devices. While I acknowledge that there are two different processes involved in writing and proofreading, I believe that a proofreading protocol is more likely to reveal whether SASSLATS will struggle to identify textisms in formal written English.

I further decided on a proofreading protocol as it would not 'cue' learners that there was a specific error, as a dictated or word recognition writing exercise would. A proofreading protocol would also allow me to include a protocol involving target words as per Drouin and Davis's (2009, p.65) recommendation by populating the instrument with specific textese-related errors from the categories of textese use discussed in the following section.

Categories of textese use and description of instrument

Based on the numerous studies discussed in Chapter 2 (particularly Rankin 2010, p.58, Plester, Wood & Joshi 2009, p.151, Crystal 2008a, pp.22-62, Hård af Segerstad 2005, pp.40-46, Thurlow 2003, Bodomo & Lee 2002, p.23, Kasesniemi 2003, p.41) and the aforementioned fears over the informalisation of English, I have identified the following 13 categories of textese use with which I populated my proofreading protocol:

Table 5: Characteristics of textese

Number	Characteristic	Example
1	Shortenings, including omitted hyphenation	'bro' for 'brother' and 'tues' for 'Tuesday'
2	Contractions	'plz' for 'please' and 'watcha' for 'what are you'
3	G-clippings	'goin' for 'going' and 'doin' for 'doing'
4	Other clippings	'hav' for 'have' and 'wil' for 'will'
5	Omitted apostrophes	'cant' for 'can't', 'dads' for 'dad's', and 'ur' for 'your/you're'
6	Acronyms and initialisms	'SA' for 'South Africa' and the reduction of words to their initial letters such as 'tfn' for 'ta ta for now'
7	Symbols and emoticons	'@' for 'at', '&' for 'and', '#' for 'number' and ☺/☹
8	Letter and number homophones	'2moro' for 'tomorrow' and 'b4' for 'before'
9	Non-conventional spellings	'fone' for 'phone', 'rite' for 'right/write', and 'skool' for 'school'
10	Informal tone and register	Informal address such as 'Hi' instead of 'Dear' and slang terms used
11	Omitted articles	Omission of both 'the' and 'a/an'
12	Lack of capitalisation	At the beginning of a sentence or for proper nouns
13	Lack of punctuation	Missing commas and full stops

All 13 categories listed above have been employed in or identified by previous studies (see Wood et al. 2014b, p.285, Houser 2012, pp.66-69, Rosen et al. 2010, p.433, Rankin 2010, p.58, Freudenberg 2009, p.42, Plester, Wood & Joshi 2009, p.151, Crystal 2008a, pp.22-62, Hård af Segerstad 2005, pp.40-46, Thurlow 2003, Bodomo & Lee 2002, p.23, Kasesniemi 2003, p.41). Using these 13 categories of textese use, I populated my proofreading protocol with four textese errors from each of the 13 categories. There were thus 52 errors in the proofreading protocol, with the 13 categories of textese use constituting the input variables in the learners' proofreading protocol.

In order to contextualise the letter as formal, I chose a job application to arguably the most renowned university in the world. My reasoning in this regard was that when I attended school, we were often instructed to 'apply' for a position or write a letter as a formal writing task. I had also hoped that selecting Oxford University would add to contextualising the letter as decidedly formal given its status as one of the top universities in the world. I wanted respondents to be able to understand that the context was formal without stating this explicitly so as not to cue them regarding the errors they might find. I then wrote the letter in Standard English first before editing it

by replacing 52 conventional English spelling and grammar items with four textisms of each of the aforementioned categories of textese. I initially intended to include only three errors per textese category on the proofreading protocol but was advised by the statistician to include a fourth for a wider data spread.

Criteria

I duly noted the challenges experienced by Gann et al. (2010) in drawing relevant conclusions from the responses received due to their decision to include a selection of words that might not be relevant in determining whether or not the misspelling thereof was as a result of textese use. I was therefore mindful of designing an instrument that would reveal whether or not the omission to correct a textese error was likely to be as a result of textese use. I also heeded Omar and Miah's (2012, p.13) recommendation that the context of the instrument should make it clear that it was an undeniably formal context, and that a formal register was accordingly required. This recommendation was also highlighted as a limitation by Wood et al. (2014a, p.96) as they did not take into consideration the intended recipient of each text message. I therefore decided to include a detailed brief for the learners (Addendum A), informing them that they were applying to Oxford University for a position. This contextualised the exercise as decidedly formal, meaning that any textisms would be inappropriate. I also phrased the instruction in such a manner so as not to cue the learners which errors they might find in the passage. No mention of textese was made, and the learners were merely requested to correct any errors that they *might* find.

3.7.2 Teachers: questionnaire

Rationale

I decided to create a second research instrument, namely the teachers' questionnaire (Addendum D), to compare the results obtained from the learners' proofreading protocol and thus provide richer data. Since I had selected a quantitative research design, I decided not to make use of qualitative research instruments such as open-ended questionnaires, interviews, observations, documents or audio and visual materials. Therefore, because I also wanted to restrict the teacher respondents' responses, I used close-ended questions and statements to allow me to apply quantitative data analysis tools, such as statistical analysis, to analyse the data.

I identified a close-ended questionnaire using a Likert scale as the most appropriate research instrument to obtain the teachers' perspective on the potential impact of textese on SASSLATS' English. I was interested in obtaining actual attitudinal data on whether teachers actually saw textisms in their learners' written work given the perception created by the media that textese use in learners' written English was rife. While I have taught secondary school learners previously, I have not taught them since 2007 so I was highly interested in obtaining attitudinal data on teachers' views on textese and their learners' written work. Given that I had also posited that learners might have difficulty distinguishing between different registers (within the ambit of 'appropriate' and 'inappropriate' language use given the context), I was interested in knowing whether teachers thought learners distinguished successfully between formal and informal register. I therefore also added statements that would provide me with attitudinal data on the perceived impact of textese specifically on learners' written English and on English in general. I was also interested in obtaining a sense of whether teachers had observed a decline in the quality of learners' written English compared to ten years ago (or since they had first started teaching). Furthermore, I had posited that learners might be less inclined to proofread their formal written work for errors as learners would presumably not proofread personal text messages. The statements included in the teachers' questionnaire were therefore grouped together, but phrased differently and dispersed in random order, to answer the following questions:

1. Do teachers actually see examples of textisms in their learners' written work?
2. Do teachers think that learners have become desensitised in respect of textisms and therefore add textisms unintentionally and unwittingly?
3. Do teachers think learners distinguish successfully between formal and informal register?
4. Do teachers think that textese has a negative impact on their learners' writing ability?
5. Do teachers think that textese has a negative impact on the English language?
6. Do teachers teach register?
7. Have teachers observed a general decline in the quality of learners' written English compared to ten years ago (or since they first started teaching)?
8. Do teachers think that learners do not take care to proofread their written work for errors?
9. Are there appropriate interventions available to teachers to address learners' use of textese?

Statements 7 to 36 on the teachers' questionnaire therefore intended to answer the nine questions listed above. Refer to Addendum P for a breakdown of which statements on the teachers' questionnaire were grouped together and aggregated to answer the nine questions listed above.

Description of instrument

The 13 categories of textese use constituted the input variables to the teachers' questionnaire. I accordingly employed a Likert scale and also included other statements relating to the frequency with which teachers observed each of the above-listed 13 categories of textese use in their learners' written English. It should be noted that the teacher respondents were requested to indicate the extent to which they 'agreed' or 'disagreed' with statements regarding observed textism use in their learners' formal written English and how often they saw textisms in their learners' writing. The teachers' responses only provided me with attitudinal data as respondents merely indicated their attitudes to and perceptions of textese and their learners' formal written English.

I also included specific statements regarding whether teachers taught register, whether teachers had observed an increase in the number of textisms used in their learners' written English and whether teachers were concerned that textese had an impact on learners' formal written English. The teachers' questionnaire further requested teachers to provide general information such as the number of years they had been teaching and subjects taught, and required teachers to indicate on a scale of 1 to 6 whether they agreed with the statements made regarding textese and SASSLATS' written English. All statements had a six-point rating scale ranging either from 'never', 'almost never', 'sometimes', 'often', 'almost always' to 'always' (thus denoting frequency) or from 'totally disagree', 'disagree', 'somewhat disagree', 'somewhat agree', 'agree' to 'totally agree' (thus denoting agreement). A score of, for example, four out of six would indicate that the respondent 'agreed' with the statement or 'often' saw instances of the relevant instance of textese use. These statements to which the teachers were requested to respond had been formulated to answer certain questions such as whether teachers actually saw examples of textisms in their learners' written work; whether they thought that learners had become desensitised in respect of textisms and therefore add textisms inadvertently; whether teachers thought learners distinguished successfully between formal and informal register; and whether they had observed a general decline in the quality of

learners' written English compared to ten years ago (or since they had first started teaching).

In line with my initial personal bias, I had a preconceived notion that my target population used textisms in their written school work more often than was likely to be the case. I had therefore anticipated that teachers would indicate that they observed textisms and textese-related writing issues in their learners' formal written work more often than turned out to be the actual case as discussed in section 4.3.

Criteria

As I intended to obtain attitudinal data from the teacher respondents, I had to ensure that responses were as truthful as possible. The only way in which I could ensure truthful responses was to make the same statements in essence but to phrase them differently, thus providing me with at least three responses for each of the additional questions the teachers' questionnaire was intended to answer. The statements used on the teachers' questionnaire also needed to be phrased as neutrally as possible not to display bias one way or the other (and thus potentially influencing respondents). Unfortunately, upon reflection I have to concede that the manner in which I phrased some of the statements in the teachers' questionnaire was not as neutral as I had originally thought them to be. While I thought I was being objective and neutral in phrasing the statements, some bias is evident in the ultimate phrasing I used for the statements. I used more negative word connotations (e.g. "I believe textisms are *increasingly infiltrating* the English language" and "I *frequently* see textisms in my learners' writing") than positive word connotations. Unfortunately this apparent imbalance in the presentation of statements could have biased teachers' responses as they completed the questionnaire. Other than this, the teachers' questionnaire simply needed to be clear, which I believe it was.

3.8 Ethical considerations

As can be seen from the learner and parental consent letters, attached hereto as Addenda G and H respectively, it was stated explicitly that no parent, guardian or caregiver was obliged to grant consent for the relevant learner under his/her care to participate in the study. Moreover, respondents were informed that even if their parents, guardians or caregivers granted consent for the learner to participate in the study, the final decision of whether or not to participate vested with the learner.

Learners were specifically instructed not to write their names on the research instruments to protect their anonymity. My labelling of the different research sites as 'Site A', 'Site B' and 'Site C' further ensured that there was no way of determining from which school, class or individual a particular response had emanated. I did not offer incentives to the learner respondents but I gave each participating teacher a 200g box of Lindt chocolates, and the contact person at each school who co-ordinated the administration of the research instruments a 500g box of Lindt chocolates as a small token of my appreciation.

3.9 Data collection procedure

Although I had standardised² my research instruments in terms of the marking rubric, time allocated, conditions under which they were completed, instructions and content, they had never been used in a study before as I had designed them myself. I therefore deemed it appropriate to test them by conducting a pilot study at a different but comparative research site to the research sites used in my actual study. For the purpose of my pilot study, I requested five teachers to complete the teachers' questionnaire as if they were completing it for the actual study, requesting that they make notes regarding any potential ambiguity or unclear content in the teachers' questionnaire. Input from these teachers mostly resulted in minor amendments being made, such as calling the content subjects by their appropriate names (as these appellations had changed since I had finished school) and rephrasing one statement that had been slightly ambiguous. The same five teachers each also identified two learners in their classes to complete and comment on the learners' proofreading protocol. Comments received from the learner respondents participating in the pilot study were encouraging as the instrument was completed accurately as per the task brief. This confirmed that the brief itself was pitched at the right level and that the learners knew exactly what was expected of them, and that they could identify the textisms as I had anticipated. I had initially anticipated that the exercise might take up to 35 minutes to complete; however, after receiving feedback from the teachers and learners participating in the pilot study, it became evident that the learners' proofreading protocol would take no longer than 25 minutes to complete. Since I viewed it as critically important that the learners should finish completing the

² For the purpose of this inquiry, 'standardised testing' shall be taken to denote the process of administering a test that is the same for all students in the testing population, taken under the same conditions and marked according to a commonly applied rubric (Matters 2009, p.211). While my research instruments were thus standardised as per Matters' definition, they had not been used previously in any study.

instrument (as missing data due to learners being unable to finish in the allowed time would pose challenges when interpreting the results), I decided to allow 30 minutes for the learners to complete the exercise. From the feedback received it also became apparent that the older learners (i.e. the grade 10 and 11 learners) completed the learners' proofreading-type exercise slightly faster than the younger learners (i.e. the grade 8 and 9 learners). In the interest of consistency, however, I decided that I would allow all learner respondents the same amount of time to complete the proofreading protocol (i.e. 30 minutes). This decision proved to be justified as all information sheets collected from the teachers indicated that all learners had finished within the allotted 30 minutes. The matter of missing data was therefore not a factor that needed to be considered in interpreting the results.

In early July 2012 I contacted the nine proposed research sites via a formal letter (Addendum E), inviting them to participate in my study related to the potential impact of textese on SASSLATS' written English. I also phoned the research sites, requesting a meeting with the respective principals to explain the scope of the study. The four research sites that participated in my study assigned their respective heads of English as primary contact person and co-ordinator. I then personally met with the respective heads of English during the second quarter of 2012 in their respective classrooms or offices for approximately 30 minutes, explaining my approach and answering any questions they had. I reiterated the ethical principles discussed under section 3.8. Once I had met all the ethical requirements of the University of Pretoria's Faculty of Education Ethics Committee (Addendum K) and the Gauteng Department of Education (Addendum L), I was ready to start collecting data.

At the time I thought it appropriate not to administer the learners' proofreading protocol myself, but rather have the teachers administer it on my behalf. I thought at the time that my presence would somehow affect the learners' performance on the instrument; however, in retrospect this decision was not the right one as if I had administered the instrument myself I would have been able to better ensure consistency and likely have avoided problems such as one school administering the instrument much later than the others. The detailed printed instructions were discussed with them prior to the research instruments being administered to ensure that they – as primary administrators of the learners' proofreading instrument – knew what was required (Addendum J).

Prior to administering the learners' instrument, the teacher respondents completed the teachers' questionnaire individually, unsupervised and in their own time as per my request. The relevant English teachers administered the learners' proofreading protocol to one English class for each of the four grades involved in the study during the third term of 2012. As the same teacher was responsible for at least two classes, I could not stipulate that the instruments had to be administered during the same period. Although I had specifically requested the research sites to administer the learners' instruments during the third term of 2012, one school elected to administer the learners' proofreading protocol only in January 2013. As requested during my personal meetings with the respective heads of English, teachers completed an information sheet (Addendum I) that accompanied the blank learners' instruments while their learners were busy completing the instrument to capture information regarding the circumstances under which the instrument was completed. The information sheets captured the start and end times, whether anything had happened that could influence my interpretation of the results, and what the learners' attitude was towards completing the research instrument. The feedback obtained from these information sheets revealed that nothing untoward had happened during the test session and that learners were generally intrigued by and willing to complete the proofreading protocol. The information sheets also confirmed that the learners had taken approximately 25 minutes to complete the instrument, which was consistent with the feedback obtained from the pilot study.

3.10 Data analysis

3.10.1 Transcription and verification

The responses provided by the teacher and learner respondents were captured on data-capturing sheets (Addenda C and D), which were subsequently verified against the original responses provided. For the purpose of categorising learners' responses as having been either 'overlooked' or 'corrected', all instances where learners failed to correct the textese error appropriately were coded as 'overlooked' as they might have marked 'corrections' on the instrument at random. The brief was also to correct the errors identified, and thus partially correct responses were categorised as being overlooked on account of them not having been corrected as requested.³ The completed data sheets were then submitted to the University of Pretoria's

³ I have duly noted Andrich's (2008) argument for coding what he terms 'distractors' (i.e. partially correct responses) on their own (i.e. as distinct from the relatively narrow confines of 'correct' or 'incorrect'). This possibility is discussed under section 6.5 as a potential area for further study.

Department of Statistics for electronic capturing and statistical analysis. The electronically captured data were then once again verified against the original research instruments completed by the respondents to ensure that all the data had been captured correctly.

3.10.2 Analysis of data output

SAS (a statistical programming package) was used to obtain the data output. The statistical analysis of the data performed by the University of Pretoria's Department of Statistics was used to calculate all percentages discussed below, with the probability values, or p-values, quoted where appropriate. The statisticians also provided a breakdown of the mean scores to individual and related statements expressed as a percentage, as well as the accompanying p-values to indicate the statistical significance of the variance between responses. In terms of the learners' proofreading protocol, the statisticians provided a summary of the number of learners who had respectively corrected and overlooked each textese error. The data were also analysed according to research site, gender and grade. The mean scores of the learner respondents for each of the 13 categories of textese use were also provided by the statisticians.

3.10.3 Data reliability and validity

Also called the "trustworthiness, credibility, dependability and confirmability" of research (Lincoln & Guba 1985, p.302), reliability and validity testing aims to ensure replicability or repeatability and accuracy of the results or observations (Golafshani 2003, p.598). More specifically, reliability refers to the extent to which results are consistent over time and whether the results of a study can be reproduced under a similar methodology, while validity determines whether the research truly measures that which it was intended to measure and how truthful the results are (Joppe 2000, p.1). Within my postpositivist research philosophy, factors such as evidence, objectivity, truth, deduction, reason, fact and mathematical data culminate in the presentation of the results (Winter 2000, p.8). Accordingly, the SAS statistical programming package was used to obtain the data output, thereby negating the potential for human error in the calculations. After obtaining all the responses, every effort was made to validate and verify that respondents' responses had been captured accurately. This was done by capturing the responses provided by the teacher and learner respondents on data-capturing sheets (Addenda A and D), which were subsequently verified against the original responses provided. The completed

data sheets were then submitted to the University of Pretoria's Department of Statistics for electronic capturing and statistical analysis via the SAS programming package. The electronically captured data were then once again verified against the original research instruments completed by the respondents to ensure that all the data had been captured correctly. I do, however, acknowledge that the natural situation in which the learners had completed the research instruments had necessarily been reduced, thus influencing data validity. Although such concerns will unfortunately always be present on a particular testing occasion (Frisbie 1988, p.26), I believe my actual research instrument as detailed in Chapter 3 addressed such concerns to the extent possible.

With regard to reliability (replicability), I believe that both my research instruments can be administered at different sites with relative ease as the instructions are quite simple and the proofreading protocol itself merely requests respondents to identify any errors they might find, while the teachers' questionnaire only requests teachers to express their opinion.

In moving to the validity of my instrument, I have to consider whether my instrument measured what it was supposed to measure, namely whether or not SASSLATS struggled to identify textisms in formal written English. In view of the evidence provided above, I believe that my methodological process was transparent and trustworthy, allowing my study to be replicated with relative ease. I am therefore of the view that my results are reliable as they are replicable, and valid as they are accurate and measured what they were designed to measure. However, my instruments' true reliability and validity will possibly only be revealed once used in other samples in future.

3.11 Rasch analysis

As indicated in section 1.6.2, in order to gain further insights into the proofreading protocol and its use, I analysed the data by applying the Rasch measurement model to my data. The approach followed in this regard and the results of this analysis are presented in Chapter 5.

3.12 Research constraints

In accordance with my postpositivist research philosophy, where the researcher assumes a neutral-objective role (Rubin & Rubin 2012, p.23), I elected not to sit in while the learners completed the proofreading protocol. I did this so as to simulate a

timed test environment where respondents had a set amount of time to complete the research instrument and where no talking was allowed. This meant that I was highly reliant on the teachers to administer the learners' proofreading protocol effectively. However, in order to record any differences in the circumstances under which the instruments were completed, I included a 'fact sheet' (Addendum I) for each teacher administering the proofreading protocol. After careful perusal of the information sheets submitted by the teachers who presided over the administration of the learners' research instrument, I was satisfied that nothing untoward had happened during the completion of the learners' research instrument.

In accordance with the ethical principle of informed consent, which was fully described and disclosed in the consent letters to the teachers (Addendum F), the learners (Addendum G) and their parents, guardians or caregivers (Addendum H), the learners knew that the proofreading protocol would not count towards their term mark but was only for research purposes. I therefore expected that some learners might not fully apply themselves when completing the test, which could influence the results. I also expected that the completion of the proofreading protocol might not have been viewed as 'cool' by especially the older learners. These learners might have been either unwilling to participate in and complete the exercise, or they might not have answered to the best of their abilities, which again could possibly skew my interpretation of the results. However, these fears appear to be unfounded as the results discussed in the next chapter are reflective of learners who took care to complete the instrument to the best of their ability.

3.13 Conclusion

In this chapter I have shown that my inquiry was best framed by two distinct theoretical frameworks. I motivated why I had elected register theory to argue that the distinction between when the use of textisms was appropriate or inappropriate was not as clear for the digital native generation as for the digital immigrant generation. I accordingly postulated that SASSLATS would not have a precise grasp of register and elucidated how I would use register theory to test my research hypothesis.

The second theoretical framework that I explained in this chapter was historical linguistics. Assisted by the relevant literature, I argued that all living languages, including English, were constantly changing and that textese was a driver of

language change. In Chapter 4 I shall use (1) register theory to test my research hypothesis that SASLATS will struggle to identify textisms in a formal writing context; and (2) historical linguistics to answer my research question related to what the implications are for South African formal written Standard English in terms of SASLATS' ability to identify textisms in formal written Standard English.

This chapter also provided an overview of my research design and methodology, including the various factors that, in conjunction with the literature review in Chapter 2, informed the design of my research instruments. I also provided a comprehensive overview of the research sites and respondents and my reasons for selecting them. Having thus justified my decision to use two theoretical frameworks and motivated the rationale behind the design of my two research instruments discussed in section 3.7, the data yielded by my two research instruments are analysed and discussed in the next chapter.

4 DATA ANALYSIS AND DISCUSSION OF RESULTS

4.1 Introduction

This chapter provides a general overview of the respondent profiles and results obtained after following the research design and methodology explained in the previous chapter. As per my quantitative research design, I primarily use statistical analysis to draw the most accurate and objective conclusions possible. Following an overview of the results, I analyse and interpret the data before testing my hypotheses and answering my research question. This chapter concludes with a summary of my main findings and the mapping of my results onto my two theoretical frameworks.

4.2 Results obtained from the learner respondents

4.2.1 Learner respondent profile and overview of results

Tabled below is a breakdown of the number of respondents (n) according to research site, the number of respondents per grade (from grade 8 to grade 11), and other information relating to gender, highest and lowest scores, the mean (average) score and the median score at the 50th percentile (the score at which the same number of respondents achieved scores above and below the median) per research site, grade and gender. A total of 288 learner respondents ($n = 288$) completed the learners' proofreading protocol. As can be seen from Table 6, the mean score per learner for all three research sites and across all four participating grades (i.e. grades 8 to 11, $n = 288$) was 33 out of a maximum score of 52, with the median score of 34 out of 52 (at the 50th percentile) tracking the mean score closely. The close correlation between the mean and median scores (at the 50th percentile) indicates that the results are not skewed towards either the better- or poorer-performing learner respondents. Expressed as percentages, the results represent a mean score of 63.5% ($n = 288$) and a median score of 65.4% ($n = 288$) at the 50th percentile on the learners' proofreading protocol. A total of 85, 92 and 111 respondents completed the proofreading protocol from research sites A, B and C respectively, while there were 79, 75, 77 and 57 respondents from grades 8, 9, 10 and 11 respectively.

The learner respondent profile and overview of results are presented in the following table:

Table 6: Learner respondent profile and overview of results

	Site A (n = 85)				Site B (n = 92)				Site C (n = 111)				Total			
	n	Mean	SD	Median	n	Mean	SD	Median	n	Mean	SD	Median	n	Mean	SD	Median
Grade 8 (n = 79)																
Male	13	67.5%	4.9	67.3%	27	69.8%	5.5	69.2%	6	44.8%	6.2	43.3%	46	60.8%	5.5	59.6%
Female	13	74.6%	3.6	73.1%	0	N/A	N/A	N/A	16	46.2%	7.5	46.2%	29	60.4%	5.5	59.5%
Total grade 8	27*	70.6%	4.6	71.1%	27	69.8%	5.5	69.2%	25	44.6%	7.2	44.2%	79	62.1%	5.1	65.3%
Grade 9 (n = 75)																
Male	7	61.3%	6.3	67.3%	23	68.8%	3.6	69.2%	16	46.9%	4.2	46.2%	46	59.0%	4.7	63.5%
Female	11	68.3%	3.0	69.2%	0	N/A	N/A	N/A	12	56.0%	7.4	53.8%	23	62.1%	5.2	61.3%
Total grade 9	23	67.1%	4.5	69.2%	23	68.8%	3.6	69.2%	29	51.0%	6.0	50.0%	75	61.3%	5.8	63.5%
Grade 10 (n = 77)																
Male	6	72.1%	4.5	69.2%	25	68.1%	7.4	67.3%	9	57.1%	5.6	55.8%	40	65.8%	5.8	63.5%
Female	15	75.2%	6.4	78.8%	0	N/A	N/A	N/A	13	58.3%	7.3	59.6%	28	67.3%	6.9	69.2%
Total grade 10	25	72.9%	5.9	71.1%	25	68.1%	7.4	67.3%	27	55.8%	7.0	57.7%	77	65.2%	7.7	65.3%
Grade 11 (n = 57)																
Male	3	61.5%	3.8	61.5%	17	78.1%	4.8	82.7%	12	59.2%	6.2	53.4%	32	66.3%	3.0	67.3%
Female	7	63.5%	4.9	65.3%	0	N/A	N/A	N/A	17	60.8%	8.3	57.7%	24	62.1%	6.6	61.3%
Total grade 11	10	62.9%	4.5	63.5%	17	78.1%	4.8	82.7%	30	60.4%	7.4	56.7%	57	66.2%	7.4	65.3%
Total per site	85	69.4%	5.2	69.2%	92	70.5%	5.8	69.2%	111	53.3%	7.5	53.8%	288	62.5%	8.1	63.5%
Overall (n = 288)																
Male	26	66.9%	5.4	68.3%	92	70.5%	5.8	69.2%	43	52.3%	6.1	51.9%	161**	65.2%	7.1	67.3%
Female	46	71.5%	5.2	71.2%	0	N/A	N/A	N/A	58	55.2%	8.1	53.4%	104	62.5%	8.1	63.5%
Total	288												288***	63.5%	7.6	65.3%

* Not all totals will add up as some respondents did not indicate their gender.

** As mentioned in Chapter 3, the high percentage of male respondents was as a result of a single-sex boys' school participating in the study.

*** A total of 23 students did not indicate their gender, thus the two totals will not add up to 288.

The highest score attained was 94.2%, with two learners achieving this score. In contrast, the lowest score was 21.2%, with only one learner achieving this score. The range – the difference between the highest (49 out of 52) and lowest (11 out of 52) scores – of 38 indicates a relatively normal data distribution and reveals no unexpected or significant outliers. Only 48 learners (16.7%) scored lower than 50% (25 or fewer correct responses out of 52) for the learners' proofreading protocol, with only 20 learners (6.9%) obtaining less than 40%. The results reveal that on average, four out of five learners (83.3%) scored more than 50% for the learners' proofreading protocol (thus denoting 'proficiency' within the context of this study), while only 16.7% of respondents scored less than 50% for the learners' proofreading protocol (thus denoting 'struggled' within the context of this study). Moreover, a single standard could also not be defined for all four target grades (grades 8 to 11) as it might be expected that the grade 11s would outperform the grade 8s. My research instrument could therefore have been perceived as being 'easy' or 'difficult', with varying perceptions across the four target grades (for example, the grade 11s might have perceived the instrument as being 'easy' while it might have been more challenging for the grade 8s). However, as my research instrument had been designed to test a specific construct (namely to determine whether or not SASSLATS would identify textisms in formal written English), the difficulty rating of the instrument was thus relative and therefore deemed to be irrelevant as long as it tested what it was supposed to measure, which I believe it did as explained in section 3.10.3. Accordingly, the percentages presented in this chapter merely give an indication of attainment, while the Student t-test and a significance level of either 1% ($\alpha = 0.01$) or 5% ($\alpha = 0.05$) were used to analyse my research hypotheses and test the statistical significance between different scores.

Furthermore, Table 6 indicates that the total mean scores of research sites A ($n = 85$) and B ($n = 92$) were 69.4% and 70.5% respectively, while research site C's ($n = 111$) mean score was significantly lower at 53.3%. While the difference between the scores of research sites A and B is not statistically significant at a 95% confidence level ($p < 0.05$), it is statistically significant at an 80% confidence level ($p < 0.2$). However, the differences between the scores of research sites B and C, and A and C are statistically significant at a 99% confidence level ($p < 0.01$). This difference is accordingly statistically significant as although I requested that the research instruments be administered before the close of the third term of 2012, research site C elected only to administer the learners' proofreading protocol in the first quarter of

2013, that is, after the summer holidays of approximately six weeks. The fact that the mean scores of the two research sites who administered the learners' proofreading protocol in the third term of 2012 vary only 1.1% (which is not statistically significant), while the mean score of the research site who administered the learners' proofreading protocol only once the school had reopened in January 2013 varied from the other two research sites by more than 16% (which is statistically significant), is highly significant. As all three research sites were viewed as largely homogenous by virtue of them all meeting the criteria used to select the research sites discussed in section 3.6, they should theoretically have performed similar on the instrument (as was the case for research sites A and B). I am accordingly of the opinion that the significant variance observed between research sites A and B and research site C may be attributed to the long layoff research site C's learners would have had over the summer holidays. Research site C's learners would therefore have been exposed to significantly more textese during the six-week summer holidays than during the normal school year, and to significantly less writing and spelling instruction (most likely none at all) during the summer holidays. My view is therefore that research site C's learners had become more desensitised to textese spelling and writing conventions during the prolonged summer holidays. It is, however, also possible that learners who had just returned from holiday did not take the proofreading protocol seriously and just rushed through it to complete it. Although it was never the intention for research site C to administer the learners' proofreading protocol only in the first quarter of 2013, it has inadvertently provided me with richer data.

4.2.2 Testing my hypotheses

The descriptive statistics for all 288 learner respondents show a relatively standard distribution for my hypothesis test. Before testing my null hypothesis, it is reiterated that the learners' proofreading protocol tested only the ability of SASSLATS to *identify* textisms in a formal writing context, and not their actual *production* of textisms in their own formal writing. Accordingly, as mentioned in Chapter 1, my null hypothesis was formulated as follows:

SASSLATS will struggle to identify textisms in a formal writing context.

Concomitantly, my alternate hypothesis was formulated as follows:

SASSLATS will not struggle to identify textisms in a formal writing context.

The normality of the distribution of the 288 learner respondents' responses allowed me to use the Student t-test to analyse my null hypothesis. The Student t-test resulted in a p-value of $p < 0.0001$ and a t-statistic of 73.6. I decided to use a significance level of 1% ($\alpha = 0.01$) so that I could be 99% confident that my results were statistically significant. In order to obtain a result for my hypothesis test I compared the p-value to the α (0.01). If the p-value is less than α , then I can reject my null hypothesis that SASSLATS will struggle to identify textisms in a formal writing context, while if the p-value is not less than α then I cannot reject my null hypothesis (Gujarati & Porter 2009, pp.128-138). As indicated in Chapter 1, respondents were deemed to have 'struggled' to identify textisms in a formal writing context should they have failed to correct at least 50% of the textisms on the proofreading protocol. The mean score of 63.5% achieved by the 288 learner respondents is statistically significantly different from the 50% baseline measurement (denoting 'proficiency') at a 99% confidence level ($p < 0.01$). I can therefore reject my null hypothesis that SASSLATS will struggle to identify textisms in a formal writing context and I can state statistically that SASSLATS do, in fact, *not* struggle to identify textisms in a formal writing context within the context of 'struggle' and 'proficiency' defined for this inquiry.

With regard to the first of my secondary hypotheses, namely that female SASSLATS will identify more textisms in formal written Standard English than male SASSLATS, the descriptive statistics for the 161 male and 104 female learner respondents show a relatively standard distribution for my hypothesis test. In this regard, studies conducted in the UK and USA have shown that girls consistently score higher in spelling and writing tests than boys (UK Department of Education 2012, p.19, Sadowski 2010, p.10, Twist & Sainsbury 2009, p.283; Horne 2007, p.47, Justice et al. 2005, p.24 Denton & West 2002, p.35). While 23 learner respondents neglected to indicate their gender (thus n in this instance will not add up to 288 but to 265), the mean score for the 161 male respondents ($n = 161$) was 65.2%, with the 104 female respondents ($n = 104$) achieving a mean score of 62.5%. Similarly, the median score for male respondents ($n = 161$) was 67.3% at the 50th percentile and 63.5% at the 50th percentile for female respondents ($n = 104$). The difference between the mean scores attained by the male (65.2%) and female (62.5%) respondents is statistically

significant at a 99% confidence level ($p < 0.01$). I may accordingly reject my secondary hypothesis as the data confirm that female SASSLATS identified fewer textisms in formal written Standard English than male SASSLATS. One possible reason for my finding in this regard could be that female SASSLATS send and receive more text messages than their male counterparts (Faulkner & Culwin 2005, p.183, Massey et al. 2005, p.435). However, I believe it is more likely that this result was due to the single-sex boys' school being extremely strong academically as it consistently produced some of the top academic achievers in the provincial exit examination, both state and independent. This assertion is corroborated by the fact that for the two mixed-gender research sites, the female respondents outperformed the male respondents, thus corroborating the findings of the aforementioned studies. Research site A's male respondents achieved a mean score of 66.9% and its female respondents achieved a mean score of 71.5%, while research site C's male respondents achieved a mean score of 52.3% and its female respondents achieved a mean score of 55.2%. The differences between the scores achieved by research sites A and C's male and female respondents are respectively statistically significant at 99% ($p < 0.01$) and 95% ($p < 0.05$) confidence levels, which would strongly seem to indicate that the overall results were skewed by the relatively higher scores attained by the single-sex boys' school.

The descriptive statistics for the 79 grade 8 learner respondents, 75 grade 9 learner respondents, 77 grade 10 learner respondents and 57 grade 11 learner respondents show a relatively standard distribution for my hypothesis test, namely that secondary school learners will identify more textisms in formal written Standard English as they progress academically from grade 8 to grade 11. Prior to obtaining the results, I had expected to see a slight but consistent improvement in the mean scores achieved by the grade 8 learner respondents to the scores achieved by the grade 11 learner respondents. However, although an improvement is observed in the mean score of 61.3% achieved by the grade 9 respondents ($n = 75$) to the mean score of 65.2% achieved by the grade 10 respondents ($n = 77$) and again to the 66.2% achieved by the grade 11 respondents ($n = 57$), the mean score of the grade 8 respondents ($n = 79$) was marginally higher at 62.1% than the mean score of the grade 9 learners ($n = 75$) at 61.3%. The differences between the scores achieved by the grade 8 and grade 11, the grade 9 and grade 10, and the grade 9 and grade 11 respondents are significant at a 99% confidence level ($p < 0.01$). However, the differences between the scores achieved by the grade 8 and grade 9 respondents, and by the grade 10

and grade 11 respondents are not statistically significant at a 95% confidence level ($p < 0.05$). While my results would therefore seem to suggest that learners generally identified more textisms as they progressed academically, my overall results for this hypothesis test have not reached statistical significance. I have therefore failed to confirm or reject my secondary hypothesis that secondary learners will not necessarily identify more textisms in formal written Standard English as they progress academically from grade 8 to grade 11.

4.2.3 Ten most frequently overlooked and corrected textisms

The ten most frequently overlooked textisms, that is, the ten most 'difficult' textisms to identify as per the 288 learners respondents ($n = 288$) are provided in the following table.

Table 7: Ten most frequently overlooked textisms

Rank	Most-frequently overlooked textisms (category indicated in brackets)	Correct form	Number of correct responses out of 288 (n)	Percentage correct
1	masters (omitted apostrophe)	master's	8	2.8%
2	clearcut (contraction)	clear-cut	23	8%
3	longterm (contraction)	long-term	48	16.7%
4	admin (shortening)	administration	57	19.8%
5	With regard to my personal interest I enjoy... (lack of punctuation)	With regard to my personal interest, I enjoy...	63	21.9%
6	schools (omitted apostrophe)	school's	84	29.2%
7	university of Oxford (lack of capitalisation)	University of Oxford	84	29.2%
8	Bye (informal register)	Yours sincerely	86	29.9%
9	hanging out (informal register)	spending time with	89	30.9%
10	at University of Pretoria (omitted article)	at the University of Pretoria	94	32.6%

The most frequently overlooked textism was only corrected by eight learners (2.8%), while the two contractions 'long-term' (corrected 23 times or by 8% of learner respondents) and 'clear-cut' (corrected 48 times or by 16.7% of learner respondents).

Similarly, the ten most frequently corrected or 'easiest' textisms to identify are provided in Table 8.

Table 8: Ten most frequently corrected textisms

Rank	Most frequently corrected textisms (category indicated in brackets)	Correct form	Number of correct responses out of 288 (<i>n</i>)	Percentage correct
1	skool (non-conventional spelling)	school	282	97.9%
2	hav (other clipping)	have	282	97.9%
3	b (letter/number homophone)	be	282	97.9%
4	wiv (non-conventional spelling)	with	281	97.6%
5	@ (symbol/emoticon)	at	279	96.9%
6	u (letter/number homophone)	you	276	95.8%
7	playin (g-clipping)	playing	273	94.8%
8	4 (letter/number homophone)	for	271	94.1%
9	workin (g-clipping)	working	270	93.8%
10	livin (g-clipping)	living	267	92.7%

More than 90% of the learner respondents ($n = 288$) corrected all ten of the 'easiest' or most frequently corrected textisms. The textisms of 'skool' and 'wiv' (non-conventional spellings), 'hav' (other clipping), 'b' and 'u' (letter homophones), '@' (symbol), '4' (letter homophone) and 'playing', 'workin', and 'livin' (g-clippings) were corrected most often. The mean scores achieved by the learner respondents for the 13 categories of textese use are provided in the next section.

4.2.4 The 13 categories of textese use

The 13 categories of textese use, ranked from the most difficult to the least difficult based on the number of correct responses per category, are reflected in the following table. I reiterate that the proofreading protocol had been populated with four textese errors from each of the thirteen categories of textese use. The table thus reflects the mean correct score out of four for each of the categories. For ease of interpretation, the mean scores are also expressed as percentages.

Table 9: Categories of textese use per mean number of correct responses

Rank	Textism category	<i>n</i>	Mean correct score out of 4	Number of textisms per category	Percentage correct
1	Contractions	288	1.8	4	45.0%
2	Omitted apostrophes	288	2.0	4	50.0%
3	Informal tone/register	288	2.3*	4	56.6%
4	Shortenings	288	2.3*	4	58.3%
5	Lack of punctuation	288	2.4*	4	59.4%
6	Omitted articles	288	2.4*	4	61.1%
7	Lack of capitalisation	288	2.6	4	65.0%
8	Other clippings	288	2.8	4	70.0%
9	Symbols/emoticons	288	3.0	4	75.0%
10	Acronyms/initialisms	288	3.1	4	77.5%
11	G-clippings	288	3.7	4	91.8%
12	Letter/number homophones	288	3.8*	4	94.6%
13	Non-conventional spellings	288	3.8*	4	95.0%

* Percentages will vary due to the rounding of input figures.

Of the 13 categories of textese use, I found that contractions and omitted apostrophes had posed the greatest difficulty to the learners, with the 288 learner respondents ($n = 288$) reflecting a mean score of 45% and 50% textisms respectively corrected out of the total number of four textisms in these two categories. This is not consistent with the findings of Rosen et al. (2010, p.433), who found that a lack of capitalisation was the most prevalent textese-related error, followed by omitted apostrophes. On the other hand, letter and number homophones, and non-conventional spellings posed the least difficulty for the learner respondents, with the mean scores being 95% correct responses out of the four textisms in these two categories. I had expected that the category of informal tone and register would pose significant challenges to the learner respondents. However, although this category was the third most 'difficult' category, the mean percentage of correct learner responses in this category was still 56.6%, thus suggesting that SASSLATS have quite a precise grasp of register.

My results are corroborated by the fact that several learner respondents explicitly indicated that the letter was not formal enough. One respondent stated "Your letter needs to be a formal one. You are not writing to your friend" and, referring to the symbol "@", indicated that there should be "none of this" (respondent B/139 – please

refer to Addendum M). Two others respectively commented “No smiley [emoticon]!!!” (respondent B/141 – please refer to Addendum N) and “DO NOT USE SMILEYS” (respondent B/146 – please refer to Addendum O). Learner respondents appropriately pointed out that the word “cool” constituted slang, reminding the writer to “not use slang” (respondent B/146), while others signed off as “Illiterate Applicant” (respondent B/167), referring to the apparently obvious textese errors in the proofreading protocol. However, the same respondent who indicated that the use of an emoticon was inappropriate in a job application to the Head of Student Affairs at the University of Oxford (respondent B/141) did not deem the opening address of “*Hi Sir/Madam*” or the word “cool” to be inappropriate. Such qualitative results therefore confirm the rejection of my null hypothesis that SASSLATS will struggle to identify textisms in a formal writing context. My results reveal that while SASSLATS do sometimes fail to identify textisms in formal written Standard English, in general they do not struggle to identify such textisms as per the definition of ‘struggle’ applied in this thesis. My results therefore seem to suggest that the concern expressed in the media over the supposedly detrimental effect of textese on English appear to be unfounded as SASSLATS appear to have a rather precise grasp of register. However, I acknowledge fully that I cannot make any strong claims and that my study’s design allows me only to speculate in this regard.

4.2.5 Conspicuous and subtle categories of textese use

Upon closer scrutiny of the categories of textese use and the learner respondents’ mean correct responses to them, I noticed that my 13 categories of textese use could be broken down into two distinct categories, namely ‘conspicuous’ and ‘subtle’ categories of textese. I have therefore grouped the 13 categories of textese into two broad categories according to those categories that are visually more conspicuous and those that are presumably not.

Table 10: Conspicuous and subtle categories of textese

Conspicuous categories of textese		Subtle categories of textese	
Rank	Category	Rank	Category
1	Letter and number homophones	1	Omitted apostrophes
2	Symbols and emoticons	2	Contractions
3	Non-conventional spellings	3	Shortenings
4	Other clippings	4	Lack of punctuation
5	G-clippings	5	Lack of capitalisation
6	Acronyms and initialisms	6	Informal tone and register
		7	Omitted articles

Textisms such as letter and number homophones ('b4', 'l8r', 'c'), symbols and emoticons ('@', '#', '☺'), acronyms and initialisms ('tffn', 'SA'), and non-conventional spellings ('fone', 'skool') are visually more conspicuous than, for example, the subtler textisms such as an omitted apostrophe, a missing punctuation mark or a contraction. When comparing the conspicuous and subtle categories of textese use with the learner respondents' mean scores for each of the 13 categories of textese use, I further noticed that none of the textisms from the subtler categories of a lack of punctuation, contractions (including omitted hyphenation), omitted apostrophes, and shortenings made it onto the list of most frequently corrected textisms.

Learner respondents were highly successful at correcting the more conspicuous categories of textese use of non-conventional spellings, acronyms and initialisms, letter and number homophones, other clippings, g-clippings and symbols and emoticons, achieving a mean score of at least 70% for these categories. For the five conspicuous categories of symbols and emoticons, acronyms and initialisms, g-clippings, letter and number homophones, and non-conventional spellings, the learner respondents corrected at least three of the four (75%) textese errors. However, the more subtle categories of textese use, such as contractions, omitted apostrophes, informal tone and register, shortenings, and a lack of punctuation were observed to pose the greatest challenges to the learners as learner respondents achieved a mean score of less than 60% for these categories. The division between the conspicuous and subtle categories of textese is apparent in the learners' mean scores, with the seven least frequently corrected categories correlating perfectly with the above-listed seven subtler categories of textese, and the six most frequently corrected categories correlating perfectly with the six conspicuous categories of textese mentioned. This suggests that learners are more likely to correct the more conspicuous textisms, and are thus more likely to read over the subtler textisms.

The newspaper articles referred to in Chapter 2 would, when giving examples of textese, invariably refer to letter or number homophones such as 'gr8', 'b4' and '2day' making their way into formal English. The numerous articles almost invariably concluded that these textisms were taking over the English language. However, the results from my study indicate that such conspicuous textisms were the most frequently corrected as the learner respondents corrected the four letter and number homophone textese errors 94.6% of the time. This confirms that SASSLATS most definitely know that textisms are inappropriate in formal writing.

My results regarding the conspicuous and more subtle categories of textese may be related to Drouin and Driver's (2012, p.11) study, who similarly distinguished between 'positive' and 'negative' categories of textese use. Drouin and Driver (ibid.) found that the use of accent stylisation (included under non-conventional spellings in my inquiry) and symbols was positively related to the literacy measures tested (reading, spelling, reading fluency, vocabulary), while the use of omitted apostrophes and omitted capitalisation was negatively related to the literacy measures. My results concur to some degree with those of Drouin and Driver as the learner respondents in my study were more adept at identifying 'positive' textisms such as symbols and non-conventional spellings than 'negative' textisms such as omitted apostrophes and omitted capitalisation.

Although section 4.2 essentially encapsulates the main results of my study and confirms that I have rejected my hypotheses, I created a second research instrument to compare it to the results obtained from the learners' proofreading protocol and thus provide richer data. The results obtained from the teachers' questionnaire are accordingly discussed in the following section.

4.3 Results obtained from the teacher respondents

4.3.1 Teacher respondent profile and overview of results

The following table provides a breakdown of the number of respondents according to research site, grades taught (from grade 8 to grade 11), gender, number of years taught and subjects taught (language or content subjects).

Table 11: Teacher respondent profile

	Site A (n)	Site B (n)	Site C (n)	Total (n)
Respondents	9	10	8	27
Grade 8 teachers*	5	5	4	14
Male	1	1	0	2
Female	4	4	4	12
Grade 9 teachers*	6	5	4	15
Male	1	1	0	2
Female	5	4	4	13
Grade 10 teachers*	8	7	6	21
Male	1	1	1	3
Female	7	6	5	18
Grade 11 teachers*	4	7	4	15
Male	0	2	0	2
Female	4	5	4	13
Total: Male respondents	1	2	1	4
Total: Female respondents	8	8	7	23
Total: Language teachers	4	4	3	11
Total: Content teachers	5	6	5	16
Years spent teaching: 1 to 9 years	3	3	5	11
Years spent teaching: 10 to 21 years	4	1	2	7
Years spent teaching: 21 to 32 years	2	6	1	9

* This number will necessarily exceed the total number of 27 respondents as almost all the teachers taught at least two grades.

As can be observed from the table below, a total of 27 teacher respondents ($n = 27$) from the three research sites participated in the study, including 11 language teachers and 16 content (non-language) teachers. Of the 27 teacher respondents, only 4 were male, with the remaining 23 being female. The respondent who had been teaching the longest had been teaching for 32 years.

4.3.2 Teachers' perspectives on textese and their learners' written work

As mentioned in Chapter 3 regarding the design of the teachers' questionnaire, the teacher respondents were requested to indicate the extent to which they 'agreed' or 'disagreed' with statements regarding how often they saw textisms in their learners' writing, thus providing me with attitudinal data only as the teachers merely indicated their attitudes to and perceptions of textese and their learners' formal written English.

The teachers' responses were grouped into nine categories to answer certain questions. The teacher respondents' responses were then aggregated to reveal a mean score for the relevant question (refer to Addendum P for a breakdown of which statements on the teachers' questionnaire were grouped together and aggregated to answer the nine questions listed in Table 12). The answers to the questions posed are provided in Table 12, but it is again emphasised that the results do not reflect actual data gathered, but rather a *collective opinion* of the teachers who participated in my study. While I was aware that aggregating the data would result in a loss of specificity, I was comfortable with the range of 2.3. Moreover, seeing that the questionnaire employed open-ended questions on a fixed six-point Likert scale, I was comfortable that the impact of outliers on such a relatively small scale would not unduly skew my interpretation of the aggregated results.

It is nevertheless conceded that my choice to use relative words such 'often' makes the data difficult to interpret. In retrospect it is further conceded that my word choice did not make it clear whether teacher respondents should have interpreted 'often' as meaning, for example, every day or every week; 'often' in the work of every student, or 'often' in the work of one or two particular students as these definitions would likely have varied among individual teachers.

Table 12: Attitudinal mean results of teacher respondents

Number	Question	<i>n</i>	Mean score out of 6	SD	Legend (answer)
1	Do teachers actually see examples of textisms in their learners' written work?	27	3.6	0.9	Often (yes)
2	Do teachers think that learners have become desensitised in respect of textisms and therefore add textisms unintentionally and unwittingly?	27	4.3	0.7	Agree (yes)
3	Do teachers think learners distinguish successfully between formal and informal register?	27	3.4	0.8	Agree (yes)
4	Do teachers think that textese has a negative impact on their learners' writing ability?	27	4.4	0.8	Agree (yes)
5	Do teachers think that textese has a negative impact on the English language?	27	4.4	0.8	Agree (yes)
6	Do teachers teach register?	27	4.0	1.3	Often (yes)
7	Have teachers observed a general decline in the quality of learners' written English compared to ten years ago (or since they first started teaching)?	27	4.6	1.0	Strongly agree (definitely)
8	Do teachers think that learners do not take care to proofread their written work for errors?	27	5.0	1.0	Strongly agree (definitely)
9	Are there appropriate interventions available to teachers to address learners' use of textese?	27	3.8	0.6	Agree (yes)

As evidenced by the above results, the 27 teachers indicated that they 'often' saw examples of textisms in their learners' written work. However, as confirmed by the results from the learners' research instrument, teachers were of the opinion that learners distinguished successfully between formal and informal register. In view of my argument around the point of saturation possibly already having been reached, I expected teachers to have observed that their learners did not distinguish successfully between formal and informal register, and that the learners would therefore struggle to identify textisms in formal written Standard English. However, the teachers' observation proved to be accurate as the results from the learners' research instrument rejected my hypothesis that SASSLATS would struggle to identify textisms in formal written Standard English. Nevertheless, teachers agreed that textese had a negative impact on their learners' written English and that learners took less care to proofread their written work for errors. This finding concurs with the findings of Houser (2012, pp.66-69), who although focusing on university students

and their lecturers found that lecturers 'often' observed textisms in their students' formal writing and that 68% of lecturers were of the view that textese negatively influenced their undergraduate students' formal written communication. In my study the 27 teacher respondents 'strongly agreed' with the statements on whether they had observed a general decline in the quality of learners' written English compared to ten years ago (or since they had first started teaching). This might, however, be due to the general inclination to view any language change as being tantamount to language decay as explained in section 3.3.

Crystal (2006c, p.405) notes that most written forms in which textese will naturally occur will not be edited, for example, text messages, instant messages, Internet chats and e-mails. This observation is relevant as one of the questions to teachers was whether they thought learners took less care to edit and proofread work. The mean score of 5.0 out of 6, denoting 'strongly agree', indicates an emphatic 'yes'. As textese evolved due to the need to 'say' more in a shorter period of time, it would accordingly be expected that editing and proofreading textese would be a low priority. It would therefore appear that according to the teachers' responses, this practice of not editing and proofreading work might have spilled over to learners' formal writing, resulting in more negligent errors and what is interpreted by teachers as a general carelessness.

4.3.3 Categories of textese use per teachers' responses

The 13 categories of textese use have been ordered according to all 27 teachers' responses based on which categories they perceived as being the most problematic as per the Likert scale employed. The 27 teacher respondents' mean scores are tabled below and are ordered from the perceived most problematic (or most frequently observed) category of textese use to the perceived least problematic (or least frequently observed) category of textese use. The reason for providing this breakdown was to allow me to compare the teachers' and learners' responses after I had collated the learners' responses to the 13 categories of textese use. It is again reiterated that the teachers were requested to comment on the *frequency* with which they saw *actual examples of textese* in their learners' written work, and thus their responses only represent attitudinal data.

Table 13: Categories of textese use per teachers' responses

Rank	Textism category	<i>n</i>	Mean score out of 6	SD	Legend
1	Lack of punctuation	27	4.2	0.9	Often
2	Contractions, including omitted hyphenation	27	4.0	1.3	Often
3	Omitted apostrophes	27	3.9	1.2	Often
4	Shortenings	27	3.9	1.0	Often
5	Lack of capitalisation	27	3.6	1.0	Often
6	Informal tone and register	27	3.5	1.2	Often
7	Acronyms and initialisms	27	3.4	1.3	Sometimes
8	Non-conventional spellings	27	3.3	1.0	Sometimes
9	G-clippings	27	3.3	1.1	Sometimes
10	Letter and number homophones	27	3.2	1.2	Sometimes
11	Omitted articles	27	3.0	1.2	Sometimes
12	Other clippings	27	2.9	1.0	Sometimes
13	Symbols and emoticons	27	2.7	1.5	Sometimes
	Mean score for all 13 categories	27	3.5	1.1	Often

The teachers' mean score regarding the frequency with which they saw textisms in their learners' writing was 'often'. Moreover, the results concur with my initial discussions with teachers, during which they identified a lack of capitalisation, contractions, omitted apostrophes, shortenings and a lack of capitalisation as the mistakes most frequently noted in their learners' writing. The results also indicate that the teachers 'often' saw a lack of punctuation, contractions (including omitted hyphenation), omitted apostrophes, shortenings, lack of capitalisation, and informal tone and register in their learners' written work, while the remaining seven categories of textese use were 'sometimes' observed.

The fact that symbols and emoticons were the least frequently observed by teachers is significant because as indicated earlier, mobile phones are conducive to creating certain textisms, most notably emoticons, whereas physical writing is not. My postulation that written texts produced by SASSLATS would therefore not necessarily contain certain textisms (such as emoticons) as they are difficult to replicate in physical writing would therefore appear to hold true.

4.3.4 Categories of textese use: language versus content teachers

While I was conducting initial discussions with the teachers at the various research sites, one teacher suggested that learners would focus more on writing ‘correctly’ in language subjects (where form is very important) than in content subjects (where content supersedes form). I therefore added a question on whether the respondents taught languages or content subjects to allow me to compare the two groups’ responses as tabled below:

Table 14: Categories of textese use: language versus content teachers

Rank	Textism category	Language teachers (<i>n</i> = 11): Mean score out of 6	Legend	Content teachers (<i>n</i> = 16): Mean score out of 6	Legend
1	Lack of punctuation	4.5	Almost always	4.0	Often
2	Contractions, including omitted hyphenation	4.4	Often	3.6	Often
3	Omitted apostrophes	4.1	Often	3.8	Often
4	Shortenings	4.1	Often	3.8	Often
5	Lack of capitalisation	3.9	Often	3.4	Sometimes
6	Informal tone and register	3.8	Often	3.3	Sometimes
7	G-clippings	3.3	Sometimes	3.3	Sometimes
8	Non-conventional spellings	3.2	Sometimes	3.4	Sometimes
9	Acronyms and initialisms	3.1	Sometimes	3.6	Often
10	Letter and number homophones	3.1	Sometimes	3.3	Sometimes
11	Omitted articles	2.9	Sometimes	3.1	Sometimes
12	Symbols and emoticons	2.9	Sometimes	2.6	Sometimes
13	Other clippings	2.7	Sometimes	3.0	Sometimes
	Standard deviation	0.7	Standard deviation	0.4	
Mean score for all 13 categories		3.5	Often	3.4	Sometimes

As can be seen from the table, the 11 language teachers' mean score regarding the frequency with which they saw textisms in their learners' formal written English was 3.5 out of 6 (denoting 'often'), while the 16 content teachers' mean score out of 6 was slightly lower at 3.4 (denoting 'sometimes'). While I had anticipated the score to be significantly higher for the content teachers (as learners would be less concerned about *how* they wrote but rather about *what* they wrote), the results may simply reflect that the language teachers were possibly more susceptible to noticing textese errors (as their primary teaching focus is on language) than content teachers and might therefore have perceived learners' use of textisms as being more frequent and more problematic. The difference between the language and content teachers' scores is, however, not statistically significant at a 95% confidence level ($p < 0.05$). Although not conclusive as my statistics have not reached significance, this does suggest that language teachers are more likely to notice textese use in their learners' writing, or that they perceive textese intrusions as being more problematic and accordingly scored them more severely on the teachers' questionnaire than the content teachers.

The results furthermore indicate that a lack of punctuation and the use of contractions were perceived as the most problematic categories of textese use for the language teachers, while a lack of punctuation, omitted apostrophes and shortenings were identified as the most frequently observed categories by the content teachers. The five categories rated higher by the content teachers, namely non-conventional spellings, acronyms and initialisms, letter and number homophones, omitted articles and other clippings all formed part of the more conspicuous categories of textese use and might explain why they were scored higher on the teachers' questionnaire by the content teachers.

4.4 Comparison between learners' and teachers' responses

4.4.1 Comparison of the categories of textese use

A comparison of the teachers' and learners' responses to the 13 categories of textese use is provided in Table 15. The 13 categories are ordered from what the teachers *perceived* to be the most problematic category to the least problematic category, and from the learners' *actual* answers ranked from the most difficult to the least difficult based on the number of correct responses per category. All categories varying more than three positions are in bold and colour coded.

Table 15: Categories of textese: Teachers vs learners

Teachers (<i>n</i> = 27): Perceived most problematic	Rank	Learners (<i>n</i> = 288): Actual most problematic
Lack of punctuation	1	Contractions
Contractions	2	Omitted apostrophes
Omitted apostrophes	3	Informal tone/register
Shortenings	4	Shortenings
Lack of capitalisation	5	Lack of punctuation
Informal tone and register	6	Omitted articles
Acronyms and initialisms	7	Lack of capitalisation
Non-conventional spellings	8	Other clippings
G-clippings	9	Symbols/emoticons
Letter and number homophones	10	Acronyms/initialisms
Omitted articles	11	G-clippings
Other clippings	12	Letter/number homophones
Symbols and emoticons	13	Non-conventional spellings

The teachers indicated that they perceived a lack of punctuation as being the category of textese use most frequently observed in their learners' writing. However, a lack of punctuation was only the fifth most difficult category according to the actual results. This could indicate that the teachers were either particularly sensitive to punctuation errors, or perceived such errors to be made more often than was, in fact, the case. The second discrepancy with regard to the above comparison between the teachers' and the learners' responses is that the teachers indicated that they noted non-conventional spellings quite often. However, on average, the learners correct 95% of the non-conventional spellings in the learners' proofreading protocol. This does not mean that the teachers did not observe non-conventional spellings in their learners' writing, but rather that the learners found it easy to correct these textisms due to their visual prominence. While the teachers' responses generally correlated with those of the learners, it is reiterated that the textisms corrected by the learners in a formal proofreading task are not necessarily indicative of the kinds of textisms they produce in their own messages and formal written work.

4.4.2 Comparison of results with previous empirical studies

The following table compares my results (from both the teachers' and learners' responses) to the 13 categories of textese use in relation to the findings of Geertsema et al. (2011, pp.481-483), who investigated secondary school teachers' perspectives on the impact of textese on learners' written language skills. It needs to be noted that Geertsema et al. only selected data according to eight categories of textese use. Once again, all categories varying more than three positions are in bold.

Table 16: Comparison of Geertsema, Hyman and Van Deventer’s (2011) findings with the teachers’ and learners’ responses

Number	Geertsema et al. (2011): Teachers’ perceived most problematic textism categories	Rank	Teachers (<i>n</i> = 27): Teachers’ perceived most problematic textism categories	Rank	Learners (<i>n</i> = 288): Actual most problematic textism categories
1	Non-conventional spellings	1	Lack of punctuation	1	Contractions
2	G-clippings	2	Contractions	2	Omitted apostrophes
3	Letter homophones	3	Omitted apostrophes	3	Informal tone/register
4	Number homophones	4	Shortenings	4	Shortenings
5	Acronyms and initialisms	5	Lack of capitalisation	5	Lack of punctuation
6	Shortenings	6	Informal tone and register	6	Omitted articles
7	Contractions	7	Acronyms and initialisms	7	Lack of capitalisation
8	Emoticons	8	Non-conventional spellings	8	Other clippings
		9	G-clippings	9	Symbols and emoticons
		10	Letter and number homophones	10	Acronyms and initialisms
		11	Omitted articles	11	G-clippings
		12	Other clippings	12	Letter and number homophones
		13	Symbols and emoticons	13	Non-conventional spellings

As can be observed from Table 16, Geertsema et al. (2011, pp.481-483) found that grade 8 and 9 teachers had found g-clippings, non-conventional spellings, and letter and number homophones to be the most problematic. However, this is almost the *exact opposite* of the actual results of the learners' proofreading protocol, accordingly reiterating the importance of also obtaining data from the learners as without such data the task of making meaningful deductions from the data is that much more difficult (as the teachers' perspectives only provide attitudinal data). The fact that the actual results of the learners' proofreading protocol revealed that the learners corrected 91.8%, 94.6% and 95.0% of the errors in the categories of g-clippings, letter and number homophones, and non-conventional spellings respectively indicates that any further deductions made from the results obtained from Geertsema et al.'s study (2011) would be highly questionable given the fact that their results were neither substantiated nor compared to data obtained from actual learners.

4.5 Discussion and interpretation of results

In Chapter 1 I quantified the opposing concepts of 'struggle' and 'proficient' in the context of my inquiry by indicating that a score of more than 50% on the research instrument would indicate that learners were 'proficient' in terms of identifying textisms in formal written English as it would simplistically indicate that more textisms were corrected than overlooked. By contrast, learners would be deemed to have 'struggled' to identify textisms in a formal writing context if they did not correct more than 50% of the textisms on the research instrument as they would then have 'missed' more textese errors than they corrected. Therefore learners would not be seen to have reached the point of saturation unless they failed to correct more than 50% of textisms on the research instrument. Accordingly, as revealed by my results, my null hypothesis was rejected at a 99.9% confidence level. This essentially means that SASSLATS do, in fact, *not* struggle to identify textisms in a formal writing context as per the aforementioned definition of 'struggle' provided for this inquiry. This statistically significant finding is supported by the fact that the learner respondents, on average, managed to correct two out of three textisms the proofreading protocol had been populated with. I am of the view that a mean score of 63.5% for the learners' proofreading protocol indicate that although SASSLATS do not struggle to identify textisms in formal written Standard English, the role that textese plays as a driver of language change may not be discarded entirely. While my results essentially indicate that the SASSLATS who participated in my study did on average manage to correct an average of two out of every three *textese* errors (not language errors in

general), they nevertheless on average overlooked one in three *textese* errors with which the learners' research instrument had been populated. I am accordingly of the opinion that overlooking one in three *textese* errors still indicates that the SASSLATS used in my study have become desensitised to some extent to identifying certain *textese* errors in formal written Standard English. While it is acknowledged that I cannot make any strong claims about the effects of *textese* on my target population's proofreading ability as their use of and exposure to *textese* were never measured, my results would nevertheless seem to suggest that the concern expressed in the media over the supposedly detrimental effect of *textese* on English appear to be unfounded as SASSLATS appear to have a rather precise grasp of register. However, I acknowledge fully that my study's design allows me only to speculate in this regard. SASSLATS also displayed the ability to distinguish between different registers as they identified two out of three *textisms* (reflecting a mean score of 63.5%) in the proofreading protocol as being inappropriate for the decidedly formal context attributed to the research instrument. It is acknowledged that the proofreading protocol does not reveal anything about the effects of *textese*. It is further conceded that the proofreading protocol could simply be seen as a 'normal' test of proofreading ability (the ability to identify and correct errors that contravene conventional English spelling and grammar).

With regard to the first of my two secondary hypotheses, I posited that female SASSLATS would identify more *textisms* in formal written Standard English than male SASSLATS as research conducted in the UK and the USA revealed that girls consistently outperformed boys in spelling and writing attainment. Although studies have shown that female secondary school learners send and receive more text messages than their male counterparts (Faulkner & Culwin 2005, p.183, Massey et al. 2005, p.435), my results indicate that, on average, the male respondents in my study marginally outperformed their female counterparts in terms of the number of *textisms* identified. Moreover, given that the difference between the scores attained by the male and female respondents is statistically significant at a 99% confidence level ($p < 0.01$), I may accordingly reject my secondary hypothesis as the data confirm that female SASSLATS identified fewer *textisms* in formal written Standard English than male SASSLATS. However, as discussed in section 4.2.4, the overall results were skewed by the relatively higher scores attained by the single-sex boys' school.

In moving to my final secondary hypothesis, based on research conducted in the UK, I posited that SASSLATS would identify more textisms in formal written Standard English as they progress academically from grade 8 to grade 11. However, although an improvement was observed in the mean score achieved by the grade 9 respondents to the mean score achieved by the grade 10 respondents and again to the mean score achieved by the grade 11 respondents, the mean score of the grade 8 respondents was marginally higher than the mean score of the grade 9 learners. However, given that the differences between the scores achieved by the grade 8 and grade 11, the grade 9 and grade 10, and the grade 9 and grade 11 respondents were significant at a 99% confidence level ($p < 0.01$), but the differences between the scores achieved by the grade 8 and grade 9 respondents, and by the grade 10 and grade 11 respondents were not (at a 95% confidence level), my results in this regard did not reach statistical significance and I could therefore neither confirm nor reject this secondary hypothesis.

As mentioned in section 1.9, for the purposes of this inquiry I considered the possibility that the point of saturation might already have been reached by the SASSLATS who participated in my study. While investigating whether the point of saturation had indeed already been reached did not form part of my research scope, the rejection of my null hypothesis at a 99.9% confidence level would seem to suggest that the point of saturation has, in fact, not been reached by SASSLATS as my results would seem to indicate that they retain a precise grasp of register. SASSLATS do not struggle to identify textisms in a formal writing context, which would appear to be contrary to claims by Nadeem et al. (2012, p.1234), Hamzah et al. (2009, p.6), O'Connor (2005, p.2), Brown-Owens et al. (2003, p.17), Lee (2002, p.3) that the point of saturation has already been reached.

4.6 Answering of research question

When I started my study, I shared the popular conviction that textese had infiltrated SASSLATS' formal written English, and that they would therefore have difficulty in determining when the context dictated a more formal register to be used. I had therefore assumed that I would be making a recommendation similar to that of Turner (2009, p.64), who is of the view that:

If teachers and parents can acknowledge that [textese] is indeed appropriate in the digital world that students navigate daily, then perhaps we can see its use in school as a difference, rather than a deficit, and

teach students how to code-switch from this language [textese] that has become part of their primary discourse into the more formal language of school and the larger society.

With regard to answering my research question of what the implications are for formal written Standard English in South Africa in terms of SASSLATS' ability to identify textisms in formal written Standard English: does the fact that the secondary school learner respondents who participated in my study on average failed to *identify* one in three textisms mean that textisms are becoming more acceptable in formal written Standard English? Moreover, does it mean that textese is influencing or infiltrating formal written Standard English, irrespective of how significant this influence or infiltration is? While I accordingly now reject the popular view of textese portrayed in the media, namely that it has a decidedly negative impact on secondary school learners' language usage and that it is infiltrating English language usage at an 'alarming' rate, I am of the view that textese is a driver of language change, although not at the rate and to the extent I had anticipated when I started my study. The fact that the learner respondents identified two out of three textisms in the formal written proofreading protocol weighs more heavily than the fact that they overlooked one in three textisms; however, this nevertheless indicates that the effect of textese on SASSLATS' ability to identify textisms in formal written Standard English and on formal written Standard English in general cannot be denied categorically.

My results suggest that the digital native generation might not have reached the point of saturation and thus retains a precise grasp of context and the relevant register as posited by Crystal (2008c), Thomas and McGee (2012, p.20), and Kasesniemi (2003, p.208). However, through the process of linguistic diffusion explained in Chapter 3, textisms enter the English language as innovations but then gradually reach a point where they become viable lexical options for a significant number of users, as evidenced by the fact that the textisms 'LOL' (laugh out loud), 'IMHO' (in my honest/humble opinion) and 'OMG' (oh my gosh/God), as well as the spelling of 'thru' for 'through', have been included as recognised English words in the Oxford English Dictionary in 2011 (Ionescu 2011, Denison & Hogg 2006, p.37). It has therefore been shown that textese is indeed a driver of language change. While textese could therefore over time result in the informalisation of English, the scope of my study and the limitations of my research instruments prevent me from making any strong claims about textese in relation to the debate of whether textese constitutes language evolution or language decay. I do, however, maintain that textese users today are

able to use textese with the same effectiveness in the interest of communication than English speakers in, for example, Elizabethan England were. I accordingly conclude that while not conclusive, my results would suggest that textese, as a driver of language change, constitutes neither language evolution nor language decay, but simply language change as it is no better or worse at performing the aforementioned primary function of language.

In terms of the implications that textese holds for formal written Standard English, it is reiterated that although language change largely occurs when casual styles of speech become accepted in more formal settings, and not the other way around, it does not necessarily imply that language is becoming increasingly informal (Aitchison 2003, p.739). Although some of the more informal aspects of language use associated with textese are making their way into Standard English via the process of linguistic diffusion, my results indicate that the age responsible for the largest increment of language change still has a precise grasp of register and is able to identify textisms in formal written Standard English with relative ease. It therefore seems likely that the distinction between formal and informal contexts will continue to be made by secondary school learners. While the more informal contexts of English are certainly affected by textese, it would appear that secondary school learners possess sufficient ability to code-switch depending on the context. This suggests that although informal language in the form of textisms might over time make their way into formal written Standard English, such inclusions will not make its way into formal written Standard English any faster than through the normal process of linguistic diffusion. Textese's effect on English is therefore not particularly pronounced, and this effect should certainly not be treated with undue suspicion.

In generalising my findings to a wider population, I posited in Chapter 1 that although the target age group in South Africa, the USA and the UK with English first-language proficiency was not homogenous in terms of their textese *usage* (i.e. their actual *production* of textese) due to different accents and dialects, their ability to *identify* textisms (irrespective of accent or dialect) in a formal writing context would be similar. I conceded that there would be differences between the textese used by secondary school learners with English first-language proficiency in the USA, the UK and South Africa (and other English-speaking countries), and most likely even between the textese used in various regions of the same country. However, as my proofreading protocol focused on my target population's ability to *identify* textisms, I posited that respondents with similar socio-economic backgrounds and English first-language

proficiency in my target age group across the world would be similarly proficient in *identifying* textisms in a formal writing context. I thus assumed that the texting behaviour of my target population across the globe would be largely similar as English remained the base language, and it could not be modified too drastically irrespective of accent or dialect for fear of becoming unintelligible. I thus posited that my proofreading protocol could be used with similar success within an equivalent American, British or similar English secondary school context with respondents of the same age, background and English first-language proficiency. While my proofreading protocol was not administered to respondents in my target population outside South Africa, or even outside Gauteng, based on the above I believe my findings may be somewhat generalised to a wider population due to the reasons elucidated in section 1.8.1. Although my research question only considered textese in relation to the implications for formal written Standard English in South Africa, I believe that globally my target population should retain a precise grasp of register. Textese globally should thus also not pose a threat to Standard English as textisms are unlikely to be absorbed into Standard English at a faster pace than the normal process of linguistic diffusion.

4.7 Main findings

The main findings of my inquiry are listed below. It is conceded that given my regrettable decision not to obtain data on respondents' exposure to, and actual use of, textese I cannot draw any truly definitive conclusions. The first three findings relate to my null and secondary hypotheses, while the fourth and fifth findings relate to my research question. The last two findings were not explicitly included in my scope but my results have allowed me to draw certain additional conclusions as listed:

1. Although no definitive conclusions can be drawn, my results seem to suggest that the concern expressed in the media over the supposedly detrimental effect of textese on English appear to be unfounded as SASSLATS appear to have a rather precise grasp of register.
2. My results suggest that SASSLATS have, in fact, not reached the point of saturation as they seem to have a precise grasp of register given that they recognise textisms in formal written English.
3. Male SASSLATS identified more textisms in the proofreading protocol than female SASSLATS, and SASSLATS did not consistently identify more textisms as they progressed academically from grade 8 to grade 11.

4. While no definitive claims can be made, my results suggest that textese does not currently pose a threat to Standard English in South Africa as it merely reveals English's remarkable ability to adapt to the ever-changing demands and needs of its users.
5. Although certain textisms have already become part of Standard English, the absorption of textese into Standard English is unlikely to occur at a faster pace than the normal process of linguistic diffusion.
6. Modern English is not more 'evolved' than Middle or Old English as it is no better at fulfilling language's primary function of conveying meaning and facilitating communication. Textese users are thus able to use textese with the same effectiveness than English speakers in, for example, Elizabethan England were. Textese therefore constitutes neither language evolution nor language decay, but simply language change.
7. Textisms naturally fall into two groups, namely conspicuous and subtle categories of textese. SASSLATS are more adept at identifying the conspicuous categories of textese use.

4.8 Mapping of results onto theoretical frameworks

In the previous chapter I explained that my inquiry was best framed by two distinct theoretical frameworks. I justified why I had elected register theory to argue that the distinction between when the use of textisms was appropriate or inappropriate was not as clear for the digital native generation than for the digital immigrant generation. I accordingly postulated that SASSLATS would not have a precise grasp of register and would therefore be inclined to read over the textisms with which my proofreading protocol had been populated. I had therefore identified register theory in order to test my null hypothesis. The statistical modelling presented in this chapter, however, rejected my null hypothesis at the 99.9% confidence level as the SASSLATS who participated in my study did, in fact, not struggle to identify textisms in a formal writing context.

My second theoretical framework expounded upon in the previous chapter was historical linguistics. I argued that all living languages, including English, were constantly changing and that textese was a driver of language change. In answering my research question, I considered the possibility that textese, as a potential driver of language change, might over time lead to the gradual informalisation of specifically

formal written English. Therefore (1) register theory was used to test my null hypothesis; and (2) historical linguistics was used to answer my research question.

4.9 Rasch analysis

As indicated in section 3.11, seeing that the proofreading protocol was untested and in order to gain further insights into it and its use, I analysed the data by applying the Rasch measurement model to my data. The approach followed in this regard and the results of this analysis are presented in the next chapter.

4.10 Conclusion

This chapter provided a description of the learner and teacher respondents' profiles as well as a discussion of the results obtained after following the research methodology explained in Chapter 3. Statistical analysis was used to interpret the data, whereafter my null and secondary hypotheses were tested. Finally, this chapter concluded with the answering of my research question and the mapping of my results onto my two theoretical frameworks discussed in Chapter 3. The next chapter provides a general overview of the Rasch measurement model and its mathematical underpinnings, details the approach followed in this regard and presents the results of the Rasch analysis. The sixth and final chapter provides an overview of the study, reflects on its shortcomings, highlights the contribution of my inquiry to the body of knowledge, considers the findings in relation to the implications they hold for the classroom and identifies areas for further research.

5 RASCH ANALYSIS

5.1 Introduction and methodology

When constructing an assessment tool, it is imperative to ensure that the results will provide consistent (i.e. reliable) and meaningful (i.e. valid) data for making interpretations and drawing conclusions (Bradley & Sampson 2006, p.24). Accordingly, in view of the fact that the proofreading protocol is an original conception that would benefit from a rigorous approach to both validity and reliability, I applied further statistical techniques to verify the instrument's validity and therefore inform the further use of the instrument and support the inferences that can be made from the results (Messick 1989, pp.29-34). To this end, and as for reasons explained below, the Rasch measurement model was deemed to be the most appropriate theoretical and empirical tool to achieve this objective. Named after the Danish mathematician Georg Rasch, Rasch analysis essentially operationalises the formal axioms that underpin measurement (Perline, Wright & Wainer 1979, p.241). Moreover, Rasch analysis provides the opportunity to examine the extent to which the responses from a scale (a set of items; in this instance the 52 items on the proofreading protocol) approach the requirements to satisfy the axioms, and thus provide reliable measurement (Tennant & Conaghan 2007, p.1358).

The Rasch model may be classified as an 'item response theory' model, which is particularly useful in assessing performance and achievement across groups in which not all respondents need to respond to all items (Andrich 2004, p.7). The Rasch model is therefore particularly suitable to analysing the data from the proofreading protocol used in this study, as the respondents would not have responded to every single error embedded in the instrument although responding to each of the errors was the objective and instruction. The design of the instrument was such that only those errors that were identified could be answered (see section 3.7 for a more detailed discussion of the design of the instrument). Moreover, as explained in greater detail in Chapter 1, the proofreading protocol was designed to test a construct, namely 'the ability to identify textisms in formal written English', in the target population (i.e. SASSLATS). The hypothesis is that there is a fairly unidimensional construct (i.e. a line of enquiry) that has been identified. In support of this requirement, Bond and Fox (2001, p.38) state "good tests have, as their basis, a very clear and explicit understanding concerning the line of inquiry the test is trying to put into practice". This 'line of inquiry' is essentially the "construct, dimension or

concept to be measured by the assessment; [and] such assessments are said to have construct validity” (Bradley & Sampson 2006, p.26). In the case of this study, the line of enquiry is to determine whether the target audience of SASSLATS are proficient at identifying textisms in formal written English, with ‘proficient’ being defined in section 1.5.

In this chapter the hypothesis that the proofreading protocol satisfies the criterion of ‘construct validity’ is explored through the application of the Rasch model to the data obtained from the proofreading protocol. With regard to reliability, Rasch measurement plots person ability and item difficulty along a common linear scale through log transformations of the number of correct responses over the number of incorrect responses. These estimates may be used to calculate means and variances (Bradley & Sampson 2006, p.25). Unlike classical test theory, “Rasch measurement produces a standard error for *each* person and item, specifying the range within which each person’s ‘true’ ability and each item’s ‘true’ difficulty fall” (ibid.). Furthermore, the Rasch analysis will provide information on whether the items on an instrument are working consistently with each other, and whether in totality the test items are able to separate respondents according to their individual ability along a single continuum.

With regard to reconciling Rasch measurement with my research hypothesis, as indicated in section 1.5, the null hypothesis of my inquiry was that SASSLATS would struggle to identify textisms in a formal writing context, with the concept of ‘struggle’ being defined for the purposes of this study as respondents failing to identify at least 50% of the textisms on the proofreading protocol. Similarly, respondents would be deemed to be ‘proficient’ in terms of identifying textisms in formal written English should they identify more than 50% of the textese errors (as it would simply denote that more textisms were corrected than overlooked). In relating my wider null hypothesis to what the Rasch model might reveal about my data and, in turn, my proofreading protocol, the Rasch model would need to answer the following three questions satisfactorily (adapted from Bradley & Sampson 2006, pp.26-27):

1. How well are the items distributed along the continuum (i.e. the ‘proficiency in recognising textisms in formal written English’ variable)?
2. How well is the test targeted in relation to the ability of the respondents?
3. Are the items (relating to the identification of textese errors) functioning as expected?

These three questions will be answered by discussing (a) the person-item map and person-item distribution, (b) the overall targeting of the items on the proofreading protocol as measured by the Rasch model, and (c) how well the items on the proofreading protocol fit the Rasch model's expectations. These questions will be answered in sections 5.2, 5.3 and 5.4 respectively. However, a more detailed overview of the theory and mathematical underpinnings of the Rasch model is provided first, followed by a discussion of how the Rasch model was applied specifically in the context of this inquiry.

According to Rasch (1960, p.18), "we can never know with certainty how a pupil will react to a problem, but we may say whether he [or she] has a good or a poor chance of solving it". The Rasch probabilistic model therefore determines that the probability of a correct answer is governed by only two parameters, namely (a) the respondent's ability, and (b) the item's difficulty (Panayiotis, Robinson & Tymms 2009, p.7).¹ The Rasch model thus aims to construct a workable mathematical form of the data-point curve by aligning the parameters (person ability and item difficulty) through their difference (person ability minus item difficulty); the probability of a successful response ranges between 0 and 1 (Wright & Stone 1979, p.15). The relationship of items to respondent ability along the continuum (i.e. the scale of measurement) is such that when a respondent is located at the same level as the item, he/she has a 50% probability of answering the item correctly. The equation determining this relationship is described below.

For respondent (v) and item (i), the probability of a correct response is governed by:

$$P\{x_{vi} = 1 | \beta_v, \delta_i\} = \frac{e^{(\beta_v - \delta_i)}}{1 + e^{(\beta_v - \delta_i)}}$$

Equation 1

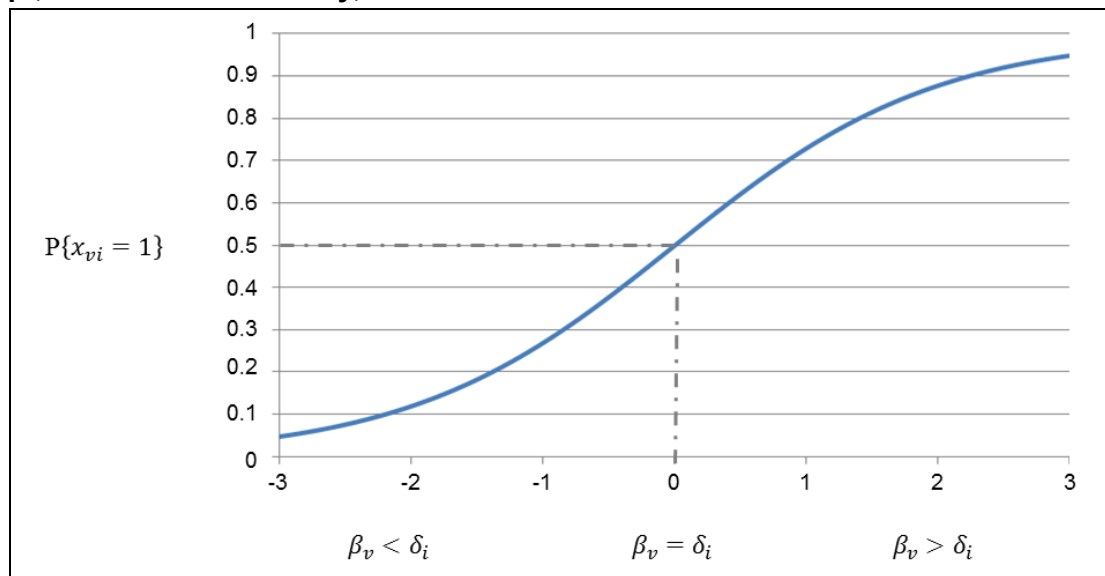
The left-hand side of the equation is read as "the probability of [respondent] v being correct on item i given the [respondent's] ability, β_v , and the item's difficulty, δ_i " (Andrich 2006, p.63). When the respondent's ability is equal to the item difficulty, then the right-hand side reads $e^{(\beta_v - \delta_i)} = 1$.² The right-hand side is therefore read as equalling $\frac{1}{2}$ when an item's difficulty and the respondent's ability or proficiency are

¹ Crucially, the Rasch approach is the only one that uses the raw score as the sufficient statistic for estimating item difficulty and respondent ability (i.e. the sufficient statistic for estimating respondent ability is the sum or count of the correct responses for a person over all items) (Panayiotis, Robinson & Tymms 2009, p.7). However, this sufficient statistic is assured retrospectively when the data fit the model.

² $e^{(\beta_v - \delta_i)} = 1$ is the value set by the Rasch model.

aligned on the scale. The probability calculated in Equation 1 is graphically represented by the item characteristic curve (Figure 13) and displays how the probability of achieving a score on an item depends on the difference between respondent ability and item difficulty (Sjaastad 2014, p.215).

Figure 13: Probability of success given $(\beta_v - \delta_i)$ for persons of varying ability, β_v , on item with difficulty, δ_i



The horizontal axis in Figure 13 above represents person location (i.e. respondent ability), with the probability of a correct response located on the vertical axis. The horizontal axis is measured in logits and indicates person ability, while the vertical axis is measured in percentage to indicate the probability of a person with a given ability (measured in logits) giving a correct response. The blue line in Figure 13 is the item characteristic curve and represents the probability with which respondents with varying ability will provide a correct response, as predicted by the Rasch model. For example, if a person with 0 logit ability (represented by the dashed line) is tested, he/she should theoretically have a 50% chance of giving a correct response on an item of this difficulty. At the extreme right-hand side of the scale, however, a person with 3 logit ability (i.e. high ability) would have an almost 100% chance of getting the item correct. Contrastingly, at the extreme left-hand side of the scale, a person with -3 logit ability would have an almost 0% chance of getting this item correct. The probability of answering correctly will differ with items of greater or lesser difficulty. Therefore, expressed in mathematical terms, the dashed lines illustrate how item difficulties are defined by means of the item characteristic curve, which represents the probability that a person (v), with given ability (β_v), responds correctly to an item (i) with difficulty level (δ_i). Thus, any person will have a 50% chance of achieving a

correct response to an item whose difficulty level is at the same location as the person's ability level. Similarly, if an item difficulty is above a person's ability location, then the person has a less than 50% chance of obtaining a correct response on that item, while for an item whose difficulty level is below that of the person's ability, the person would have a greater than 50% chance of producing the correct response (Long, Bansilal & Debba 2014, p.5). It is reiterated that the blue line in Figure 13 presents the ideal item characteristic curve showing where respondent ability and the probability of a correct response intersects. Once the data have been analysed by the Rasch model, items and persons that do not function as expected by the Rasch model will be identified. Such misfitting items will later be discussed and reasons given why they did not quite behave as predicted by the Rasch model.

In moving to a discussion of how the Rasch model was applied specifically in the context of this inquiry, it may be noted that the same mark sheets³ initially used for the 288 learner respondents were used as input to the Rasch model. The scores attained by each of the 288 learner respondents on each of the 52 items on the proofreading protocol were initially recorded as either '0' (overlooked) or '1' (corrected) or '2' ('other' or 'partially correct', e.g. the respondent identified the textism but failed to correct it appropriately). However, for the purpose of categorising learners' responses as having either been 'overlooked' or 'corrected', all instances where learners failed to correct the textese error appropriately were coded as 'overlooked' as they might have marked 'corrections' on the instrument at random. Moreover, given that the brief on the proofreading protocol to respondents was to correct any errors they might find, this coding convention was retained for the purposes of Rasch analysis (i.e. all responses were marked as either '0' [incorrect or overlooked] or '1' [correct or corrected]).⁴ Each respondent's captured responses according to the assigned categories of '0' (overlooked) and '1' (corrected) were then added across the 52 items to give each person a total score as calculated by the Rasch model. The Rasch analysis then produced certain outputs, including the person-item map and person-item distribution, the overall targeting of the items on the proofreading protocol, and provided information on how well the items on the proofreading protocol fit the Rasch model's expectations. Importantly, given that the

³ Refer to section 3.10 for a detailed discussion of the original data capturing, processing and verification procedure.

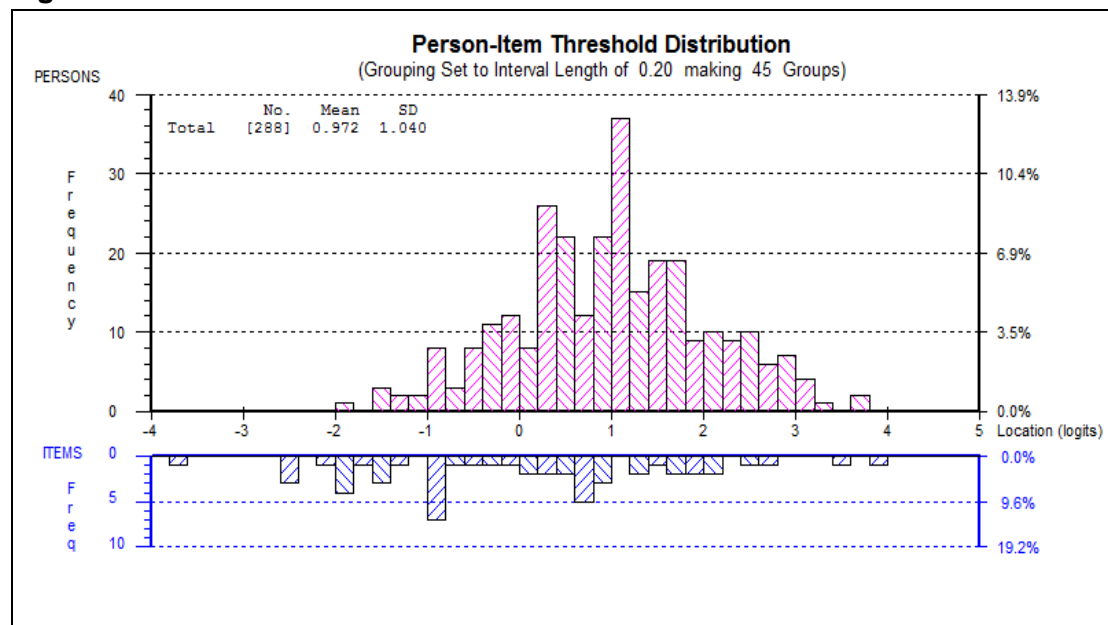
⁴ As mentioned in section 3.10.1, the possibility of coding 'distractors' (i.e. partially correct responses) on their own (i.e. as distinct from the relatively narrow confines of 'correct' or 'incorrect') as per Andrich's (2008) recommendation is discussed under section 6.5 as a potential area for future study.

Rasch model expects the data to conform to the measurement principles, the model will highlight any anomalies for further investigation (Long, Bansilal & Debba 2014, p.3). These outputs of the Rasch model are discussed in the following sections.

5.2 Person-item distribution and person-item map

A defining characteristic of the Rasch model is that the difficulty of items is located on the same scale (i.e. a common continuum) as the ability of the persons attempting those items because the construct of interest (in this case SASSLATS' ability to identify textisms in formal written English) underpins both the design of the items and the proficiency of respondents (Long, Bansilal & Debba 2014, p.4). The distribution of persons and items along this scale is presented in the person-item threshold distribution (Figure 14), an output of the RUMM software (Andrich, Sheridan & Luo 2010). The person-item threshold distribution shows the locations of both item difficulty (the lower graph) and estimated respondent proficiency (the upper graph) on the same scale after applying the Rasch model to the data. The units on the Rasch scale are called 'logits' (log-odds transformation or log units), and the raw scores of both item difficulty and respondent proficiency are transformed through an iterative process and aligned on the common scale (Andrich & Marais 2009, p.8).

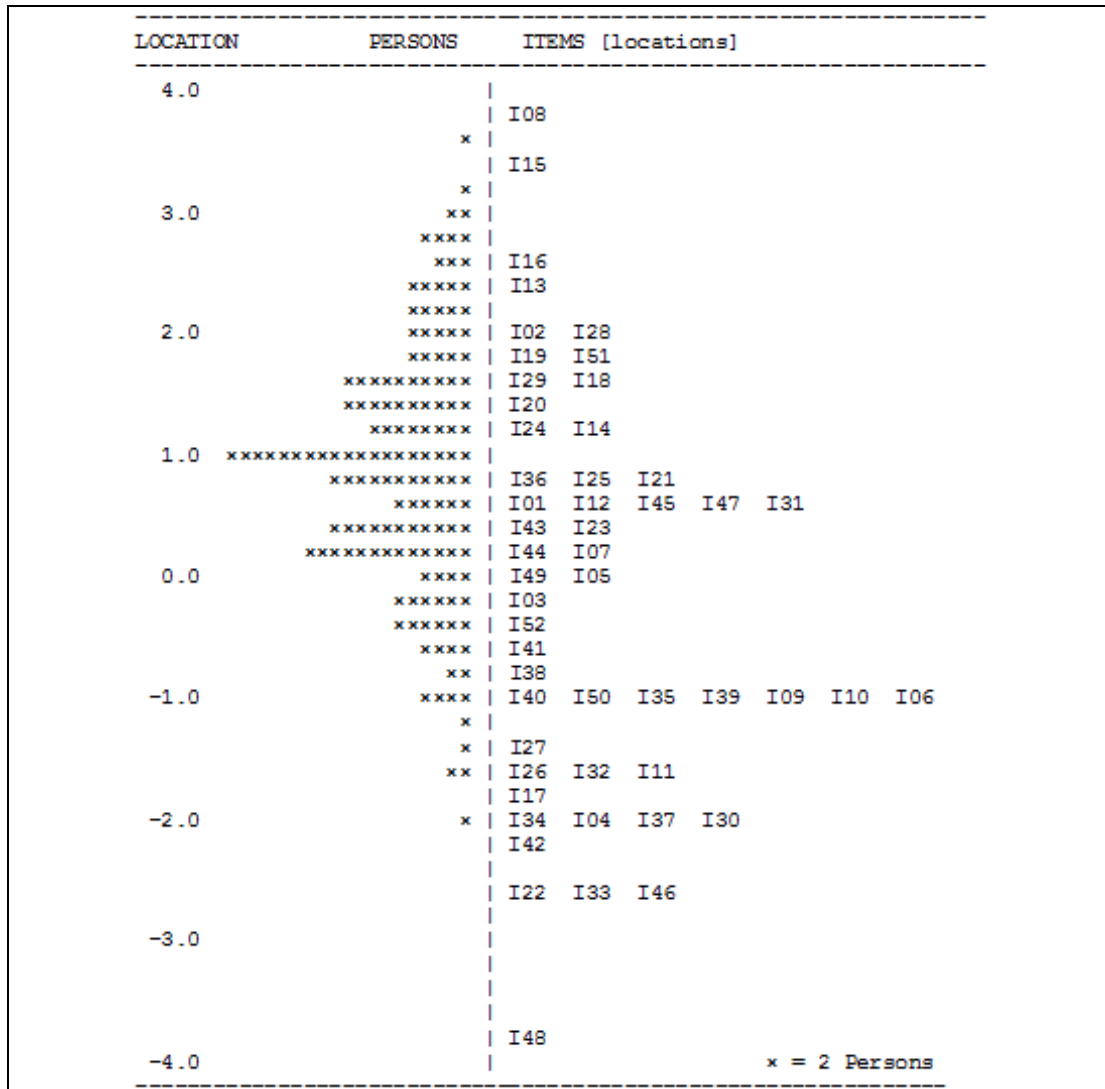
Figure 14: Person-item threshold distribution



The person-item map presented in Figure 15 is equivalent to the person-item threshold distribution (Figure 14). The person-item map is essentially a rudimentary histogram with items arranged on the right of the dashed vertical line in the middle

from relatively easy at the bottom to relatively difficult at the top. Similarly, on the left-hand side of the vertical dashed line respondent proficiency is arranged from relatively low proficiency at the bottom to higher proficiency at the top. As with Figure 14, item difficulty is calibrated in relation to the item mean reference (i.e. zero). Person proficiency is then estimated in relation to item difficulty. For full details see Andrich (1988) and Dunne et al. (2012).

Figure 15: Person-item map



The 'I-coded' items on the right reflect the specific items on the proofreading protocol (e.g. 'I08' indicates item 8). It may further be observed item 8, item 15, item 16 and item 13 are at the difficult end of the continuum, while item 48, item 22 and item 33 are at the easier end of the continuum. The location values of these items essentially indicate the level of difficulty of an item relative to the respondent cohort. Negative

values indicate the relatively less challenging items, while positive values indicate relatively more difficult items for the respondent cohort as a whole. The item locations (difficulty range) of the 'easiest' and most 'difficult' items are tabled and discussed below.

Table 17: Item location values

Item number	Error (correct form in brackets)	Item location value
48	Letter/number homophone ('b' for 'be')	-3.658
22	Other clipping ('hav' for 'have')	-2.505
33	Symbol/emoticon ('@' for 'at')	-2.503
13	Shortening ('admin' for 'administration')	+2.550
16	Contraction ('longterm' for 'long-term')	+2.700
15	Contraction ('clearcut' for 'clear-cut')	+3.431
8	Omitted apostrophe ('masters' for 'master's')	+3.899

Seven of the fifty-two items on the proofreading protocol may be singled out as they represent the range of the instrument (i.e. the most and least difficult items on the instrument). As may be observed from Table 17, item 8 (omitted apostrophe; item location value +3.899), item 15 (contraction; item location value +3.431), item 16 (contraction; item location value +2.700) and item 13 (shortening; item location value +2.550) are at the difficult end of the continuum, while item 48 (letter homophone; item location value -3.658), item 22 (other clipping; item location value -2.505) and item 33 (symbol; item location value -2.503) are at the easier end of the continuum.

A possible reason for item 8 (omitted apostrophe – 'masters' for 'master's'), item 15 (omitted hyphenation – 'clearcut' for 'clear-cut'), item 16 (omitted hyphenation – 'longterm' for 'long-term') and item 13 (shortening – 'admin' for 'administration') being of relatively greater difficulty might be because these errors are not exclusively attributable to textese, but might simply be language items with which many people struggle. Given the ongoing elimination of hyphens and apostrophes (Stainton 2002, p.63), it is clear that many people struggle with the rules governing the use of these items despite them being taught at school. The arguably complex grammatical rules governing the use of, for example, the apostrophe could also contribute to more widely experienced difficulties with these items. Failure by the learner respondents to identify an omitted apostrophe or hyphen might then be attributed to a combination of the items simply being particularly challenging and them not being sufficiently

textese-related. With regard to ‘administration’, this item might have been relatively difficult because it is seldom used in its full form in spoken English. Respondents may thus have found ‘admin’ acceptable in a formal writing context.

At the other end of the continuum, items 48 (letter homophone – ‘b’ for ‘be’), 22 (other clipping – ‘hav’ for ‘have’) and 33 (symbol – ‘@’ for ‘at’) were at the easier end of the spectrum for respondents. Reasons for item 48 being relatively the easiest item to identify could be that even though it is a letter homophone (‘b’ for ‘be’), it was presented as a single-letter word in the proofreading protocol. Conventional knowledge of English spelling would suggest few words only have one letter (as is the case with ‘b’ for ‘be’), and therefore this item might have been relatively very easy for the selected respondents.⁵ Respondents could therefore immediately have identified the use of a single consonant as inappropriate. For item 22 (other clipping – ‘hav’ for ‘have’), it may be argued that the carefully selected respondents would, due to their implicit knowledge of English, know that few (indeed if any) English words end on a ‘v’. The presumed implausibility of such a word could therefore have attracted closer scrutiny by respondents, thus leading to this item being relatively very easy. With regard to item 33 (symbol – ‘@’ for ‘at’), it is possible that the visual element of the symbol may have been the reason why respondents successfully identified this textism.

In view of the above, it may be noted that the four most challenging items all came from the more subtle categories of textese,⁶ while the three least challenging items all came from the more conspicuous categories. This finding further supports the analysis and findings in Chapter 4, which showed that the respondents were more adept at identifying items from the conspicuous categories of textese.

As the proofreading protocol was designed to provide information on both individual items and the 13 categories of textese, the item location value per category of textese is presented in Table 18.

⁵ Refer to section 3.6 for a detailed discussion of how the respondents were selected.

⁶ Refer to section 4.2.5 for a detailed discussion in this regard.

Table 18: Item location value per category of textese ordered from least to greatest difficulty

Item numbers comprising textese category	Name of textese category	Item location value per category of textese
48, 37, 11 and 46	Letter/number homophones	-2.349
17, 4, 30 and 27	Non-conventional spellings	-1.714
10, 42, 34 and 26	G-clippings	-1.589
31, 33, 52 and 50	Symbols/emoticons	-0.752
38, 32, 41 and 3	Acronyms/initialisms	-0.738
36, 9, 39 and 2	Lack of capitalisation	+0.303
12, 22, 40 and 45	Other clippings	+0.485
13, 6, 47 and 43	Shortenings	+0.732
23, 5, 19 and 14	Omitted article	+0.995
51, 1, 21 and 29	Informal tone/register	+1.276
28, 24, 7 and 20	Lack of punctuation	+1.276
8, 18, 49 and 44	Omitted apostrophes	+1.520
25, 35, 15 and 16	Contractions	+1.525

While there are no particularly ‘easy’ or ‘difficult’ categories as a whole, the most significant outlier in the table above is the category of ‘letter/number homophones’ (with an item location value of -2.349 for this category of a whole). The relative ease with which the respondent cohort as a whole identified textisms containing letter or number homophones may be attributed to respondents having implicit knowledge that numbers and single consonant words do not form part of the English lexicon. The conspicuous nature of these textisms might also have contributed to the respondent cohort as a whole not struggling to identify these textisms.

Furthermore, while not correlating perfectly with the conspicuous vs subtle categories of textese identified following the conventional statistical analysis of the data revealed in Chapter 4, the output of the Rasch model would seem to provide empirical support for the claim that the conspicuous categories of textese (i.e. letter and number homophones, symbols and emoticons, non-conventional spellings, other clippings, g-clippings, and acronyms and initialisms) were generally easier for the respondents to identify. Similarly, again while not correlating perfectly with the findings detailed in Chapter 4, the more subtle categories of textese were apparently more difficult to identify for respondents.

The overall targeting measured in terms of both the Rasch model and the Lexile framework is discussed in the next section.

5.3 Overall targeting in terms of the Rasch model and the Lexile framework

The summary statistics of the Rasch analysis are tabled below:

Table 19: Rasch analysis summary statistics

Total item chi-square	382.074	Item mean	0.0000
Degrees of freedom	208	Item standard deviation	1.672
Chi-square probability	0.0	Person mean	0.972
Person separation index	0.866	Person standard deviation	1.040

The summary statistics tabled above (Table 19) indicate a high total item chi-square and a low chi-square probability. This finding indicates some lack of fit to the model,⁷ perhaps indicating multidimensionality or response dependency. The person-separation index indicates good spread across the continuum and high reliability. The person-item threshold distribution and the person-item map, presented in Figures 14 and 15 respectively, show the test to be fairly well targeted to the respondent proficiency, with the person location mean (0.972) somewhat above the item location mean of zero (as set by the Rasch model). The 1.040 standard deviation (SD) of respondent locations is marginally higher than the expected 1.00, while the item SD of 1.672 is somewhat larger than the ideal around 1. This mean location and SDs imply that the proofreading instrument was found to be relatively easy for the respondent cohort as a whole.

While a person mean closer to zero and an SD of around 1 are generally thought to provide greater precision about the instrument and the respondents, there are exceptions depending on the purpose of the instrument. One such an exception is the Lexile framework, which is used in the testing of reading skills.⁸ Lexile Theory holds that we use various symbol systems, such as language, music and mathematics, to communicate, and that all symbol systems share two common features: a semantic component and a syntactic component (Stenner & Burdick 1997, p.9). In language, the semantic units are words, which are organised according to the rules of syntax into sentences and units of thought (Carver 1974, p.252). Moreover, across different texts the semantic units will vary in familiarity, while the

⁷ Further iterations of the Rasch analysis were conducted after removing misfitting items, with subtest analyses being attempted. The conclusion was that the test was good enough for its intended purpose and that further Rasch analyses were not necessary.

⁸ While numerous other measures of reading skill and text readability exist, such as the Flesch–Kincaid and the Dale–Chall readability formulas, the Gunning Fog Index and the Fry Readability Graph, the Lexile framework was deemed to be the most appropriate as it matches students with appropriate texts. The Lexile framework will therefore indicate whether the readability of the proofreading protocol is appropriate for the target population of SASSLATS given their academic levels.

syntactic structures will vary in complexity – the comprehensibility or difficulty of a text is therefore determined by the familiarity of the semantic units and by the complexity of the syntactic structures used in constructing the message (Stenner & Burdick 1997, p.10). To measure the familiarity and complexity of a text, the Lexile Analyser provides a useful scale to provide a text's Lexile measure. The Lexile Analyser essentially allows measurements for all persons and all texts to be reported in a common unit called a 'Lexile' (Stenner & Burdick 1997, p.14). The Lexile framework is therefore a scientific way of matching readers with texts on the same scale (ibid.). The higher the Lexile measure for a text, the more difficult the material is to read and the greater the reading ability required to comprehend the text. The Lexile scale runs from below 0 Lexile (L) to above 2000L, although there is not an explicit bottom or top to the scale (White & Clement 2001, p.49). To contextualise, Dr Seuss's *The Cat in the Hat* has a lexile measure of 260L (i.e. an easy-reading text), while Boccaccio's *The Decameron* measures 1500L (i.e. quite difficult to read) (Lexile 2013, pp.2&6). The central idea of the Lexile framework is that when a person is reading with 75% comprehension, they are reading at optimal reading capacity. The process then assesses a person's level of reading comprehension and accordingly calculates the Lexile value of texts they can read with 75% comprehension (White & Clement 2001, p.3). Individuals reading within their Lexile ranges (100L below to 50L above their Lexile reader measures) are likely to comprehend approximately 75% of the text. This 'targeted reading' rate is the point at which a reader will comprehend enough to understand the text but will also face some reading challenge. The result is growth in reading ability and a rewarding reading experience (Lexile 2013, p.1). To this end, the Lexile Map provides examples of popular books and sample texts that are matched to various points on the Lexile scale, from 200L for emergent reader text to 1600L for more advanced texts (ibid.).

Having run my proofreading protocol through the Lexile Analyser both with the textese errors and after having corrected them, it measured 1200L (with the textese errors) and 1070L (after correcting the textese errors) respectively. It is important to note that the Lexile measure is, in fact, higher rather than lower for the text with the textese errors than with the textisms corrected. Moreover, to further contextualise the scores of 1070L to 1200L, it may be noted that classics such as *The Great Gatsby* (1070L), *David Copperfield* (1070L), *Pride and Prejudice* (1100L), *A Portrait of the Artist as a Young Man* (1120L), *Northanger Abbey* (1120L), *Catch-22* (1140L), *Animal Farm* (1170L) and *War and Peace* (1200L) all fall within this Lexile range.

In relating the Lexile measures of corrected and uncorrected proofreading protocol to the reading ability of the four target grades used in this inquiry (i.e. grades 8 to 11), it may be noted that the “Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science and Technical Subjects” is an American convention that uses the Lexile framework to plot standard reading proficiency measures for English first language speakers and in schools where English is the medium of instruction for each grade from pre-school to the end of high school (CCSS 2012, p.8). Similar to South Africa’s grading system, where learners are required to complete school grades from grade R (the school-readiness year) to grade 12 (the last year of secondary school), the American system ranges from grade K (kindergarten year) to grade 12. Both the South African and American schooling systems thus have 13 grades. Based on this correlation, and for the purpose of defining a Lexile range for the four target grades used in this inquiry (i.e. grades 8 to 11), the Lexile ranges used in America will be adopted and applied to the South African context. The Lexile ranges as per the “Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science and Technical Subjects” are tabled below:

Table 20: Adopted lexile ranges for the various target grades

Grade	Lexile range
6 – 8	955L – 1155L
9 – 10	1080L – 1305L
11 – 12	1215L – 1355L

As the grades are grouped together, it is assumed that the higher grade in a grouping would correlate more with the upper end of the given Lexile range. Accordingly, the corrected proofreading protocol, with a Lexile measure of 1070L, would then have been appropriately targeted or slightly difficult for the grade 8 respondents as the Lexile framework allows for some deviation from readers’ actual Lexile measures (100L below to 50L above the actual Lexile measure) as a compromise between understanding the text and still facing some reading challenge. For the grade 9 and 10 respondents, however, the Lexile measure of the proofreading protocol correlates almost perfectly with the recommended Lexile range for these grades. With the permissible deviation of 100L below to 50L above readers’ actual Lexile measures, the instrument was most appropriately targeted for grades 9 and 10. Given that the Lexile range for grades 11 and 12 starts at 1215L, the corrected proofreading protocol was targeted slightly below the recommended Lexile range for grade 11

learners (i.e. not quite sufficiently challenging). It would therefore appear that the corrected proofreading protocol was found more difficult by grade 8 respondents, appropriately targeted for grade 9 and 10 respondents, and slightly easy for grade 11 respondents. However, with the uncorrected proofreading protocol (the one that respondents were required to complete), the Lexile measure of 1200L means that the instrument was appropriately targeted for grade 11 respondents, quite challenging for grade 9 and 10 respondents, and very challenging for grade 8 respondents. It is, however, reiterated that the Lexile framework uses a 75% pivot, while the Rasch analysis uses a 50% pivot. Accordingly, while the person location mean of 0.972 as per the Rasch analysis is somewhat higher than the zero expected by the model (and therefore suggests that the proofreading protocol was not quite sufficiently challenging for the target population as a whole), the respective Lexile measures of 1200L and 1070L for the uncorrected and corrected proofreading protocol suggest that the proofreading protocol was appropriately targeted for the four target grades (i.e. grades 8 to 11) as a whole. As a result, it would seem that while the proofreading protocol was relatively well targeted with the 50% pivot used by the Rasch model, the targeting of the proofreading protocol at the 75% pivot used by the Lexile framework is more appropriate.

It has thus been shown that while the Rasch analysis pivoted around the 50% mark (i.e. the item-learner alignment is at the point where a learner has a 50% probability of getting the item correct), the Lexile framework pivots around 75% (i.e. the item-learner alignment is at the point where a learner has a 75% chance of getting the item correct). According to the Lexile framework, the proofreading protocol was therefore appropriately targeted to provide maximum information.

5.4 Item fit

As explained in greater detail in section 1.2, close scrutiny of the relevant literature allowed for the 13 categories of textese (made up of 4 items each, making 52 items in total) to be identified. The identified categories and accompanying items are essentially operationalisations of the theory drawn from the literature on the use of textese. Moreover, the construct of 'functioning as expected' in the context of the Rasch model means that each of the items elicited responses in accordance with the test as a whole (Bradley & Sampson 2006, pp.27-32). In general, when an item does not fit the Rasch model it suggests that the item may have been formulated unclearly, may contain material that is outside the construct to be measured, or the respondent

may have guessed the answer (Bradley & Sampson 2006, p.27). In the case of this inquiry, the first two criteria do not apply as the items on the proofreading protocol relate to text recognition; however, the Rasch model will be useful in determining whether each item differs from the other items in some respects, and differs from the test functioning as a whole.

It is further important to note that in a Rasch analysis test of 'fit' to the model, the total group of respondents is placed into class intervals or 'cohorts' of approximately equal size. For this study five class intervals were used. The mean ability of each of the five class intervals becomes the horizontal co-ordinate of points in the item characteristic curve, depicting the probability of that particular class interval answering a particular item correctly. Where the data conform to the model, the predicted item characteristic curve and the observed proportions of each of the five class intervals will be in alignment (Long, Bansilal & Debba 2014, p.8). Accordingly, where the theoretical item characteristic curve and the observed proportions of each of the five class intervals are in alignment, it is assumed that the data fit to the model. Contrastingly, however, where the theoretical item characteristic curve and the observed proportions of each of the five class intervals deviate substantially, it indicates some kind of misfit between the data and the expected outcome of the Rasch model (ibid.). While it is therefore expected that the items will work well and fit the Rasch model, it may nevertheless be observed that some items are highlighted as problematic by the Rasch analysis (ibid.). There are four broad categorisations that describe how the five class intervals might relate to the theoretical expectation, namely fairly good fit, under-discrimination, over-discrimination and haphazard misfit (Long, Bansilal & Debba 2014, p.5). Accordingly, given that it is expected that the data will fit the Rasch model, only the items that did not fit the model's expected outcomes by either over-discriminating, under-discriminating or haphazardly misfitting are presented in Table 21.

Table 21: Rasch item misfit

Item number	Error (correct form in brackets)	Rasch item fit residual
24	Lack of punctuation (full stop)	-2.838
52	Symbol/emoticon (no emoticon to be added)	-2.775
12	Other clipping (business)	+2.872
45	Other clipping (will)	+4.723

The items with the greatest positive fit residuals (i.e. the most under-discriminating) in the proofreading protocol were items 45 ('wil' – other clipping) and 12 ('busines' – other clipping), with fit residuals of +4.723 and +2.872 respectively. Contrastingly, the items with the greatest negative fit residuals (i.e. the most over-discriminating) in the proofreading protocol were items 24 (omitted full stop) and 52 (emoticon added), with fit residuals of -2.838 and -2.775 respectively. These four items are discussed below by referring to their item characteristic curves in relation to the five class intervals (respondent cohorts grouped together according to their estimated ability).

The mean scores of the five class intervals (as calculated by the Rasch model), illustrated by the five black dots in Figures 16 to 19, are plotted together with the item characteristic curve for the four misfitting items. The two over-discriminating items (i.e. items 24 and 52) are discussed first, followed by the under-discriminating item (item 12) and the haphazardly misfitting item (item 45).

Figure 16: Item characteristic curve for item 24

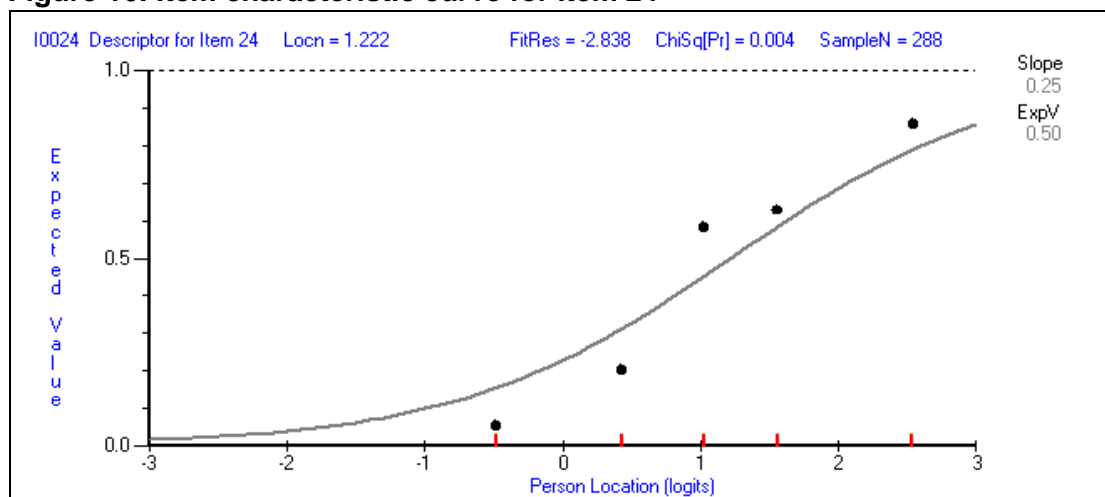
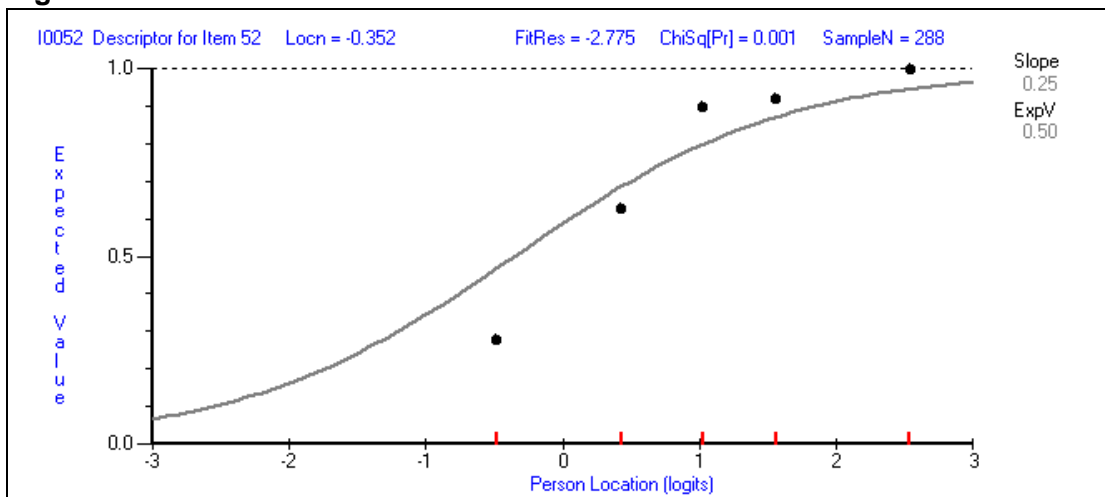


Figure 17: Item characteristic curve for item 52

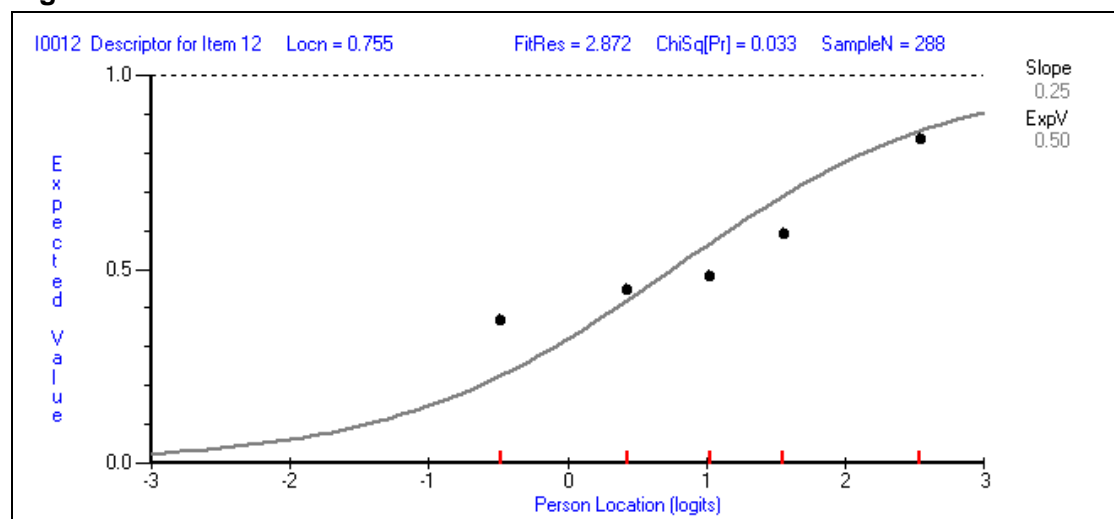


Over-discrimination means that the item separates respondents according to the latent variable, but more sharply than is expected by the Rasch model (Sjaastad 2014, p.222). Accordingly, as may be observed from Figures 16 and 17, the two class intervals (respondent cohorts with the lowest estimated ability) are represented by the two black dots on the left, while the three black dots on the right represent the class intervals with the greatest estimated ability. The reason why these two items are over-discriminating is because respondents with lesser ability according to the Rasch model (i.e. the two black dots on the left below the curve) performed worse than predicted by the Rasch model, while respondents with greater ability (i.e. the three black dots on the right above the curve) performed better than predicted.

A reason for the over-discrimination of item 24 (omitted full stop) – a relatively difficult item – could be that respondents with higher ability as predicted by the Rasch model might have instinctively known a pause was required at that point in the sentence (and thus identified the omitted full stop), coupled with fewer students of lower ability identifying the omitted punctuation as it was a relatively difficult item. With regard to item 52 (emoticon added), the over-discrimination could be attributed to respondents of lower ability adjudging the emoticon at the end of the proofreading protocol to be perfectly acceptable in formal writing, while respondents with greater ability, owing to their more acute sense of distinction between formal and informal contexts, more easily identified the inappropriateness of the emoticon at the end of the proofreading protocol than predicted by the Rasch model.

The under-discriminating item (item 12) is discussed below in relation to its item characteristic curve.

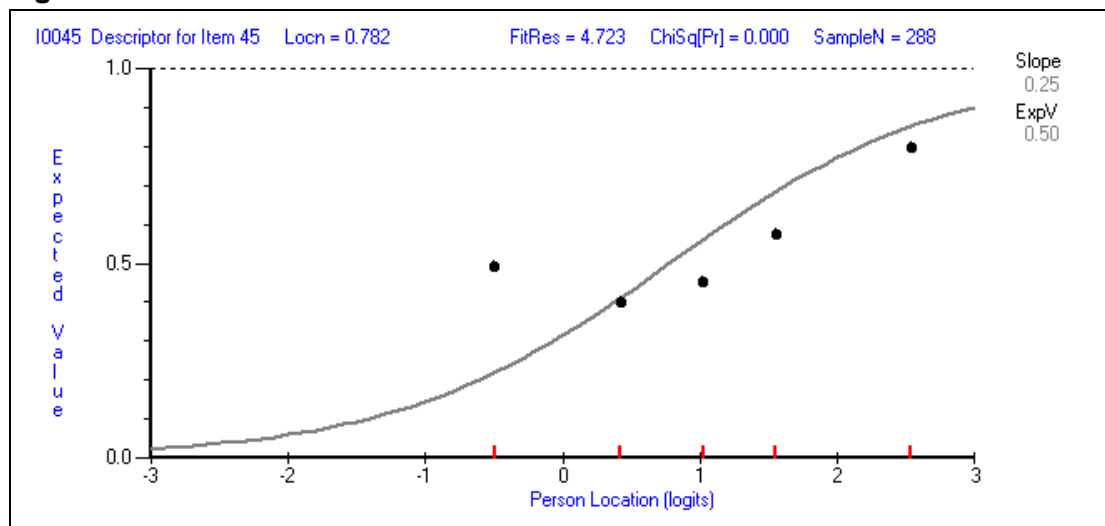
Figure 18: Item characteristic curve for item 12



Under-discrimination occurs when the observed values do not increase as much as the increase in ability would suggest (Sjaastad 2014, p.222). In contrast to over-discriminating items, for under-discriminating items respondents with lesser ability perform better than expected by the Rasch model, while respondents with greater ability perform worse than expected. As may be observed from Figure 18, the two class intervals with the lowest predicted ability (represented by the two black dots on the left) were more successful at identifying this item, while respondents with the highest ability (represented by the three black dots on the right) were less successful at identifying this item. With regard to the under-discriminating item (item 12; 'busines' for 'business'), it may be noted that it comes from the 'other clippings' category of textese. One reason for this is that respondents with lesser estimated ability might read letter for letter (and were therefore more successful at identifying the missing 's' in 'busines'), while respondents with greater predicted ability might have read what there *should* be, and not what there actually is. Respondents with greater estimated ability might then simply have read too quickly through the proofreading protocol and thus have failed to identify these textisms as often as predicted by the Rasch model.

The haphazardly misfitting item (item 45) is discussed below in relation to its item characteristic curve.

Figure 19: Item characteristic curve for item 45



With regard to the haphazardly misfitting item (item 45; 'wil' for 'will'), it may be noted that it, like item 12, comes from the 'other clippings' category. As may be observed from Figure 19, respondents with the lowest ability (i.e. in the lowest class interval; depicted by the black dot most to the left) were more successful at identifying this

textism than both the third and fourth lowest class intervals. This item is therefore haphazardly misfitting as there is no clear pattern between which of the five class intervals over-fit and which under-fit (as one cohort performed better than predicted by the Rasch model and the other four worse than predicted). Similar to the under-discriminating item (item 12; 'busines' for 'business') discussed above, one reason for this haphazardly misfitting item could be that respondents with lower predicted ability might read letter for letter (and were therefore more successful at identifying the missing 'l' in 'wil'), while respondents with greater predicted ability might read what there should be rather than what there actually is.

5.5 Conclusion

In relating the results of the Rasch measurement to my null hypothesis, namely that SASSLATS would struggle to identify textisms in a formal writing context, it may be noted that the person location mean of 0.972 suggests that the proofreading was relatively easy for the ability of the group of learner respondents as a whole. This conclusion is based on the 50% pivot (i.e. the alignment of an item with a respondent is based on a 50% probability of answering correctly). However, based on the 75% pivot (i.e. the alignment of an item with a respondent is based on a 75% probability of answering correctly) used by the Lexile Analyser, the instrument is well targeted and able to provide fairly accurate measures.

The reasoning above is further confirmed when considering that the uncorrected and corrected texts used in the proofreading protocol measured 1200L and 1070L respectively on the Lexile framework. It would therefore appear that the proofreading protocol was, in fact, appropriately targeted compared to the "Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science and Technical Subjects" for the target grades (i.e. grades 8 to 11) employed in this inquiry. Furthermore, given the fact that the learner respondent cohort as a whole found the proofreading protocol relatively easy despite it being appropriately targeted in terms of the Lexile framework for the selected target grades, my null hypothesis may be rejected in the strongest terms as SASSLATS do, in fact, not struggle to identify textisms in formal written English. This finding is consistent with the findings of the conventional statistical analysis performed and explained in greater detail in Chapter 4. In view of the above, the Rasch analysis essentially validated my proofreading protocol, showing it to be appropriately targeted to respondent ability.

As mentioned in section 5.1, the original transcription of data did not allow for partially correct responses due to the reasons explained in section 3.10.1. However, Andrich (2008, p.4) argues that responses he terms ‘distractors’ or partially correct responses should be coded on their own as a separate category to provide richer data. Andrich (ibid.) further argues that close analysis of the response process to such items suggests that not all distractors function in the same way, and that some may contain information relevant to the assessment. A closer analysis of each item and the respondents’ answers would therefore show whether indeed more information could be gleaned from some of the items. I have noted Andrich’s recommendation in this regard and the possibility of re-analysing the data to allow for partially correct responses is mentioned in section 6.5 as an area of future study.

The Rasch analysis therefore essentially validated my proofreading protocol, answering the three questions posed at the beginning of this chapter by confirming that (a) the items on the proofreading protocol were distributed appropriately along the continuum (i.e. the ‘proficiency in recognising textisms in formal written English’ variable); (b) the proofreading protocol was appropriately targeted in relation to the ability of the respondents, particularly in terms of the 75% pivot employed by the Lexile Analyser; and (c) with the exception of only four items, all the items ‘fitted’ the Rasch model (i.e. functioned as expected by the Rasch model).

6 IMPLICATIONS AND RECOMMENDATIONS

6.1 Overview of study

In Chapter 1 I showed that textese used linguistic processes that had been around from at least the early nineteenth century and that textese was therefore not 'new'. After providing a comprehensive introduction to the phenomenon of textese, its origins and its characteristics in the first chapter, Chapter 2 considered the difference between how textese was viewed by the digital native and digital immigrant generations. SASSLATS would therefore, at least in my view, struggle to identify textisms in a formal writing context because they were so used to seeing them in informal writing contexts. I further showed that although textese was a medium of communication expressed in written guise, the processes used to create such communiqués were decidedly more akin to those associated with talking. Chapter 2 further revealed how the portrayal of textese in the media shaped public opinion on the topic before studies relevant to my inquiry were considered critically. Based on a critical review of the relevant literature and the different approaches to collecting data, Chapter 2 also identified the main findings and limitations of previous studies and identified the gaps that my inquiry aimed to fill.

Chapter 3 justified why my inquiry was best framed by two distinct theoretical frameworks: I explained that I had identified register theory to test my research hypothesis, and historical linguistics to answer my research question. Register theory was resultantly used in Chapter 3 to argue that due to their frequent exposure to and use of textese, SASSLATS would not have a precise grasp of register and would therefore struggle to identify textisms in formal written Standard English. My third chapter also provided detailed information about the research sites, respondents and the data collection procedure followed.

Chapter 4 first provided a general overview of the respondent profiles and results obtained after following the research methodology explained in Chapter 3. I then analysed and interpreted the data before testing my null and secondary hypotheses. My null hypothesis was accordingly rejected at a 99.9% confidence level, meaning that SASSLATS in the urban Pretoria region did, in fact, *not* struggle to identify textisms in a formal writing context. My results thus indicated that the concern over textese expressed in the media was most likely unfounded as SASSLATS seemingly retained a precise grasp of register.

In Chapter 4 I also answered my research question of what the implications were for formal written Standard English in South Africa in terms of SASSLATS' ability to identify textisms in formal written Standard English. I explained that through the process of linguistic diffusion elucidated in Chapter 3, textisms entered the English language as innovations but then gradually reached a point where they became viable lexical options for a significant number of users. I further indicated that my results suggested that textese should not pose a threat to Standard English as textisms were unlikely to be absorbed into Standard English faster than through the normal process of linguistic diffusion. Moreover, I generalised my findings to claim that contemporary Standard English globally was not more evolved in the pre-Darwinian sense of the term than, for example, Old English was as it fulfilled its primary function just as effectively. My results therefore indicated that textese was indeed a driver of language change. This finding was considered within the debate of whether textese, as driver of language change, constituted language evolution or language decay. In this regard, it was concluded that textese, as a driver of language change, was neither language evolution nor language decay, but simply language change as textese was no better or worse at performing the primary function of language, namely that of facilitating communication, than the English of, for example, Shakespeare had been.

Chapter 5 reported on the data analysis after applying the Rasch measurement model, in terms of which respondent proficiency was plotted in relation to item difficulty. The results obtained following the Rasch analysis corroborated some of the findings discussed in Chapter 4, specifically the finding that SASSLATS are more proficient at identifying textisms from the conspicuous categories of textese, and struggle relatively more to identify textisms from the more subtle categories of textese. The Rasch analysis essentially validated my proofreading protocol, confirming that it was appropriately targeted for the target audience and their respective grades (i.e. grades 8 to 11) in terms of the Lexile framework, although the results of the Rasch analysis, using the model's 50% probability, suggested that the proofreading protocol as a whole was relatively easy given the ability of the entire learner respondent cohort to identify textisms in formal written English. Accordingly, the fact that the learner respondent cohort as a whole found the proofreading protocol relatively easy is countered by the fact that it was appropriately targeted in terms of the Lexile framework for the selected target grades. Therefore the results of the Rasch analysis support my initial finding that my null hypothesis may be rejected

as SASSLATS do, in fact, not struggle to identify textisms in formal written English. This finding is consistent with the findings of the conventional statistical analysis performed in Chapter 4.

The Rasch analysis conducted in Chapter 5 thus validated my proofreading protocol by confirming that the items on the proofreading protocol were distributed appropriately along the continuum; the proofreading protocol was appropriately targeted in relation to the ability of the respondents; and with the exception of four items, all the items 'fitted' the Rasch model.

6.2 Methodological limitations

It is reiterated that the objective of the study was not to investigate whether there is a direct causal relationship between textese (and the use thereof) and respondents' ability to identify textisms, but simply to investigate whether or not the target population of SASSLATS would struggle to identify textisms from the 13 categories of textese as drawn from the relevant literature. Nevertheless, in retrospect the following assumptions should have been asked directly of respondents rather than being assumed so that this information can be presented as a finding rather than an assumption:

- Respondents own, or have ready access to, a mobile phone.
- Respondents can use these phones as often as they please.
- Respondents can identify textisms even if they do not use them.
- Respondents are proficient in English, even if it is not their first language.
- Respondents write text messages in English.

As acknowledged in Chapter 1, the fact that I did not obtain the above information directly from respondents, but rather made bold assumptions, remains the single greatest limitation of my inquiry. Furthermore, although the scope of my research was only to investigate SASSLATS' ability to identify textisms in formal written Standard English, obtaining actual writing samples produced by learners would have allowed me to compare the 13 categories of textese use in terms of actual textese errors produced by the SASSLATS versus the textisms overlooked in my proofreading protocol. While my initial scope included analysis of actual writing samples produced by SASSLATS, I later decided to focus on the results obtained from my two research instruments. As acknowledged in Chapter 1, my decision in this regard is one of the limitations of the inquiry as assessing actual writing samples

would have strengthened the thesis and findings significantly. Similarly, in retrospect my decision not to sit in while the learner respondents completed the research instrument was the wrong one as sitting in would have allowed me to observe first hand their reaction and attitude to completing the proofreading protocol.

While I remain of the view that using two research instruments provided me with richer data as I could compare the responses received from the teacher respondents with those of the learner respondents, in retrospect an initial lack of focus meant that I now cannot draw strong conclusions or make definitive claims based on my results. Instead of adding the 30 questions to answer the additional 9 questions listed in Addendum P, in hindsight my inquiry could have been strengthened by employing the proofreading protocol with the 13 categories of textese, the teachers' questionnaire to obtain their views on the 13 categories, and then compared the results with learners' actual and self-reported use of the same 13 categories of textese. The statements and questions used in the teachers' questionnaire were not focused enough, which meant that I sometimes had to use as few as seven respondents' responses to obtain a view on a particular aspect. Using simply questions and statements relating to the 13 categories of textese use and comparing the teachers' responses with those of the learners would possibly have been more useful. In addition, the relatively small number of teacher respondents ($n = 27$) in relation to the large number of learner respondents ($n = 288$) resulted in a teacher-to-learner ratio of approximately 10:1. Therefore comparing the data of two such groups varying in size so significantly proved challenging. Using a larger number of teachers would potentially have overcome this challenge.

The data I collected were also concurrent, meaning the data were broadly collected at the same point in time. It therefore only provides a snapshot of my target population's attainment on my research instruments at a specific point in time rather than of their literacy development over an extended period. This limitation was also raised by Wood et al. (2014a, p.33) and is therefore discussed under possible further research under point 6.5.

6.3 Contribution of inquiry to the existing body of knowledge

As far as I know, no previous study has yet considered secondary school learners' ability to identify textisms in formal written Standard English, and not by employing a proofreading protocol. The main contribution my study has thus made to the existing body of knowledge is the design and successful application of a proofreading

protocol populated with relevant and plausible examples of actual textese use. In addition, to the best of my knowledge no study has yet investigated SASSLATS' ability to identify textisms in a formal writing context. I have shown that SASSLATS will not struggle to identify textisms in formal written Standard English. My results thus suggest that the point of saturation has, in fact, not been reached by SASSLATS, which would appear to be contrary to claims by Nadeem et al. (2012, p.1234), Hamzah et al. (2009, p.6), O'Connor (2005, p.2), Brown-Owens et al. (2003, p.17) and Lee (2002, p.3). However, as this did not explicitly form part of my research scope, I highlight this as a potential area for further research in section 6.5.

Furthermore, it has been shown that digital platforms lend themselves to producing textisms such as emoticons, while paper-based writing does not, thus explaining why previous studies, for example those by Freudenberg (2009), Baron (2008), Massey et al. (2005) and Thurlow and Brown (2003), found actual textism use in writing samples produced by secondary school learners to be quite low. This result accordingly gives credence to my decision to use a proofreading protocol which had been produced on a digital word processor to ascertain whether SASSLATS would struggle to identify textisms in formal written Standard English. I have also found that textisms naturally fall into two distinct categories, namely conspicuous and subtle textisms. I have also shown that SASSLATS are more adept at identifying textisms that are more conspicuous.

My results concur with those of Jacobs (2008, p.209) as I agree that textism 'errors' should rather be viewed as 'miscues' as although secondary school learners know the use of textisms is decidedly inappropriate in formal writing, they might sometimes fail to identify textese errors in formal written Standard English. Moreover, although my results support Mohapatra and Bose's (2010, pp.138-139) suggestion that learners should be made aware of the different registers available when making decisions about writing, my results indicate that SASSLATS in general retain a satisfactory grasp of register to discredit media claims that textese is ruining the formality of formal written English.

In view of my results, I also agree with the findings of Drouin and Davis (2009, p.63), who believe it is unlikely that textese abbreviations such as 'you' ('u') or 'great' ('gr8') will lead to a deterioration of performance in standardised literacy tests. My findings also support Drouin and Davis's (ibid.) claim that it is unlikely that a decline in

performance will be seen immediately. Although I assumed this at the outset, I confirmed that secondary school learners can read textese with relative ease as per Drouin and Davis's (ibid.) findings.

Furthermore, as explained in section 3.9, I do not suggest that my research instruments were standardised; however, I do believe that my instruments might be refined to become standardised instruments as the wide variation in data collection approaches and research instruments used emphasises the need for standardised instruments to be used as per Wood et al.'s (2014a, p.93) recommendation. Moreover, as one of the main shortcomings of my inquiry was a benchmark against which I could compare my results, I believe that I have provided a reference point for future studies.

Finally, the Rasch analysis conducted in Chapter 5 firstly validated the use of a proofreading protocol in testing SASSLATS' ability to identify textisms in formal written English, and secondly showed that the Rasch measurement model may be successfully used to analyse the data obtained from a textese identification proofreading protocol. This results of this analysis further raises the question of whether when applying the Rasch model to reading texts the pivot would be 75% rather than the generally accepted 50%.

6.4 Implications for the classroom

My results indicate that the SASSLATS who participated in my study, and possibly secondary school learners with similar backgrounds globally do, in fact, have a precise grasp of register and will not struggle to identify textisms in a formal writing context. Teachers should, however, continue to sensitise secondary school learners about the fact that different registers exist as all language teachers indicated that they taught register. Learners therefore should, on a continual basis, be reminded that while there are certain contexts where the use of textese is completely appropriate, such as when communicating with friends on online platforms and messaging applications ('apps') such as BlackBerry Messenger and WhatsApp, there are other contexts where a formal register might be required and where any use of textese will therefore be decidedly inappropriate.

It is further recommended that teachers should encourage learners to explore the linguistically creative spelling and writing conventions associated with textese, but reiterate that such conventions should remain in the informal sphere of language use.

Therefore, “using [textese] as an example of code-switching may acknowledge the legitimacy of the language while bringing its use to the conscious level, where students can choose to use it or not, depending on the context” (Turner 2009, p.61). It might therefore be useful to include exercises in which students might be instructed to ‘condense’ a passage into a 160-character message to encourage the creative use of language and highlight the dynamic qualities of English by exploring non-conventional spellings and language use while at the same time alerting learners to the appropriateness thereof given the context.

I believe that the use of cellular- and computer-mediated technology in the classroom should be promoted rather than discouraged. For example, similar to a competition run by the *Guardian* in 2002 for the best poem written in textese (Crystal 2008a, p.13), teachers could periodically specifically brief learners to write a very short ‘essay’ in textese on a given topic, but then limit the maximum number of characters to a single SMS (160 characters). Learners could even be requested to submit the ‘assignment’ or ‘essay’ directly to the teacher’s mobile phone, or to a web-based cellular platform designed for this purpose. Similarly, the use of e-mail could be used every so often so that learners can become accustomed to using electronic communication channels and devices to submit academic assignments, thus reinforcing the idea that even though the assignment is being completed electronically, a formal, academic register still needs to be maintained when using the electronic device. This should aid teachers in sensitising learners to the fact that cellular and computer technology is not strictly to be associated with informal communication and an informal register, but that context, and not the device used, should dictate the level of formality and the concomitant register required. This will further sensitise learners to the dynamic nature of language in relation to technology and teenage fads. The use of cellular- or computer-mediated communication is, however, pivotal in achieving such objectives.

In addition, based on the results of the teachers’ questionnaire relating to teachers’ perceived observance of learners’ proofreading habits (in terms of which teachers ‘strongly agreed’ that learners did not take sufficient care to proofread written work for errors), I recommend that the editing and proofreading of learners’ written work should receive greater focus in the classroom. After a formal writing exercise or even creative writing test, it might prove useful to allow time specifically for learners to

proofread their written work should any textese (or indeed any other unintended) error have made its way into the final product.

Finally, it should be noted that my results indicate that learners still retain a precise grasp of register and therefore do not struggle to identify textisms in a formal writing context. Accordingly, no drastic intervention is justified based on the results of my study because, as the teachers indicated (by 'agreeing' that there were appropriate interventions available to them to address the use of textese), existing interventions would seem to be sufficiently robust to address SASSLATS' textism use in formal written English.

6.5 Further research

It is highlighted that the target population completed the proofreading protocol in 2012, when predictive text messaging and the so-called 'free' messaging platforms (e.g. BlackBerry Messenger and WhatsApp) were perhaps less widely used. Following the relatively recent popularisation of the free messaging platforms, it has removed the problem of 'paying per text message' (which is the norm for sending traditional SMSs), meaning that message length is no longer an issue, or at least less of an issue. Although the time that could potentially be saved by using textese remains a relevant factor, the introduction of smartphones with their predictive and suggestive texting could mean that the need for using textese might in fact be declining, although this would have to be tested empirically. The use of predictive and suggestive texting and the potential impact thereof on messaging behaviour are therefore highlighted as areas for further research.

Furthermore, in my inquiry I used respondents from schools from upper-middle class socio-economic sphere whose learners would have ready access to and use of mobile phones. I also only used schools where the medium of instruction was English, and I specifically selected research sites that represented the historically stronger academic schools in the Pretoria region. It is accordingly recommended that a similar study be conducted with respondents from schools from the lower-income socio-economic sphere or rural areas, whose learners would not necessarily have ready access to and use of mobile phones. It is also recommended that the study be repeated at schools where learners would not necessarily have English first-language proficiency, and that the study be repeated among younger and older respondents, specifically primary school learners aged 10 to 12 (grades 5 to 7) and

university students aged 18 to 21 (undergraduate students). Further avenues of potential research could therefore include investigating the phenomenon of textese and secondary school learners' formal written English by using a proofreading protocol in South Africa (1) in other provinces; (2) among different economic classes, specifically among the poorer population as all my research sites fell within affluent suburbs; (3) among second-language English speakers; (4) among research sites less familiar for their academic attainment; and (5) among younger and older age groups respectively. Moreover, given Taljard's (2014, pers. comm., 31 July) assertion that the extended system of agreement underlying the grammatical structure of South Africa's nine official indigenous languages seemingly complicates the shortening of words as per textese conventions, a study to investigate why this appears to be the case should prove highly insightful.

Similarly, another area for further research could be to use a proofreading protocol to investigate textese in other countries where English is spoken both as a native language (for example England, the United States of America, Australia and New Zealand), and as a second or foreign language (for example India, Japan, Taiwan, Malaysia and the Philippines). Furthermore, I believe that my proofreading protocol can be applied with great success in other languages to test similar research hypotheses. However, the categories of textese use will necessarily have to be adapted specifically for the target language. I thus believe that the concept of using a proofreading protocol was sound, but that a uniform instrument translated verbatim into different target languages would not be feasible as languages are not homogenous. Due to disparities in spelling, syntax and morphology, different languages will necessarily react differently to the demands imposed by textese to shorten words. The use of a proofreading protocol in languages other than English would therefore constitute an opportunity for further research.

I also believe that complementing the use of a proofreading protocol by focusing on the actual textisms produced by respondents when writing physically and typing electronically would be highly relevant. This was also highlighted as a limitation of my inquiry and could therefore be a possible opportunity for future research. While previous studies have investigated the textisms produced by various target audiences, I believe it would be interesting to compare respondents' actual writing samples to their scores on the proofreading protocol. This essentially relates to Wood et al.'s (2014a, p.99) recommendation on investigating the relationship between

texting and the composition of formal connected text. Similarly, as mentioned in Chapter 2, Drouin and Davis's (2009, p.63) findings indicate that it is unlikely that a decline in performance will be seen immediately. They therefore recommended that the target population's performance on their research instrument should be tracked over a prolonged period of time, that is, several years. The fact that the data I collected were concurrent was highlighted as a limitation in section 6.2 as my data only provided a snapshot of my target population's attainment on my research instruments at a specific point in time. This limitation was also raised by Wood et al. (2014a, p.33), and it is therefore recommended that the learners' proofreading protocol be administered to the same target population over several years. Such further inquiries will accordingly reveal whether future SASSLATS have become desensitised in respect of identifying textisms in formal written Standard English as one of the main shortcomings of my inquiry was a benchmark against which I could compare my results.

My results therefore suggest that SASSLATS have, in fact, not reached the point of saturation and that it would appear that they retain a precise grasp of register as they do not struggle to recognise textisms in formal written English. However, as this was not explicitly part of my research scope, I recommend that further research be conducted on secondary school learners and the point of saturation.

The focus of this inquiry was admittedly more on the learner respondents than on the teacher respondents. It is therefore recommended that further empirical research be conducted on a more focused comparison between the learners' actual responses on the proofreading protocol, and the teachers' perceptions of their learners' texting in relation to their formal written work.

Finally, as indicated in sections 3.10.1 and 5.1, in line with Andrich's (2008, p.4) recommendation that partially correct responses should be coded separately to provide richer data, the possibility of re-analysing the data to allow for partially correct responses is a potential area for future study.

6.6 Closing statement

In closing, I agree with Wood et al. (2014a, p.99) that it is unlikely text messaging will replace traditional literacy practices, and I too see textese as “offering a new layer to language use rather than supplanting standard literacy conventions”. Therefore:

At the beginning of the twenty-first century, the relationship between standard and non-standard language is, evidently, still an uncertain one. We are at a transitional point between two eras. We seem to be leaving an era when the rules of Standard English, as selected and defined by prescriptive grammarians, totally conditioned our sense of acceptable usage, so that all other usages and varieties were considered to be inferior or corrupt, and excluded from serious consideration. And we seem to be approaching an era when non-standard usages and varieties, previously denigrated or ignored, are achieving a new presence and respectability within society... But we are not there yet. ... However, it is only a matter of time. ... But changes in linguistic attitudes and practices do not come to be accepted overnight, or even over decades. ... In a few years' time, the new generation of schoolchildren, well grounded in pragmatic principles, will be out there in society, able to counter unthinking prescriptive attitudes; and once they are in senior positions, the confrontation will be over. ... We are coming towards the close of a linguistically intolerant era...

Crystal (2004b, pp.523-525)

Although the technology that allowed textese to flourish is relatively new, textese itself has its origins in the early nineteenth century. I personally do not foresee textese making its way into formal language contexts (unless by accident) on a large scale in the near future, if ever. I am convinced that “members of an educated public”, to use Wessels’s (2011, pers. comm., 11 October) words, will continue to make the distinction between formal and informal register, and continue to make this distinction well. I therefore retain the view that should certain textisms continue making their way into Standard English, it might lead to English becoming ever so slightly more informal over time. Such a sequence of events is, however, in my opinion more reflective of changing social factors than of changing linguistic factors. Language is therefore indeed changing because society is changing (Crystal 2005, p.459). In closing, I too believe that we are indeed moving towards the close of a linguistically intolerant era because, as Crystal (2008a, p.26) sez, “f u cn rd ths thn wts th prblm?” ☺

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Addenda

Addendum A: Learners' proofreading protocol

[Front]

School: _____ Grade: _____ Gender: M / F (please circle)

Scenario

You are applying for a job as the Head of Student Affairs at the University of Oxford in the United Kingdom. You have written the cover letter on the back of this page to accompany your curriculum vitae (CV). Knowing that your application will be discarded immediately should the cover letter contain any errors, you read it one last time to ensure that you have corrected all the errors.

The letter on the back of this page might contain errors. Please correct all the errors that you find on the paper. Note that it is not necessary to rewrite any of the sentences.

[Back]

Hi Sir/Madam

Re: Application for the position of Head of Student Affairs at the university of Oxford

I am from Pretoria in SA and I heard about your university thru the Internet. I believe I would be suitable candidate for the above-mentioned position cause my qualifications fit the job description perfectly I hold a masters degree in educational psychology and i am goin 2 register for a further degree in busines admin in year 2013. When I saw your advertisement, I knew it was a clearcut decision for me to apply as I have always thought of the tertiary environment as a longterm career.

My working experience includes two years as my skools student counsellor and another three years working at University of Pretoria. I liked working with the students they are really cool. I hav found that I can make real difference in their lives I also do alot of voluntary work and I enjoy workin with people. I particularly enjoy doing a wide variety of tasks and am of the opinion that I rite particularly well.

With regard to my personal interests I enjoy hanging out wiv my friends & family, we always have a great time lol. I am good @ sports and I absolutely love playin tennis. I am also one day gonna climb Mount everest – it has been an ambition of mine 4 a very long time. Btw, I also have a great sense of humour and i can tell jokes that literally have peopl rotfl. I am also committed to livin each day to the max.

I guarantee you wont be sorry should I be given the opportunity – I wil not let you down. I truly look forward to hearing from u and I would be particularly disappointed should I not be your chosen candidate.

Should any further info b required, please dont hesitate to contact me (my phone # can be found in my curriculum vitae).

Bye ☺

Addendum B: Key to the learners' proofreading protocol

Hi¹ Sir/Madam

Re: Application for the position of Head of Student Affairs at the university² of Oxford

I am from Pretoria in SA³ and I heard about your university thru⁴ the Internet. I believe I would be ⁵suitable candidate for the above-mentioned position cause⁶ my qualifications fit the job description perfectly⁷ I hold a masters⁸ degree in educational psychology and i⁹ am goin¹⁰ 2¹¹ register for a further degree in busines¹² admin¹³ in ¹⁴year 2013. When I saw your advertisement, I knew it was a clearcut¹⁵ decision for me to apply as I have always thought of the tertiary environment as a longterm¹⁶ career.

My working experience includes two years as my skools¹⁷¹⁸ student counsellor and another three years working at ¹⁹University of Pretoria. I liked working with the students ²⁰they are really cool²¹. I hav²² found that I can make ²³real difference in their lives²⁴ I also do alot²⁵ of voluntary work and I enjoy workin²⁶ with people. I

¹ Informal tone/register (Dear)

² Lack of capitalisation (University)

³ Acronym/initialism (South Africa)

⁴ Non-conventional spelling (through)

⁵ Omitted article (a)

⁶ Shortening (because)

⁷ Lack of punctuation (full stop)

⁸ Omitted apostrophe

⁹ Lack of capitalisation (I)

¹⁰ G-clipping (going)

¹¹ Letter/number homophone (to)

¹² Other clipping (business)

¹³ Shortening (administration)

¹⁴ Omitted article (the)

¹⁵ Contraction (hyphenation)

¹⁶ Contraction (hyphenation)

¹⁷ Non-conventional spelling (school)

¹⁸ Omitted apostrophe

¹⁹ Omitted article (the)

²⁰ Lack of punctuation (semi-colon)

²¹ Informal tone/register (interesting/fascinating to work with)

²² Other clipping (have)

²³ Omitted article (a)

²⁴ Lack of punctuation (full stop)

²⁵ Contraction (a lot)

²⁶ G-clipping (working)

particularly enjoy doing a wide variety of tasks and am of the opinion that I rite²⁷ particularly well.

With regard to my personal interests²⁸ I enjoy hanging out²⁹ wiv³⁰ my friends &³¹ family, we always have a great time lol³². I am good @³³ sports and I absolutely love playin³⁴ tennis. I am also one day gonna³⁵ climb Mount everest³⁶ – it has been an ambition of mine 4³⁷ a very long time. Btw³⁸, I also have a great sense of humour and i³⁹ can tell jokes that literally have peopl⁴⁰ rotfl⁴¹. I am also committed to livin⁴² each day to the max⁴³.

I guarantee you wont⁴⁴ be sorry should I be given the opportunity – I wil⁴⁵ not let you down. I truly look forward to hearing from u⁴⁶ and I would be particularly disappointed should I not be your chosen candidate.

Should any further info⁴⁷ b⁴⁸ required, please dont⁴⁹ hesitate to contact me (my phone #⁵⁰ can be found in my curriculum vitae).

Bye⁵¹ ☺⁵²

-
- 27 Non-conventional spelling (write)
 28 Lack of punctuation (comma)
 29 Informal tone/register (spending time)
 30 Non-conventional spelling (with)
 31 Symbol/emoticon (and)
 32 Acronym/initialism (laugh out loud)
 33 Symbol/emoticon (at)
 34 G-clipping (playing)
 35 Contraction (going to)
 36 Lack of capitalisation (Everest)
 37 Letter/number homophone (for)
 38 Acronym/initialism (by the way)
 39 Lack of capitalisation (I)
 40 Other clipping (people)
 41 Acronym/initialism (rolling on the floor laughing)
 42 G-clipping (living)
 43 Shortening (maximum)
 44 Omitted apostrophe (won't)
 45 Other clipping (will)
 46 Letter/number homophone (you)
 47 Shortening (information)
 48 Letter/number homophone (be)
 49 Omitted apostrophe (don't)
 50 Symbol/emoticon (number)
 51 Informal register (Yours sincerely)
 52 Symbol/emoticon (no emoticon to be added)

Addendum C: Data-capturing sheet for the learners' proofreading protocol

<i>Mr Herco Steyn - T12029 - Data Capturing Sheet</i>			
Respondent	VA	<input type="text"/>	<input type="text"/>
School	VB	<input type="text" value="5"/>	<input type="text" value="1"/>
Grade	VC	<input type="text"/>	<input type="text" value="7"/>
Gender	VD	<input type="text"/>	<input type="text" value="10"/>
Informal tone/register (Dear)	V1	<input type="text"/>	<input type="text" value="12"/>
Lack of capitalisation (University)	V2	<input type="text"/>	<input type="text" value="15"/>
Acronym/initialism (South Africa)	V3	<input type="text"/>	<input type="text" value="18"/>
Non-conventional spelling (through)	V4	<input type="text"/>	<input type="text" value="21"/>
Omitted article (a)	V5	<input type="text"/>	<input type="text" value="24"/>
Shortening (because)	V6	<input type="text"/>	<input type="text" value="27"/>
Lack of punctuation (full stop - ... perfectly.)	V7	<input type="text"/>	<input type="text" value="30"/>
Omitted apostrophe (master's)	V8	<input type="text"/>	<input type="text" value="33"/>
Lack of capitalisation (I)	V9	<input type="text"/>	<input type="text" value="36"/>
G-clipping (going)	V10	<input type="text"/>	<input type="text" value="39"/>
Letter/number homophone (to)	V11	<input type="text"/>	<input type="text" value="42"/>
Other clipping (business)	V12	<input type="text"/>	<input type="text" value="45"/>
Shortening (administration)	V13	<input type="text"/>	<input type="text" value="48"/>
Omitted article (the)	V14	<input type="text"/>	<input type="text" value="51"/>
Contraction (hyphenation - clear-cut)	V15	<input type="text"/>	<input type="text" value="54"/>
Contraction (hyphenation - long-term)	V16	<input type="text"/>	<input type="text" value="57"/>
Non-conventional spelling (school)	V17	<input type="text"/>	<input type="text" value="60"/>
Omitted apostrophe (school's)	V18	<input type="text"/>	<input type="text" value="63"/>
Omitted article (the)	V19	<input type="text"/>	<input type="text" value="66"/>
Lack of punctuation (semi-colon - ... the students; they are ...)	V20	<input type="text"/>	<input type="text" value="69"/>
Informal tone/register (interesting/fascinating to work with)	V21	<input type="text"/>	<input type="text" value="72"/>
Other clipping (have)	V22	<input type="text"/>	<input type="text" value="75"/>
Omitted article (a)	V23	<input type="text"/>	<input type="text" value="78"/>
Lack of punctuation (full stop - ... lives.)	V24	<input type="text"/>	<input type="text" value="81"/>
Contraction (a lot)	V25	<input type="text"/>	<input type="text" value="84"/>
G-clipping (working)	V26	<input type="text"/>	<input type="text" value="87"/>
Non-conventional spelling (write)	V27	<input type="text"/>	<input type="text" value="90"/>
Lack of punctuation (comma - ... interests, ...)	V28	<input type="text"/>	<input type="text" value="93"/>
Informal tone/register (spending time)	V29	<input type="text"/>	<input type="text" value="96"/>
Non-conventional spelling (with)	V30	<input type="text"/>	<input type="text" value="99"/>
Symbol/emoticon (and)	V31	<input type="text"/>	<input type="text" value="102"/>
Acronym/initialism (laugh out loud)	V32	<input type="text"/>	<input type="text" value="105"/>
Symbol/emoticon (at)	V33	<input type="text"/>	<input type="text" value="108"/>
G-clipping (playing)	V34	<input type="text"/>	<input type="text" value="111"/>
Contraction (going to)	V35	<input type="text"/>	<input type="text" value="114"/>
Lack of capitalisation (Everest)	V36	<input type="text"/>	<input type="text" value="117"/>
Letter/number homophone (for)	V37	<input type="text"/>	<input type="text" value="120"/>
Acronym/initialism (by the way)	V38	<input type="text"/>	<input type="text" value="123"/>
Lack of capitalisation (I)	V39	<input type="text"/>	<input type="text" value="126"/>
Other clipping (people)	V40	<input type="text"/>	<input type="text" value="129"/>
Acronym/initialism (rolling on the floor laughing)	V41	<input type="text"/>	<input type="text" value="132"/>
G-clipping (living)	V42	<input type="text"/>	<input type="text" value="135"/>
Shortening (maximum)	V43	<input type="text"/>	<input type="text" value="138"/>
Omitted apostrophe (won't)	V44	<input type="text"/>	<input type="text" value="141"/>
Other clipping (will)	V45	<input type="text"/>	<input type="text" value="144"/>
Letter/number homophone (you)	V46	<input type="text"/>	<input type="text" value="147"/>
Shortening (information)	V47	<input type="text"/>	<input type="text" value="150"/>
Letter/number homophone (be)	V48	<input type="text"/>	<input type="text" value="153"/>
Omitted apostrophe (don't)	V49	<input type="text"/>	<input type="text" value="156"/>
Symbol/emoticon (number)	V50	<input type="text"/>	<input type="text" value="159"/>
Informal register (Yours sincerely)	V51	<input type="text"/>	<input type="text" value="162"/>
Symbol/emoticon (no emoticon to be added)	V52	<input type="text"/>	<input type="text" value="165"/>
Total annotations made on answer sheet	V53	<input type="text"/>	<input type="text" value="168"/>

Coding for V1 to \

00 = Overlooked

01 = Correct

02 - 99 = Other

Addendum D: Teachers' questionnaire

<u>TEACHERS' QUESTIONNAIRE</u>		For Office Use	
Respondent number		V1	<input type="text"/> <input type="text"/> <input type="text"/> 1
<i>Please answer all the questions by encircling the appropriate number in the shaded boxes to indicate your answer or by writing your answer in the shaded space provided.</i>			
1. What is the name of your school?		V2	<input type="text"/> <input type="text"/> 5
<div style="background-color: #cccccc; height: 20px;"></div>			
2. How many years have you been teaching?		V3	<input type="text"/> <input type="text"/> 8
<div style="background-color: #cccccc; height: 20px;"></div>			
3. What level of learners are you currently teaching?		V4	<input type="text"/> 11
Grade 8	1	V5	<input type="text"/> 13
Grade 9	2	V6	<input type="text"/> 15
Grade 10	3	V7	<input type="text"/> 17
Grade 11	4	V8	<input type="text"/> 19
Grade 12	5		
4. What is your gender?		V9	<input type="text"/> 21
Male	1		
Female	2		
5. What is your highest qualification?		V10	<input type="text"/> 23
Diploma	1		
Bachelor's degree	2		
Honour's degree	3		
Master's degree	4		
Doctoral degree	5		
6. What subjects do you currently teach?		V11	<input type="text"/> <input type="text"/> 25
Languages	1	V12	<input type="text"/> <input type="text"/> 28
Arts	2	V13	<input type="text"/> <input type="text"/> 31
Social Sciences (Geography, History)	3	V14	<input type="text"/> <input type="text"/> 34
Natural Sciences (Biology, Science)	4	V15	<input type="text"/> <input type="text"/> 37
Life Sciences	5	V16	<input type="text"/> <input type="text"/> 40
Mathematics	6	V17	<input type="text"/> <input type="text"/> 43
Accounting	7	V18	<input type="text"/> <input type="text"/> 46
Economic Sciences (Economics, Business Economics)	8	V19	<input type="text"/> <input type="text"/> 49
Other (please specify):			
<div style="background-color: #cccccc; height: 20px;"></div>			
Question 7 follows on the next page ...			
1			

						For Office Use
Please decide on one particular class you teach and answer all the questions that follow specifically with this class in mind.						
<i>Please note that "textese" is used to denote the collective phenomenon of short message service (SMS) spelling variations, while "textism(s)" is used to denote instances of textese use.</i>						
<i>Please provide an answer for each of the statements below</i>						
7. I see examples of textese spelling conventions in my learners' writing.						
Never 1	Almost never 2	Sometimes 3	Often 4	Almost always 5	Always 6	V20 <input style="width: 30px;" type="text"/> 52
8. I believe that textisms are added intentionally although learners know they will be penalised for using them.						
Totally disagree 1	Strongly disagree 2	Disagree 3	Agree 4	Strongly agree 5	Totally agree 6	V21 <input style="width: 30px;" type="text"/> 54
9. Learners always know when the use of textisms is inappropriate.						
Totally disagree 1	Strongly disagree 2	Disagree 3	Agree 4	Strongly agree 5	Totally agree 6	V22 <input style="width: 30px;" type="text"/> 56
10. Learners seem to be losing the ability to distinguish between formal and informal register (the formality of language use required depending on the context).						
Totally disagree 1	Strongly disagree 2	Disagree 3	Agree 4	Strongly agree 5	Totally agree 6	V23 <input style="width: 30px;" type="text"/> 58
11. I believe textese negatively influences learners' writing ability.						
Totally disagree 1	Strongly disagree 2	Disagree 3	Agree 4	Strongly agree 5	Totally agree 6	V24 <input style="width: 30px;" type="text"/> 60
12. I am concerned about the impact of textisms on English language usage.						
Totally disagree 1	Strongly disagree 2	Disagree 3	Agree 4	Strongly agree 5	Totally agree 6	V25 <input style="width: 30px;" type="text"/> 62
13. Textese use in school writing is commonplace nowadays.						
Never 1	Almost never 2	Sometimes 3	Often 4	Almost always 5	Always 6	V26 <input style="width: 30px;" type="text"/> 64
Question 14 follows on the next page ...						
2						

						For Office Use
14. I believe learners have become so used to using textisms that they often forget that they are not acceptable in formal writing.						
Totally disagree 1	Strongly disagree 2	Disagree 3	Agree 4	Strongly agree 5	Totally agree 6	V27 <input type="text"/> 66
15. I teach the difference between formal and informal language.						
Never 1	Almost never 2	Sometimes 3	Often 4	Almost always 5	Always 6	V28 <input type="text"/> 68
16. I believe that learners take care to use formal language in formal contexts.						
Totally disagree 1	Strongly disagree 2	Disagree 3	Agree 4	Strongly agree 5	Totally agree 6	V29 <input type="text"/> 70
17. I believe learners know when it is inappropriate to use textisms.						
Totally disagree 1	Strongly disagree 2	Disagree 3	Agree 4	Strongly agree 5	Totally agree 6	V30 <input type="text"/> 72
18. I am concerned that English language usage is getting laxer due to the use of textisms.						
Totally disagree 1	Strongly disagree 2	Disagree 3	Agree 4	Strongly agree 5	Totally agree 6	V31 <input type="text"/> 74
19. I have seen a decline in the general quality of learners' written English compared to ten years ago.						
Totally disagree 1	Strongly disagree 2	Disagree 3	Agree 4	Strongly agree 5	Totally agree 6	V32 <input type="text"/> 76
20. I see textese as a genuine impediment to writing in formal contexts.						
Totally disagree 1	Strongly disagree 2	Disagree 3	Agree 4	Strongly agree 5	Totally agree 6	V33 <input type="text"/> 78
21. I teach the contexts in which it is appropriate to use formal and informal language.						
Never 1	Almost never 2	Sometimes 3	Often 4	Almost always 5	Always 6	V34 <input type="text"/> 80
Question 22 follows on the next page ...						
3						

						For Office Use
22. Learners seem to think that if the writing can be understood then it is acceptable.						
Totally disagree 1	Strongly disagree 2	Disagree 3	Agree 4	Strongly agree 5	Totally agree 6	V36 <input type="checkbox"/> 82
23. I believe that if textism use remains unchecked, it might permanently infiltrate the English language (e.g. apostrophes and articles being done away with, "i" as the first person singular being acceptable, etc.).						
Totally disagree 1	Strongly disagree 2	Disagree 3	Agree 4	Strongly agree 5	Totally agree 6	V36 <input type="checkbox"/> 84
24. I see textisms in my learners' formal writing.						
Never 1	Almost never 2	Sometimes 3	Often 4	Almost always 5	Always 6	V37 <input type="checkbox"/> 86
25. I think the use of textese could aid learners' writing.						
Totally disagree 1	Strongly disagree 2	Disagree 3	Agree 4	Strongly agree 5	Totally agree 6	V38 <input type="checkbox"/> 88
26. I am comfortable with the impact that textese has on learners' English usage.						
Totally disagree 1	Strongly disagree 2	Disagree 3	Agree 4	Strongly agree 5	Totally agree 6	V39 <input type="checkbox"/> 90
27. I teach register.						
Never 1	Almost never 2	Sometimes 3	Often 4	Almost always 5	Always 6	V40 <input type="checkbox"/> 92
28. Learners take less care to proofread written work for errors.						
Totally disagree 1	Strongly disagree 2	Disagree 3	Agree 4	Strongly agree 5	Totally agree 6	V41 <input type="checkbox"/> 94
29. I believe textisms have already permanently infiltrated the English language.						
Totally disagree 1	Strongly disagree 2	Disagree 3	Agree 4	Strongly agree 5	Totally agree 6	V42 <input type="checkbox"/> 96
30. I see textese spelling variations in my learners' writing.						
Never 1	Almost never 2	Sometimes 3	Often 4	Almost always 5	Always 6	V43 <input type="checkbox"/> 98
Question 31 follows on the next page ...						
4						

						For Office Use
31. Learners successfully distinguish between formal and informal contexts.						
Totally disagree	Strongly disagree	Disagree	Agree	Strongly agree	Totally agree	
1	2	3	4	5	6	V44 <input style="width: 30px;" type="text"/> 100
32. I believe textese has an impact on my learners' writing ability .						
Totally disagree	Strongly disagree	Disagree	Agree	Strongly agree	Totally agree	
1	2	3	4	5	6	V45 <input style="width: 30px;" type="text"/> 102
33. As a teacher, there are appropriate interventions available to me to address learners' use of textese.						
Totally disagree	Strongly disagree	Disagree	Agree	Strongly agree	Totally agree	
1	2	3	4	5	6	V46 <input style="width: 30px;" type="text"/> 104
34. Learners think it is acceptable to use textisms in formal writing contexts						
Totally disagree	Strongly disagree	Disagree	Agree	Strongly agree	Totally agree	
1	2	3	4	5	6	V47 <input style="width: 30px;" type="text"/> 106
35. I believe textisms are increasingly infiltrating English language usage .						
Totally disagree	Strongly disagree	Disagree	Agree	Strongly agree	Totally agree	
1	2	3	4	5	6	V48 <input style="width: 30px;" type="text"/> 108
36. I frequently see textisms in my learners' writing .						
Totally disagree	Strongly disagree	Disagree	Agree	Strongly agree	Totally agree	
1	2	3	4	5	6	V49 <input style="width: 30px;" type="text"/> 110
<i>In each of the following instances, please indicate how frequently you see each of the 13 categories of textese used in your learners' writing</i>						
37. Shortenings (e.g. 'cause/coz/cos' for 'because'; 'max' for 'maximum'; 'info' for 'information').						
Never	Almost never	Sometimes	Often	Almost always	Always	
1	2	3	4	5	6	V50 <input style="width: 30px;" type="text"/> 112
38. Contractions , including omitted hyphenation (e.g. 'alot' for 'a lot'; 'longterm' for 'long term'; 'goingto' for 'going to').						
Never	Almost never	Sometimes	Often	Almost always	Always	
1	2	3	4	5	6	V51 <input style="width: 30px;" type="text"/> 114
Question 39 follows on the next page ...						

						For Office Use
39. G-clippings (e.g. 'goin' for 'going', 'doin' for 'doing').						
Never	Almost never	Sometimes	Often	Almost always	Always	
1	2	3	4	5	6	V52 <input type="checkbox"/> 116
40. Other clippings (e.g. 'hav' for 'have'; 'wil' for 'will').						
Never	Almost never	Sometimes	Often	Almost always	Always	
1	2	3	4	5	6	V53 <input type="checkbox"/> 118
41. Omitted apostrophes (e.g. 'dont' for 'don't'; 'wont' for 'won't'; 'cant' for 'can't').						
Never	Almost never	Sometimes	Often	Almost always	Always	
1	2	3	4	5	6	V54 <input type="checkbox"/> 120
42. Omitted articles (e.g. 'he is man' for 'he is a man'; 'walk through door' for 'walk through the door').						
Never	Almost never	Sometimes	Often	Almost always	Always	
1	2	3	4	5	6	V55 <input type="checkbox"/> 122
43. Acronyms and initialisms (e.g. 'SA' for 'South Africa'; 'btw' for 'by the way'; 'fyi' for 'for your information').						
Never	Almost never	Sometimes	Often	Almost always	Always	
1	2	3	4	5	6	V56 <input type="checkbox"/> 124
44. Symbols and emoticons (e.g. '@' for 'at'; '#' for 'number'; '&' for 'and'; '☺' for 'smile/happy').						
Never	Almost never	Sometimes	Often	Almost always	Always	
1	2	3	4	5	6	V57 <input type="checkbox"/> 126
45. Letter and number homophones (e.g. '2' for 'too/two/to'; 'gr8' for 'great'; 'any1' for 'anyone').						
Never	Almost never	Sometimes	Often	Almost always	Always	
1	2	3	4	5	6	V58 <input type="checkbox"/> 128
46. Non-conventional spellings (e.g. 'skool' for 'school'; 'thru' for 'through'; 'rite' for 'write').						
Never	Almost never	Sometimes	Often	Almost always	Always	
1	2	3	4	5	6	V59 <input type="checkbox"/> 130
47. Informal tone and register (e.g. 'hi/bye' in formal communication instead of 'dear Mr/yours sincerely'; use of inappropriate words given the context, e.g. 'hanging out' instead of 'spending time with').						
Never	Almost never	Sometimes	Often	Almost always	Always	
1	2	3	4	5	6	V60 <input type="checkbox"/> 132
Question 48 follows on the next page ...						
6						

						For Office Use
48. Lack of capitalisation (e.g. 'i' instead of 'I'; 'john' instead of 'John').						
Never	Almost never	Sometimes	Often	Almost always	Always	
1	2	3	4	5	6	V61 <input type="text"/> 134
49. Lack of punctuation (e.g. excessively long sentences; no full stops; lack of commas and colons; etc.).						
Never	Almost never	Sometimes	Often	Almost always	Always	
1	2	3	4	5	6	V62 <input type="text"/> 136
<p><i><u>Thank you for your time and co-operation</u></i></p>						

Addendum E: Letter of invitation to schools to participate in study on textese



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA
Faculty of Education

Faculty of Education
University of Pretoria
Groenkloof Campus
Pretoria
0002
+27 12 420 5895

Dear Sir/Madam

Invitation to participate in a study on “textese” (SMS spelling and writing conventions) and secondary school learners’ written English

As part of my doctoral studies at the University of Pretoria, I am investigating whether “textese” or SMS spelling variations occur in the written English of secondary school learners. Details of the research project are outlined below for your convenience.

Title

Evolution or decay? Textese and secondary school learners’ written English

Purpose

The purpose of the study is to determine whether textese writing conventions have made its way into high school learners’ formal written English and, if this is indeed found to be the case, to what extent. Should it be found that textese use is prevalent in secondary school learners’ writing, possible interventions will be identified to address the issue.

Research questions

The quintessential research problem of my proposed research is thus to determine how, indeed if at all, are textisms used in secondary school learners’ written English.

My secondary research questions are as follows:

1. What are the teachers’ views on textese and secondary school learners’ writing?
2. How, indeed if at all, does textese influence secondary school learners’ written English?
3. How effectively do secondary school learners distinguish between formal and informal writing contexts?
4. What, if any, are the specific challenges associated with textese and secondary school learners’ written English?

Methodology

I intend to employ a two-phase study. In the first phase of the study, teachers at selected secondary schools within the Pretoria region will be requested to complete a questionnaire on their general observations and individual perspectives with regard to textese and learners' written English. This questionnaire will require teachers to answer 35 questions on a six-point scale (the appropriate box is merely ticked for all the questions). This questionnaire should take approximately 30 minutes to complete. One teacher per school will also be requested to furnish me with 10 essays in which textisms are particularly prevalent.

During the second phase of the study, one class of learners in each grade of selected secondary schools within the Pretoria region will be asked to complete a proofreading-type spelling test populated with 40 textese errors. Learners will be requested to correct the 40 errors contained in the proofreading-type spelling test. This test would take approximately 30 minutes to complete.

In order to ensure complete anonymity, no names will be requested on either the teachers' questionnaire or the learners' proofreading-type spelling test. All data collected will be encoded and collated to ensure that the results may not be related to a specific school, let alone to individual learners.

All participating schools will be provided with comprehensive feedback with regard to the results of the study, with proposed interventions suggested following the conclusions reached in lieu of the study. One-on-one feedback sessions may be requested by any participant or his/her parent(s)/guardian(s)/caregiver(s).

The results of the study will be duly transcribed and collated in a doctoral thesis, which will be submitted in accordance with the requirements for the degree of PhD Humanities Education at the Faculty of Education of the University of Pretoria.

Time frame

The study will be conducted during the third term of 2012 and will be conducted during normal school hours during an English lesson to cause the minimum amount of disruption.

Ethical principles

The University of Pretoria subscribes to the following ethical principles in the pursuit of research excellence:

1. Voluntary participation and trust: No learner is under any obligation to participate in the study. Nothing will happen to any learner who does not wish to participate in the study. Any learner may discontinue his/her participation in the study at any time. You are at liberty to discuss any part of the study with me to help you make

an informed decision. All findings will be disclosed completely and truthfully without any misrepresentation. I will not fabricate data or alter findings to suit interest groups. Credit will be given where due and acknowledgements will be made where appropriate. No learner will be party to any acts of deception or betrayal in the research process or its published outcomes.

2. Informed consent: All the details of the study are provided in this letter. No learner will be subjected to any other form of participation other than the anonymous proofreading-type spelling test described in this letter.
3. Captive audience: I have no affinity to any of the schools approached for the study and have therefore no interest in coercing anyone into participating in the study. Participation is completely voluntary and I will accordingly exert no pressure on any of the teachers to persuade the children to participate in the study.
4. Safety in participation and adverse affects: Learners will not be at risk of physical or psychological harm of any kind resulting from participating in the study. No child will be placed in circumstances that may cause undue stress, embarrassment, or loss of self-esteem.
5. Rights of minors: The final decision of whether or not the learners wish to participate in the study vests with the children. They are under no obligation to participate in the study and may withdraw from the study at any time without any consequences.
6. Anonymity and confidentiality: No names are to be used on the proofreading-type spelling test. All data will be collated and transcribed to present the aggregated results of the study. It will therefore not be possible to identify a single learner's response to the proofreading-type spelling test.

I would like to reiterate that neither the learners nor the teachers are under any obligation to participate in the study. All participants are also welcome to discontinue their participation in the study at any time, no questions asked.

Please contact me should you have any queries regarding the study.

Yours sincerely

Herco Steyn
084 872 6813
herco.steyn@resbank.co.za

Addendum F: Teacher consent letter



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA
Faculty of Education

Faculty of Education
University of Pretoria
Groenkloof Campus
Pretoria
0002
+27 12 420 5895

Dear Sir/Madam

Letter of consent to participate in a study on “textese” (SMS spelling and writing conventions) and secondary school learners’ written English

As part of my doctoral studies at the University of Pretoria, I am investigating whether “textese” or SMS spelling variations occur in the written English of secondary school learners. Details of the research project are outlined below for your convenience.

Title

“Evolution or decay? Textese and secondary school learners’ written English”

Purpose

The purpose of the study is to determine whether textese writing conventions have made its way into high school learners’ formal written English and, if this is indeed found to be the case, to what extent. Should it be found that textese use is prevalent in secondary school learners’ writing, possible interventions will be identified to address the issue.

Research questions

The quintessential research problem of my proposed research is thus to determine how, indeed if at all, are textisms used in secondary school learners’ written English.

My secondary research questions are as follows:

1. What are the teachers’ views on textese and secondary school learners’ writing?
2. How, indeed if at all, does textese influence secondary school learners’ written English?
3. How effectively do secondary school learners distinguish between formal and informal writing contexts?
4. What, if any, are the specific challenges associated with textese and secondary school learners’ written English?

Methodology

I intend to employ a two-phase study. In the first phase of the study, teachers at selected secondary schools within the Pretoria region will be requested to complete a questionnaire on their general observations and individual perspectives with regard to textese and learners' written English. This questionnaire will require teachers to answer 49 questions on a six-point scale (the appropriate box is merely ticked for all the questions). This questionnaire should take approximately 30 minutes to complete.

During the second phase of the study, one class of learners in grades 8 to 11 of selected secondary schools within the Pretoria region will be asked to complete a proofreading-type spelling test populated with 52 textese errors. Learners will be requested to correct the 52 errors contained in the proofreading-type spelling test. This test would take approximately 30 minutes to complete.

In order to ensure complete anonymity, no names will be requested on either the teachers' questionnaire or the learners' proofreading-type spelling test. All data collected will be encoded and collated to ensure that the results may not be related to a specific school, let alone to individual learners.

All participating schools will be provided with comprehensive feedback with regard to the results of the study, with proposed interventions suggested following the conclusions reached in lieu of the study. One-on-one feedback sessions may be requested by any participant or his/her parent(s)/guardian(s)/caregiver(s).

The results of the study will be duly transcribed and collated in a doctoral thesis, which will be submitted in accordance with the requirements for the degree of PhD Humanities Education at the Faculty of Education of the University of Pretoria.

Time frame

The study will be conducted during the third term of 2012.

Ethical principles

I have obtained ethical clearance from both the University of Pretoria and the Gauteng Department of Education to conduct the study.

The University of Pretoria subscribes to the following ethical principles in the pursuit of research excellence:

1. Voluntary participation and trust: No teacher or learner is under any obligation to participate in the study. Nothing will happen to any teacher or learner who does not wish to participate in the study. All findings will be disclosed completely and truthfully without any misrepresentation. I will not fabricate data or alter findings

to suit interest groups. Credit will be given where due and acknowledgements will be made where appropriate. No teacher or learner will be party to any acts of deception or betrayal in the research process or its published outcomes.

2. Informed consent: All the details of the study are provided in this letter.
3. Captive audience: I have no affinity to any of the schools approached for the study and have therefore no interest in coercing anyone into participating in the study. Participation is completely voluntary and I will accordingly exert no pressure on any of the teachers to persuade the children to participate in the study.
4. Safety in participation and adverse affects: Teachers will not be at risk of physical or psychological harm of any kind resulting from participating in the study.
5. Rights of minors: The final decision of whether or not the teachers and learners wish to participate in the study vests with them.
6. Anonymity and confidentiality: No names are to be used on the questionnaire. All data will be collated and transcribed to present the aggregated results of the study.

Please contact me should you have any queries regarding the study.

Yours sincerely

Herco Steyn
084 872 6813
textese.thesis.2012@gmail.com

Consent to participate in a study on textese to be conducted at the school

I, _____ (full name and surname), teacher at _____ (full name of school) hereby declare that I have been made fully aware of the study to be conducted by Herco Steyn and I am fully apprised of the nature and purpose of the research project entitled "Evolution or decay? Textese and secondary school learners' written English". I hereby agree to participate in the study and acknowledge that I do so willingly.

Signature: _____

Contact number(s): _____

E-mail: _____ Date: _____


Researcher's signature: _____ Date: _____
Herco Steyn

Supervisor's signature: _____ Date: _____
Dr R Evans

If you would like to discuss any aspect of the research or have questions about your rights as a research participant, please contact either the researcher at telephone number 084 872 6813 or e-mail address textese.thesis.2012@gmail.com, or his academic supervisor, Dr R Evans, at telephone number 012 420 4272 or e-mail address rinelle.evans@up.ac.za.

If you have any complaint concerning the manner in which this research project is conducted, please speak to the researcher or his supervisor. Should an independent person be preferred, consult with the Chairperson of the Ethics Committee (Faculty of Education, University of Pretoria), Prof. I Ebersöhn, at telephone number 012 420 2337.

Addendum G: Learner consent letter

	<p>UNIVERSITEIT VAN PRETORIA UNIVERSITY OF PRETORIA YUNIBESITHI YA PRETORIA Faculty of Education</p>	<p>Faculty of Education University of Pretoria Groenkloof Campus Pretoria 0002 +27 12 420 5695</p>
<p>Dear Learner</p>		
<p>Invitation to participate in a study on “textese” (SMS spelling and writing conventions) and secondary school learners’ written English</p>		
<p>Introduction</p>		
<p>Your school has been identified to participate in the above-mentioned study on SMS spelling and writing conventions and high school learners’ written English. You have been approached to participate in the study because your parent(s)/guardian(s)/caregiver(s) have agreed to let you participate in the study.</p>		
<p>What will happen to me?</p>		
<p>Nothing will happen to you. You will only be expected to complete one exercise as part of the study. The exercise will be completed anonymously and it should take approximately 30 minutes to complete. The results of the exercise will be aggregated by means of statistical analysis. Because the tests will be completed anonymously, it will be impossible to relate any part of the results to your specific responses to the exercise.</p>		
<p>Will the study help me?</p>		
<p>Yes. The results of the study will be collated to reveal to your teacher which areas should receive particular attention when teaching writing. The study ultimately aims to identify certain interventions that will ultimately help you to improve your writing.</p>		
<p>Do my parent(s)/guardian(s)/caregiver(s) know about this project?</p>		
<p>Yes. This study was explained to your parent(s)/guardian(s)/caregiver(s) and they gave permission that you could be part of the study if you wanted to.</p>		
<p>Do I have to participate in the project?</p>		
<p>No. You have the ultimate choice of whether or not you want to participate in the project. No one will be upset if you do not want to participate in the study. The choice remains yours and yours alone. You are at liberty to discontinue your participation at any time during the study.</p>		

What if I have any questions?

You can ask any questions you have about the study. You or your parent(s)/guardian(s)/caregiver(s) can also phone the researcher, Mr Herco Steyn, at telephone number 084 872 6813 or send him an e-mail at textese.thesis.2012@gmail.com at any time should you have any questions regarding the study.

- (a) Signing your name below means that you agree to be in the project in the manner described above. If you decide to quit the project all you have to do is tell the person in charge.

Signature of the learner: _____ Date: _____

Researcher's signature: _____ Date: _____
Herco Steyn

Supervisor's signature: _____ Date: _____
Dr R Evans

If you would like to discuss any aspect of the research or have questions about your rights as a research participant, please contact either the researcher at telephone number 084 872 6813 or e-mail address textese.thesis.2012@gmail.com, or his academic supervisor, Dr R Evans, at telephone number 012 420 4272 or e-mail address rinelle.evans@up.ac.za.

If you have any complaint concerning the manner in which this research project is conducted, please speak to the researcher or his supervisor. Should an independent person be preferred, consult with the Chairperson of the Ethics Committee (Faculty of Education, University of Pretoria), Prof. I Ebersöhn, at telephone number 012 420 2337.

Addendum H: Parental consent letter



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA
Faculty of Education

Faculty of Education
University of Pretoria
Groenkloof Campus
Pretoria
0002
+27 12 420 5695

Dear Sir/Madam

Request for consent to participate in a study on “textese” (SMS spelling and writing conventions) and secondary school learners’ written English

As part of my doctoral studies at the University of Pretoria, I am investigating whether “textese” or SMS spelling variations occur in the written English of secondary school learners. Details of the research project are outlined below for your convenience.

Title

“Evolution or decay? Textese and secondary school learners’ written English”

Purpose

The purpose of the study is to determine whether textese writing conventions have made its way into high school learners’ formal written English and, if this is indeed found to be the case, to what extent. Should it be found that textese use is prevalent in secondary school learners’ writing, possible interventions will be identified to address the issue.

Methodology

As part of the study, one class of learners in grades 8 to 11 of selected secondary schools within the Pretoria region will be asked to complete a proofreading-type spelling test populated with textese errors. This test will take approximately 30 minutes to complete.

In order to ensure complete anonymity, no names will be requested on the proofreading-type spelling test. All data collected will be encoded and collated to ensure that the results may not be traced to a specific school, let alone to individual learners.

All participating schools will be provided with comprehensive feedback with regard to the results of the study, with proposed interventions suggested following the conclusions drawn in lieu of the study.

The results of the study will be duly transcribed and collated in a doctoral thesis, which will be submitted in accordance with the requirements for the degree of PhD Humanities Education at the Faculty of Education of the University of Pretoria.

Time frame

The study will be conducted during the third term of 2012.

Ethical principles

I have obtained ethical clearance from both the University of Pretoria and the Gauteng Department of Education to conduct the study.

More specifically, the University of Pretoria subscribes to the following ethical principles in the pursuit of research excellence:

1. Voluntary participation and trust: Neither you nor your child(ren) is under any obligation to participate in the study. Nothing will happen to your child(ren) should you not wish him/her to participate in the study.
2. Informed consent: Your child(ren) will not be subjected to any other form of participation other than the anonymous proofreading-type spelling test described in this letter.
3. Captive audience: I have no affinity to any of the schools approached for the study and have therefore no interest in coercing anyone into participating in the study. Participation is completely voluntary.
4. Safety in participation and adverse affects: Your child(ren) will not be at risk of physical or psychological harm of any kind resulting from participating in the study.
5. Rights of minors: Even if you do agree to allow your child(ren) to participate in the study, the final decision vests with the children. They are under no obligation to participate in the study and may withdraw from the study at any time without any consequences.
6. Anonymity and confidentiality: No names are to be used on the proofreading-type spelling test. All data will be collated and transcribed to present the aggregated results of the study.

Please contact me should you have any queries regarding the study.

Yours sincerely

Herco Steyn
084 872 6813
textese.thesis.2012@gmail.com

I, _____ (full name and surname), parent/guardian/caregiver of
_____ (full name of child[ren]) hereby declare that I
have been made fully aware of the study to be conducted by Herco Steyn and that I hereby grant
permission / do not grant permission for my child(ren) to participate in the study (please delete what is not
applicable).

Signature: _____ Date: _____


Researcher's signature: _____ Date: _____
Herco Steyn

Supervisor's signature: _____ Date: _____
Dr R Evans

If you would like to discuss any aspect of the research or have questions regarding the research, please contact either the researcher at telephone number 084 872 6813 or e-mail address textese.thesis.2012@gmail.com, or his academic supervisor, Dr R Evans, at telephone number 012 420 4272 or e-mail address rinelle.evans@up.ac.za.

If you have any complaint concerning the manner in which this research project is conducted, please speak to the researcher or his supervisor. Should an independent person be preferred, consult with the Chairperson of the Ethics Committee (Faculty of Education, University of Pretoria), Prof. I Ebersöhn, at telephone number 012 420 2337.

Addendum I: Teachers' information sheet

 <p>UNIVERSITEIT VAN PRETORIA UNIVERSITY OF PRETORIA YUNIBESITHI YA PRETORIA Faculty of Education</p>	<p>Faculty of Education University of Pretoria Groenkloof Campus Pretoria 0002 +27 12 420 5695</p>
<p>Dear English Teacher</p>	
<p>Thank you for agreeing to participate in the study on textese.</p>	
<p>In order to analyse appropriately the data that I obtain, you are requested to indicate briefly the following in terms of the circumstances in which the test was conducted:</p>	
<p>1. Time at which the test was started: _____</p>	
<p>2. The time allowed to complete the test: _____</p>	
<p>3. The general attitude of learners towards the test (e.g. bored, excited, uninterested etc.) _____</p>	
<p>4. Did anything out of the ordinary happen during the test: _____ _____</p>	
<p>5. Is there absolutely anything that you would like to add that might be relevant or that you would like to bring to my attention (something that may influence my interpretation of the results)? _____ _____ _____ _____</p>	
<p>Please contact me should you have any queries regarding the study.</p>	
<p>Yours sincerely</p>	
<p>Herco Steyn 084 872 6813 textese.thesis.2012@gmail.com</p>	

Addendum J: Instructions to teachers

1. Teachers' questionnaire (completed anonymously)

The following ten teachers are requested to complete the teachers' questionnaire:

- The four English teachers in charge of English for grades 8 to 11 (or most appropriate English teachers if not possible or if the same person is responsible for two or more grades).
- Two History teachers (any two teachers irrespective of grades taught).
- Two Life Sciences teachers (any two teachers irrespective of grades taught).
- Two Economics Sciences teachers (any two teachers teaching either Business Economics or Economics).

2. Learners' proofreading-type research instrument (completed anonymously)

Four English classes, one per grade from grades 8 to 11, are requested to complete the learners' proofreading-type research instrument during a normal English class (or whenever is most convenient). Please complete the information sheet [Addendum I] to record any unusual event or circumstances that could influence my interpretation of the results.

Addendum K: Ethics approval



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Education

Faculty of Education
Ethics Committee
18th July 2012

Dear Mr. Steyn,

REFERENCE: HU 12/06/02

Your application was carefully considered and the final decision of the Ethics Committee is:

Your application is approved on the following conditions:

1. Please change the last paragraph of the letter to the teachers and update the questionnaire as instructed by Dr van der Linde.

This letter serves as notification that you may continue with your research. You do not have to re-submit an application. The above-mentioned issues can be addressed in consultation with your supervisor who will take final responsibility. Please note that this is **not a clearance certificate**. Upon completion of your research you need to submit the following documentation to the Ethics Committee:

1. Integrated Declarations form that you adhered to conditions stipulated in this letter – Form D08

Please Note:

- **Any** amendment to this conditionally approved protocol needs to be submitted to the Ethics Committee for review prior to data collection. Non-compliance implies that approval will be null and void.
- Final data collection protocols and supporting evidence (e.g.: questionnaires, interview schedules, observation schedules) have to be submitted to the Ethics Committee before they are used for data collection.
- On receipt of the above-mentioned documents you will be issued a clearance certificate. Please quote the reference number **HU 12/06/02** in any communication with the Ethics Committee.

Best wishes,



Prof Liesel Ebersohn
Chair: Ethics Committee
Faculty of Education

Addendum L: Gauteng Department of Education approval



education
Department: Education
GAUTENG PROVINCE

For administrative use:
Reference no. D2013/119

GDE RESEARCH APPROVAL LETTER

Date:	10 July 2012
Validity of Research Approval:	10 July 2012 to 30 September 2012
Name of Researcher:	Steyn H.J.
Address of Researcher:	Postnet Suite 3
	Private Bag X025
	Lynnwood Ridge
	0040
Telephone Number:	012 313 3302 /084 872 6813
Fax Number:	086 651 3453
Email address:	herco.steyn@resbank.co.za
Research Topic:	Evolution or decay? Textese and Secondary school learners' written English
Number and type of schools:	NINE Secondary Schools
District/s/HO	Gauteng North

Re: Approval in Respect of Request to Conduct Research

This letter serves to indicate that approval is hereby granted to the above-mentioned researcher to proceed with research in respect of the study indicated above. The onus rests with the researcher to negotiate appropriate and relevant time schedules with the school/s and/or offices involved to conduct the research. A separate copy of this letter must be presented to both the School (both Principal and SGB) and the District/Head Office Senior Manager confirming that permission has been granted for the research to be conducted.

The following conditions apply to GDE research. The researcher may proceed with the above study subject to the conditions listed below being met. Approval may be withdrawn should any of the conditions listed below be flouted:

1. The District/Head Office Senior Manager/s concerned must be presented with a copy of this letter that would indicate that the said researcher/s has/have been granted permission from the Gauteng Department of Education to conduct the research study.

Making education a societal priority

Office of the Director: Knowledge Management and Research

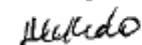
9th Floor, 111 Commissioner Street, Johannesburg, 2001
P.O. Box 7710, Johannesburg, 2000 Tel: (011) 365 0506
Email: David.Makhado@gauteng.gov.za
Website: www.education.gpg.gov.za

Makhado

2. *The District/Head Office Senior Manager/s must be approached separately, and in writing, for permission to involve District/Head Office Officials in the project.*
3. *A copy of this letter must be forwarded to the school principal and the chairperson of the School Governing Body (SGB) that would indicate that the researcher/s have been granted permission from the Gauteng Department of Education to conduct the research study.*
4. *A letter / document that outlines the purpose of the research and the anticipated outcomes of such research must be made available to the principals, SGBs and District/Head Office Senior Managers of the schools and districts/offices concerned, respectively.*
5. *The Researcher will make every effort obtain the goodwill and co-operation of all the GDE officials, principals, and chairpersons of the SGBs, teachers and learners involved. Persons who offer their co-operation will not receive additional remuneration from the Department while those that opt not to participate will not be penalised in any way.*
6. *Research may only be conducted after school hours so that the normal school programme is not interrupted. The Principal (if at a school) and/or Director (if at a district/head office) must be consulted about an appropriate time when the researcher/s may carry out their research at the sites that they manage.*
7. *Research may only commence from the second week of February and must be concluded before the beginning of the last quarter of the academic year.*
8. *Items 6 and 7 will not apply to any research effort being undertaken on behalf of the GDE. Such research will have been commissioned and be paid for by the Gauteng Department of Education.*
9. *It is the researcher's responsibility to obtain written parental consent of all learners that are expected to participate in the study.*
10. *The researcher is responsible for supplying and utilising his/her own research resources, such as stationery, photocopies, transport, faxes and telephones and should not depend on the goodwill of the institutions and/or the offices visited for supplying such resources.*
11. *The names of the GDE officials, schools, principals, parents, teachers and learners that participate in the study may not appear in the research report without the written consent of each of these individuals and/or organisations.*
12. *On completion of the study the researcher must supply the Director: Knowledge Management & Research with one Hard Cover bound and an electronic copy of the research.*
13. *The researcher may be expected to provide short presentations on the purpose, findings and recommendations of his/her research to both GDE officials and the schools concerned.*
14. *Should the researcher have been involved with research at a school and/or a district/head office level, the Director concerned must also be supplied with a brief summary of the purpose, findings and recommendations of the research study.*

The Gauteng Department of Education wishes you well in this important undertaking and looks forward to examining the findings of your research study.

Kind regards



Dr David Makhado

Director: Knowledge Management and Research

2012/07/11

Making education a societal priority

Office of the Director: Knowledge Management and Research

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Addendum M: Example 1 of a completed learners' instrument

Spelling errors = 17

B/139

-8

Dear ^{Your letter needs to be a formal one because you are not writing to your friend.}

Hi Sir/Madam

Re: Application for the position of Head of Student Affairs at the university of Oxford

I am from Pretoria in ^{South Africa} SA and I heard about your university ^{through} thru the Internet. I believe I would be suitable candidate for the ^{above mentioned} above-mentioned position cause my qualifications fit the job description perfectly. I hold a masters degree in educational psychology and ^I i am goin ^{to} register for a further degree in ^{business} busines admin in ~~year~~ 2013. When I saw your advertisement, I knew it was a clearcut decision for me to apply as I have always thought of the tertiary environment as a longterm career.

^{long term}

My working experience includes two years as my ^{school} skools student counsellor and another three years working at University of Pretoria. I liked working with the students they are really cool. I ^{have} hav found that I can make real difference in their lives I also do ^{a lot} alot of voluntary work and I enjoy workin with people. I particularly enjoy doing a wide variety of tasks and am of the opinion that I rite particularly well.?

^{right}

With regard to my personal interests I enjoy hanging out ^{with} wiv my friends & family, we always have a great time lol. I am good @ sports and I absolutely love ^{playing} playin tennis. I am also one day gonna climb Mount ^E evercrest – it has been an ambition of mine ^{for} 4 a very long time. ^{By the way} Btw, I also have a great sense of humour and i can tell jokes that literally have people ^{laughing for hours} ~~roll~~. I am also committed to ^{living} livin each day to the ^{fullest} max.

I guarantee you wont be sorry should I be given the opportunity – I wil not let you down. I truly look forward to hearing from ^{you} u and I would be particularly disappointed should I not be your chosen candidate.

^{information}

Should any further info ^b required, please dont hesitate to contact me (my phone # can be found in my curriculum vitac). ^{be}

^{your} yours faithfully.

Bo

Addendum N: Example 2 of a completed learners' instrument

B | 14/11

Hi Sir/Madam

Re: Application for the position of Head of Student Affairs at the university of Oxford

I am from Pretoria in SA and I heard about your university ^{through} thru the Internet. I believe I would be suitable candidate for the above-mentioned position cause my qualifications fit the job description perfectly, I hold a masters degree in educational psychology and ^I ^{going to} i am goin 2 register for a further degree in busines ^{administration} admin in year 2013. When I saw your advertisement, I knew it was a clearcut decision for me to apply as I have always thought of the tertiary environment as a ^{long term} longterm career.

My working experience includes two years as my ^{schools} skools student counsellor and another three years working at University of Pretoria. I liked working with the students they are really cool. I ^{have} hav found that I can make real difference in their lives, ^{or lot} I also do alot of voluntary work and I enjoy ^{working} workin with people. I particularly enjoy doing a wide variety of tasks and am of the opinion that I ^{write} rite particularly well.

With regard to my personal interests I enjoy hanging out ^{with} wiv my friends ^{and} & family, we always have a great time ^{laughing out loud} lol. I am good ^{at} @ sports and I absolutely love playin tennis. I am also one day ^{going too} gonna climb Mount ^{everest} everest – it has been an ambition of mine ^{for} 4 a very long time. ^{by the way} Btw, I also have a great sense of humour and i can tell jokes that literally have ^{people rolling on the floor laughing} peopl rotfl. I am also committed to ^{living} livin each day to the max.

I guarantee, you wont be sorry should I be given the opportunity – I wil not let you down. I truly look forward to hearing from ^{you} u and I would be particularly disappointed should I not be your chosen candidate.

Should any further ^{information} info ^{be} b required, please dont hesitate to contact me (my phone ^{number} # can be found in my curriculum vitae).

Bye @ *no smiley!!!*

Addendum O: Example 3 of a completed learners' instrument

B/146

Hi Sir/Madam

Re: Application for the position of Head of Student Affairs at the university of Oxford

I am from Pretoria in SA and I heard about your university thru the Internet. I believe I would be suitable candidate for the above-mentioned position cause my qualifications fit the job description perfectly. I hold a masters degree in educational psychology and i am goin 2 register for a further degree in business admin in year 2013. When I saw your advertisement, I knew it was a clearcut decision for me to apply as I have always thought of the tertiary environment as a longterm career.

My working experience includes two years as my skools student counsellor and another three years working at University of Pretoria. I liked working with the students they are really cool. I hav found that I can make real difference in their lives, I also do alot of voluntary work and I enjoy workin with people. I particularly enjoy doing a wide variety of tasks and am of the opinion that I rite particularly well.

With regard to my personal interests I enjoy hanging out wiv my friends & family, we always have a great time lol. I am good @ sports and I absolutely love playin tennis. I am also one day gonna climb Mount everest – it has been an ambition of mine 4 a very long time. Btw, I also have a great sense of humour and i can tell jokes that literally have peopl rotfl. I am also committed to livin each day to the max.

I guarantee you wont be sorry should I be given the opportunity – I wil not let you down. I truly look forward to hearing from u and I would be particularly disappointed should I not be your chosen candidate.

Should any further info b required, please dont hesitate to contact me (my phone # can be found in my curriculum vitae).

Bye ☺ → Regards

↓
DO NOT USE SAMPLES

Addendum P: Statements aggregated on the teachers' questionnaire

The following statements were aggregated to answer the following nine questions as listed in Table 12:

- 1. Do teachers actually see examples of textisms in their learners' written work?** Statements 7, 13, 24, 30, 36.
- 2. Do teachers think that learners have become desensitised in respect of textisms and therefore add textisms unintentionally and unwittingly?** Statements 8, 14, 22, 34.
- 3. Do teachers think learners distinguish successfully between formal and informal register?** Statements 9, 10, 16, 17, 31.
- 4. Do teachers think that textese has a negative impact on their learners' writing ability?** Statements 11, 20, 25, 26, 32.
- 5. Do teachers think that textese has a negative impact on the English language?** Statements 12, 18, 23, 29, 35.
- 6. Do teachers teach register?** Statements 15, 21, 27.
- 7. Have teachers observed a general decline in the quality of learners' written English compared to ten years ago (or since they first started teaching)?** Statement 19.
- 8. Do teachers think that learners do not take care to proofread their written work for errors?** Statement 28.
- 9. Are there appropriate interventions available to teachers to address learners' use of textese?** Statement 33.