

Bader Alharbi, 2017

Vol. 3, No.2, pp. 2458- 2472

Date of Publication: 9<sup>th</sup> November, 2017

DOI-<https://dx.doi.org/10.20319/pijss.2017.32.24582472>

This paper can be cited as: Alharbi, B. (2017). *The Self-Reported Influence of using SMS Language in Texting and Social Media on Saudi Students' Academic Writing*. *PEOPLE: International Journal of Social Sciences*, 3(2), 2458-2472.

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## **THE SELF-REPORTED INFLUENCE OF USING SMS LANGUAGE IN TEXTING AND SOCIAL MEDIA ON SAUDI STUDENTS' ACADEMIC WRITING**

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### **Abstract**

*SMS language is a form of written English that is often used in informal, computer-mediated communications like texting, online chat, and social media. It is known for shortening many words using acronyms and other forms of abbreviation. SMS language is increasingly well documented in the scholarly literature and its impact on students' formal academic writing is a topic of debate. This study uses a mixed-methods approach to investigate students' perspectives on their own use of SMS language and how it might affect their formal academic writing. The sample was composed of final-year university students who are native Arabic speakers and acquired English as a second language. The data was collected through the use of quantitative questionnaires and supplemented with semi-structured quantitative interviews. The findings revealed that virtually all participants used features of SMS language in their online communications. Still, they struggled to recognize some of the most well-documented, commonly used abbreviations. The interviews showed that time, convenience, and character limits were the primary motivators for students to use SMS language. The findings also indicated that at least some students can recall having made spelling or sentence construction errors in formal academic writing that they attribute to their reliance on SMS language in their digital*

*communications. Further scholarly attention is strongly indicated, and possible directions for future research are described.*

### **Keywords**

Acronyms, Textese, Social Media, SMS Language, Texting, Academic Writing, ESL

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## **1. Introduction**

Computer-mediated discourse is currently playing a larger role in our lives than ever before. As a result, new linguistic varieties and forms have begun to emerge, particularly in informal peer-to-peer communications. One particularly interesting and widespread example of this phenomenon is that of SMS language or textese, which is an informal written register that uses shortened and abbreviated spellings (Aziz, Shamim, Aziz, & Avais 2013). It is very common among youth and is usually used in texting, chat, and social media.

As mobile devices increase in prevalence and people become more reliant on them, it is not unreasonable to expect that SMS language will become an increasingly familiar form of written English. This study, therefore, sets out to explore what this trend means for how Arabic speakers who are bilingual in English communicate with one another informally. It also explores the possibility that these informal patterns of written communication may impact their ability to express themselves in written academic English.

These questions have implications for language change over time as well as educational outcomes (Grace, Kemp, Marin, & Parilla 2015). To investigate them, this study utilized a mixed-methods design combining a literature review, quantitative survey, and semi-structured qualitative interviews. The findings are not conclusive. Instead, they paint a picture of disagreement between participants who are not themselves sure about how their use of SMS language impacts their academic text, although a significant number express concern. Overall, the need for continued scholarly attention to this topic is emphasized. To that end, unanswered questions are highlighted and directions for future research are suggested.

## **2. Literature Review**

This section presents a discursive, wide-ranging literature review. It is designed to clarify terminology, lay the conceptual groundwork of the study, and familiarize the reader with important scholarly perspectives on the topic at hand.

### **2.1 Terminology**

In the interest of clarity, it might be useful to begin with a brief terminological note. As discussed in the methodology section below, the term *acronym* is used frequently in this study, especially in the data collection instruments. In that context, this word is used colloquially to refer to common written abbreviations. In formal linguistic terminology, however, acronym carries a specific technical meaning: it refers to a way of abbreviating phrases by combining the first letters (or sometimes sounds) of the words that make them up, and then pronouncing the resulting abbreviation as a word (Cannon 1989; Grange & Bloom 2000). For example, the phrase *self-contained underwater breathing apparatus* is often shortened to the acronym *SCUBA*, which is pronounced phonetically (i.e. *skoo-bah*).

In linguistics, acronyms are just one way of abbreviating phrases. Another common method is the *initialism*. Initialisms are constructed in the same way that acronyms are, but they are pronounced differently. Specifically, the letters making up an initialism are pronounced individually instead of spelling out a word. For instance, the phrase *United States of America* is often shortened to the initialism *USA*, which is pronounced by reading the letters themselves (i.e. *you-es-ay* not *you-sah*) (ibid.; Harley 2004).<sup>1</sup>

## **2.2 SMS Language**

Acronyms and initialisms are just two tools that widely used in informal computer-mediated, text-based conversation, such as on social media or through texting. This type of informal written communication is referred to as *SMS language* or *textese* (Aziz et al. 2013; Grace et al. 2015).

The development of this linguistic variant seems to have been driven largely by attempts to write quickly and conveniently, often in situations where typing is difficult or there is a limit on the total number of characters that can be used in a message (Mose 2013). Thus, SMS language also uses a number of other strategies like alphanumeric homophony (e.g. *2day* instead of "today"), improvised phonetic initialisms (e.g. *cu* for "see you"), and other irregular shortenings that combine these elements (e.g. *cya* for "see ya") (Essoh & Odey 2013; El, Arundell, & Brinkler 2014).

Because SMS language originates in its written form, the rules for pronouncing some of its lexical items are not clear, still developing, or used differently by different groups. For

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<sup>1</sup> Note that the construction of acronyms and initialisms is flexible: not every word needs to be included. For instance, in *USA* the "of" is left out or elided. This section is designed to give the reader a basic conceptual and terminological introduction, and does not delve too deeply into the rules for forming these kinds of abbreviations.

instance, *brb*, a shortened form of "be right back", typically appears to be read as an initialism (ibid.; Pasricha, Pathak, & English 2015;. However, with *lol*, which is generally believed to be derived from "laughing out loud" or "lots of laughs" and signifies a humorous response, the rules are not as obvious (Varhnagen et al. 2010). While most people seem to pronounce this as an initialism, others pronounce it as an acronym (e.g. "lawl"). Pronouncing it as an acronym has led to some groups altering its spelling: the gaming community commonly uses *lul* in place of *lol* as a result of this process (Herring 2012; Prochazka 2014). In short, SMS language is relatively young, not very standardized, and rapidly evolving. For the purposes of this study, these features matter at least as much as its emphasis on shortening and abbreviation.

### **2.3 SMS Language and Standard English**

The reason for that evolution matters as much as reliance on abbreviations is that a number of scholars have argued that the growing prevalence of SMS language may impact how people (and students in particular) use and understand standard English, especially in formal written settings like academic assignments (Verheijen 2013; Grace et al. 2015). However, scholars and popular commentators are divided on the specifics of this hypothetical effect, including basic points such as whether it is likely to be positive or negative.

Some suggest, for instance, that students might become more familiar and comfortable with SMS language than with standardized forms of English, leading them to make more mistakes in formal writing as they forget the standard forms of words, and potentially even "corrupting" the English language itself (Thurlow 2007; Verheijen 2013). Other researchers argue that using SMS language is a marker of English proficiency, that students do not rely on it as much as some people think, and that the orthographic features of SMS language do not line up with the kinds of errors that students make in their formal writing (ibid.; Murtiani 2012).

Despite these debates, comparatively few studies have attempted to explore the perspectives of students who acquired English as a second language on their own use of SMS language and how it affects their academic writing. This study, therefore, attempts to fill this gap with a preliminary investigation of just such a population.

## **3. Methodology**

This section offers a comprehensive overview of the methodological approach used in the present study. It describes the data collection instruments used as well as the sampling protocols in order to lay the groundwork for analysis.

### **3.1 Research Design**

As indicated above, this study adopted a mixed-methods simple design that uses both qualitative and quantitative methodologies. This approach was adopted in order to combine the broad view that results from a relatively large sample responding to standardized items on the one hand with the in-depth, nuanced view that comes from individuals describing their thoughts in their own words on the other. In other words, the research design used here sought to incorporate qualitative and quantitative components in a way that allowed them to complement each other and enhance the quality of the results overall. With this objective in mind, let us turn our attention to how this was accomplished in more detail.

The quantitative portion of the study consisted of a series of 27 items grouped into three distinct categories:

- Category 1 (items 1-9): Attitudes toward using acronyms
- Category 2 (items 10-15): Frequency of acronym use and reliance on acronyms
- Category 3 (items 16-27): Respondents' knowledge of acronyms

For the sake of convenience and conciseness, the term *acronym* is used colloquially in the context of the survey, rather than in its technical sense (*see* literature review above). The rationale for this has two components. First, it aims to limit the friction in the survey and make it easier to fill out quickly, thereby allowing better data to be collected: using a more technically correct academic term like *SMS language* or *textese* would require a definition and explanation to be included. Second, in the context of casual speech SMS language is commonly referred to as *using acronyms* by the sample population. Thus, this colloquial definition was used to make the survey more readable, easier to fill out, and avoid confusion.

In any event, all the survey items in the first two categories took the form of a symmetric five-point Likert scale, a widely-used approach to designing questionnaires of this kind (Alexandrov 2010; Joshi, Kale, Chandel, & Pal 2015). The response items for the third category, however, used a symmetric three-point Likert scale. In this context, *symmetric* means that there are an equal number of positive and negative responses (two of each). Because each item response has five points, the positive and negative responses are arranged around a central response.

In the past, this central response was often given a neutral value. However, the methodological literature more recently has started to produce findings that suggest that respondents often use the neutral response in more than one way (ibid.; Allen & Seaman 2007). Some respondents select this response when they wish to express neutral feelings, as the name suggests (i.e. "neither agree nor disagree"). Other respondents, however, select the neutral response as a means of expressing uncertainty (i.e. "not sure/don't know"). Clearly, these are two very different responses, and conflating them could create confusion in interpreting the survey results.

Two basic strategies have been proposed to deal with this problem. The first is to eliminate the central response entirely. This is known as the "forced choice" method because it "forces" respondents to take a position on the item (i.e. they must either "agree" or "disagree") (ibid.; Croasmun & Ostrum 2011). This approach is not very useful for some sections of the present study, however, for the simple reason that many of the items involve questions about acronyms and abbreviations that the respondents may not be familiar with. Thus, the questionnaire used in this study uses the second strategy for addressing the central response question: rather than labeling the central response as a neutral value (i.e. "neither agree nor disagree"), it explicitly identifies it as indicating uncertainty (i.e. "not sure").

Thus, the Likert scale used for Category 1 asked respondents to rate their level of agreement with various prompts in each item. A sample prompt might look something like this:

*I like using acronyms in social media.*

In response to this prompt, the respondent would be directed to select one of five pre-formulated responses: "Strongly disagree"; "Disagree"; "Not sure"; "Agree"; or "Strongly agree".

The Likert scale used in Category 2, in turn, asked respondents to rate the frequency with which they performed an action described in the prompt:

*I use acronyms in my oral communications.*

The categories available to the respondent in Category 2 were "Never", "Rarely", "Sometimes", "Often", and "Always". Note that because this section is asking the respondents about actual behaviors rather than perceptions, it does not include an uncertainty response. The central response approximates a neutral value, but every response makes a claim about relative frequency. Thus, although the central value was not eliminated, this is arguably an example of forced choice.

Finally, the Likert responses used in Category 3 function as a kind of test: they are designed to directly evaluate respondents' knowledge of certain commonly-used acronyms and text shorthand, not just ask for their subjective perceptions or opinions. In other words, there is a correct and incorrect response. An example prompt might look like:

*BRB means Be Right Back.*

The respondent would then be asked to select either "Yes", "Not sure", or "No". As with Category 1, the central response here explicitly expresses uncertainty.

To sum up, therefore, the questionnaire is designed to quantitatively evaluate three basic areas: participants' general disposition toward SMS language, as represented by self-report; participants' self-reports of their own uses of SMS language; and participants' familiarity with commonly-used items in the SMS language lexicon.

The qualitative interview portion of research, in turn, was designed with the aim of adding not just context, but also accommodating a range of depth and nuance. These are difficult qualities to capture with pre-formulated and pre-determined response categories like those used in written questionnaires. Semi-structured qualitative interviews use a loose interview schedule to ensure a measure of consistency from interview to interview (Taylor, Bogdan, & DeVault 2015). However, participants as well as the interviewer are given latitude and flexibility to pursue interesting topics or ideas. Thus, questions and prompts are typically open-ended, to encourage participants to articulate their own perspectives in their own words.

For this reason, topics often centered on contextualization. This includes, for instance, asking participants to describe where and when they engage in computer-mediated discourse, what devices they use, and the scenarios in which they do and do not use SMS language. Many of the scheduled topics and prompts, therefore, were designed to implicitly encourage participants to outline the etiquette surrounding the use of this unique linguistic register.

The other major portion of the interview schedule, however, was the primary means of investigating participants' perceptions of the relationship between their use of SMS language and its impact on their academic writing ability. Multiple features of the quantitative questionnaire provide important indications about how we might begin to think about this relationship, but this study chose to investigate it primarily using participants' personal accounts.

### **3.2 Sampling, Recruitment, and Participant Demographics**

For practical and logistical reasons, a purposive, non-probability convenience sample was used for this study. All participants were recruited from the same university, Al Rass College for Science and Arts, and are native speakers of Arabic as their mother tongue. In order to ensure a roughly comparable degree of proficiency in English, only participants in their final year of study before graduation were included in the study. All participants were male, with ages ranging from 22-25. Ultimately, 46 individuals met the criteria for inclusion and participated in the survey portion of the research.

The survey was used as tool to aid in the recruitment of participants for the semi-structured interviews as well. A brief note was included at the end of the survey on a separate page which outlined what would be involved in the qualitative interview portion of research. After this description, participants were invited to fill out their contact information on a small detachable card if they were interested in participating. If respondents were willing to have their name associated with their survey responses, they were told they could leave the card attached to the survey. The researcher's ethical commitment to keeping this information confidential was noted.

For those who wished to participate in the interviews but did not want their names associated with the survey responses, the procedure was slightly different. Specifically, these respondents were instructed to detach the invitation cards, hand their surveys in to the researcher, and then drop the cards through a slot into a small box.

Roughly half (n=22) of the survey respondents filled out the invitation card; of these, only three ultimately decided to detach the card for greater anonymity. Due to time and resource constraints it was not possible for the researcher to use as large of a sample for the interviews as for the survey. This is a common difficulty with interview-based research. For this reason, of the 22 survey respondents who indicated their willingness to participate in interviews, only 12 were selected. The interview sample was constructed with the aim of gathering diverse perspectives on the topic of interest.

Thus, 9 of the 12 volunteers were selected from the pool of survey respondents who left their cards attached. These nine were chosen based on their responses, so that different opinions on the various survey items would be represented. The three volunteers who detached the invitation card were also selected for inclusion. Of this sample of 12, two dropped out of the study before their interviews could be completed. Thus, the final sample for the qualitative interviews consisted of ten participants.

### *Instruments and Procedure*

*Quantitative Survey:* The quantitative survey was distributed to groups of volunteers in public study areas at the university. The volunteers completed the questionnaires using pen and paper, folded them in half, and handed them to the researcher. A box was available for participants who wished to volunteer for the interviews while keeping their survey responses anonymous. The results were tabulated by the researcher and analyzed using descriptive statistics.

*Semi-Structured Qualitative Interviews:* Interviews were conducted face-to-face in a private room on the university campus. The interviews were conducted primarily in Arabic, the mother tongue of the researcher and participants. English was included on an as-needed basis: for instance, when discussing specific acronyms or idioms commonly used in computer mediated communication. Interviews were roughly 20-30 minutes in duration.

In keeping with the semi-structured format, the interviewer used a brief interview schedule to ensure that essential topics were discussed in every interview. However, participants were free to introduce new topics or raise new considerations as they saw fit. Similarly, the interviewer used his own judgment in asking follow-up questions and also in order to ask for clarification when participants' responses were unclear or could be interpreted in multiple different ways. The interviews were audio recorded and transcribed for analysis.

## **4. Results & Analysis**

The quantitative questionnaire was analyzed using descriptive statistics in order to summarize the response distributions for each item. The qualitative interview transcripts were subjected to thematic analysis. The findings of these analytic procedures are presented below, and considered in relation to one another in the discussion.

### **4.1 Quantitative Survey**

As a general rule, the responses to Category 1 of the questionnaire showed fairly strong central tendency bias. This is the phenomenon in which respondents tend to avoid selecting extreme response categories like "Strongly agree" and "Strongly disagree" (Bardo & Yeager 1982; Alexandrov 2010). Instead, intermediate response categories are more likely to be selected. That being said, the results paint a generally (but not entirely) positive view of the use of SMS language. However, some aspects of the response distributions items rise concerning implications regarding how the use of these linguistic tools affects academic writing.

A small minority of respondents expressed a negative view of the use of acronyms in the social media context, although nearly a third indicated that they do not know how they feel about it. More than half expressed a positive view, however. The response distribution for a prompt asking how they felt about the use of acronyms in texting was similar. Part of the reason appears to be practical: many respondents agreed that word limits and typing difficulties contributed to their use of abbreviations. However, respondents were generally opposed to the idea that the use of SMS language was necessary for their conversational partners to correctly interpret a message: more respondents chose "Strongly disagree" in response to the prompt *I like to use acronyms because the complete form wouldn't be understood by the receiver* than for any other item in this section.

Interestingly, however, more respondents chose "Strongly agree" in response to the prompt *I feel that using acronyms all the time makes me forget the complete form of the word spelling* than for any other item in this section. At least on an initial reading, these responses seem to be at odds with one another. Furthermore, respondents seemed open to the prospect that it academic work would be easier if it were possible to use SMS language in this context. Despite this, respondents generally disapproved of using this informal register in communications with their instructors.

The responses to Category 2 added another layer of complexity to these findings. Although responses in the previous category described a positive view of SMS language and even a reliance on it in some cases, Category 2 responses indicated an uncertainty about respondents' own fluency. For instance, more than 85% of respondents indicated that they search for "unknown acronyms" used by conversational partners at least some of the time. Intriguingly, however, respondents indicated that they were far less likely to ask a friend about unfamiliar SMS language they encounter. Nearly 4 in 10 respondents indicated that they "often" or "always" found themselves using SMS language in their writing, and 50% indicated that they made spelling errors due to acronym use with the same frequency.

Category 3 directly tested respondents' familiarity with some common features of the SMS language lexicon. As indicated above, this meant that there was a correct response and an incorrect one for each item. Most respondents answered each item correctly. Indeed, if they did not it would likely indicate an error in the questionnaire, since the acronyms were specifically selected for their popularity. Rather than selecting the incorrect response (e.g. choosing "Yes" when the correct answer was "No"), however, participants were far more likely to indicate a lack

of familiarity. In some cases, more than 40% of respondents selected "Not sure". On item 26, more than 71% of respondents indicated that they were not familiar with the acronym.

Full response tallies and a list of items can be found in the appendix.

## **4.2 Qualitative Interviews**

The qualitative interviews began with a brief discussion designed to set the stage and establish context, while also getting participants comfortable with the interview process. During this time, every interview participant confirmed that they owned a mobile device and that using this device was the primary time that they engaged in the use of SMS language. This orienting discussion also suggested that most of the participants shared a similar functional view of SMS language: they tended to prefer to use it during texting because of time saved typing on small phone keyboards. A minority of interview participants expressed a different theme, indicating that while the use of SMS language did save time, they did not have difficulty using their mobile keyboards.

The etiquette surrounding the use of SMS language generally appeared to be consistent with the idea that it is a kind of informal written register. Also, it seemed that age and generation were important considerations. Participants indicated that they used it with their friends, but were much less likely to do so with authority figures or members of older generations. However, this did not appear to be a hard-and-fast rule, as several participants recounted using SMS language with their teachers when talking to them over chat. When this occurred, they appeared to be self-conscious about it.

Much of the conversation centered on discussions of how these habits and behaviors impacted their academic writing in English. On this topic, participants were divided.<sup>2</sup> Most of the respondents considered themselves to be heavily dependent on their mobile devices and frequent users of acronyms and other SMS language shorthand. However, half of them were adamant that this had not and would not affect their academic writing in English. Several likened the change from informal to formal written registers to the change from Arabic to English: they felt more than capable of keeping these language variants separate. Of the remaining respondents, a majority indicated that they felt that their texting habits carried over into their formal written English. They indicated that they sometimes struggled to remember correct English spelling or sentence structure when writing their assignments. While their use of

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<sup>2</sup> Note: The sample was deliberately constructed to include a range of opinions on this topic as described in the methodology section.

SMS language was never identified as the only reason for this, this group of participants did view it as a contributing factor.

## **5. Discussion**

This section begins by discussing notable aspects of the findings of each portion of research in relation to one another. Next, it explores some of the limitations associated with this research design and its findings.

### **5.1 Integrative Analysis of Key Findings**

Considered in relation to one another, the results of the qualitative and quantitative studies described here are generally in agreement with one another. The qualitative interviews, however, do offer some useful insights. These insights can help us to better understand and interpret some of the seemingly contradictory results of certain items in the questionnaire. For instance, the wide agreement that SMS language was necessary so that their conversational partners could understand what they were saying appears to be supported by research. A number of studies have shown that while SMS language is faster to write, it typically takes longer to decipher and interpret than the more expanded standard form (Levy 2008; Grace et al. 2015). However, in the survey respondents also indicated that over-reliance on shortened forms of words and phrases in SMS language occasionally seems to make them less sure about how words are actually spelled.

In the interviews, this seeming tension was clarified. Participants indicated that they were not forgetting the words themselves and could recognize their full forms on sight, often even faster than they could read the shortened SMS language forms. However, by shortening certain words they feared they started to lose the confidence in their spelling that comes from repetition and were concerned that they might make some simple errors more frequently, particularly for often-misspelled English words like those involving the many exceptions to the "i before e except after c" rule or the use of double consonants.

In retrospect, it seems possible that these are the words students would be most likely to misspell anyway. Thus, it is possible that at least some of the survey responses on these items might be because respondents were insecure about certain aspects of their English language mastery, and when prompted blamed some of this on their use of SMS language. In other words, it is not clear that they would have identified SMS language as a contributing to these errors if the survey had not brought the topic up in the first place.

The interviews also raised an important new consideration. The questionnaire dealt exclusively with English-based SMS language. However, it is important to note that qualitative interview participants felt the need to repeatedly emphasize that this kind of linguistic shortening is not English-specific, but is common in Arabic also. The possibility that reliance on acronyms and initialisms in one's mother tongue could affect academic writing in a second language (English) is an interesting one that should be explored further by future research.

## **5.2 Limitations**

Perhaps the most obvious limitation associated with this study is the relatively small sample used. The sample was also very homogenous from a demographic perspective. For these and other reasons, it would be very difficult to generalize these findings to other populations in a reliable way.

Furthermore, the methodology used in this study relies heavily on self-report measures. There is not very much research, however, that would allow us to confidently draw conclusions based on these self-reports about actual writing behaviors or outcomes. While this is a major limitation, it also raises interesting questions and points the way forward for potential future research projects. For instance, when a participant claims that the use of abbreviations in informal writing does not affect their academic writing, it is possible that they are simply not aware of the impact.

Conversely, if another participant suggests that they rely too much on abbreviations in informal writing and that it impacts their academic writing, it is possible that this self-awareness allows them to correct any errors that might be associated with their use of abbreviations in other contexts or registers. Thus, a direct analysis of both respondents' academic writing might identify more spelling errors with words that are typically abbreviated in the first participant's writing than in that of the second. In other words, the existence of blind spots in writing ability is well-documented, and familiar to teachers the world over. This is why third-party editors are so often employed in professional settings, for example.

## **6. Conclusion**

This study provides preliminary evidence that heavy reliance on SMS language could potentially negatively impact students' mastery of written academic English. However, it is far from conclusive. In addition to limitations like the homogeneity of the sample and the reliance on self-report measures, questionnaire respondents and interview participants themselves were

divided on whether and to what extent their texting and social media habits carried over into their assignments. However, these findings offer interesting new ways of thinking about the issue, and efforts were made to identify attractive directions for future research.

Based on these findings, additional scholarly attention to this fascinating and quickly evolving linguistic area is strongly indicated.

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