



A Study to Explore the Effect of Text-language on Undergraduate Students' Spelling Errors at University Level

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ABSTRACT

The purpose of this study was to explore the effect of text-language on undergraduate students' spelling errors at university level. It was descriptive study based on cross-sectional survey design in nature. Data were collected from 120 (83 female, 37 male) undergraduate students who were enrolled in English department in University of the Punjab, in the academic year of 2020-2024, by applying purposive sampling technique via self-developed structured interview protocol and by administering paper pencil test (essay). Research tools were validated by experts of English Language and research committee. To explore spelling errors committed by undergraduate students' paper pencil test (Essay 300 to 400 words) was administered to the selected 120 students with the help of SPSS (V 22) software. Text analysis technique was applied to detect the spelling errors from the paper pencil text. The students who were texting most frequent, majority of them committed substitution and ambiguous both types of spelling errors. It is advised that students should follow rules of language while texting to avoid spelling errors.

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1. Introduction

Compared to learning their native tongue, students frequently find learning English to be difficult. The way words are spoken and spelt varies between languages. Since English has distinct grammatical patterns from other languages, this causes issues for students since they try to adapt the grammatical structures of their native tongue to studying English. The linguistic instinct of the learner must go through several changes in order to adapt the knowledge of the second language when learning any other language. As a result, learning involves repeated exposure to the language during developmental phases (&Zuriyani, 2019). While learning, the speaker hears sounds of words other than those they already know intuitively and must make assumptions about how they are used. In so far as they may be able to pronounce or spell a word in their mother tongue without being explicitly aware of the specific rule they are applying; English language learners may have implicit knowledge of the orthographic structure. Spelling is seen as being crucial to written language. (Jayakody, 2017). The possibility for spelling errors in written communication can alter and obscure its intended meaning. Therefore, it is crucial to spell words correctly in order to express the content's true meaning. According to (Babayiğit & Stainthorp, 2010), grammatical and phonological abilities significantly influence spelling performance in this situation. Therefore, it can be said that spelling is a crucial component of being a fundamental ability needed by kids. Students may write about their ideas and thoughts in a manner that is clear to their readers when they use accurate spelling to do so.

In a piece of writing that is being utilized for communication, spelling accuracy is also necessary for efficient communication. (Kiesler, 2022) The technology has influenced on students in everyday life. It has also affected their means of communication e.g. for communication, use TM, IM, and SMS. The world is also technologically advanced with cutting-edge smart technology. One of the best, cheapest, and easiest forms of communication is text messaging service. Saving money, time, and text space are three of texting's most valuable advantages. It's presumed that

everyone speaks computer-mediated communication (CMC) language. Currently, the primary method of informing people about events taking on in the world is through SMS. It is significantly influencing both business and other industries (Mohammed, 2020). Young people utilized SMS as a means of communication to exchange ideas with friends, family, and coworkers, which helped them learn more and stay informed about current events. Usually, words, phrases, and even sentences are shortened and abbreviated in text messaging (TM) in an atypical and irregular manner. It demonstrates a compact form of communication used for texting in daily life, including SMS, IM, and other types of messaging. While texting, people don't pay any attention to grammar conventions or use their phonological knowledge. As a result, individuals do not adhere to any type of suitable pattern, standard form, accurate spelling, or good grammar structure while interacting in this manner. As a result, text language has seriously hurt kids' ability to write. It has a significant impact on the pupils' spelling, sentence organization, and vocabulary (Baron, 2018). Those who attempt to write official emails, letters, speeches, and exams using text instead of the expected formal writing are having a lot of trouble with academic or formal writing. In formal settings, these condensed and shorter terms can occasionally be challenging to understand. The kids' capacity to memories proper and actual forms of spelling is being impacted by text language. By ruining the spelling and grammar, it causes misunderstanding and confusion in communicating with kids. Its inability to communicate oneself meaningfully through writing is mostly due to the user's inability to utilize words properly and appropriately in the context.

The style of speech used for SMS messaging is fully written differently than the language used for other forms of communication. Lexeme transformation is a part of text language. The writer shortens the language's lexical elements by using techniques including contractions, cutting, and abbreviations. It has been noted that most short textisms are employed in text language by users, which leads to spelling mistakes (Crystal, 2018). As a result, text language may have an impact on pupils' spelling as the two specified languages differ noticeably yet subtly. (Seda & Cengizhan, 2013) challenged these claims, arguing that text language mistakes mimic those made by students who are only beginning to learn to spell.

According to study, many university instructors think that text language has a detrimental impact on students' writing abilities. However, opinions on whether text language contributes to spelling errors or not vary widely. Furthermore, the current research was designed to investigate the effect of text-language on undergraduate students' spelling errors at university level in Pakistan. (Crispin, 2019) Statement of the Problem The listening, speaking, reading, and writing abilities are the four that the students studying English must master according to the Pakistani educational system. Students' spelling errors can be examined to gain a thorough picture of how they learn. Error analysis is important in identifying the challenges that text using pupils have so that these spelling issues can be improved. Few researches were identified to highlight the spelling challenges experienced by text message user students in Pakistan at the university level, despite the fact that many studies that focused on students' spelling errors had been evaluated. These studies have covered topics including the origins of pronunciation based grammar and spelling errors among English language learners. Therefore, the present study was designed to explore the "Effect of Text language on undergraduate Students' Spelling Errors at University level".

1.1. Objectives of the Study

This study contains the following objectives:

- To explore the effect of text-language on students spelling errors at university level;
- To diagnose magnitude of texting wise effect spelling errors of undergraduate students at university;
- To detect the most occurring type of spelling errors committed by text user undergraduate students.

1.2. Research Questions

- How does text-language affect students' spelling error at university level?
- To what extent magnitude of texting affects spelling errors of the undergraduate students at university?
- Which one is the most occurring type of spelling error committed by text user undergraduate students?

2. Literature Review

(Mpiti, 2012) defines spelling as "a process that encompasses a number of skills: phonological, morphological, syntax and semantic knowledge, as well as the ability to formulate words based on visual memory along with applying the orthographic rules". Akram and Perveen, (2014: 234) define spelling as "the method for writing words in their correct and acceptable forms".

In another sense, it involves putting the letters of a language together in the right order or in accordance with the official orthographic norms of that language, as doing so would be seen as a spelling mistake (Kamran, 2022).

2.1. Process of Texting followed by User

Text message users adhere to the following procedures when messaging (Crystal, 2018).

2.1.1. Shortening/reducing

"The Lexical item is reduced or shortened most of time by using the initial part of word. It is reduced in such a way to convey the message in appropriate way to the required person this kind of process is known as Shorting or reducing. For example bcoz (because), Plz (please), bw (between)" (Adebileje, 2014).

2.1.2. Clipping

"Clipping is usually accomplished when a word of more than one syllable is reduced to a shorter form. For example pics (pictures), bra (brassiere), chem (chemistry)". (ibid.)

2.1.3. Numbering

It is the process in which the whole word or a part of it is replaced by a number. For example 8 (ate), 2 (to), 4 (for), 2morrow (tomorrow), 2night (tonight).

2.1.4. Abbreviated Forms

"It is usually formed by combining initial letters of a set of other words. It is sometime very difficult to comprehend by an ordinary human being unless he has to consult to some expert or to acknowledge some list of SMS standards. For example IMO (in my opinion), ROTFL (rolling on the floor laughing), TQ (thank you), IA 'I Agree' etc."

2.1.5. Contraction

"In contraction process the vowels are usually deleted from words so these words are well described by the consonant rather than vowel For example ctrl (control), dlt (delete), abt (about)" (Ochonogor, Alakpodia, & Achugbue, 2012).

2.2. Phonology and Spellings

As sender were pronouncing the words in native language, they altered the spelling of the real words in this process e.g. they write 'come' as 'cum' ; 'school' as 'skul'; some of them write 'phone' as 'fone'.

2.2.1. Using Single Letter Method

In this method the whole word is replaced by single letter. For example c (see), u (you), r (are), be (be).

2.2.2. Using Smiley/ Emotion Icons

A smiley or emoticon is used to express the feelings by sending smiley icons so the receiver can make a good guess about their mood. For example >:-((very angry), ;-) (twinkling), :((crying), :((sad), :-/ (confused),

2.2.3. Letter repetition to achieve speech like quality or lay stress

This method is used to lay stress on certain words by repeating certain letters of the words. This is used to emphasize on a certain message or to lay importance of one's ideas and feelings. By repetition of letters these things can be easily conveyed as in oral communication through intonations and stress patterns. For example nooooooooooooo (no!), hahahahahahaha (laughing!), haaaaaaahhh (sigh) (Dixon & Kaminska, 2007).

2.2.4. Using Consonants

This type of text writing uses only consonants while the vowels are completely omitted from the writing. For example msg (message), cmng (coming), tmrw (tomorrow), bcz (because). (Dixon & Kaminska, 2007).

2.3. Types of Spelling Errors

2.3.1. Omission Error

Students do not complete the whole word while texting but they left some alphabets in Omission errors e.g. they write 'scl' in text instead of school

2.3.2. Derivation Error

in this type of error students do not care of basic instruction or do not apply the rules of spelling of a particular words; e.g. students wrote robbery in text instead of 'robbery'.

2.3.3. Inflection Error

while committing this type of error, students do not care of necessary change of the words when adding inflection; as students write 'produce' to 'produceing', to make produce to producing, students forget to drop 'e' while adding 'ing'.

2.3.4. Residue Error

in this type of error students do not drop the letter while changing the form of words in texting, e.g., *bite* when the past form *bit* is required

2.3.5. Phonetic Error

students commit this type of error as they write words as they spoken in their own language e.g they write 'wach' for watch.

2.3.6. Substitution Error

student use substitution of the one letter of the words/ word while committing substitution errors, e.g. 'graphic', students wrote 'grafik', laugh, students wrote, 'laf'.

2.3.7. Ambiguous Errors

Ambiguous errors occur when words are written in bi-lingual form. When students wrote words, by mixing letter of mother tongue and Second language. On the other hand, some time mobile user write message in his/her own native or mother tongue in English, e.g. 'Main skl ja rha hon' instead of 'I am going to school' (Balakrishnan & Yeow, 2007).

3. Research Methodology

Exploring the effect of text-language on undergraduate students' spelling errors at university level was the purpose of in hand study. The researcher adopted descriptive research based on cross-sectional survey design. Data were collected from 120 (83 female, 37 male) undergraduate students who were enrolled in English department in University of the Punjab, in the academic year of 2020-2024 who were selected by applying purposive sampling technique. The researcher developed structured interview protocol which was comprised demographic information (gender, semester etc.) regarding respondents and 5 questions e.g. how many text message do you send in a day?, for which purpose do you send SMS?, To who you sent SMS? What the are the contents of your SMS, Do you think, text language effect your spelling skill, etc. The researcher also developed paper pencil test to (Essay type 300-400 words) detect spelling errors. Research tools were validated by experts of English Language and research committee. The current study used George Gerbner's Cultivation theory which provides a ground to the researcher to ascertain the effects of text-language on spelling errors of undergraduate students.

According the feedback given by the experts and research committee, the tools were modified for final application. For the collection of data first of all, the researcher approached to head of the English department for seeking permission for conducting research and collecting semester wise information about students. After granted permission, the head of department provided me semester wise students data, and he informed to all teachers about my consent. Teachers allowed researcher to go in the semester wise students' classes. Researcher selected 24 students from each semester who were selected by applying purposive sampling technique

for conducting interview and administering paper pencil test. After gathering data, it were arranged and errors were detected from the collected test. Then, errors were categorized and coded. Codes were assigned (1 for omission error, 2 for substitution error, and 3 for ambiguous error) to the detected types of errors. The coded data were entered into computer for analysis. Demographic variable wise find the difference in the frequency of texting and committing types of spelling errors. Data were analyzed by applying descriptive statistics (frequency, percentage, mean, standard deviation, etc.) with the assistance of SPSS (V.22) software. Text analysis technique was applied to detect the spelling errors from the paper pencil text. The results are shown below:

4. Results and Findings

Objective 1: Exploring the effect of text-language on students spelling errors at university level.

Table 1: Pearson Correlation Analysis for the Analysis to find out Relationship between Texting and Students’ Writing Skills

Variable	r	Sig
Text-language Students’ Spelling Errors	.594(**)	.000

** Correlation is significant at the 0.05 level of significant

The table 1 display that the computed Pearson correlation value is .594 and sig value is .000 which shows text-language moderately effect undergraduate students’ spelling skills. Therefore, concluded that undergraduate students’ spelling errors effected by text language.

Objective 2: Diagnosing magnitude of texting wise effect spelling errors of undergraduate students at university level

Table 2: Descriptive analysis for the analysis to find out magnitude of texting and spelling errors

Magnitude of Texting (in a Day)	Omission Error	Substitution Error	Ambiguous Error	Total
> 10 Text Messages	4.2%(5)	0.8%(1)	0.8%(1)	5.8%(7)
10-19 Text Messages	2.5%(3)	3.3%(4)	1.7%(2)	7.5%(9)
20-29 Text Messages	6.7%(8)	3.3%(4)	3.3%(4)	13.3%(16)
30-39 Text Messages	2.5%(3)	5.0%(6)	4.2%(5)	11.7%(14)
40-49 Text Messages	0.8%(1)	9.2%(11)	7.5%(9)	17.5%(21)
< 50 Text Messages	X	17.5%(21)	26.7%(32)	44.2%(53)
Total	16.7%(20)	39.2%(47)	44.2%(53)	100%(120)

The table 2 disclose that the students who sent > 10 text messages in a day, 4.2%(5) of them committed, omission, 0.8%(1) committed substitution and ambiguous types of errors. The students who texting 10-19 times in a day, among them 2.5%(3) of the students committed omission, 3.3%(4) committed substitution, and 1.7%(2) of the students committed ambiguous errors. The students who texting 20-29 times in a day, among them 6.7%(8) of the students committed omission errors and 3.3% (4) of the students committed substitution and ambiguous types of errors. The students who texting 30-39 times in a day, among them 2.5%(3) of the respondents committed omission, 5.0%(6) committed substitution, and 4.2%(5) of the respondents committed ambiguous errors. The students who texting 40-49 times in a day, among them 0.8%(1) committed omission errors, 9.2%(11) committed substitution, and 7.5%(9) of the respondents committed ambiguous errors. The students who were texting above 50 SMS in a day, among them 17.5%(21) committed substitution and 26.7%(32) of the respondents committed ambiguous errors. It is concluded that majority of the students who texting less than 10 and 20-29 times in a day, committed omission, the students who were texting 10-19 and up to 49 times in day, committed substitution spelling errors, and the students who texting above 50 times in a day, committed both types substitution and ambiguous spelling types of spelling errors.

Objective 3: Detection of the most occurring type of spelling errors committed by text user undergraduate students

Table 3: Descriptive Analysis for the Analysis to find out Types of Spelling Errors Committed by Undergraduate Students

Types of Committed Errors	f	%
Omission	20	24.0
Substitution	47	56.4
Ambiguous	53	63.6
Total	120	100.0

The table 3 discloses that 24.0% (20) of the respondents, committed omission, 56.4%(47) committed substitution, and 63.6%(53) of the respondents, committed ambiguous type of spelling errors. It is concluded that majority of the students committed ambiguous type of spelling error.

Question 1: Is text-language effect students' spelling error at university level?

The above table discloses that text language affected undergraduate students' spelling errors. Moreover, when students were asked majority of them said that text language severely affected their academic writing. They said, while academic writing, they unconsciously write text acronym or text language replaced their academic language. Only minority of them said text language do not effect their academic language. So, they do not commit any types of spelling errors. If they committed any spelling errors while academic formal writing, they committed these errors due others reasons.

Question 2: *What extent magnitude of texting effect spelling errors of undergraduate students at university?*

Table 2 discloses that the magnitude of texting effect great extent undergraduate students' spelling errors. The students who texting in different frequency or magnitude in a day, majority of them committed different types of spelling errors. Moreover, it was found that the students who texting less than 10 and 20-29 times in a day, majority of them committed omission type , the students who were texting 10-19 and up to 49 times in day, committed substitution spelling errors, and the students who texting above 50 times in a day, committed both types substitution and ambiguous spelling errors.

Question 3: *Which one is the most occurring type of spelling error committed by text user undergraduate students?*

Table 3 discloses that that 24.0% (20) of the respondents, committed omission type of spelling error. 56.4%(47) of the undergraduate students' committed substitution type of spelling error, and 63.6%(53) of the respondents, committed ambiguous type of spelling errors. The most occurring type of error which majority of the students committed is ambiguous type of spelling error.

5. Conclusion and Discussion

Exploring the effect of text-language on undergraduate students' spelling errors at university level was the purpose of in hand study. In this regards, data were collected from 120 undergraduate students of English department, university of the Punjab. The collected data were analyzed. It was found that from the analysis that majority of the students were female of 4th semester who were texting <50 in a day for general purposes. Moreover, it was found that 29%(35) mobile phones has been used by the respondents > 3 year, 31%(37) were using since 3-5 year, 34% (41) were using since 6-7 year, and 6%(7) of the respondents were using mobile phone since < 7 year. So far as the concern is the purpose of texting, 21%(25) of the respondents said that they texting for personal matters, 42%(51) were texting for general purpose, 26% (31) of the respondents were texting academic purposes, and 11%(13) of the respondents were texting for sharing political scenario. Magnitude of texting wise it was found that 5.8%(7) of the respondents were texting > 10 times in a day, 7.5%(9) were texting 10-19 times, 13.7%(16) were texting 20-29 times, 11.7%(14) were texting 30-39 times, 17.5%(21) were texting 40-49 times, and 44.2%(53) of the respondents were texting < 50 times in a day. Moreover, text language significantly affected undergraduate students' spelling errors. It was found that majority of the undergraduate students committed omission, substitution, and ambiguous types

of spelling errors. As (Khaliq, Ali, & Hanan, 2019) found in their research that language of SMS spoil the sentence structure and spelling of the students which become the cause to affect the knowledge of correct English among university students. Moreover, it is shocking to mention that the expressions of the standard language are totally influenced by the text message language as the present research found.

Jayakody (2017) found his research that from 210 words paragraph, students wrote 53 words in text language. Moreover, the research that from given 300 words essay writing paper pencil test, 61 words were detected of text language which is the evident that text language become the cause of students' spelling errors at higher secondary school level. The present research also found that from 300 to 400 words paragraph, students wrote 45 words of the text language. The researcher categories these detected words into three spelling error category e.g omission, substitution, and ambiguous errors. The students who committed omission spelling error, majority of them wrote in the writing paragraph as; 'better' as 'btr'; 'school' wrote as 'skul'; 'because' as 'bcz'; 'take care' wrote as 'tc'; 'have' as 'hv'; 'before' wrote as 'b4'; 'What' wrote as 'wt'; 'be' write as 'b'; 'are' as 'r'; 'from' wrote as 'frm'; 'telephone' as 'tphn'; 'friend' as 'frnd'; 'picture' wrote as 'pic'; 'you' wrote as 'u'etc.

The students who committed substitution type of error in test, majority of them wrote 'breath' as 'brd'; 'paragraph' wrote as 'pgrf'; 'please' wrote as 'plz'; 'between' wrote as 'b/w'; 'books' wrote as 'buds'; 'the' wrote 'd'; 'laugh' as 'laf'; 'with' wrote as 'wd'; etc. The students who committed ambiguous type of error, they wrote in the test as 'main Punjab university meinperhti hon' as they should write 'I read in university of Punjab'; 'meranam Ayesha hy' instead of 'My name is Ayesha'; 'My father karobarkartyhain' as they should write 'My father in business man' etc

In addition to, according to majority of the students, text language effects their spelling skills because according to them practice of using chat language extensively affects the use of language in writing negatively, and influences the standard forms of writing because the language of chat differs from the language academic writing while only minority said that text language had no effect on their spelling error. According to Seda & Cengizhan (2013), this runs counter to the students' perception that SMS language is contributing to the decline in secondary school spelling. The selected youth did not confuse the English terminology they used in the classroom with the SMS discourse, supporting Davis and Drouin's (2019) claim that language acquired through time is not readily forgotten.

This provided additional evidence for the conclusions reached, according to which students may transition as needed between text language and the formal English they use for their studies. Some pupils' spelling errors were the result of carelessness or context misinterpretation. Therefore, on bases of research finding it is recommended that to avoid the misunderstandings or miscommunications which create due to use of text language, students should expert in the correct spelling so that they can use correct spelling in their academic writing. Using correct spelling is good quality of students during the development stages of their education, so students should not loss this quality by text language. So, students should use proper spelling in text messages to avoid spelling errors

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