



## RESEARCH PAPER

### The Influence of WhatsApp Texting on Spelling System of Students at Intermediate Level

Dr. Noveen Javed<sup>1</sup> Ezzah Shakil<sup>2</sup> Mahwish Robab<sup>3</sup>

1. Assistant Professor, Department of English Linguistics, The Islamia University of Bahawalpur, Punjab, Pakistan
2. Visiting Faculty, Department of English Literature, The Islamia University of Bahawalpur, Punjab, Pakistan
3. Associate lecturer, Department of English Literature, The Islamia University of Bahawalpur, Punjab, Pakistan

DOI

[http://doi.org/10.47205/plhr.2021\(5-II\)1.24](http://doi.org/10.47205/plhr.2021(5-II)1.24)

#### PAPER INFO

#### ABSTRACT

**Received:**

June 28, 2021

**Accepted:**

October 05, 2021

**Online:**

October 09, 2021

**Keywords:**

Spelling System,  
Standard English  
Texting,  
WhatsApp

**\*Corresponding  
Author**

noveens@yahoo.co  
m

The purpose of the study is to see how WhatsApp text messaging affects students' informal writing. Students' spelling systems have grown erroneous as a result of the widespread usage of WhatsApp texting. The research is based on numbers. To conduct a survey, a closed-ended questionnaire was created. The data was obtained from 50 students at Punjab College Bahawalpur and then statistically analysed. To show the findings, tables and graphs were created. Crispin Thurlow's (2003) theoretical framework was employed in the present study, which followed the paradigm he proposed in his book "Generation Txt?" The Sociolinguistics of Young People's Text-Messaging." The study highlights students' excessive usage of WhatsApp Messenger, which leads to a state of duality in which they are on the edge of breaching Standard English norms.

## Introduction

The research at hand is to determine whether or not WhatsApp texting has a negative impact on the spelling system of intermediate level students. It is inescapable that technology will play a prominent role in the introduction of new modes of communication. The development of mobile phones marked a sea change in the way people communicated with one another. Text messaging became popular as a result of this. Crystal (2008) has created a checklist of various names associated with mobile text messaging:

- Short messaging
- SMSing

- Short mail
- Person-to-person messaging
- Text messaging
- Mobile messaging

Although the two persons are not face to face while conversing over the phone, their emotions are transmitted across the phone line. As a result, they develop a want to communicate with one another immediately, leading to the creation of misspelt words, blended words, and numeral-alphabet mixes, among other things. Shorthand words like "texting" and "short chit-chat" are destroying the standards of Standard English.

Thurlow (2003) claims that the traditions of Standard English are being deviated through the following:

- Letter homophones (example: w8)
- Shortening (example: "uni" for "university")
- Misspellings (example: dprtmnt)
- Accent stylization (example: plz)

Because change is the only constant, technology hastens language change (Shahzad et al., 2019). Despite the fact that texting has caused Standard English to deviate and has had a detrimental influence on students' brains, only a small number of experts believe texting has served as a catalyst for language resurrection. It's been noted by Herring (1999) that technology communication has its own unique characteristics, such as omitting paralinguistic elements, excluding verbal pronouns, and making use of emoticons and acronyms to save time.

WhatsApp is a social networking platform that allows users to create, communicate, discuss, and trade ideas, as well as share photos and information and send messages to one another. WhatsApp Messenger is a communication application that allows users to send and receive messages instantly. WhatsApp is becoming increasingly popular among young people due to its numerous benefits. This application is highly cost-effective, and users may send not only text but also voice messages, image messages, videos, documents, links, PDF files, emoticons, and other types of communications. Contacts that you don't want can be banned. Groups may be formed to communicate with a large number of individuals at once. Google Maps may also be used to communicate locations. Its single tick, double tick, and blue tick features can alert people.

Since the world has become a global village, so inhabitants from one edge of the world can converse with inhabitants at the other end of the world. Mobile phones or more appropriately technology has refashioned and remodelled the world.

Crystal (2004) has stated his feelings on the internet's overwhelming influence. The alteration of the English lexicon is triggered by WhatsApp text messaging. The use of social networking sites like Facebook, WhatsApp, Instagram, and Twitter has completely transformed how individuals bargain and connect with one another. People develop an informal vocabulary comprised of various acronyms and abbreviated or blended terms in order to communicate quickly and effectively.

Crystal (2004) asserts that the days when it was considered necessary to study solely the conventional and formal elements of language are gone. As a result, people are at the crossroads of two conflicting worlds, on the point of adopting the non-standard aspects of linguistic variations that have been critiqued in the distant past while simultaneously rejecting them. Now that the language field has reached this degree of transition, language specialists have begun to believe that the study of non-standard varieties is representative of a diverse society and allows various social groups to communicate their thoughts on an individual and collective level. "The internet is an independent, liberating, and creative medium," according to Crystal (2001). This is due to the fact that it allows individuals to explore and play with language. As a result, individuals are successful in creating neologisms that are rich in meaning. It is nothing more than a mix of letters, numbers, and abbreviated words used on the internet as shorthand textese.

According to Crystal (2001), textese is striking for two reasons:

1. It consists of primitive and unedited written language in crude state
2. It proves that ordinary (young) people possess linguistic versatility which allows them to produce something new

Pakistan is a multilingual country with a wide range of different languages spoken. Since 1947, the English language has been the dominant language. In Pakistan, the English language has a high level of respect. In fact, it has become something of a status symbol in Pakistani culture. The English language is not only taught as a topic in Pakistan, but the spirit of the language has penetrated the whole country as well. Apart from Pakistan, English is not only the official international language, but it is also the lingua franca for academic purposes, serving as a contact language, a bridge language, and a treat language all over the world. Instead of just being a language, English has become a subject of social class consciousness and prestige.

In the current epoch, technology and science have brought massive revolution. Life has become better on one side but at the same time it has become busy and full of hustle and bustle, where one barely finds time to communicate with one's loved ones. Textism has provided people with the opportunity to stay connected with friends and family across the globe. Textism is a brief genre of communication which gives rise to

instant communication and is time economical. This is because in the era of technological advancement, there is a need for brevity in communication.

The key benefits of WhatsApp textese are:

- Time economical
- Space saving
- Instant conversation
- Sentence contraction
- Emojis to beautify the chat
- Cheap mode of communication
- Pictures, videos sharing
- Voice messaging conversation
- PDF files
- Instructional medium
- Learning medium
- Group chat
- Online business and advertisements

Among the younger generation, WhatsApp text messaging is a convenient and rapid communication tool that they may use at any time. The formal characteristics and standard forms of the English language will be destroyed if its use continues to grow at its current rate. When it comes to spelling and grammar, this will cause kids to become confused and double minded as a result. While this may have no effect on their academic or official documents, it will almost certainly have an impact on them. As a result, individuals are more likely to make mistakes and to lose their command of Standard English. An altered variant of language will be popularised, as opposed to its original form.

### **Literature Review**

This portion of the study paper will discuss numerous pieces of literature and theoretical studies of how textese appears in formal documents. A quick look at the background of WhatsApp shows two former Yahoo employees: Brian Acton and Jan Koum. Both of them applied for employment at Facebook but were turned down. As

a result, Koum continued to prosper on Yahoo's 4 million dollar savings. In 2009, he purchased an iPhone and then visited a buddy called Alex Fishman. Fishman introduced Koum to a Russian developer named "Igor," and Koum then gave the programme the moniker "WhatsApp," which sounded like "What's up." When WhatsApp was first built, it frequently crashed and shut down. Thus, Koum desired to resign, but Acton urged him to remain. In June 2009, Apple introduced push alerts. Koum made several changes to WhatsApp, allowing users to get alerts even when they are not online on the app. As a result, WhatsApp's active user base increased to 250,000.

Acton also invested in WhatsApp and in this way both Brian and Acton became the founder of WhatsApp and both of them brought innovations in this application gradually. Thus, the number of active users increased day by day.

In his book *Txting: The Gr8 Db8*, Crystal (2008) emphasises the use of "SMS talk." Crystal believes that text language is not as bad as some scholars believe. Rather than that, it is a means of enhancing one's reading and writing abilities. This is because people understand the exact forms of language prior to practising text, but they reduce and abbreviate the words to meet their immediate conversational demands. He asserted that SMSing is a means of enhancing reading skills.

Crystal (2008) continues his debate and opined that there is a remarkable growth in cell phone usage so the rate of texting has also been elevated. 140 bytes of data is contained in one text message. Some of the distinct features of textese are:

1. Distinct graphic style
2. Full off abbreviations
3. Deviant language

Similarly, several other academics, in addition to David Crystal, have argued that text talk should be regarded a distinct genre of language variation with its own vocabulary and a high degree of context sensitivity. Reading, literacy, writing, and communication abilities are all reshaped by texting. Russell (2010) maintains an apolitical stance about text messaging. She feels that it has its own set of advantages and disadvantages. She convinces pupils that if they master the fundamentals of English, they would be able to discern between various types of language. Language is not a static entity, but a fluid and embryonic one.

WhatsApp text messaging enables youngsters to experiment with language, investigate word creation processes, and enhance their literacy skills. Children's minds are like sponges that take up new experiences. Invented spellings are one of textism's finest gifts. According to Lutz (1986), a youngster attempts to spell a word based on his or her ability to link letters with sounds.

There are six stages of spelling knowledge of a child as per Lutz (1986).

1. Pre-communicative Stage: In this stage, the children try to copy alphabets but possess no knowledge of the alphabet itself. They do not know the sound of the alphabet and no distinction between uppercase and lowercase letters.
2. Semi-phonetic Stage: In this stage, a child gets knowledge about the sound of the alphabet and he tries to associate sounds with alphabets. But their knowledge is crude.
3. Phonetic Stage: In phonetic stage, a child starts employing group of letters and tries to make a word for every sound they hear.
4. Transitional Stage: Here, the speller starts using lengthy vowel patterns, complex vowel patterns and consonants correctly.
5. Correction Stage: This is the stage of proficiency where one exactly knows the English orthographic system and demonstrates greater choice of words.

Dissemination of slangs is another consequence of net speak or text speak. According to Oxford Advanced Learner's Dictionary (2015), slangs consist of context specific language that is peculiar to speech and not to writing and is highly colloquial in nature. The information presented in this heading is retrieved from an article "How and Why Slangs Spread?" by Dan Zarrella which is available on the website <http://danzarrella.com/slang/>.

Zarrella (2008) attempted to define slangs in these words: "massively expressive oral language that is not suited for formal usage". Euphemisms blur the line of reality while slangs bring us face to face with the reality. Various subcultures construct names for notions and things that are unnamed. So in order to pronounce those concepts publicly, these people create a common name for these floating notions. Those names could be a taboo as well. For instance: names for drugs. Zarrella (2008) enlists the case of a slang "baby-mama". Baby-mama refers to a woman who has given birth to a child because of an intimate relationship with the man to whom she has not tied the knot yet (illegitimate physical relationship) and there is no long-term relationship between both of them. Origination of such slangs is because of many reasons, like: to signal solidarity, mix and match in a particular social group, create emotional relationships with each other, and bridging up of conversational gaps.

One can easily get some know-how of the customs, conventions, traditions, beliefs and attitudes of that sub culture by studying its slangs. This is not firmly established because sometimes a few slangs receive stigmatisation and give a pejorative impact to the suppressed members of the society and they might take it as a token of humiliation.

Multifarious technologies are providing multiplicity of opportunities to the people in order to communicate with one another through various platforms. These conversational platforms might include:

- Asynchronous negotiations
- Synchronous discussions
- Texting (mainly WhatsApp)
- Social media interactions

All the above mentioned genres of communication are in written form and are interactive in nature.

In order to make the conversational process speedy and abridged, people have commenced using shorthand devices like pragmatic devices, clipped varieties, blended items, shortening of words, coinages, graphical tools, and compounded words to intensify the chat process. Some shorthand devices that have been produced to satisfy conversational needs have been allocated a specific status in dictionaries because they have become naturalised in the society.

Electronic and social media communication is the most common form of communication among youth. The most common and mainstream among them is the devising of truncated words for speedy communication. Herring (1999) observes that people attempt to make fewer mistakes in oral communication than in written communication. Thus, the written genre is full of errors. So, in order to exclude such blunders, people have devised instant communicative modes such as: neologisms, compounds, blends, acronyms, abbreviations, informal spellings or intentional misspellings.

### **Material and Methods**

The current study is quantitative in design due to the fact that it is an empirical investigation. The research instrument of choice is a closed-ended questionnaire. The quiz is structured around 15 Likert scale replies. The demographic was chosen with the study's objectives in mind. The current study used a random sample of 50 intermediate-level students from Punjab College Bahawalpur. It surveyed 50 respondents, 20 males and 30 females. The researcher addressed intermediate students and informed them of the study's goals. The data is analysed and the findings are presented in the form of tables and graphs. Consent was obtained from the pupils. Text messaging on WhatsApp is a double-edged sword. On the one hand, it has bound people together; on the other hand, it has wreaked havoc on kids' spelling abilities. This is essentially the primary reason for conducting this investigation.

### **Theoretical Framework**

The insights of this study are taken from the theoretical positions of Crispin Thurlow (2003) from his work *Generation Txt? The Sociolinguistics of Young People's Text-Messaging*. Thurlow analysed nearly about 101 media reports on textese. His students depicted that language is used in a negative light. The spelling system of

students is badly ruined due to excessive text messaging. Since language is not bounded by rules so children play with it freely. He described teenagers as:

1. Generation grunt
2. Generation text
3. Net generation

Thurlow concluded that net generation uses various techniques while they are indulged in text messaging. First of all, they amalgamate numerals and letters to form one word (18 for late). Secondly, they shorten and clip the word (Sun for Sunday). Thirdly, they use non-conventional spellings. This is because they follow the sociolinguistic maxims of brevity and speed. This makes them communicatively expert but linguistically unremarkable. Net generation, according to Thurlow, is media literate.

## Results and Discussion

### Data Analysis

This portion of the research is about the elaboration of data. Analysis is conducted to quantify the numerical data. A closed ended questionnaire consisting of 15 responses and designed on Likert scale was provided to 50 students of Punjab College. Through bar graphs, the result is manifested and the numerical data of aggregate response is also demonstrated.

### With every passing day, use of WhatsApp is increasing.

When the students were asked about the increasing use of WhatsApp, 68% strongly agreed, 28% agreed while 2% of them remained neutral and 2% of them strongly disagreed.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	1	2.0	2.0	2.0
	N	1	2.0	2.0	4.0
	A	14	28.0	28.0	32.0
	SA	34	68.0	68.0	100.0
	Total	50	100.0	100.0	

### WhatsApp speak relies upon shortening of words and expressions.

When the respondents were asked about the reliability of WhatsApp text messaging upon shortening of words, majority of them (60%) agreed, which clearly portrays that it involves shortening and clipping of words. 22% strongly agreed too.



However, 12% were neutral and only a small number (4%) disagreed and (2%) strongly disagreed.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	1	2.0	2.0	2.0
	D	2	4.0	4.0	6.0
	N	6	12.0	12.0	18.0
	A	30	60.0	60.0	78.0
	SA	11	22.0	22.0	100.0
	Total	50	100.0	100.0	

**My WhatsApp text messages mostly involve clipping of words and expressions.**

32% students agreed and 24% student strongly agreed when they were asked that whether they shorten and clip the words and expressions on WhatsApp or not. Whereas 24% were neutral, 12% disagreed and 8% strongly disagreed.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	4	8.0	8.0	8.0
	D	6	12.0	12.0	20.0
	N	12	24.0	24.0	44.0
	A	16	32.0	32.0	76.0
	SA	12	24.0	24.0	100.0
	Total	50	100.0	100.0	

**Shortening of words and expressions while conversing on WhatsApp is time saving.**

Majority of the students (32%) agreed and (40%) strongly agreed to this statement while minority of the students only 10% disagreed to this statement clearly indicates that conversing on WhatsApp Messenger is time saving. 18% of them, however, were neutral.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	D	5	10.0	10.0	10.0
	N	9	18.0	18.0	28.0
	A	16	32.0	32.0	60.0
	SA	20	40.0	40.0	100.0
	Total	50	100.0	100.0	

**WhatsApp gives rise to instant communication.**

WhatsApp text speak indeed gives rise to speedy and instant communication, this is proven because 44% of students agreed and 22% of them strongly agreed when they were asked this question. 26% of the students were neutral. And only 6% and 2% disagreed and strongly disagreed respectively.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	1	2.0	2.0	2.0
	D	3	6.0	6.0	8.0
	N	13	26.0	26.0	34.0
	A	22	44.0	44.0	78.0
	SA	11	22.0	22.0	100.0
	Total	50	100.0	100.0	

### 6. Shortening of words and expressions represents literacy and good social status.

When the students of intermediate was asked that whether this shortening of words represents an elevated social status or not then 36% of them disagreed, 14% of them strongly disagreed, 16% agreed and only 12% strongly agreed, which means that students are of the view that shortening of word is not a symbol of good social status or literacy. Neutral students were 22%.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	7	14.0	14.0	14.0
	D	18	36.0	36.0	50.0
	N	11	22.0	22.0	72.0
	A	8	16.0	16.0	88.0
	SA	6	12.0	12.0	100.0
	Total	50	100.0	100.0	

### WhatsApp text speak is a way to hide weaknesses of spelling and grammar.

40% of students agreed and 42% of them strongly agreed when they were asked about the fact that writing informal spellings on WhatsApp Messenger can hide their weaknesses of spelling and grammar. 12% of them remained neutral and 6% of them strongly disagreed.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	3	6.0	6.0	6.0
	N	6	12.0	12.0	18.0
	A	20	40.0	40.0	58.0
	SA	21	42.0	42.0	100.0
	Total	50	100.0	100.0	

**Text speak is context dependent.**

The below statistics prove that WhatsApp text speak is dependent upon the context in which the conversation is being carried out. This is because 22% strongly agreed and 48% of students agreed and simply agreed respectively. 20% of them remained neutral. And 10% of them disagreed.

		<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Valid	D	5	10.0	10.0	10.0
	N	10	20.0	20.0	30.0
	A	24	48.0	48.0	78.0
	SA	11	22.0	22.0	100.0
	Total	50	100.0	100.0	

**Shortening of words and expressions is a convenient way to communicate.**

38% of intermediate students agreed and 34% of them strongly agreed when they were asked that whether texting on WhatsApp is an easy and convenient way to communicate or not. However, 10% of them remained neutral. 16% students disagreed and 2% if them strongly disagreed only.

		<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Valid	SD	1	2.0	2.0	2.0
	D	8	16.0	16.0	18.0
	N	5	10.0	10.0	28.0
	A	19	38.0	38.0	66.0
	SA	17	34.0	34.0	100.0
	Total	50	100.0	100.0	

**Shortening of words and expressions is ruining norms of Standard English.**

The below provided statistics are a proof of the fact that shortening of words and expressions on WhatsApp Messenger is devastating the norms of Standard English. Because when asked this question, 2% of students strongly disagreed, 12% of them disagreed, 8% were neutral, 36% agreed and 42% of them strongly agreed.

		<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Valid	SD	1	2.0	2.0	2.0
	D	6	12.0	12.0	14.0
	N	4	8.0	8.0	22.0
	A	18	36.0	36.0	58.0
	SA	21	42.0	42.0	100.0
	Total	50	100.0	100.0	

**Shortening of lexical items can cause students to commit mistakes in academics.**

60% of college students strongly agreed and 28% of them agreed that shortening of lexical items in various ways compel them to make mistakes in their formal papers. 28% of them remained neutral while 2% of students disagreed and 2% of them strongly disagreed.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	1	2.0	2.0	2.0
	D	1	2.0	2.0	4.0
	N	4	8.0	8.0	12.0
	A	14	28.0	28.0	40.0
	SA	30	60.0	60.0	100.0
	Total	50	100.0	100.0	

**Textese is inappropriate for academic papers.**

Text speak is an appropriate for formal papers because when the students were asked this question, 50% of them strongly agreed, 22% of them agreed and only 2% of them strongly disagreed. 8% disagreed. While remaining 18% were neutral.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	1	2.0	2.0	2.0
	D	4	8.0	8.0	10.0
	N	9	18.0	18.0	28.0
	A	11	22.0	22.0	50.0
	SA	25	50.0	50.0	100.0
	Total	50	100.0	100.0	

**Frequent SMSing via WhatsApp confuses students while writing formal papers**

Excessive messaging leads students to a state of double mindedness or confusion that causes them to commit mistakes during their academic writing. 56% of students agreed and 22% of them strongly agreed when asked this question. Only 6% disagreed and rest of the 16% remained neutral.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	D	3	6.0	6.0	6.0
	N	8	16.0	16.0	22.0
	A	28	56.0	56.0	78.0
	SA	11	22.0	22.0	100.0
	Total	50	100.0	100.0	

**Shortening of words occurs at phrase level (e.g. gonna for “going to”).**

When the respondents were asked that whether they clip the word at phrase level, 30% of them strongly agreed and 40% of them agreed that they do shorten the word on phrase level like “wanna” for “want to” and “gonna” for “going to”. Only 4% strongly disagreed, 6% disagreed and 20% were indecisive.

		<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Valid	SD	2	4.0	4.0	4.0
	D	3	6.0	6.0	10.0
	N	10	20.0	20.0	30.0
	A	20	40.0	40.0	70.0
	SA	15	30.0	30.0	100.0
	Total	50	100.0	100.0	

**Clipping of items occur at clause level (e.g. “You love it more” for “You love it more than I do”).**

Respondents clip the items not only at phrase level but also at clause level, this is proven because when they were asked this question, 54% of them agreed and 10% of them strongly agreed while a minority of them remained (22%) neutral, (10%) disagreed or strongly disagreed (4%).

		<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Valid	SD	2	4.0	4.0	4.0
	D	5	10.0	10.0	14.0
	N	11	22.0	22.0	36.0
	A	27	54.0	54.0	90.0
	SA	5	10.0	10.0	100.0
	Total	50	100.0	100.0	

**Findings and Discussions**

Following the analysis of the data, the conclusions were compiled using the statistical methods described above. Thus, it has been demonstrated that the number of people using WhatsApp Messenger is increasing with each passing day. WhatsApp is a messaging app that intermediate students use to interact with their friends and family. For this reason, the expected effects of SMS language on students' formal writings are unfavourable, as text lingo is unsuitable for academic purposes. As a consequence, while students are writing formal papers, they become confused and double-minded, which results in spelling and grammatical mistakes. Students shorten words at the phrase, sentence, and syntactic levels by clipping, mixing, and producing homophones of the letters and numbers in the words they use. All of these traits, which are utilised by intermediate students in their text conversations, are in violation of the Standard English language guidelines.

**Conclusion**

We can draw the conclusion that students' reading abilities are being harmed by WhatsApp text messaging. Students are increasingly using abbreviations, intentional misspellings, and informal spellings in their conversations due to the need to speak quickly. In turn, they practise using slang, cut objects, and write syntactically incorrect sentences for their formal and academic writings as a result of intermediate students. Students who already have a poor understanding of grammar employ deliberate misspellings to hide their lack of proficiency. We propose that teachers set up some sessions for their pupils and make sure they understand the significance of adhering to the rules of Standard English use in their communications with them. Because it's an academic lingua franca and an international language, students should be taught the importance of avoiding textese in academic papers before using it. Informal and formal writing should be taught to students. Learners should be instilled with a positive attitude toward the English language and made aware of its proper and authentic qualities.

## References

- Crystal, D. (2001). *Language and the Internet*. Cambridge: Cambridge University Press.
- Crystal, D. (2004). *The Stories of English*. London: Penguin Group.
- Crystal, D. (2008). *Txtng: The gr8 db8*. Oxford: Oxford University Press.
- Herring, S. C. (1999). Interactional coherence in CMC. *Journal of Computer-Mediated Communication*, 4(4). <http://jcmc.indiana.edu/vol4/issue4/herring.html>.
- Hornby, A. S., Ashby, M., & Wehmeier, S. (2015). *Oxford advanced learner's dictionary of current English (9th ed.)*. Oxford: Oxford University Press.
- Lutz, E. (1986). *Invented Spelling and Spelling Development*. ERIC Digest. ERIC Clearinghouse on Reading and Communication Skills.
- Russell, L. (2010). *The Effects Text Messaging on English Grammar*. [http://www.ehow.com/list\\_5828172\\_effects-text-messaging-english-grammar.html](http://www.ehow.com/list_5828172_effects-text-messaging-english-grammar.html)
- Shahzad, A., K., Sibtain, M., Qasim, H., M. (2019). Studying Teachers' Perceptions of Teaching Methods in Pakistan: A Pedagogical Study of Pakistani Classrooms. *Pakistan Languages And Humanities Review* ,3(1),10-19, doi:10.47205/plhr.2019(3-I)1.2
- Thurlow, C., & Brown, A. (2003). *Generation txt? The sociolinguistics of young people's text-messaging*. *Discourse Analysis Online*, 1(1). <http://extra.shu.ac.uk/daol/articles/v1/n1/a3/thurlow2002003-t.html>
- Thurlow, C., & McKay, S., (2003). Profiling 'new' communication technologies in adolescence. *Journal of Language and Social Psychology*, 22(1), 94-103.
- Zarrella, D. (2008, August 11). *How and Why Slangs Spread?* <http://danzarrella.com/slang/>