



Communication in the Digital World: An Evaluation of Orthography of WhatsApp Messaging

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Abstract- Life has been changed due to the proliferation of social media. Social media influences our modes of life because everything is now dependent to the internet-based technology and stepped up in the digital world. This digital world has filled the gaps among peoples across the borders. Communication among people has taken the new form in the digital world. Language of communication has been influenced greatly and still continued. Due to the contact with people belonged to different linguistic backgrounds, variations in language of communication are taking place at different levels. These variations make language of digital communication more different and unique due to some specifications. This research will explore the categorical specifications of computer-mediated communication at the world level of English language. WhatsApp (a social media application) is selected to take the sample of messages for investigation. As a qualitative study, use of abbreviations, shortening of words, numerical expressions, under change in orthography will be analyzed in this study. Under quantification, frequency of each mentioned features will be calculated to see the recurrence and on the other hand, mean values will enable us to see the comparison of variables of study. These quantifications will be done through SPSS software. This research will contribute towards the repertoire of digital communication and support the existing studies by providing different contextual diversity of data. Moreover, it will open different avenues of research in this regard under the parasol of internet-based communication on social media.

Keywords: Social media, digital communication, orthographical variations, WhatsApp messaging

I. INTRODUCTION

There was the time when people used to communicate through oldest ways through birds, messengers or letters. Communication satisfaction through these means was enough at that time. Then the scenario was changed with the invention of telephone, which made people more connected and zealous. Their communication deficiency was seemed as filled at the higher level. Time was passing and life was going on with new ideas, inventions etc. Then came the miraculous innovation in the world which brought internet technology. This technology changed the whole scenario and shifted the old and traditional trends to the new, modern and digital one.

This invent of internet laid the foundation of the digital world which has transformed our lives. Traditional modes of doing things are now dependent to the digital world and technology. Our dependence on internet-based technology is increasing day by day and let us do things more efficiently and faster (Mizuko, Davidson, Jenkins, weiss, & Eisenberg, 2008). Influence of digital world changed the modes of communication too. People are more connected and closer through different social media sites. Communication interest and involvement of people is more vibrant nowadays due to the escalation of social media in our lives (Buckingham, 2008). Communication gap among people across the borders and countries seems diluted due to the internet communication and social media. Under the communication, different changes are being happened. Most importantly, variations in languages can be observed due to the communication via social media among different people. These variations are based on different changes like change in structure, change in orthography through reduction, numeric insertions, abbreviation use etc. Use of code switching is

also prevalent in the communication on social media. All these changes are influencing the language due to the contact with different languages and backgrounds.

The purpose of this study is to highlight the linguistic variation happening due to the communication by using social media. Specific features of digital communication are highlighted in this research article to know the language changes in messaging and chatting as a whole at English word level, through WhatsApp. People are unconsciously using changed patterns in computer-mediated communication. This study highlights the creative processes driven behind the digital communication in diverse ways. This study is based on the communication through WhatsApp messaging which is widely used in Pakistan for communication purposes. To accomplish this discussion, study will address the following research questions:

- How language is used differently during communication on WhatsApp?
- How different features (shortening of words, use of abbreviations, numerical expressions under change in orthography) of language of digital communication are being used by people through WhatsApp communication?
- What are the orthographical changes observed in the communication through WhatsApp as a whole?
- What are the recurrent patterns in communication through WhatsApp by calculating frequency and analyzing mean value?

These research questions will enable the readers to know about the changes among language of communication of social media as compared to the normal one. Moreover, this study will give the insight regarding the different linguistic features underlining the language of computer-mediated communication. Under the language contact in a multilingual or bilingual context, consequences of change in language are viewed in this study. This phenomenon of variations and modifications is frequent in digital communication because of the effects of language contact (Judith F., Susan C., & Hoshino, 2014). Different dimensions of orthographical changes are addressed in this study which are depicted through the means of sample taken from WhatsApp messages and chats. Trend of digital communication is making linguists aware of the emergence of new communication system based on mixed features of language and complex specifications.

Proliferation of Social Media

The digital world has changed the modes of life. Traditional ways have been replaced by the new ones driven by the internet technology. People depend on digital world for their knowledge, learning, communication, information, entertainment and so on. All the modern ways of doing things are the blessings of internet and digitalized world. Social media is now fulfilling the desires of everyone from little to old age. Social media has now become the central to everyone's life especially for youth who are more vibrant towards social media (Boyd, 2008). The whole world is at the distance of a click or a touch. No one can deny the emergence of social media as an essential part of our daily lives.

Communication on social media is linking the gaps among people. People across the borders or from the other corner of the world can easily interact with each other due to the social media. Effective communication is pursued by the use of social media sites like Facebook, Twitter, WhatsApp, Instagram etc. These social media sites are used at a large scale across the world which also brings some consequences (Krotz, 2009). These consequences include cultural differences, hybridizations, language variations etc. These consequences are studied by different researchers as illustrated by Knut Lundby (Lundby, 2009). Language variations due to the communication on Social media has become the point of focus nowadays.

Communication through Social Media

Communication through the social media sites is an impressive mode to interact with others. Social media has connected all the people with in or across the countries. By filling gaps among people due to the distance, social media has become integrated in our daily lives. Some years ago, around World War II, social communication was invented in the form of older Email. But it got popularity in the end of twentieth century and became essential part of our society, as illustrated by Thurlow (Thurlow, Lengel, & Tomic, 2004). The term Computer-mediated communication is being used for this digital communication which is based on communication or interaction among different people or groups by using computer technology.

People from different languages and cultures interact with other people in multilingual or bilingual context. These multilingual practices are influencing the attitudes, behavior of the language speakers which Androutsopoulos named as networked multilingualism. It highlights the connection of different groups or language speakers via internet or digital world (Androutsopoulos, 2015). Their multilingual practices cause variations in language when two or more different languages encounter with each other. So, language passes through certain variations and shifts in multilingual social communication which further open the ways of bringing different features into the language of communication through social media (Crystal, 2001). This enables and influences people to use different kinds of structures in a language. So, the social media has changed different aspects of language of communication which is also influencing our daily life language and emergence of new form of language can be observed in this way (Collot & Belmore, 1996). These prominent variations oppose to the historical changes of languages which take place gradually after a long-time span in the stage wise movement (Chambers, 2004). So the language of communication through social media is bearing the series of changes, happening across the world (Crystal, 2001).

Linguistic changes in digital communication are increasing with the passage of time and making it more stable due to the underlined patterns and structures embedded in the digital communication on social media. Language of communication is being used in a different way by people, consciously or unconsciously. Deviations from the standard language is making the communication of social media as more prominent and focus of study.

II. METHODOLOGY

2.1 Theoretical Underpinning

This research is based on Qualitative and quantitative both approaches. Under qualitative approach, linguistics specifications of communication are highlighted to illustrate unique characteristics of language of digital communication by using data from WhatsApp communication. Different features like of orthographical change of English language like word reduction, abbreviations, and numerical expressions will be analyzed, which are embedded in code switched contents. These variables will be studied at word level. Content based on English, Urdu or Romanized Urdu and code switching will be taken and narrowed down to the English words. Received data from selected sample will be categorized under different categories of linguistics characterization of communication language of social media. This categorization will provide more in-depth insight to study the research aim. Moreover, data will be discussed under these categories and analyzed further with supportive details of the data. Literal translation will be done to have understanding of the content taken from WhatsApp (where needed).

On the other hand, frequency of different categories will be measured under quantitative analysis that how many times a specific category has been repeated in the data as a whole. Moreover, mean values of variables will be measured to compare these categories: shortening of words, abbreviations, numerical expression. By comparing mean values, study will highlight most recurring feature of unique language use through the WhatsApp communication. Following figure shows the procedure of this study:

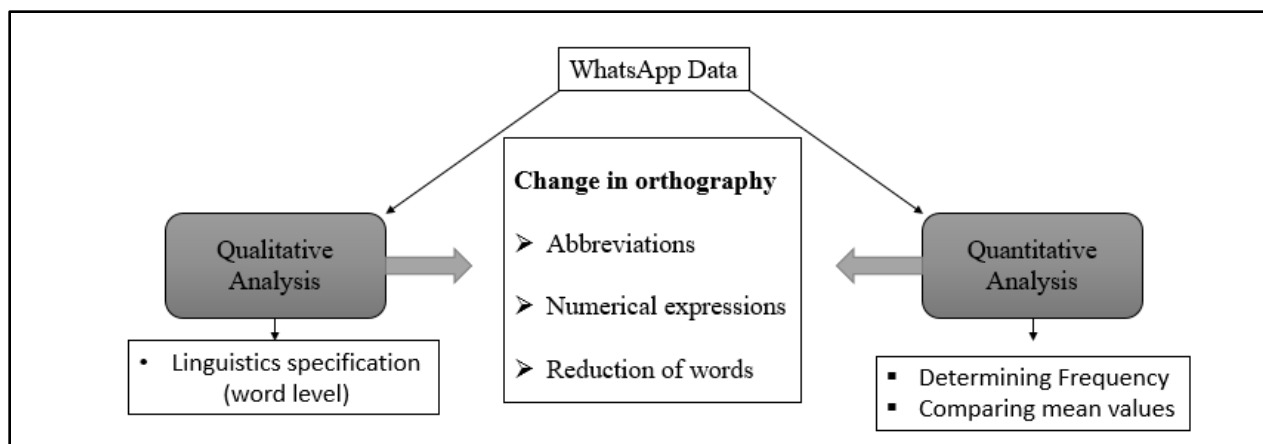


Figure 1. Analysis Design of the Study

2.2. DATA COLLECTION

2.2.1. Sample and Demographics

To study the mentioned research question, social media application WhatsApp (popular social media mobile app) is taken to get data for the study. Researcher used his own WhatsApp mobile account to take the valid data to analyze. Due to the extensive strings of communication, data is narrowed down to the one group. Group communication has been selected due to the purpose because of different people's interaction and this study is based on study of social media communication among different people. To accomplish this task, group communication on WhatsApp was better. Total 20 members of group were belonged to different families. Majority was based on Urdu and Punjabi speakers while a few of them were Saraiki Speakers. All members were studying in the BS level of the same University (University of Education, Lahore, Pakistan).

Due to the high numbers of messages data was narrowed down to only one week communication from 09th December, 2019 to 15th December, 2019 to study the research questions. This selected range is comprised of 78 messages which were analyzed on the basis of selected categories: orthographical change, shortening of words, use of numerical expressions and abbreviations. Data was further focused on text-based expressions in the messages on WhatsApp group. These categorical division were studied on the English words embedded in messages and how these words are modified by respondents. English words used in communication showed deviations from standard patterns of words and depicted high level of orthographical variations in language of communication on WhatsApp.

2.2.2. Nature of the Data

Data was based on messages which also included images, symbols, emojis, videos and text. Except text-based messages all other data types were excluded. Focus was given to the messages typed in the text form which were 48 in number. These messages were whether in Romanized Urdu expressions, English language or in mixed expressions or code-switched messages. These messages were taken to analyze the variables of data on the modification of English words. Following categories are highlighted in this study under the orthographical variations:

- Shortening of words
- Use of numerical expressions
- Abbreviations

These variables has been selected because of their integration in the selected data. These variables focus on variations in communication level at the word level of English only which has been investigated in this research.

2.2.3. Ethical Consideration

As the data is based on personal messages among the group of different people. Researcher informed all the members of using the data of their messages for the research purpose. The aims of research were made clear to them, accompanied by short overview of the research study. However, members' confidentiality was made ensured. Assurance was given to people regarding safety of their names, contact numbers. In the same way, researcher avoided those messages to include in study, which seemed as based on personal details like address or relevant facts. Names mentioned messages were also excluded from the sample. As a whole, confidentiality of members of group was made ensured by the researcher.

2.3. DATA ANALYSIS

Data analysis is based on two approaches:

- Qualitative
- Quantitative

Qualitative Part

Qualitative analysis includes highlighting the unique characteristics in the form of defined variables, of WhatsApp communication. Modification of English words used in this communication were taken to see the changes in the orthographical structure by different variations. Data showed distinct changes in orthography of English language on WhatsApp communication. Orthographical patterns of English language were modified through numeric insertion, shortening of words and abbreviations. Following table shows the modification of English words embedded in the code-switched expressions of English and Urdu in the WhatsApp communication:

Modified	Original	Modified	Original
Hw	How	Mam	Ma'am
Rgstration	Registration	U	You
Dcmnts	Documents	Pple	People
Seene	Scene	2	To
Mng	Manage	Nmbr	Number
Chargz	Charges	Thnx	Thanks
N.P	No problem	Mnday	Monday
Fb	Facebook	Uplod	Upload
9	Know	Fone	Phone
Forgt	Forget	Lts c	Let's see
B4	Before	hpnd	Happened

Uni	University		TY	Thank you
Rzlbs	Results		Gd by	Good bye
Omg	Oh my God		Dnt	Don't
Ss	Screen Shot		Ain't	Aren't
Nyt	Night		Stdnts	Students
cmplsry	Compulsory		Tnshn	Tension
Eyz	Eyes		Hrts	Hurts
slkt	Select		Mis	Miss
Bz	Busy		Rzlt	Result
Tc	Take care		Pic	Picture
Table 1. Shortening of words in sample of WhatsApp communication				

Shortening of words

English words were reduced by the respondents during communication. This reduction was done at different levels: consonant reduction as well as vowel reduction or both in the same word. Instances of reducing vowels were observed more than consonant reduction in the messages of WhatsApp. For example, words like 'rgstration' (registration), 'plz' (please), 'hw' (how) etc. Participants retained consonant sounds in their text messages for phonological importance because this habit let people to adjust words automatically without vowels phonologically, as they are used to these words. In the first example 'rgstration', vowel is omitted but whole word's essence is retained. Modified form of 'please' is 'plz' in communication is also based on vowel omission and including just consonants of the word. Moreover, 's' consonant is modified to the 'z' due to the phonological similarity of the word 'please' with 'z' at final position.

Different words were reduced to its shortened forms of communication by substituting other phonological item through alphabets like in words 'thnx' (thanks), 'tnshn' (tension), 'eyz' (eyes), 'fone' etc. These substitutes fulfil the significance of a sound in the word. People consciously or unconsciously use these substitutes to fill the significant phonological gap in the word. Modifications at this level reduce the word as well as introduce the new possible phonological substitute used in communication language of social media. Substitution words are phonologically same or near to the alphabet(s) modified. Like for a word 'tension', people use 'tnshn' which means they introduced 'sh' pattern for that specific sound used in the word. In a word 'thanks' last alphabets are based on consonant cluster 'ks', in communication on WhatsApp some people use 'x' alphabet as the substitute of 'ks' because of similarity of consonants phonologically when shortening the word. Alphabets like 's' and 'z' are allomorphs of each other as they are used for the same morphological purposes. In example, 'eyz' people substitute 'z' alphabet instead of 's' due to the sound similarity of 's' with 'z' in 'eyes' and some more similar words like 'please' to 'plz'.

Instances of dropping consonant from double consonant in the word can also be observed in the data. For example, 'hpnd' (happened), deletion of consonant letter from the same double consonant cluster in a word, along with vowel letters can be seen here. Dropping consonant is based on no change in the basic sound because phonologically one consonant in this word is balancing the intended word. 'pp' of 'happy' is

converted to single 'p' because of no phonological difference, the word will be perceived by the essence of 'p' in the same way as phonology of word is based on only single alphabet. In the similar way, 'miss' has two consonants in orthographical expression. Respondents during WhatsApp communication use it as 'ms' or 'mis' whether retain the vowel or not but exclude the one of the last double consonant 'ss'. Single 's' letter is fulfilling the sound criteria in this example.

The word 'fone' is used as the substitute of 'phone' in WhatsApp communication. In this example, similar phonological alphabet is introduced instead of combination of two alphabets. Combination of 'ph' is substituted with the single alphabet 'f' because of same sound ability. 'select' has the sound of /k/ in the middle which is represented by the 'c' alphabet in the orthography of word. Respondents change this alphabet with 'k' under phonological similarity and make it 'slkt' which also accompanied by omission of vowel sounds.

'Good bye' is represented through 'gd by' as shortened from in digital communication by most of the people. This modification is based on deletion of vowel sound in the orthography. All the vowel alphabets are excluded here. Similarly, 'rslt' for 'result' also undergoes deletion of vowel but again this example shows substitution of another letter under phonological similarity. 's' is replaced with 'z' sound because of the sound compensation in the word. A different example 'bz' to represent 'busy' is also an interesting one, in the data. Two consonants were selected to address the whole word. 'busy' and alphabets 'b'+ 'z' giving the same essence and sound similarity and the respondents use it for their digital communication.

Another feature of shortening of word can be seen through different aspect as the whole word is represented with the help of one alphabet only. This kind of shortening is done at the end of condensed language of communication. One alphabet or letter represents the word because of similarity of sound between a word and represented single letter. Following examples show the use of single letter which represents the whole word in the messages of WhatsApp Communication:

- Hw u will mnge it? (How will you manage it?)
- As u wish (As you wish)
- Chlo, lets c (let's see)
- No u shouldn't (No, you should not)
- achamaholbnega...jst c (it would be better setting...just see)
- K, Us k ss sndkr de jldi se (okay, quickly send me screen shots of that)

These examples include single letter words representation like 'u' for 'you'. Alphabet 'U' is pronounced in the same way as pronoun 'you'. To reduce this word, another letter is taken to represent the word. This shortening is also found in other above-mentioned examples: 'let's see' is modified to 'lets c' which means the word 'see' is portrayed through the single letter 'c'. It also shows the reduction at the highest level by taking another one letter for the whole word. Another example (last in the above mentioned) alphabet 'k' is used for the word 'okay'. The reason is that when pronouncing the word 'okay' first vowel sound seemed suppressed and it sounds just like the alphabet sound of 'k'. So, the examples show the substitution of this kind due to the similarity of the whole word with the one letter. This reduction is the highest reduction because it includes only one letter to represent the orthography of the whole word.

Numerical Insertions

Data showed use of numerical expressions also as the substitute of real word. This is the unique element of language of social media communication. Different examples of messages among people show instances of using numeric signs to represent the words as a whole. Similarity of sound patterns let people to use these words of numeric insertions for the substitute of the whole word. Following examples taken from sample, show numeric expressions embedded in the text of messages:

- Passage 2 indiahmn skip kr diatha...(we had skipped *Passage to India*)
- You 9 k hw write speech...(Do you know how to write speech)
- Make sure 2 report at 10 (Make sure to report at 10)
- As it hpnd b4 (As it happened before)
- Its 2...dfclt 4 alllll (Its too difficult for all)

- I 9 u well bro...dnt worry (I know you well brother, don't worry)
- Gr8 hai, hm yhislktkrnge(Its great, we'll select the same)

These all examples show the numeric value as the substitute of the real words to address the message in the communication of WhatsApp. 'Passage 2 indiahmne skip kr diatha...' (we had skipped *Passage to India*) shows use of numeric value for the replacement of the word. '2' (two) is replaced instead of 'to' because of similarity of sounds of the word as a whole. In this way, these numeric values give the proper meaning to the other, during communication. Interpretation is easier for them as they are used of this kind of communication by modifying language. Other similar example 'Its 2...dfclt 4 alllll' (Its too difficult for all), same numeric value '2' is used as the substitution of different word 'too'. It also highlights the phonological similarity among these two expressions. It draws a statement that there is no specific expression which is used as the substitution of word in digital communication but different words can be represented through one expression as in the case of '2' which highlights the use of 'to' as well as 'too' as depicted by the sample of messages taken from WhatsApp. There may be different other representation in different context by different people. In the same example 'Its 2...dfclt 4 alllll', '4' is used to represent 'for'. In the next similar example: 'You 9 k hw write speech...', 'know' word is substituted with the numeric value '9'. The reason is that '9' (nine) is pronounced in Urdu language as 'no' which is phonologically similar to the word 'know'. This reason is driven behind the use of '9' instead of the word 'know'.

Other interesting example under the numeric expressions highlight the use of alphabet as well as the numeric together. This example contribute to the use of numeric values in different expressions. In 'As it hpnd b4' (As it happened before), combination of an alphabet and numeric value can be observed. 'b4' is used as the replacement of 'before', due to the sound similarity. If we split this word 'before' then 'be' is represented with an alphabet 'b' and 'fore' with the numeric value '4'. Collectively this expression highlights the word 'before'.

Another example of the same category 'Gr8 hai, hm yhislktkrnge' (It's great, we'll select the same) depicts the combination of two alphabets 'gr' and combined with the numeric value '8'. This construction is also based on phonological similarity of numeric value to the concerned word. Digit '8' has orthography of 'eight' which is phonologically same in 'great' after 'gr' consonants. This is the reason that respondents use this expression of 'gr8' to represent 'great'. In this way complexity of English words increases due to this kind of blending between alphabets and numeric values. Moreover, respondents are able to interpret these expressions because they know the communication modification of language done through the social media site like WhatsApp as highlighted by the sample.

Abbreviations

Abbreviation is the shortened form of the words which may include different forms like inclusion of only first letter or reduced forms of words. In the data taken from WhatsApp communication shows some instances of the use of abbreviations for the different purpose. These abbreviations can also be taken as the shortening of words or expressions but in a different way. Following examples highlight the use of abbreviations in the communication through WhatsApp:

- N.P Mam (No Problem Ma'am)
- Fb pe uplodhai sir, kitni bar btaya ha... (Uploaded on Facebook, told you many times)
- Agli bar perk ka dabba meri trf se hoga IA (Next time Perk box will be from me, Insha-Allah)
- Ofcourse TYuni (of course Thank you university)
- OMG, you should ask me ...(Oh My God, you should ask me)
- Gd by then ,GTH (good bye, Go To Hell)
- Me chp e rahun ab...WTF yaar (Should I keep silence now, What The **** friend)
- K, Us k ss sndkr de jldi se(okay, quickly send the Screen Shots of that)

These above-mentioned messages are from the data taken from WhatsApp with its literal translation in English for better clearance. These examples show inclusion of abbreviation in the communication. All abbreviations used in this scenario are giving understanding to the receiver and reader. All of these

abbreviations are based on first letter of the intended expression. In the first example 'N.P' represents 'no problem'. Both words are shortened to the only first letter to make it an abbreviation. Similarly, more trend of social media app 'Facebook' has made people to make its abbreviation too. So, it is represented as 'fb' and interpreted directly as intended. These abbreviations not only limited to English words but also seen in Arabic phrases used by Muslim people frequently in their communication. 'Insha-Allah' is the phrase used for the future tasks to be completed by the grace of Allah. This phrase is abbreviated as 'IA' based on the very first letters of two words. Although it is an Arabic phrase but also used in English communication by people.

Next abbreviation "TY" highlights 'thank you' by including just first letters of the words as above abbreviations. Exclamation phrase 'oh my god' is also used by people in abbreviation form as 'OMG'. Moreover, other abbreviation is also used in communication through WhatsApp like 'GTH' for 'Go to Hell', 'ss' for screen shot' etc. These abbreviations are being used by social media users for their language of digital communication.

Quantification

For quantitative analysis of the data. Only frequency and mean values were calculated to know the recurrence of included variables (shortening of vowels and consonants, abbreviations, numerical expressions or words) in the data as well as the average values of all variables to see with comparison of other variables. This will give us the value of these variables that how many times these modifications happened and will enable us to see the recurrence by comparing mean values of each variable. For this purpose words count was done by using feature of Microsoft Word. Following details highlighted the words count accordingly:

47 Messages (English, Urdu or Mixed)	
Total Words (English, Urdu or mixed)	283
Total English words	143
Modified English words	73

Table 2. Words Details of Sample

For mean values and frequency, SPSS (Statistical Package for Social Sciences) software was used. For calculations, scores were given per message for each variable (shortening, abbreviations, numeric). Recurrence of variables were put in the SPSS sheet accordingly in the following manner.

Message	Shortening	Abbreviations	Numerical_expressions
1	1	0	0
2	2	0	0
3	2	0	0
4	1	0	0
5	2	0	0
6	1	1	0
7	2	0	0
8	0	0	1

Table 3. Scoring overview on SPSS

Under this sheet of SPSS only three variables are included which is the focus of this research. First column is based on the individual messages and given numbers in a sequence. Second, third and fourth columns are variables. If shortening of orthography was occurred one time thus given 1 number in the sheet and so on with respect to variable per message. Following tables show the values of frequency of variables:

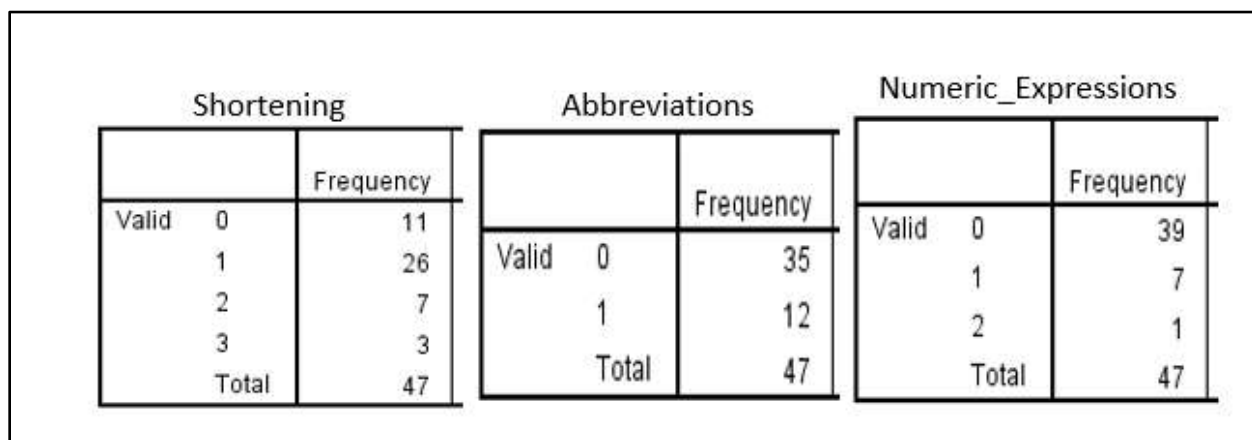


Figure 2. Frequency of Variables

This table show the frequencies of occurrence of specific variables. 1st column of each shows the number per sentence. If one variable is not present in the sentence it is showed as '0' if one times then '1', two times '2' and '3' in the same way. Totals of these variables is in the following table:

Variables	Frequency
Shortening	49
Abbreviations	12
Numeric Expressions	09

Table 4. Overall Frequency of Variables

On the other hand their mean values give us the estimate that how many times these variables occurred in the specific message. Following table shows the mean of each variable:

Report			
	Shortening	Abbreviations	Numerical_ex pressions
Mean	1.04	.26	.19
N	47	47	47

Table 5. Mean Values of Variables

'N' is the number of messages showing variations in orthography. These mean values tell us about the average occurrence of one variable per message. We can infer from these values that their occurrence is different in the data from each other. **Shortening>Abbreviations>Numeric Expressions**: shortening happens more than abbreviations and numeric expressions in the messages taken from WhatsApp group communication.

III. DISCUSSIONS

Data Analysis gives us the overview about the different specifications of language of communication through WhatsApp. People use these unique orthographical expressions in their communication. Changes in orthography was studied under different categories based on English words modification. Data taken was only used to highlight these specific categories which are as follow:

- Shortening of words
- Abbreviations
- Numeric Expressions

Data highlighted these variables as used by different respondents. Shortening of words show different kind of formations as discussed in analysis part. It was done through reducing word size whether by omitting vowels, consonants or both in some instances. Moreover, using one letter for the whole word was used to represent in the communication. Suppressing one of the same consonants together was also observed as in the example of 'happy'. All these variations complement the shortening of words but people who use this language of communication, they can easily use it and interpret it. On the other hand, abbreviations were also embedded in the text of communication. These abbreviations were based on inclusion of first letter of the expression. Different kinds of abbreviations were used like (N.P, SS, TY, FB, OMG etc.).

Moreover, study of numeric expressions highlights inclusion of numeric values in the English words separately or embedded with the letters of words. These numeric use is based on the phonological similarity among letter(s) or words. Thus all these variables show modified version of the orthography of English at word level. Although the text was based on code-switched sentences and phrases, but this study focused primarily on the English words which were modified in the code-switched expressions or sentences in messages of WhatsApp group communication.

IV. CONCLUSION

As far as computer-mediated communication is concerned, this study acts as a further exploration in this regard. Language changes in digital communication has its own unique features which are used by the social media users as described in this study under WhatsApp communication. These features are making language of communication as the focus of the study. The study explores the unique features of language of WhatsApp communication and supports the existing studies in a different context and provides more evidences under the parasol of internet use language of communication through social media. Orthographical expressions of words of English language in WhatsApp communication have been investigated in this study. Although, this study has limitations as only focuses on one aspect of orthography of English language at word level embedded in the context of code-switched messages on WhatsApp. Results may differ, with different sample, by different speakers of different language, in a different context. As qualification, environment or culture influences our language use.

Moreover, it highlights the recurrence of defined features through quantification. This study suggests more research under the same area regarding grammatical, syntactic, meaning making process, pragmatic contexts etc. of digital communication, practiced by different speakers of language by the means of social media sites like Facebook, WhatsApp etc. One important aspect that can be studied, is overall study of language of digital communication in code-switched context bilingual or multilingual speakers. Hopefully, this study will explore more points and contribute in the existing study of internet-based social media communication.

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