THE USE OF SMS TEXTS BY EDUCATED IRAQIS: A SOCIO-COMPUTATIONAL LINGUISTIC STUDY

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ABSTRACT: The present study aims at investigating SMS texts written by educated Iraqis. An attempt is made so as to analyze such texts in view of selected sociolinguistic variables. A number of SMS texts written by a number of educated Iraqis (university graduates) form the obtained data for the study. A number of university graduates, with various academic degrees, have been selected as a representing sample. The work of Thurlow (2005) has been adopted as the model of investigation and analysis. The manipulation and approach of tackling the main trend of this study fall in the domain of socio-computational linguistics. Factors such as educational level and gender are considered in data manipulation. Computer-aided text analysis packages, such as OCP (Oxford Concordance Program) and WordSmith have been used. Furthermore, the statistical analysis of the obtained data involves the use of statistical tests such as ANOVA (Analysis of Variance) within the SPSS (Statistical Package for the Social Sciences) statistical package. The results of the analysis provided a wide view of the interrelationahip between the selected social variables and the type and nature of the SMS texts which are written by the educated Iraqis.

KEYWORDS: Sms Texts, Socio-Computational Linguistics, Arabic Linguistics, Texting

INTRODUCTION

SMS represents one face of language change in which SMS text affects and is being affected at the university community by many consequences. The present study represtns an attempt to study SMS text characteristics as a form of language being used by the university informants. It includes a two-field analysis. These fields are: **sociolinguistics** covering gender, specialization and qualification as well as **computational** linguistics using computer-aided text and statistical analysis packages such as Wordsmith, OCP and SPSS.

The analysis aims communicatively to find out SMS Texts communicative functions. Previous works such as Thurlow's (2005) were considered. In this respect he considered five functions, see below. These functions have been dealt with in data manipulation .

Linguistically, the analysis covers morphology, syntax, semantics and pragmatics so as to find out the differences in gender, specialization and qualification. That is, this study aims at finding out the characteristics of SMS Texts language and the effects of SMS Texts on language use. Morphologically speaking an attempt is made to study two types of Arabic affixes, possesive pronoun affixes of noun and the simple present tense affixes 'affixed pronouns' only to examine SMS text characteristics as private form of language. Syntactically, the pronoun catigorization rules of Arabic language; personal, relative and demonstrative (See DCU, 2007) are studied to show to what extent the informants use limited language expressions. Semantic analysis is based upon Halliday's Cohesion ' reference ' (see

Halliday & Hasan, 1976). Semantic analysis is divided into two: reference and referent conceptes. These two concepts are analyzed according to the pronoun categories: personal, relative, demonstrative, and implied and other catigories are added to facilitate the analysis. Finally, the pragmatic analysis, depends on Grice's conversational maximes; quality: true, figuration and false, quantity: more informative, informative not informative, relation: relavent, mid and irrelavent. Finally, manner: direct, mixing and indirect (see Grice, 1975, 2005 & 2006). The above communicative and linguistic analyses are the first attempts to study the form of language used by the educated informants, which is SMS Texts language. A number of university graduates, with different academic degrees, have been chosen as the representative sample for the study. They are referred to as "university informants".

The results tackle the eight sociolinguistic variables. These are SMS Texts characteristics of the university informants like; SMS is written speech. SMS at the university community are considered typical private and personal media. SMS is limited and short form, this is by personal pronouns preference, SMS at the university community is true or figuration and there is no space for false quality. It is used mainly for salutary functions. University informants use the strategy of avoidance in SMS messaging for many reasons and this is by standard expressions avoidance, long forms like relatives and demonstratives, false sentences avoidance, practical arrangements and long social arrangements avoidance, and detailed information avoidance. Nevertheless, specifically the analyses of each variable and its multiple comparisons have led to certain results.

Study layout and data elicitation

The study involves a two-field analysis; the first is a sociolinguistic one covering the variable of gender, specialization and qualification parts. The second is computational. It involves analyzing the obtained data using data analysis programs like SPSS, Wordsmith and OCP. The analysis is carried out according to communicative and linguistic bases. The analysis aims communicatively at finding out SMS Texts communicative functions. The work of Thurlow (2005) is considered as a major model to this study. In this respect, he refers to the following functions:

- 1. Informational practical orientation
- 2. Practical arrangement
- 3. Social arrangement
- 4. Salutary orientation
- 5. Romantic orientation

Linguistically speaking, the analysis involves some aspects of morphology, syntax, semantics and pragmatics to find out the differences in gender, specialization and qualification. That is, this study aims at finding out the characteristics of SMS texts language and the effects of SMS Texts on language use at the univercity community. Morphologically, the study examines two types of Arabic affixes; possesive pronoun affixes of noun and the simple present tense affixes 'affixed pronouns' only to examine SMS text characteristics as a private form of language. Syntactically, the pronoun categorization rules of Arabic language; personal, relative and demonstrative are investigated (See DCU, 2007) to show to what extent the informants use limited language expressions. Semantic analysis is based upon Halliday's Cohesion ' reference ' (see Halliday & Hasan 1976) . Semantic analysis is divided into two:

reference and referent conceptes. These two concepts are analyzed according to the pronoun categories: personal, relative, demonstrative, and implied and other catigories are added to facilitate the analysis. Finally, the pragmatic analysis depends on Grice's conversational maximes; quality: true, figuration and false, quantity: more informative, informative not informative, relation: relavent, mid and irrelavent. Finally, manner: direct, mixing and indirect. The above communicative and linguistic analyses are the first attempts to study SMS texts as a form of language used by Iraqi educated informants (see Grice 1975, 2005 & 2006). A questionnaire has been designed so as to elicit relevant data. Each informant is asked to write down the last message he/she has sent and the latest one he/she has received, in Arabic, with some answers to biographical and attitudinal questions about the message encoder. The collected data involves 316 SMS text messages. They have been communicatively and linguistically analysized with aid of commputer programs. The obtained results were statistically analyzed to find out the effect of the sociolinguistic variables of Gender, Specialization, Qualification differences and the subdivisions of these three variables.

Data Manipulation

After data elicitation, the data is ready for manipulation using Computational programs (Wordsmith and OCP programs) for analysis. The table (1) below shows the classification and distribution of the informants

Table (1): Classification of the Informants According to Gender (G), Specialization(S) and Qualification (Q)

Sample	Variable	sum
	В	252
Qualification	M2	49
	PhD	15
Specialization	Н	165
Specialization	S	151
Gender	f	179
Gender	m	137
	HB	141
	SB	111
	HM	17
Specialization & Qualification	SM	32
Specialization & Qualification	HPhD	7
	SPhD	8
	Hf	97
Specialization & Gender	Hm	68
Specialization & School	Şf	82
	Sm	69

Sample	variable	Sum
	Bf	147
	Bm	105
	Mf	26
Gender Qualification	Mm	23
	PhDf	6
	PhDm	9
	HBf	85
	SBf	62
	HMf	10
	SMf	16
	HPhDf	2
Gender, Specialization &	SPhDf	4
Qualification	HBm	56
	SBm	49
	HMm	7
	SMm	16
	HPhDm	5
	SPhDm	4
General	SUM	316

m: Male, f: Female, B: Bachlor, M: Master, H: Humanistic, S:Scientiffic

The data is analyzed computationally according to the linguistic levels and the communicative approach functions. The sociolinguistic variables were analysed. It is to find out the Gender, qualification and specialization differences using computer programs such as; Exile (for frequencies and averages), Matlap (for figures and other statistics) and SPSS by a means of ANOVA (for sociolinguistic analysis). The analysis goes in this way; first the data was analyzed according to general, gender G, specialization S, qualificationQ, gender specialization GS, gender qualification GQ, qualification specialization QS, gender specialization qualification GSQ- (see table 1 above). These are analyzed according to; communicative five functions (as mentioned above), linguistic analysis covering: morphology(by the nomenal and verbal pronouns), syntax(by the gramatical catigories), semantics(by reference and referent) and pragmatics (by Grice's five maximes).

General Analysis of the Communicative Functions (CF)

The communicative analysis of SMS texts as mentioned above is according to the five communicative functions following Thurlow (2005)

The following table illustrates the general frequencies and averages of (CF) university community.

Table ((2):	CF	Freq	uencies	and	Avei	ages
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Communicative Functions	Function 1	Function 2	Function 3	Function 4	Function 5
General frequencies	35	47	55	119	60
General averages	0.11076	0.14873	0.17405	0.37658	0.18987

It shows that the general highest average is (f4) Salutary orientation. The lowest average is (f1) Informational practical orientation because SMS messages are short and almost always are used for greetings, congratulations, regards, thanks, sorrow, condolences, good mornings, and good nights, more than to send long types of discussions. Informants usually prefer to send important information through voice call rather than sending SMS messages.

Gender (G) Analysis

The following sociolinguistic analyses depend upon 'male-female' characteristics of SMS texts use and usage. This is to study gender qualities and differences in SMS texting, and how SMS has a considerably important role in language change by the university males and females.

The Linguistic Analysis of SMS Texts

Morphology and Gender Analysis of SMS Texts

Table (3) below shows the analysis of affixes in relation to gender. 12 options of noun affixes as possessive pronouns to the noun are considered. The university informants have scored the following frequencies and averages of use. The table indicates the highest average of females and males' use is the first affix ' such as in such as a reflection to SMS text is a personal medium. The lowest averages are in 8, 10 and 11, as a reflection to SMS the informantss have a strategy of standard expressions avoidance.

Table (3): Noun Affixes / Gender Analysis

Noun affixes	ا-ي such as in کتابي	2-ط such as in کتابك أنت	such as in گنانگ کتابلیِ	4 کیانک عدانک such as in	such as in ها-5 کتابها ه <i>ي</i>	6-كتابنا نا such as in	عتابکم کتابکم such as in	o- ⊖such as III	, ch	Signal as III	y R	such as هما -12 inکتابهما
F frequencies	86	45	10	13	9	7	13	0	3	0	0	2
M frequencies	69	43	3	4	3	11	7	0	0	0	0	0
F averages	0.48045	0.2514	0.05587	0.07263	0.05028	0.03911	0.07263	0	0.01676	0	0	0.01117
M averages	0.50365	0.31387	0.0219	0.0292	0.0219	0.08029	0.05109	0	0	0	0	0

By the same token verb affixes in the following table (table 4) present the males and females' frequencies and averages of use. Verb affix number 1- "I such as in 'I' is the highest average of their use. Number 8, 11, and 12 are the lowest averages of use. This indicates that the informant always express themselves by the short message; this is SMS private message form feature. They intend to use the educated spoken Arabic expressions, other than the standard ones. This makes their averages of 8, 11, and 12 as the lowest averages of verb affixes use according to the university community. Also this reflects SMS as a confidential form of CMC medium.

Table (3): Linguistic Analysis/ Verb Affixes

Verb affixes general	ا-ا such as in	2-ت such as in تکتب انت in	such ت ين-3 تکتبين as in	4- <i>چ</i> such as in يکتب هو	such as تکتب هي in تکتب هي	6- ن such as inنکتب نحن	such ت ون -7 تکتبون as in	ن نن ن	such <i>ي ون-9</i> يکتبو ن as in	such <i>ي ن</i> -10 يکتبن as in يکتبن	نات in نار	such ي ان-12 as in يكتبان
F frequencies	144	63	10	47	27	8	2	0	3	2	0	0
M frequencies	120	65	4	44	14	5	2	0	0	0	0	0
F averages	0.804	0.35196	0.055	0.262	0.15084	0.0446	0.0111	0	0.016	0.011	0	0
M averages	0.875	0.47445	0.029	0.321	0.10219	0.0365	0.0146	0	0	0	0	0

These results of the SMS text characteristics analysis indicates that it goes directly from encoder, presented by عدا المحتابي and 1- kuch as in اكتب pronouns use, to the decoder. In short it is a private and personal medium.

• ANOVA test and morphological affixes

The ANOVA test analysis is used to test the validity of both genders' relations with the twelve affixes. The following tables explain gender correlation with noun and verb affixes:

Table (4): The Implementation of ANOVA / Noun Affixes

Noun affixes	F mean	M mean	Gender		
			Mean Square	F	Sig.
af1	0.483	0.504	0.032545	0.026207	0.8715
af2	0.247	0.314	0.344183	0.991735	0.320088
af3	0.056	0.022	0.090983	1.981405	0.160235
af4	0.067	0.029	0.113079	0.692984	0.405786
af5	0.051	0.022	0.063607	1.022057	0.312812
af6	0.039	0.080	0.129921	1.515016	0.219299
af7	0.073	0.051	0.037261	0.513938	0.473974
af8	0.000	0.000	0	•	•
af9	0.017	0.000	0.02199	2.33366	0.127614
af10	0.000	0.000	0	•	•
af11	0.000	0.000	0	•	•
Af12	0.011	0.000	0.009773	1.546934	0.214519

No significant values of use are considered regarding the relation between gender and noun or verb affixes as shown in tales (5) and (6).

Table (5): Implementation of ANOVA / Verb Affixes

	Females	Males		
Verb affixes	averages	averages	F	Sig.
Af1	0.80447	0.87591	0.311757	0.577003
Af2	0.35196	0.47445	0.809357	0.369002
Af3	0.05587	0.0292	1.151453	0.284072
Af4	0.26257	0.32117	0.525507	0.469043
Af5	0.15084	0.10219	0.965645	0.326528
Af6	0.04469	0.0365	0.070698	0.790498
Af7	0.01117	0.0146	0.069392	0.792398
Af8	0	0		
Af9	0.01676	0	2.33366	0.127614
Af10	0.01117	0	0.769097	0.381169
Af11	0	0		•
Af12	0	0		•

Specialization Analyses of SMS Texts

University community specializations involves of two specializations; Humanistic and Scientific. In this analysis these two variables are studied according to 54 linguistic categories, by the means of communicative analysis and linguistic analysis.

Syntax Specialization Analysis of SMS texts

According to the following table, (7), of the Syntactic Pronoun Categorization (SPC) frequencies and informants' averages of use the humanistic and scientific specialization informants', the highest average of SPC use is the first type which is *personal pronouns*. The

lowest average is the third one which is 'demonstratives' for scientific specialization informants and the 'Relatives' pronouns are the lowest for humanistic specialization. They indicate that both of the humanistic and scientific specializations informants are equal in their personal pronouns use to send as short message as possible. But they are different in the lowest type of use.

Table (6): Syntactic Pronoun Categorization Rules Frequencies and Averages

Syntax	S Specialization	(A) Personal	(B) Relative	(C) Demonstrati ve
S	Н	605	9	11
frequencies	S	478	6	18
S averages	Н	3.66667	0.05455	0.06667
S averages	S	3.16556	0.03974	0.11921

ANOVA test and syntax

ANOVA test has been used to analyze specialization informants SMS texts to find out the specialization relation with each category of SPC. First of all, the comparison is between the humanistic specialization texts and SPC, to find out the Sig value.

Table (7): Implementation of ANOVA / Specialization with Syntax-SPC

Parameter	F	Sig.
Personal	3.305429	0.070004
Relative	0.243838	0.621793
Demonstrative	2.268778	0.133009
Syntax	2.676337	0.102852

Then the comparison is between the scientific specialization SMS texts and the 54 categories to find out the scientific informants' Sig. Finally, these two averages are going to be analyzed to find out the Sig. values of specialization relations with SPC. This is illustrated in the above table. In which the obtained value for Syntactic categories are more than 0.05 (the significance level using ANOVA). This indicates that there is no significant relation obtained in SPC and specialization.

Qualification Analysis (Q) of SMS

At the university community there are three qualifications; B (referring to BA/BSc), M (referring to MA/MSc) and PhD degrees. SMS text analysis is according to the selective 54 language categories. The analysis is communicative and linguistic.

Semantics and Qualification Analysis of SMS Texts

Reference

Table (9) below shows the frequencies and averages of Q informants' use. The *personal pronouns* were scored as the highest average of reference types. On the other hand, demonstrative pronoun was the lowest average of B informants use. Relative pronoun is the lowest of M university informants and PhD informants.

Table (8): Reference Frequencies and Averages of Use

Semantic reference	Qualification	(1)reference personal	(2)reference relative	(3)reference demonstrati ve	(4)reference implied	(5) reference others
Qualification	В	269	5	4	99	108
_	M	33	0	2	21	18
frequencies	PhD	13	0	2	4	5
Qualification	В	1.06746	0.01984	0.01587	0.39286	0.42857
~	M	0.67347	0	0.04082	0.42857	0.36735
averages	PhD	0.86667	0	0.13333	0.26667	0.33333

ANOVA test

Implementing ANOVA test in reference types elucidates the Sig. of reference and Q. The following table clarifies reference type's significant values; in which reference concept, reference 1 and reference 3 are significant.

Table (9): Implementation of ANOVA / Reference Qualification Sig

Parameter	F	Sig.
rfrce_1	6.647735	0.001488
rfrce_2	0.641624	0.527128
rfrce_3	4.315794	0.01416
rfrce_4	0.193949	0.823799
rfrce_5	0.232793	0.792455
Reference	6.090752	0.002541

In the following figure, reference number 1 is valid:

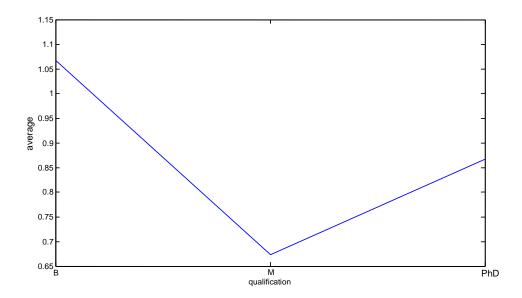


Figure (1): Reference 1 - Qualification Relation

The above figure indicates that the relation is not clear. Reference 1 average is random with qualification. B average is higher than M1 and PhD, but M average is lower than PhD. Reference 3 has the Sig. value as valid. It is shown in the following figure:

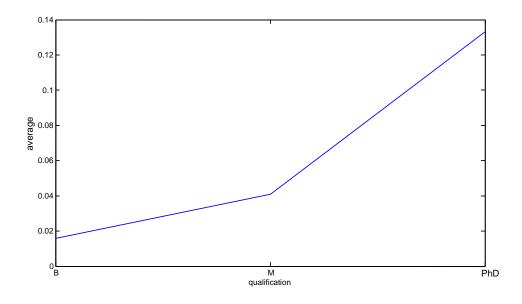


Figure (2): Reference 3 Qualification Relation

This figure shows the average of third reference is random with qualification. B average is lower than M and PhD; M is lower than PhD average. This means that PhD scores have the highest Qualification informants' averages.

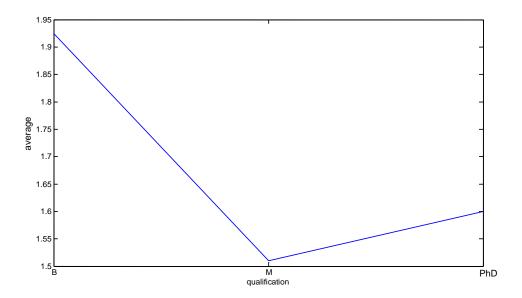


Figure (3): Reference Concept – Qualification Sig

In this figure, the average of reference concept is random with qualification. B university informants' average is higher than M university informants' and PhD university informants'; M university informants' is lower than PhD university informants' average. This means that M university informants' is the lowest Q informants' averages.

Referent

The various informants' frequencies and averages are illustrated in table (11) below. It shows the B, M and Ph.D. university informants' scoring. The highest average semantic referent of all the university qualifications' use is the *personal referent* while the demonstrative referent represents the lowest. The PhD degree does not seems to have a clear effect on the informants' language use because they seem not to use SMS as the major medium of communication with others within the community. They prefer other old types of medium than the SMS texts.

Table (10): Referent Frequencies and Averages of Use

Semantic referent	qualification	(1)referent personal	(2)referent relative	(3)referent demonstrative	(4)referent implied	(5)referent others
Qualification	В	550	8	5	274	196
Qualification frequencies	M	51	1	2	24	37
riequencies	PhD	15	0	0	8	11
Qualification	В	2.18254	0.03175	0.01984	1.0873	0.77778
Qualification	M	1.04082	0.02041	0.04082	0.4898	0.7551
averages	PhD	1	0	0	0.53333	0.73333

ANOVA test

Implementing the statistical test of ANOVA, the following table (12) shows that referent concept, referent 1 and referent 4 are valid or significant.

Table (11): Implementation of ANOVA / Referent – Qualification

Parameter	F	Sig.
rfrnt_1	7.931637	0.000436
rfrnt_2	0.221946	0.801084
rfrnt_3	0.457402	0.633348
rfrnt_4	5.516286	0.004421
rfrnt_5	0.070572	0.931875
Referent	9.085333	0.000146

Figures (4) below clarifies the relationship among the informants in relation to referent.

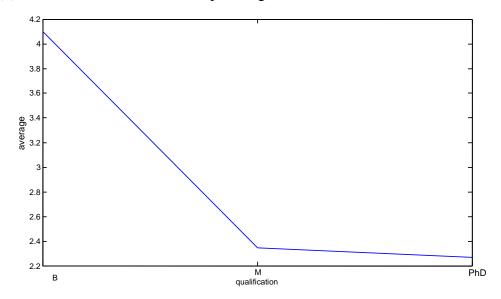


Figure (4): Referent Concept - Qualification Relation

First, the figure clarifies referent—Q relation as random. B informants' average of referent is higher than M and PhD and M and PhD informants' averages are approaching each other.

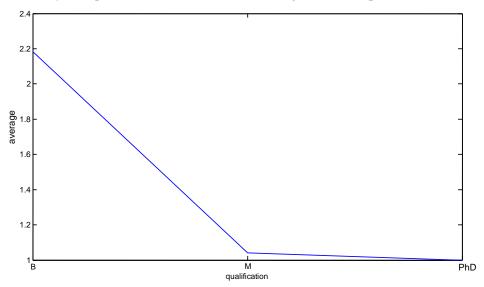


Figure (5): Referent 1 - Qualification Relation

Second, referent 1 - Qualification Relation is illustrated in the above figure, Figure (5). B informants' average of use is more than M informants and PhD informants. M informants' average is approaching PhD informants' average, in the sense that PhD informants are not scoring any average.

Third, in the following figure referent number four is valid or significant to study:

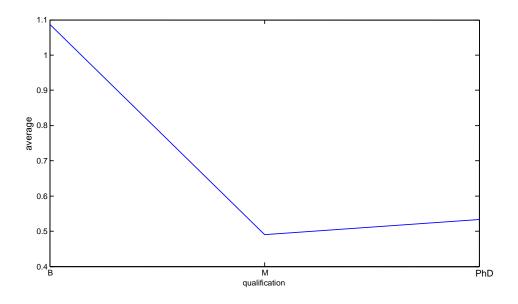


Figure (6): Referent 4 Qualification Relation

The figure shows referent (4) averages as random with qualification and the differences among B informants' average as higher than M and PhD. And M informants scored an average which is approaching PhD informants' average.

Qualification and Specialization (QS) Analysis of SMS

There are three qualifications and two specializations in this analysis. Therefore, the subdivisions are: HB: humanistic bachelor, SB: scientific bachelor, HM: humanistic master, SM: scientific master, HPhD: humanistic PhD. And SPhD: scientific PhD. degrees. These variables will be analyzed under the communicative and linguistic analyses.

Pragmatics and QS analysis of SMS

Quality

The frequencies and averages of use of qualification specialization are shown in table (13) below. The table clarifies that the highest average is *Figuration* for HB and SB.

Table (12): Quality Frequencies and Averages of Qualification Specialization Use

Quality	Qualification Specialization	True	Figura tion	False	SUM
	НВ	52	89	0	141
	SB	46	65	0	111
QS	HM	13	4	0	17
frequencies	SM	23	9	0	32
	HPhD	7	0	0	7
	SPhD	7	1	0	8
	НВ	0.36879	0.63121	0	1
	SB	0.41441	0.58559	0	1
OS avaragas	HM	0.76471	0.23529	0	1
QS averages	SM	0.71875	0.28125	0	1
	HPhD	1	0	0	1
	SPhD	0.875	0.125	0	1

The lowest average is on False. HM, SM, HPhD and SPhD highest average is *True*. The lowest average is False. The M and PhD informants seem to be more practical and logical than the bachelors. This is reflected in their SMS discourse.

• ANOVA test: The following table shows the quality Sig. of the quality qualification.

Table (13): Implementation of ANOVA / Quality Qualification Specialization Sig

Parameter	F	Sig.
True	7.530023	1.09E-06*
Figuration	7.530023	1.09E-06
False	0	0

^{*} $1.09E-06 = 1.09*10^{-06}$

However, in the following figure True and Figuration are significant.

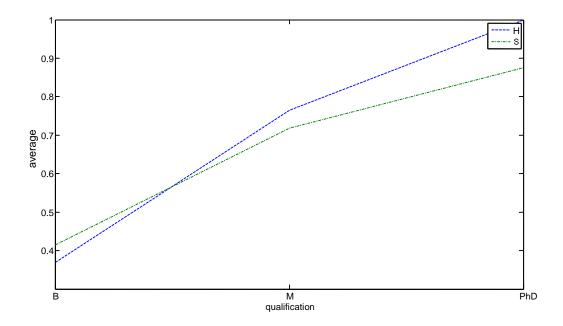


Figure (7): True Quality Qualification Specialization Relation

The average of true quality is direct with QS in both of H and S. HB and SB averages are lower than HM / SM and HPhD / SPhD. Figuration quality is valid is presented in the following figure:

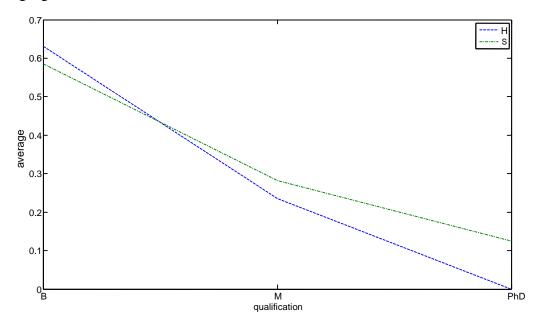


Figure (8): Figuration Quality QS Relation

Figuration quality average is inversed with QS in both of specializations.

Quantity

The following table illustrates the pragmatic quality frequencies and averages within the QS use:

Table (14): Quantity Frequencies and Averages of QS Use

Quantity	Qualification Specialization	More Informative	Informative	Not Informative	SUM
	HB	87	54	0	141
	SB	65	46	0	111
QS	HM	4	13	0	17
frequencies	SM2	9	23	0	32
1	HPhD	1	6	0	7
	SPhD	1	7	0	8
	HB	0.61702	0.38298	0	1
	SB	0.58559	0.41441	0	1
Q S averages	HM	0.23529	0.76471	0	1
	SM	0.28125	0.71875	0	1
	HPhD	0.14286	0.85714	0	1
	SPhD	0.125	0.875	0	1

HB and SB is *More Informative*. HM, SM, HPhD and SPhD highest average is *Informative*. The lowest average for all the university QS informants' discourse is Not Informative.

• ANOVA test:

Table (16) below demonstrates that "more informative" and "informative" have significant values to study.

Table (15): Implementation of ANOVA / Quantity Qualification Specialization Sig

Parameter	F	Sig
More		1.48E-
Informative	6.266138	05*
		1.48E-
Informative	6.266136	05
not info	0	0

^{*} $1.48E-05 = 1.48*10^{-05}$

Figures (9) and (10) below clarify these results:

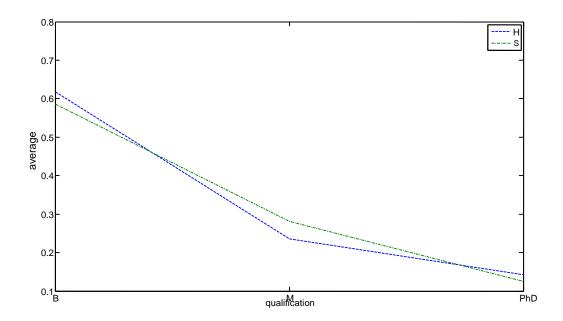


Figure (9):" More Informative" Qualification Specialization Relation

In the above figure, the average of the "more informative" quality is in inversed proportion with QS in scientific specialization and humanistic specialization.

The average relation of the "informative" with QS relation is represented in the following figure.

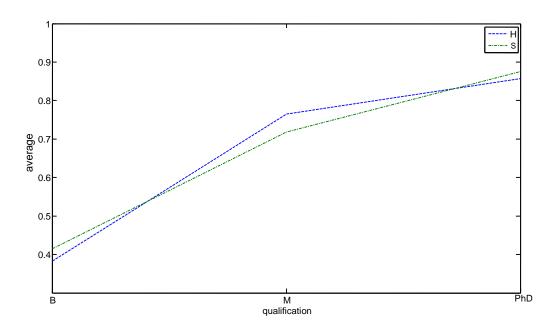


Figure (10): "Informative" Qualification Specialization Relation

The average of informative quantity conversational maxim is direct with QS, in scientific specialization and humanistic specialization.

Relation

In the following table, QS frequencies and averages of use are presented:

Table (16): Relation Frequencies and Averages of Qualification Specialization Use

Relation maxim	Qualification Specialization	Relevant	mid	Irrelevan t	SUM
	HB	110	28	3	141
	SB	85	23	3	111
QS	HM	14	2	1	17
frequencies	SM	25	5	2	32
_	HPhD	5	2	0	7
	SPhD	6	1	1	8
	HB	0.78014	0.19858	0.02128	1
	SB	0.76577	0.20721	0.02703	1
OS averages	HM	0.82353	0.11765	0.05882	1
QS averages	SM	0.78125	0.15625	0.0625	1
	HPhD	0.71429	0.28571	0	1
	SPhD	0.75	0.125	0.125	1

In this table all the university QS informants highest average of use fall within the domain of '*Relevant'*'. Their lowest average is within 'Irrelevant'. This could be interpreted as a strategy of irrelevant information avoidance.

• ANOVA test: The implementation of the ANOVA test showed that there is statistically significant relationship between QS and the various informants within the "relation" maxim. This is shown in table (18) below.

 $\begin{tabular}{ll} \textbf{Table (17): Implementation of ANOVA / Relation Maxim Qualification Specialization Sig} \\ \end{tabular}$

Parameter	F	Sig.
Relevant	0.096168	0.99274
mid_ relevant	0.333934	0.892255
Irrelevant	0.891582	0.486937

Manner

The following frequencies and averages show that HB, and SB highest average is 'indirect'. The HPhD, SPhD, HM and SM highest average is 'Direct'.

Table (18): Manner Frequencies and Averages of QS Use

Manner	Qualification Specialization	Direct	Mixing	Indirec t	SUM
	НВ	49	10	82	141
QS	SB	46	6	59	111
frequencies	HM	12	0	5	17
riequencies	SM	21	2	9	32
	HPhD	7	0	0	7
	SPhD	7	0	1	8
	HB	0.3475	0.07092	0.58156	1
	SB	0.4144	0.05405	0.53153	1
QS	HM	0.7058	0	0.29412	1
averages	SM	0.6562	0.0625	0.28125	1
	HPhD	1	0	0	1
	SPhD	0.875	0	0.125	1

The table reflects the fact that HB, and SB informants use the metaphor and personification or they may use verse to express their feelings on SMS messages.

ANOVA test: Statstical analysis showed that "direct" and "indirect" manner are valid. This is respresented in table (20) below.

Table (19): Implementation of ANOVA / Manner Qualification Specialization Sig

Parameter	F	Sig
		5.66E-
Direct	6.731791	06*
Mixing	0.490463	0.783338
Indirect	5.246478	0.000122

^{*} $5.\overline{66E-06} = 5.66*10^{-06}$

Within the following figure 'direct' and 'indirect' manner have the significant values to be studied.

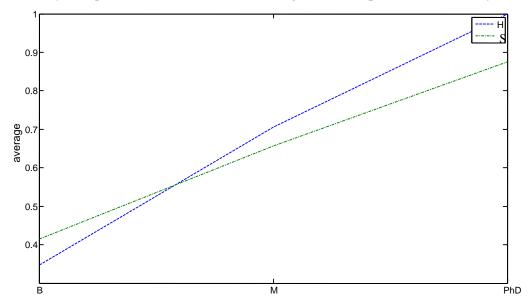


Figure (11): Direct Manner Qualification Specialization Relation

The average of direct manner maxim is direct with QS in scientific and humanistic specializations. Indirect manner maxim relation is presented in the following figure:

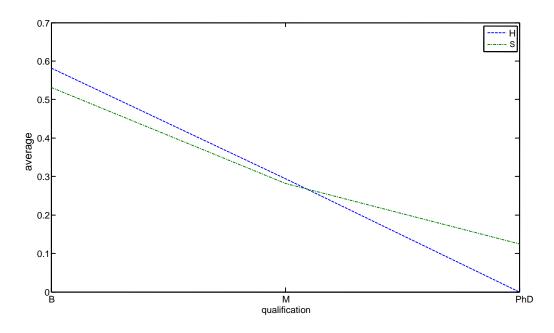


Figure (12): Indirect Manner - QS Relation

The relation is inversed with QS in both of humanistic specialization and scientific specialization.

CONCLUSION

The present study has come up with many results concerning the use of the SMS texts by the educated Iragis. It represents an attempt as to tackle the structure and function of this form of written language. These are SMS Texts characteristics as they are written by university graduates. SMS texts at the university community are considered typical private and personal and first عنا such as in عنابي and first person possessive pronoun affix عنابي and sirst affix of present tense affixed pronouns such as in اكتب. SMS is also characterized by standard avoidance. This is by the standard noun affixes; کتابکن such as in such as in مما - , کتابهن , and standard verb affixes; - ت ن - such as in کما , and standard verb affixes; - ت and Demonstratives. SMS is a پکتبان , تکتبن such as in يکتبان and عبان and عبان . limited and short form of language. This is by personal pronouns preference, SMS at the university community is true or figurative and there is no space for false quality. It is used mainly for salutary functions. University informants use the strategy of avoidance in SMS messaging for many reasons and this is by; standard expressions avoidance, long forms like relatives and demonstratives, false sentences avoidance, practical arrangements and long social arrangements avoidance, and detailed information avoidance. Nevertheless, analyses of each variable and its multiple comparisons have come up with certain results such as that the university genders, bachelors, humanistic bachelors and scientific bachelors, female bachelors and humanistic females communicate in SMS messages for a 'salutary orientation' function. Males, bachelors males informants, humanistic masters, scientific masters and scientific females informants use SMS texts for a 'romantic orientation' function.

Both genders, specializations, all qualifications, gender specialization, gender qualification, qualification specialization and gender specialization qualification informants use the first person affixes of verb and noun constantly to reflect their SMS messages as personal medium. They tend to be short forms of language. They reflect the strategy of long expressions avoidance. These variables do affect the new media keyboard.

The use of SMS texts by bachelors, humanistic specialization females, humanistic males, humanistic females, scientific females, humanistic bachelors, bachelors females and bachelors males and scientific bachelors informants is charicterized by 'figuration', 'more informative' in an 'indirect' manner. Nevertheless, Masters, PhD degree qualifications holders, scientific specialization males and humanistic males, masters females, masters males, PhD males and PhD females, scientific masters and humanistic PhD and scientific PhD SMS texts are charicterized as 'true', 'informative' and 'direct', because they are more specificialized within the domain of their knowledge. They are more logical and direct in the language use. Finally, the university GSQ use SMS discourse as 'figurative' and 'true'. It is in between "more informative" and "informative", 'relevant' and 'Indirect'.

REFERENCES

Abramovich, Giselle. (2008) 'SMS is dominant mobile service beyond voice:Study' available at http://www.mobilemarketer.com/cms/news/research/753.html

Al-Hilfy, B.W. (2009) A Socio-Computational Linguistic and Communicative Analysis of Some Arabic SMS Texts at the University Community. Unpublished M.A. dissertation, University of Thi Qar.

- Published by European Centre for Research Training and Development UK (www.eajournals.org)
- Ananny M., K. Biddick and C. Strohecker (2003) 'Constructing Public Discourse with Ethnographic/SMS "Texts" . Proceedings of Mobile HCI Udine, Italy. Springer-Verlag LNCS series. carolstrohecker.info/ PapersByYear /2003/ConstructPublicDiscourse.pdf
- Baron, N. (1998). "Letters by phone or speech by other means: The linguistics of email". Language & Communication, 18(2), 133-170.
- Brown, G. and G. Yule, (1983) 'discourse analysis': Cambridge University Press, http://books.google.com.
- Byron, R. (2004). Preference for SMS Versus Telephone Calls in Initiating Romantic Relationships'. <u>Australian Journal of Emergining Technologies and society</u> Vol. 2 No. 1. 2004, p.p : 48-61. http://www.swin.edu.an/ajets
- Communications...Like Breaking Up And Flirting'. Available at: http://www.informationweek.com/blog/main/archives/2007/02/sms_is_being_us.html
- Concise Oxford Companion to the English Language (1998). "MORPHOLOGY". Ed. Tom McArthur. Oxford University Press, Oxford Reference Online. Oxford University Press. British Council Amman. 19 April http://www.oxfordreference.com/views/
- Cook, G. (2003) Applied Linguistics. Oxford: Oxford University Press
- Creutz M. and K. Lagus (2005). Inducing the Morphological Lexicon of a Natural Language from Unannotated Text. In Proceedings of the International and Interdisciplinary Conference on Adaptive Knowledge Representation and Reasoning (AKRR'05), Espoo, Finland, 15-17 June. Available at: http://www.cis.hut.fi/mcreutz/papers/Creutz05akrr.pdf
- DCU (2007) Arabic Morphology and Syntax within the Frameworks of LMF and LFG. Available at: http://www.nelt.edu.ie/20052006NCLsides/Amin%20AKrout.ppt
- Dijk, T. A. v. (1991) 'Media contents The interdisciplinary study of news as discourse' Chapter 5 sited in http://www.allacademic.com/meta/p_mla_apa_research_citation/0/9/0/6/4/p90646_index.html
- Dijk, T. A. v. (2006). Discourse, context and cognition. <u>Discourse Studies</u>, 8(1), 159-177. http://discoursealzheimer.blogspot.com/
- Doring, J. (2002). 'The Rules of Beeping Exchanging Message Via Intentional "Missed Calls" on Mobile Pones'. Available at: http://jcmc.indian.edu/vol13 /issue1/donner.html
- Franconi, E. (2008) 'Natural Language Processing' available at: http://www.inf.unibz.it/~franconi/dl/course/dlhb/dlhb-15.pdf
- Frost, R. A. (2006). 'Realization of Natural Language Interfaces Using Lazy Functional Programming'. http://doi.acm.org <u>ACM Computing Surveys</u>, Vol. 38, No. 4, Article 11.
- Gardent, C., C. Nancy. (2003). 'A brief introduction to Computational Linguistics'. Available at: http://www.loria.fr/~gardent/teaching/tbilisi.pdf
- Geis, L. M. (2008) 'Speech Acts and Conversational Interaction' Ohio: Ohio State University Press. Also available at: https://www.cambridge.org/aus/catalogue/catalogue.asp?isbn= 9780521464994
- Grice, P. (1975) "Logic and Conversation". In Cole, P., and J.L.. Morgan, eds. Speech Acts. New York: Academic Press
- Grice, P. (2005), 'Gricean Theory Implicature' available at: http://www2.units.it/~sbisama/it/Rationality_Rijeka.pdf
- Grice, P. (2006) 'Grice on meaning' available at: http://thewebofbelief.blogspot.com/2008/02/grice-on-meaning.html
- Grouper, H. (2002) 'What is SMS? A text book'. Available at: http://c-sms.tripod.com/whatissms-httm/
- Halliday, M. A. K., and Ruqaiya Hasan (1976) Cohesion in English. London: Longman.
- Hovy, E. H. (1989) 'Artificial Intelligence Abstract'. USA: University of Southern California

- http://www.shu.uk/daol/articles/v1/n1/a3/thurlow2002 003-paer.html
- Hudson, R.A. (1980) "Languages," In: Sociolinguistics. Cambridge: CUP, pp. 30-38. http://wwwhomes.uni-bielefeld.de/sgramley/SL-Hudson-2-2.pdf
- Labov, W. (1972) Sociolinguistic Patterns. Oxford: Blackwell.
- Labov, W. (1996). When intuitions fail. Chicago Linguistic Society: Papers from the Parasession on Theory and Data in Linguistics 32:76-106. Available at: http://www.llas.ac.uk/resources/gpg/1054
- Levinson, S.C. (1983). Pragmatics. Cambridge University Press.
- Ling R. and P.E. Pederson (2002), Mobile end-user services adoption studies: A selective review. Available at: http://ikt.hia.no/perep/publications.htm
- Ling, R. (2001). 'We release them little by little': Maturation and gender identity as seen in the use of mobile telephony." In <u>Personal and ubiquitous computing</u> 5 (2) pp. 123-136.
- Ling, R. (2004a). ""I have a free telephone so I don't bother to send SMS, I call:" The gendered use of SMS among adults in intact and divorced families." in *Qualitative* analysis of mobile communication, as sited in Joachim flich University. Erfurt.
- Ling, R. (2004b) The Mobile Connection: The Cell Phone's Impact on Society. San Francisco: Morgan Kaufmann
- Ling, R. (2005) 'The sociolinguistics of SMS: An analysis of SMS use by a random sample of Norwegians' available at: http://www.richardling.com/papers/2005-sms-sociolinguistics.pdf
- Ling, R. and Naomi S. Baron. (2007a) 'Emerging Patterns of American Mobile Phone Use: electronically- mediated communication in transition'. In G. Goggin & L. Hjorth (Eds.) Mobile Media 2007, Proceedings of an International Conference on Social and Cultural Aspects of Mobile Phones, Convergent Media, and Wireless Technologies (pp. 218-230), Sydney, Australia: University of Sydney.
- Ling, R. and Naomi S. Baron. (2007b). 'Text Messaging and IM: Linguistic Comparison of American College Data'. Journal of language and Social psychology. 26, 291-298.
- Ling, R.(2007a) Exclusion of Elderly persons in the case of text messaging. Telenor Research Institute, Oslo. 2007.available at: ftp://ftp.research.microsoft.com/pub/tr/TR-2008-172.pdf
- Lyons, J. (1970) New Horizons in Linguistics. Harmodsworth: Penguin.
- Lyons, J. (1977) Semantics. Vol.2 Cambridge: Cambridge University Press.
- Lyons, J. (1978) Introduction to Theoretical Linguistics. New York: Cambridge University Press
- Lyons, J. (1981) Language and Linguistics. Cambridge: Cambridge University Press.
- Mason T. (2005). 'CAPES "Capes 4 the Communicative Approach" 'IUFM de Versailles, available at: http://www.timothyjpmason.com/WebPages/LangTeach/Capes/EpDossier/HistLectures/Lesson4.htm
- Masterman, Margaret (2008). 'Language, Cohesion and Form'. Cambridge University Press. Also available at: http://www.cambridge.org/uk/catalogue/catalogue.asp? isbn=0521454891&ss=fro
- Nicola, D.(2002) "Spor. Will be sent"- abbreviations and acronyms in the SMS communications'. Available at: www.nicola-dering.de
- Oxford Reference (2008) 'Morphology' available at: http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t29.e722
- Renkema, j. (1993). Discourse Studies. John Benjamin's publishing company. Amsterdam. The Netherlands.
- Richter, F. (2005). 'Introduction to Computational Linguistics'. Available at: http://www.aclweb.org/archive/what.html

- Published by European Centre for Research Training and Development UK (www.eajournals.org)
- Ryding, C. (2005) A Reference Grammar of modern standard Arabic. Cambridge: Cambridge university press.
- Shrivastava, M., (2008). 'Morphology Based Natural Language Processing tools for Indian Languages'. power point . available at: http://www.cse.iitk.ac.in/users/iriss05/m_shrivastava.pdf
- Swan, M. and Widdowson (2005) Grammar. Oxford: Oxford University Press.
- Talib, F., M. Jiang (2008) '? Language Processing': available at: http://www.fatimahweb.net/courses/CC/Presentation.ppt.
- Thompson, G. (1995) Introducing Functional Grammar. New York: Arnold.
- Thurlow, C. (2005) 'Generation Text? The sociolinguistics of young People's text-messaging'. Available at:
- Verma, S. K., and N. krishnaswamy.(1989).Modern Linguistics An Introduction. New Delhi: Oxford University Press.
- Wehr, H. (2008)'A Dictionary of Modern Written Arabic' Arabic-English. Libraries du liban Weizenbaum, J. (1966). 'Eliza' available at: http://jerz.selonhill.edu/if/canon/ eliza.htm
- Wiki Answers: Q&A community (2008) The distinction between natural and non-natural meaning: available at: http://wiki.answers.com
- Wikipedia the free encyclopedia. (2008a) 'Short message service'. available at: http://en.wikipedia.org/wiki/Short_message_ service
- Wikipedia the free encyclopedia. (2008b) 'Inflection' . availble at: http://en.wikiepda.org/wiki/inflection
- Yule, G. The Study of Language, 3rd ed. (2006), Cambridge: Cambridge University Press, . Zeman, Eric. (2007). 'SMS Is Being Used More and More For Important