A COMPARATIVE STUDY OF LANGUAGE STYLE VARIATIONS
IN E-MAIL AND *TELEGRAM* MESSAGES
BY NON-NATIVE INTERMEDIATE LEARNERS OF ENGLISH

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Abstract

This study sought to explore the formality styles of writing among intermediate EFL Iranian learners to scrutinize their competence in the writing skill. A convenience sample of 30 students were chosen through Oxford Quick Placement Test (2001) from among 60 university students. The first group sent their messages (essay tasks) through e-mail and the second group used *Telegram*. A corpus containing a total of 240 written texts was extracted from both groups. This corpus was then analyzed and compared in terms of formality styles. A detailed comparison of the two sub-corpora revealed a significant difference between texts written and sent by *Telegram* application and e-mails. The results of data analysis also indicated that informality and formality markers potentially function as distinctive factors, capable of differentiating between the texts sent by *Telegram* and e-mails. Ultimately, the essays sent by *Telegram* (containing 5 factors including contractions, questions, modal verbs, opening sentences, vocabulary) were recognized to use more informal styles of writing than emails. Taking the current study's findings into account, academic writing pedagogy may benefit from a focus on employing appropriate writing strategies and techniques to accelerate Iranian university students' writing development.

Keywords: essay writing; formality styles; social media; *Telegram*; writing skill

1. Introduction

Emerging in the 2000s, the technologies built upon Web 2.0 platforms came to be known as social media, encompassing a range of types like blogs, wikis, social networking services and media technologies. Social media have undeniably encroached into human interactions so intricately that have changed people's communication habits vastly (Reinhardt, 2019). Technology (or sometimes called electronic) devices and various applications such as *Telegram*, *WhatsApp* and e-mail have recently been increasingly identified as indispensable elements in language learning process (Lankshear & Knobel 2006; Warschauer & Grimes, 2007). More recently, educational contexts such as schools and institutions have recognized

the effectiveness of these kinds of teaching and learning as complementary instruments to enhance the horizons of educators and learners' attitude towards their capabilities and strength (Chik & Ho, 2017). The spread of social media has resulted in intercultural and sociopragmatic developments, raised people's awareness of social issues, and shaped language learners' identities. To support this idea, Barron (2006) holds that using technology has gained momentum as an essential factor in language learning on various levels and recently various attitudes towards applying social networking have stimulated controversial discussions with promising prospects. It is documented that judicious use of technology devices and applications in educational settings could be justified as crucial teaching and learning visual and audio aids to the process of learning (e.g. Sockett 2014; Sylven & Sundqvist, 2016). For example, with their specialized features, *WhatsApp*, *Telegram* and email have been found to change a few highlights of clients' written output by encouraging individuals and groups to structure their messages in specific ways and ending up in upgrading their writing abilities (AbdAlfattah, 2015; Alfaki & Alharthy, 2014).

A review of recent studies on using technology in the classroom suggests that most research has focused on social networks as a modern facility in language learning contexts to improve students' abilities and teachers' teaching planning (Khoshsima, Toroujeni, & Safarzade Samani, 2017). For example, a descriptive study has been directed on the adequacy of *Telegram* in improving learners' pronunciation in English (Xodabandeh, 2017). The writer found out significant improvement in the pronunciation of participants in experimental group as compared to control group, whereas no significant improvement in pronunciation of participants was reported in experimental group from post-test to delayed test which was administered four weeks later. The writer concludes that using social media in teaching language features can be very operative. The study, however, had only a narrow scope, i.e., pronunciation, but did not focus on broader dimensions of language such as stylistic or rhetorical aspects.

A point to consider at this stage is the language style typical of each of the technology-related communication means, which seems to have received only scanty attention (Sabate, & Begoña, 2008). In social networks and in relation to language learning domain, analyzing language formality takes place under the name of genre and register analysis. This can inform the students about how to write and regard the language forms and improve their abilities in using technology and accurate language forms in appropriate contexts (Epstein, 2013). Epstein's (2013) characterization of formality and language style has been broadly employed as a part of educating and examining language formality in the social networking

environment. In particular, this system has been utilized widely to represent the different components of composing expositions (Pavlick & Tetreault, 2016; Richards, 2015). Applying the elements of this framework in recent studies such as Xodabande's (2017) shows the importance of knowing language formality in using appropriate language means in various online environments. According to Cheung (2010), applying social networks in language learning has brought about a host of controversy as to the distracting drive it ensues in language learning process with regard to the linguistic style shifts. Cheung points out that the learners' inappropriate styles of language have constantly been criticized by various scholars in applied linguistics field (Cheung, 2010).

Having reviewed studies on language formality in technology-based communication, there seems to be a gap as regards language users employing different styles of language in appropriate contexts. Lack of knowledge about styles of language when using different tools such as *Telegram* and email can hypothetically give rise to much difficulties in users' communications and their written correspondence. As regards the importance of using technology in language learning, students need to know the differences between linguistic forms of texts (language formality) written in social networks such as *Telegram* and in e-mail.

This study tries to fill this gap by collecting relevant data about the use of language styles by technology users through comparing their *Telegram* and email writing exchanges. Given the identified gap in the literature, the following questions are formulated to guide the study:

1. Is there any significant difference between using language styles (formality and informality) in technology devices (e-mail and *Telegram*)?
2. Are informal elements of Epstein's (2013) framework mostly applied in *Telegram*-based interaction?

2. Literature review

Reinhardt (2019) defines social media as any application or technology by which users take part in, shape and disseminate media resources and activities with other users using digital networking. Zhu & Chen (2015) typify social media as either profile-based or content-based on the one hand, and either personalized or broadcast on the other, yielding four types or purposes: "to connect to others and build relationships, to collaborate with others, to present or broadcast an identity, or to express creative activity" (as cited in Reinhardt, 2019, p. 4). Ever since human interaction was recognized as a pivotal element in language learning, language teachers and educators have tried to integrate any means, including the most recent

technology-based ones, to boost communicative practice in their classrooms. Synchronous (chat) and asynchronous (email and bulletin board system) Internet applications were incorporated into the language classroom due to their educational potential. Early empirical research (e.g. Beauvois, 1992; Chun, 1994; Kern, 1995) found that computer-mediated communication came up to enhanced output production, exposed to a wider gamut of discourses and helped to increase learner fluency. These benefits are still abundant in second language teaching and learning.

Social media can be used formally as a classroom aid or informally by learners who seek autonomy in learning. Both ways will afford the development of intercultural, sociopragmatic and audience awareness, as well as language learners' identities in the long run. Moreover, certain media have particular potentials. For instance, blogs can cater for reflective learning, wikis support collaborative learning, while social networks facilitate situated learning (Reinhardt, 2019). Research into social media in instructional settings has mostly been based on socially-informed language learning and teaching theories, like social-constructivist, multiliteracies and L2 identity development theories (Reinhardt, 2019). A range of research methodologies and techniques such as case studies, instructional and action research, discourse analysis, ethnography and quantitative data analysis have been reported to be used in this field. To examine the effect of e-learning by using a particular mobile application on the levels of motivation, content knowledge and grades of the students, Hassan (2018) used *WhatsApp* to provide additional support to the experimental group. The results indicated that the experimental group outperformed the students of the control group receiving instruction through the traditional method. The study proved that *WhatsApp* can be effectively used to provide support to motivate students to study properly and to get higher grades.

Communication technologies have gradually influenced conduct and social standards (McQuiggan, Kosturko, McQuiggan & Sabourin, 2015; Büschken & Allenby, 2017). Today, everybody in the general public approaches a colossal measure of data which was hard to imagine a couple of years earlier, while marvelous advances still offer new perspectives in network, correspondence and joint effort in our everyday lives. Xodabande (2017) demonstrates the expanding significance of PC and communication innovation in language instruction. He contends that advancement itself does not choose human conduct, for example, how we as teachers control somebody. Be that as it may, it makes the potential results for new kinds of learning and of conduct. He continues that these new possible results rise in view of the change in development, and provoke the movements of the entire setting of

dialect instructing to the significance of new expertise levels, new groupings, new characters and new educational techniques for dialect educating. Ingram and Sasaki (2003) explain that information and communication technology are back-up means to teaching and learning across all areas of the curriculum and using communication applications such as email had significant effect on students' writing ability.

Examining changes of formality level across groups of students, Khoshsima et al. (2017) contend that technology developments have given a different shape to the entire process of learning. Likewise, techniques for educating and methods for learning have experienced significant changes because of the improvement of data innovation, particularly the headway of PC innovation. The entrance to data, together with the dissipating and use of data, has caused enormous and diverse changes. Technology users can approach PCs and the Web to get data without the obstruction of time and space, which gives them more independence and versatility to pick the substance and techniques for learning (Chik & Ho, 2017).

By reviewing the literature on using various styles of language in different technology devices such as email, it is possible to notice the differences between them. While scrutinizing the discourse of e-mails Abbasian and Tahririan (2008) analyzed two different discourse communities: English as foreign language (hereafter EFL) teachers and biology professionals. The collected emails were contrasted following Phinney's (1991) model of Business Letters of Negotiation. The results revealed that a similar general logical structure was appropriate to the two corpora. The two groups demonstrated a level of error in the techniques they used to understand each move. These observed contrasts in techniques they utilized showed the dynamic idea of email sort obliging the explanatory and practical needs of the talk networks.

Sabater et al. (2008) examined the formality features of emails in a corpus of messages exchanged by academic institutions, comparing them on the basis of their mode of communication (one-to-one or one-to-many) and the sender's mother tongue (native or nonnative). The samples were analyzed for formality of greetings and farewells, use of contractions, politeness indicators and non-standard linguistic features. The findings indicated the advent of a new style in writing for the most conspicuous, confidential and formal purposes which form a new sub-genre of letter-writing. Nonetheless, this study has not addressed more complex writing tasks. Instead, the focus was merely on phatic talk and confined to pragmatic indicators of politeness.

In order to analyze written requests made by Iranian learners of English via online applications, Mehrpour and Mehrzad (2013) carried out an investigation into the way Iranians use modal verbs of *can, could* and *would* in comparison to native speakers' usage. The results indicated that Iranians' use of modal verbs seemed to be more straightforward in comparison to the native writers. As evidenced by that study, even though the native English writers had applied the modals *could* and *would* in a number of e-mails, they tended more often to ask for a favor using the less formal modal, *can.* These differences may have been caused by the socio-cultural background. Iranians, who may be regarded as following the value of collectivism, show a lot of concern about the addressee's negative face and try to respect it by any possible means. On the contrary, English people are more friendly, intimate and casual, and do not worry about such bothersome conventions.

In a similar study, Cheung (2010) concentrated on the talk structures of Chinese and English direct-showcasing deals messages and found that the two corpora share the same moves and steps. The post hoc examination uncovered that the offers sent by these two groups were meant to encode the producers' logical objectives, i.e., the viewer-producer connections they wish to set up through the writings, and the social setting inside which these writings unfold. In this procedure, the business kind is probably going to adjust as far as its talk technique and printed highlights.

In addition to the above-mentioned studies on the effect of e-mail on language learning, some researchers investigated the application of local social networking sites, especially *Telegram* and *WhatsApp*, in learning languages. Xodabande (2017) analyzed the viability of utilizing online networking system *Message* in showing English dialect articulation to Iranian English students. The post hoc of the pre-test and post-test revealed that the experimental group outperformed the control group yet no significant difference was found in the ad hoc performance of the two groups from the pretest and the deferred test which was administered a month later.

As seen from the studies reviewed above, most research in applying technology and distinguishing different language styles (formality) has taken place in various academic contexts, especially at schools and universities. Little research has been done into the examination of formality (styles of language) through social networks. In particular, very few studies have used Epstein's (2013) framework for analysis of L2 language styles through using social networks such as *Telegram* and e-mail. Epstein's (2013) reformulations of formality posits that this concept lies on a continuum and it is not based on frozen discrete points but rather it uses as many contextual clues as possible to analyze discourse. Moreover,

this view has never been introduced to the research into social media. Thus, more examination is needed because a deeper understanding of L2 university students' styles of language can provide specific pedagogical implications on how to help L2 students write texts more effectively. The current research, therefore, aims at bridging the mentioned gap in the literature to investigate the differences between narrative texts written and sent by Iranian intermediate university students through *Telegram* and e-mail based on formality style taxonomies.

3. Methodology

3.1. Context and participants

Thirty students (15 female and 15 male) were selected via non-random sampling (convenience sampling) from among a total of 60 students using Oxford Quick Placement Test (2001) at Payame Noor University of Mobarakeh, Isfahan city, Iran. The participants' age ranged between 20 to 40 years old. They had already been learning English for a few years in private language institutes. Attempts were made to select participants as homogeneously as possible because having homogeneous groups would help minimize the negative effects such as variability in work efficiency, the resulting boredom and off-task behavior that could be expected when some individuals finish with a given part of the task well before others do. To further make sure that they were at the similar (homogeneous) levels of language knowledge and skills, they took the Oxford Quick Proficiency Test (2001) (QPT) including two parts: Part One (questions 1-40) deals with simple grammar and vocabulary items and Part Two (questions 41-60) was concerned with reading comprehension multiple-choice items and cloze test. Next, the test results were analyzed by the researcher via SPSS software and its reliability was estimated. Through applying QPT (2001) and using its categorizations, 30 intermediate level students out of 60 participants were selected. Then, they were assigned randomly into two groups of 15 in this study. They underwent a two-month essay writing class as the experimental treatment. Finally, one of the groups sent their messages (essay tasks) through e-mail and the second group used *Telegram* to the researcher.

3.2. Instrumentation and materials

To gauge participants' proficiency in English prior to the experiment and to assess the effects of treatment on their learning the following instruments and treatments were used: Oxford Quick Placement Test (2001) was used to homogenize the participants regarding their English

proficiency. The test results were analyzed by the researcher via SPSS software and its reliability was estimated, securing a satisfactory level. Oxford Quick Placement Test (2001) consisted of two parts: Part One (1-40) deals with simple grammar and vocabulary items. Part Two (41-60) was concerned with a bit more difficult reading comprehension multiple-choice items and cloze test. The students' scores were ranked from high to low and the participants were homogenized based on the OPT (2001) categorizing chart (i.e., 0-17 scores for beginners, 18-29 for elementary, 30-47 for intermediate and 48-60 for advanced level).

Several writing tasks (240 essays) which were in the form of narrative essays and on various topics (including family issues, jobs, friendship, interest and hobbies, sports, free time activities, education, future plans) were utilized to make the participants write and send them to the researcher to analyze the styles of their texts. Each essay included three parts of introduction, body and conclusion. Since the types of writing essays were taught previously, in this process the writing contents were emphasized. During the 2 months (8 weeks, 8 topics for essays) of interaction with the researcher in a course, the participants in the two groups were supposed to write those 240 essays (120 essays in each group) through using e-mail and *Telegram*. Those writing tasks included writing essays about the participants' real life and were analyzed based on Epstein's (2013) framework of formality.

3.3. Data collection

Having given instructions on writing essays for two months (8 sessions) to the non-random selected sample of participants, the researcher shared an e-mail address and a *Telegram* account with the participants. The participants in Group One were asked to compose their essays in e-mail and send the finalized task and the participants in Group Two were asked to type and send their tasks via *Telegram* on a weekly basis for eight weeks. A corpus of 240 messages (120 email messages from Group One and 120 *Telegram* messages from Group Two) was collected in the form of complete essays, containing Introduction, Body, and Conclusion. The process of collecting data included determining the relevance of the content to the assigned topics and marking them based on the formality framework which is elucidated below.

Formality varies according to the extent to which it conforms to everyday oral conversations rendering informality (Atkinson, 1982) or the degree to which it aligns with institutional or organizational conventions as a standard of formality (Andren, Sanne & Linell, 2010). Four linguistic features are the means to reduce formality: informal lexical embedding, colloquial style or jargons, omissions of formally required parts and addition of

non-task talks. These definitions of formality, however, fail to present an adequate characterization of formality for written discourse. Epstein's (2013) framework is adopted for the current study. This framework takes the view that formal language increases in conjunction with informational texts, but decreases with narrative texts. This framework is adopted for three reasons: (1) it is based on a continuum rather than discrete point, (2) it takes many levels of language and discourse into account, and (3) this definition also considers contextual aspects (such as purpose, discourse planning, audience, and common background) that might have some bearing on the formality variation.

In this framework, several elements account for language styles: a) Contractions, b) Modal Verbs, c) Questions, d) Opening Sentences, and e) Formal and Informal Vocabulary. According to Epstein (2013), language style elements in writing a formal or informal English language are categorized as follow:

a) Contradictions:

When writing formal essays, writers should not use contractions, such as *I'm*, *he'd*, *you'll*, etc.

Formal → I *am writing to ask if you have seen the news from Jo.*

Informal → I'm *writing to ask if you've seen the news from Jo.*

b) Modal verbs:

To make requests and give instructions, writers frequently use modal verbs in formal English: *would*, *could*, etc. However, writers should note that modal verbs are also used in this way in informal and semi-formal English.

Formal → Would *you be able to deliver the report by tomorrow?*

Informal→ Will *you deliver the report by tomorrow?*

Formal→ Could *you ask Pierre to come to the meeting?*

Informal→ Can *you ask Pierre to come to the meeting?*

c) Questions:

When asking a direct question, writers frequently use indirect questions in formal writing.

Formal→ *I wonder if you would like to join us for dinner on Tuesday.*

Informal→ *Do you want to join us for dinner on Tuesday*?

Formal → *Could you see if the components have been ordered yet*?

Informal → *Have the components been ordered yet*?

Hint: In addition to this, offers are often made using *would*.

Formal→ *Would you like to see the new prototype*?

Informal→ *Do you want to see the new prototype*?

d) Opening sentences:

After the greeting, English writing normally begins with an opening sentence.

Common opening sentences for formal writings are as follows:

Informal→ *I hope that all is well with you*.

Formal→ *I was just emailing to request some assistance*. (The past tense is frequently used to make a sentence more polite, i.e., formal)

Formal → *Thank you for your email of 12 March*.

Hint: Writings that omit this opening sentence are usually official correspondence between governments and individuals, or formal demands for payment, etc.

e) Formal and informal vocabulary:

Formal writing tends to use slightly different vocabulary from informal writings. Informal writing often uses phrasal verbs.

Formal→ *I would like to request some assistance.*

Informal→ *I'd like to ask for some help*.

Formal→ *Once I have received the information from our suppliers, I will reply to Mr. Braun's email*.

Informal → *After I hear back from the suppliers, I'll get back to Mr. Braun.*

Hint: Certain terms have a formal or informal equivalent. Writers should try not to mix informal and formal styles in the same writings. Some examples have been given in the following box:

Formal	Informal
Thank you.	Thanks.
I would like to apologize for ….	Sorry for …
I would appreciate it if you…..	Can you?
Would you happen to know…?	Do you know….?
Unfortunately, I will not be able to…	I can't……
I am unable to say whether ….	I don't know whether….

Below, examples of essays written and sent by email and *Telegram* are presented with highlights that demonstrate the formality and informality markers in the text.

The first essay was written and sent by Ahmad, a male student from the email group. The essay consists of an introduction, two body paragraphs and a conclusion. Ahmad has observed the mechanics of writing, i.e., paragraph demarcation, equal line-spacing, consistent font type and font size throughout the essay, and appropriate punctuations. However, there are a number of issues regarding this essay. Starting with the first paragraph, Ahmad has used a contraction *it's* with an evidential means *true that* as an opening sentence. In the second sentence, Ahmad has made use of emphatic auxiliary verb which is characteristic of formal writing. The lexical items *proceedings* and *implemented* used in the third sentence also indicate that he has chosen to use the formal style. In addition, the use of modular passive structures like *can be implemented* can be found abundantly in his writing, which insinuates a formal style as well. Disregarding the collocational mistakes, it is clear that Ahmad has made his best to abide by the conventions of formal writing.
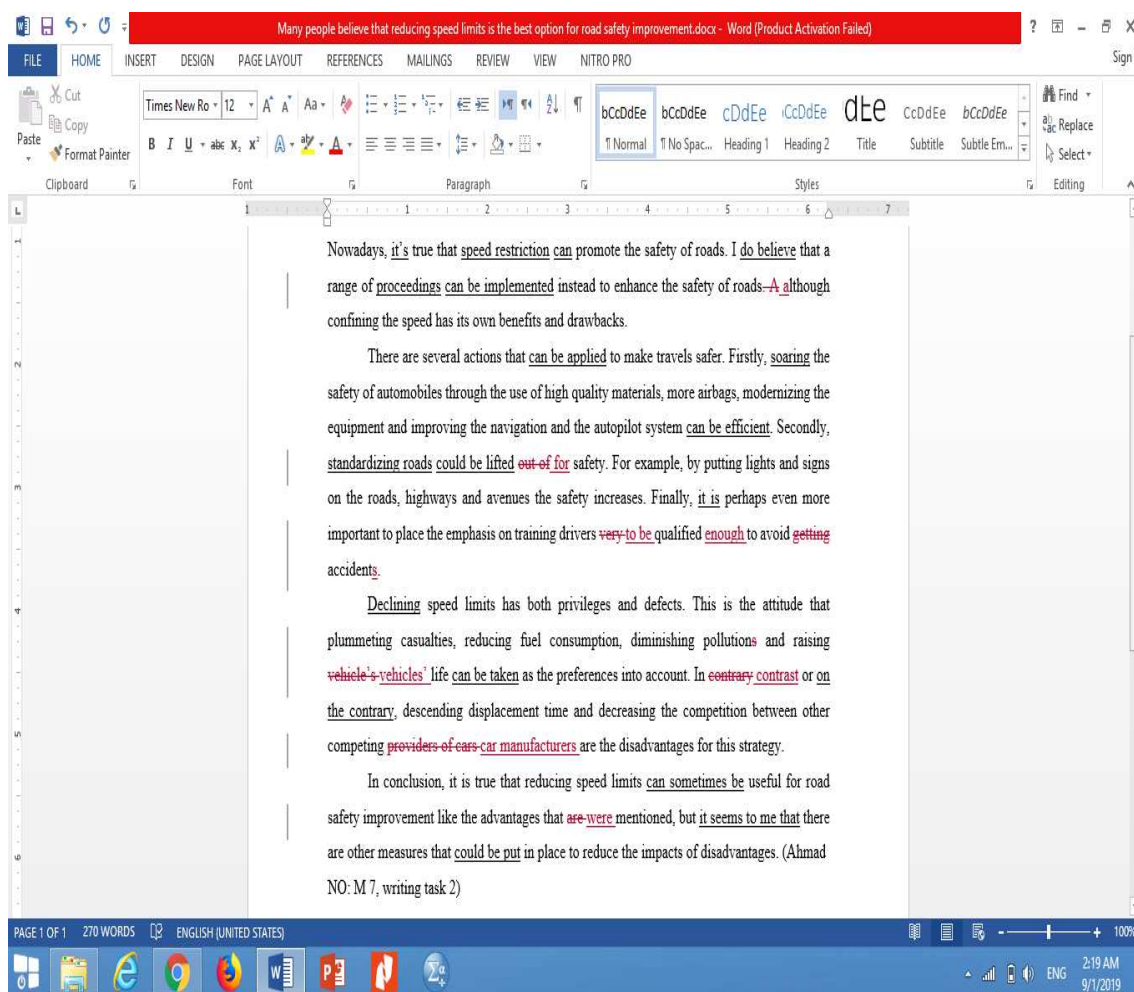

Figure 1. An excerpt from a participant in the email group

The following is excerpted from another (male) participant, Mohsen, from the *Telegram* group. As it is obvious from the image, the short piece of writing is not qualified to be called an essay, as long as it is very short; with no rhetorical organization of introduction, body nor conclusion. The opening is the phrase *Drilling rig*, the tone is too personal and the sentences contain many grammatical, spelling, punctuation, and socio-pragmatic errors. The deictic expression *here* indicates that the writer is either expecting the reader to share the same background knowledge with him or has used an erroneous opening phrase. In the second sentence, the possessive adjective *its* was supposed to be the demonstrative pronoun with a contracted to be verb *it's*. However, Mohsen has taken the intimate and quick nature of the messenger granted and anticipates the reader would make sense of this informal style. The same is true of *im*, which should be interpreted as 'I'm'. The proper names Iran and Amir Kabir have been written with lower case initials. The exclamation mark and the following informal echo question in the third sentence are all indicative of genuine informal style. More instances of informal style could be addressed in the remainder of the text.
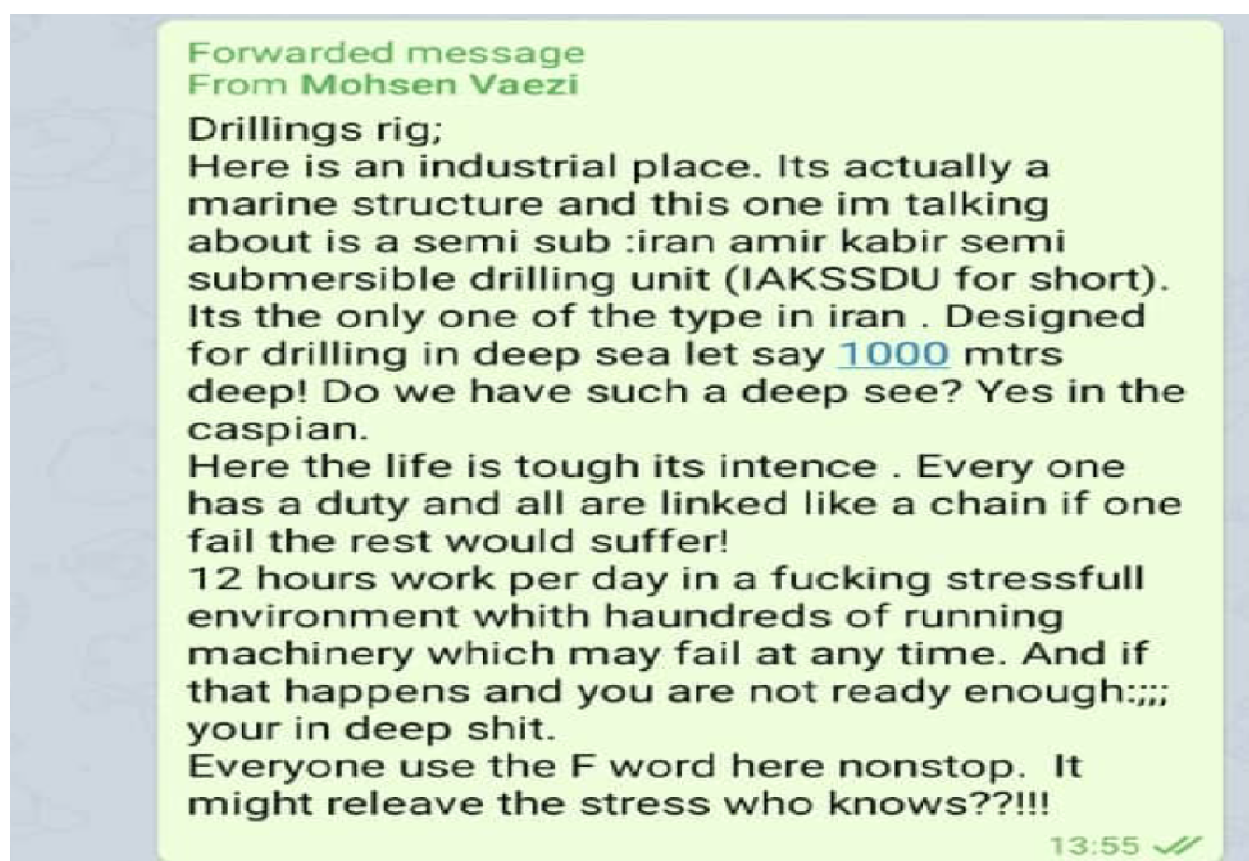

Figure 2. An excerpt from a participant in the Telegram Group

3.5. Procedure

Firstly, the research context was chosen mainly because of the researchers' access to university students who had already studied English in institutes and reached a range of levels of proficiency. Secondly, a sample of 30 students were selected conveniently from among 60 students. Thirdly, the students were divided into two experimental groups (*Telegram* group and email group). Fourthly, the two groups received eight sessions of instructions on narrative writing on every day topics. Next, the students in both groups were asked to send their essays via *Telegram* and email, respectively. Then, the researcher analyzed, calculated and compared the extracted texts for the language style indicators (formality and informality). The *Telegram* messages and e-mail messages of university students were collected over 2 months (8 weeks) after the students received the same treatment. Finally, the results were tabulated and the findings were presented. Prior to the experimental phase of the study, a pilot study was carried out with 3 students who had similar characteristics to the selected sample of participants for the study to locate the possible errors in the identification and calculating frequency and percentages of the formality features.

3.6. Results

The first research question was intended to explore whether there is any significant difference between using *Telegram* and email through applying the formality styles taxonomy. To answer the first question, the data were analyzed descriptively. Table 1 presents the descriptive statistics of the five indices measuring formality styles in the texts written by Iranian EFL learners through using *Telegram* and e-mail.

Table 1. Paired Samples Statistics of comparing formality styles through Telegram and email

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Contraction Email	125.73	15	5.035	1.300
	Contraction *Telegram*	126.00	15	4.359	1.125
Pair 2	Modal Verbs Email Formal	33.20	15	3.932	1.015
	Modal Verbs *Telegram* Formal	24.13	15	2.642	.682
Pair 3	Modal Verbs Email Informal	20.13	15	3.815	.985
	Modal Verbs *Telegram* Informal	22.07	15	2.219	.573
Pair 4	Opening Sentence Email Formal	87.27	15	8.908	2.300
	Opening Sentence *Telegram* Formal	70.80	15	5.870	1.516
Pair 5	Opening Sentence Email Informal	15.20	15	3.144	.812
	Opening Sentence *Telegram* Informal	18.00	15	2.299	.594
Pair 6	Vocabulary Email Formal	148.27	15	21.053	5.436
	Vocabulary *Telegram* Formal	136.73	15	12.453	3.215
Pair 7	Vocabulary Email Informal	30.80	15	9.306	2.403

	Vocabulary *Telegram* Informal	31.60	15	4.925	1.272
Pair 8	Questions Email Formal	8.60	15	1.993	.515
	Questions *Telegram* Formal	6.00	15	1.254	.324
Pair 9	Questions Email Informal	5.87	15	1.302	.336
	Questions *Telegram* Informal	7.47	15	1.302	.336

As displayed in Table 1, texts sent via *Telegram* (120 texts) and e-mail (120) had several differences. As the main feature in descriptive statistics of Table 1, the index of mean for all five categories in *Telegram* and emails essays were compared. The texts sent through *Telegram* contained more contractions (M=126.00), as compared to the texts sent by emails (M=125.73). In addition, the average number of formal modal verbs in the *Telegram* messages was lower (M=24.13) in comparison to formal modal verbs in emails (M=33.20), while the average number of informal modal verbs in the *Telegram* messages was higher (M=22.07) than informal modal verbs in emails (M=20.13).

Furthermore, the *Telegram* texts contained less formal opening sentences (M=70.80) than formal opening sentences in emails (M=87.27). The *Telegram* messages contained more opening informal sentences (M=18.00) than informal opening sentences in emails (M=15.00). Also, the *Telegram* texts contained fewer formal questions (M=6.00) than formal questions in emails (M=8.60). The *Telegram* essays contained more informal questions (M=7.47) than informal questions in emails (M=5.87). Finally, the *Telegram* messages contained fewer examples of formal vocabulary (M=136.73) than informal vocabulary in emails (M=148.27). The *Telegram*s contained more informal vocabulary (M=31.60) than informal vocabulary in emails (M=30.80).

As proven by the aforementioned data in the first phase of statistics, the *Telegram* informality of writing styles is more than the same items written through email essays although email essays surpass essays written through *Telegram* as regards formality styles. In the second phase of presenting results, any significant differences between formality styles were sought:

Table 2. The comparison of formality styles used in Telegram and email essays

		Paired Differences			
		95% Confidence			Sig. (2-tailed)
		Upper	t	df	
Pair 1	Contraction Email – Contraction *Telegram*	3.842	1.763	14	.100
Pair 2	Modal Verbs Email Formal – Modal Verbs *Telegram* Formal	11.133	9.411	14	.000

Pair 3	Modal Verbs Email Informal – Modal Verbs *Telegram* Informal	.057	-2.083	14	.056
Pair 4	Opening Sentence Email Formal – Opening Sentence *Telegram* Formal	23.274	5.188	14	.000
Pair 5	Opening Sentence Email Informal – Opening Sentence *Telegram* Informal	-.449	-2.554	14	.023
Pair 6	Vocabulary Email Formal – Vocabulary *Telegram* Formal	20.226	2.846	14	.013
Pair 7	Vocabulary Email Informal – Vocabulary *Telegram* Informal	3.260	-.423	14	.679
Pair 8	Questions Email Formal – Questions *Telegram* Formal	3.969	4.072	14	.001
Pair 9	Questions Email Informal – Questions *Telegram* Informal	-1.054	-6.287	14	.000

The skewedness and kurtosis values for all the data sets were within the range of + 2 and – 2, indicating the normality of all sets of data on a descriptive level. The following section has illustrated the differences between various pairs:

As of the first formality styles factor, the difference between frequencies of contractions in *Telegram* texts and emails was significant at (p≤ 0.100). This significant difference indicated that the participants in the *Telegram* group used contractions more significantly than email participants.

There was a significant difference between the *Telegram* and email groups with regard to informal modal verb frequencies (p ≤0.056), as the second formality styles factor. This significant difference indicated that the participants using *Telegram* employed informal modal verbs significantly more than email participants. Also, the difference between formal modal verbs frequencies in *Telegram* and emails was significant (p ≤0.000). This significant difference suggested that the participants in the email group used formal modal verbs significantly more often than the *Telegram* participants.

As regards the third formality styles factor, the difference between formal opening sentences frequencies in *Telegram* and emails was also significant (p≤0.000). This significant difference indicated that the participants who used emails used formal opening sentences significantly more often than the *Telegram* participants. In addition, the difference between informal opening sentences frequencies in *Telegram* and emails was significant (p≤0.023),

too. This significant difference showed that the participants utilizing *Telegram* used informal opening sentences significantly more than email participants.

In relation to the fourth formality styles factor, there was a significant difference between formal vocabulary frequencies in *Telegram* and emails (p≤0.013). This significant difference meant that the participants in the email group made use of formal vocabulary significantly more often than the *Telegram* participants. Also, a significant difference was observed between *Telegram* and email groups in terms of informal vocabulary frequencies (p≤0.679). This significant difference indicated that the participants in the *Telegram* group used informal vocabulary significantly more often than the email participants.

As for the fifth formality styles factor, the difference between formal questions frequencies in *Telegram* and emails was significant (p≤0.001). This significant difference implied that the participants in the email group used formal questions significantly more often than the *Telegram* participants. Eventually, there was a significant difference between *Telegram* and email groups regarding informal question frequencies (p≤ 0.000). This significant difference indicated that the participants using *Telegram* used informal questions significantly more than the email participants.

4. Discussion

The first research question aimed to identify whether there is any significant difference between texts written and sent by Iranian intermediate students using two types of technology devices (i.e., e-mail and *Telegram*) with regard to language styles (formality and informality). Considering Epstein's (2013) framework with the indices measuring formality styles, five features (1. Contractions, 2. Modal verbs, 3. Questions, 4.Opening sentences, 5. Vocabulary) were included in our analysis. Quantitative analysis of the data revealed a significant difference between the *Telegram* and e-mail texts based on a linear combination of formality styles measures. The findings of this study suggested that the essays written by university students through *Telegram* differed significantly from those written through e-mail.

The results of the current study are compatible with the inquiry conducted by Ingram and Sasaki (2003), which demonstrated that information and communication technology could be used to support teaching and learning, including major and minor facets of the curriculum and using social media applications and email had significant effect on students' writing ability. We saw that the participants of the current study were completely motivated to cooperate in the process of research and wrote various essays on various selected topics and this showed that using technology (here, *Telegram* and email) had positive effect on their

writing through distinguishing the writing styles (informal and formal). Through achieving this significant result, the current study showed that a well-balanced approach to incorporating technology, pedagogy and content needs will provide an effective learning environment for students so as to improve their writing capabilities and awareness.

The results of the present study also confirm the conclusions drawn in previous research (Beauvois, 1992; Chun, 1994; Kern, 1995; Mc Quiggan et al., 2015; Büschken & Allenby, 2017; Xodabande, 2017) that computer and communication technology have gained increasing importance in language education and creation of the possibilities for new forms of behavior, new literacies, new genres, new identities, and new pedagogies of language teaching. Our results unequivocally are in compliance with Xodabande (2017), who analyzed the pronunciation changes of Iranian learners of English over a period of time through comparing pretest and posttest results utilizing an on-line messaging system. In both our study and Xodabande's (2017) study, the effect of the social media was found adequately significant. Our findings also proved that the messages sent by the email group were significantly different from the messages written by the participants in the Telegram group, based on the scale of formality style. In view of the findings of the present study and previous research, it can be claimed that on-line Internet-based instructions are highly effective and should be promoted due to their compelling and promising opportunities.

With reference to the second research question, this study sought to explore whether informal elements of Epstein's (2013) framework are mostly applied in *Telegram*. We found that Iranian writers have a strong tendency to use informal language more often in *Telegram*s rather than in emails. However, the language used in emails is not comparable with the formality observed in native speakers' email exchanges. Our results are in line with the findings of the previous research by Mehrpour and Mehrzad (2013). As an uncommon instance of using technology applications to explore the Iranian emails of requests and offers, Mehrpour and Mehrzad's (2013) study revealed that Iranians used more straightforward structures in regards to requests in contrast with the native English writers. In that review, however, the local English journalists had connected the modals *could* and *would* in various messages, they had a tendency to request some help utilizing the less formal modal *can*. These distinctions may have been caused by the socio-cultural background. Iranians, who might be viewed as following the estimation of cooperation, demonstrate a great deal of worry about the recipient's negative face and attempt to regard it by any conceivable means. Despite what might be expected, English individuals are all the more cordial, private and easygoing, and rarely pick at such annoying traditions. The present investigation found that the Iranian

writers' compliance with convention of styles in *Telegram* messages and emails is associated with modular verbs that indicate more formal styles.

The findings of this research can make room for the argument that technology-related applications for educational purposes have positive effect on learners' realization of formality variations across different applications (Hassan, 2018). Each application (here, *Telegram* and email) by nature implies the use of certain types of linguistic and paralinguistic features to mark formality. In general, *Telegram* was found to be less formal than emails. Another argument to put forth is the high potential for the application of formality frameworks to the cyber world: it was proved that Epstein's (2013) framework could be easily adopted, adapted and used to evaluate the formality level of discourses on different environments.

5. Conclusion

Adopting a quantitative corpus-based research design, this study made a comprehensive comparison of formality styles in Iranian EFL university students' writing analyzing five indices from Epstein's (2013) framework: 1. Contractions, 2. Modal verbs 3. Questions 4. Opening sentences 5. Vocabulary. Utilizing different tables of descriptive and inferential statistics for measuring the aforementioned indices as well as employing appropriate analyzing procedures, the researcher came to the conclusion that texts written and sent by *Telegram* differs significantly from e-mails. In conclusion, the study has shown that most EFL university students' essays through *Telegram* contained the basic elements of informal structures. However, the essays written through emails on different subjects contained mostly formal styles of writing. It can be inferred from the above analysis that people have a sensibly lucid idea of convention when it comes to different environments and for specific purposes.

Pedagogically, the significant difference between formality styles of *Telegram* and emails may urge teachers to improve relevant teaching and materials to enrich their writing teaching processes. To this end, EFL teachers are recommended to focus their efforts on using technology devices such as *Telegram* and emails to improve their students' writing ability. It is worth mentioning that the source and size of corpus of the current study limited the degree to which generalizations can be drawn from the data. Further studies, therefore, are recommended to be carried out with larger corpora, utilizing formality styles factors in various technological applications to investigate their role in writing domain. In addition to the considerations raised in this study, future research should also draw on the following guidelines:

1) Formality is higher when the amount of shared context between speakers is low (Heylighen & Dewaele, 1999). This means intimacy between language users would reduce formality. In the case of the formality in the essays written in this study, the students had only flimsy acquaintance with the researchers and came from different walks of life; hence, the intimacy between them was fairly and expectedly less, rendering more formality in their writing.

2) Formality is higher when speakers dislike one another (Brown & Fraser, 1979). Though this consideration is of little concern to the current study, it might be an intervening factor in other similar studies.

3) Speakers adapt their language in order to match the linguistic style of those with whom they are interacting (Danescu-Niculescu-Mizil, 2013). Cumulative adjustments and cognitive alignments are constantly in action when people communicate with one another. Some variation in the formality styles might be anticipated in the same manuscript by the same individual; however, the general tendency should be associated with the dominating style.

Some potential pedagogical implications for L2 writing instruction and utilizing technology in classrooms can be drawn from the findings above. First, using technology devices have been proved to effectively help EFL learners to improve their language proficiency. They motivate learners toward better understanding and internalizing a foreign language; they are a manifestation of real life and provide lucid interactional situations, creating chances to use different aspects of language learning that are not quite suitable to be used in classrooms due to time limitations. Secondly, university students, teachers and instructors would gain a better understanding of technology contexts to enhance their sensitivity to language styles in social media. Finally, by using technology programs such as email and *Telegram*, teachers can motivate students to be engaged in learning the foreign language with more confidence anytime anywhere with anybody.

References

Abbasian, F., & Tahririan, M. (2008). The discoursal and formal analysis of e-mails: A cross disciplinary genre analysis. *Iranian Journal of Applied Linguistics (IJAL), 11*(2), 1-22.

AbdAlfattah, S. (2015). The effectiveness of using a WhatsApp messenger as one of mobile learning technique to develop students' writing skills. *Journal of Education and Practice, 6*, 32-45.

Alfaki, I., & Alharthy, K. (2014). Towards a digital world: Using social networks to promote learner's language. *American International Journal of Contemporary Research, 4*(10), 105-114.

Andrén, M., Sanne, J., & Linell, P. (2010). Striking the balance between formality and informality in safety-critical communication: Train traffic control calls. *Journal of Pragmatics, 42*, 220-241.

Atkinson, J. (1982). Understanding formality: The categorization and production of 'formal' interaction. *The British Journal of Sociology, 33*, 86-117.

Barron, A. (2006). Understanding spam: A macro-textual analysis. *Journal of Pragmatics*, *38*(6), 880-904.

Beauvois, M. (1992). Computer-assisted classroom discussion in the foreign language classroom: Conversation in slow motion. *Foreign Language Annals, 25*(5), 455-463.

Brown, P., & Fraser, C. (1979). Speech as a marker of situation. In: R. Klaus, H. Giles (eds.), *Social Markers in Speech* (pp. 33-62). Cambridge: Cambridge University Press.

Büschken, J., & Allenby, G. M. (2017). Improving text analysis using sentence conjunctions and punctuation. Retrieved from: https://ssrn.com/abstract=2908915.

Cheung, M. (2010). The globalization and localization of persuasive marketing communication: A cross-linguistic socio-cultural analysis. *Journal of Pragmatics*, *42*(2), 354-376.

Chik, A., & Ho, J. (2017). Learn a language for free: Recreational learning among adults. *System, 69*, 162-171.

Chun, D. (1994). Using computer networking to facilitate the acquisition of interactive competence. *System, 22*, 17-31.

Danescu-Niculescu-Mizil, C., Sudhof, M., Jurafsky, D., Leskovec, J., & Potts, C. (2013). A computational approach to politeness with application to social factors. In *Proceedings of the Association for Computational Linguistics* (ACL) (pp. 250-259). Sophia: Association for Computational Linguistics.

Epstein, E. L. (2013). *Language and Style*. London: Routledge.

Hassan, A. (2018). The impact of WhatsApp on learners' achievement: A case study of English language majors at King Khalid University. *International Journal of English Language Education, 6*(2), 69-81.

Heylighen, F. & Dewaele, J.-M. (1999). *Formality of Language: Definition, Measurement and Behavioral Determinants*. Brussels: Interner Bericht, Center Leo Apostel, Vrije Universiteit Brussel.

Ingram, D., & Sasaki, M. (2003). The importance of communication in English in a globalized world and in the field of medicine. Akita: Akita University. Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.526.3498&rep=rep1&type=pdf.

Kern, R. (1995). Restructuring classroom interaction with networked computers: Effects on quantity and characteristics of language production. *Modern Language Journal, 79*, 457-476.

Khoshsima, H., Toroujeni, S. M. H., & Samani, F. S. (2017). The impact of digital item presentation on the intermediate level language learners' testing performance and attitudes towards onscreen test in private language learning context. *Journal of Applied Linguistics and Language Research*, *4*(3), 196-211.

Lankshear, C., & Knobel, M. (2006). *New Literacies: Everyday Practices and Classroom Learning* (2nd ed.). Maidenhead: Open University Press.

McQuiggan, S., McQuiggan, J., Sabourin, J., & Kosturko, L. (2015). *Mobile Learning: A Handbook for Developers, Educators, and Learners*. John Wiley & Sons. Retrieved from https://doi.org/10.1002/9781118938942.

Mehrpour, S., & Mehrzad, M. (2013). A comparative genre analysis of English business e-mails written by Iranians and native English speakers. *Theory and Practice in Language Studies*, *3*(12), 2250-2261.

Oxford Quick Placement Test (2001). Oxford University Press and University of Cambridge Local Examinations Syndicate. Retrieved from http://www.vhs. aschaffenburg.de/documents.

Pavlick, E., & Tetreault, J. (2016). An empirical analysis of formality in online communication. *Transactions of the Association of Computational Linguistics, 4*(1), 61-74.

Phinney, M. (1991). Computer-assisted writing and writing apprehension in ESL students. *Computer-Assisted Language Learning and Testing: Research Issues and Practice*, 189-204.

Reinhardt, J. (2019). Social media in second and foreign language teaching and learning: Blogs, wikis, and social networking. *Language Teaching, 52*(1), 1-39.

Richards, J. C. (2015). The changing face of language learning: Learning beyond the classroom. *RELC Journal, 46*(1), 1-18.

Sabate, P., Ed, T., & Begoña, M. (2008). Orality and literacy, formality and informality in email communication. *Ibérica, 15*, 71-88.

Sockett, G. (2014). *The Online Informal Learning of English*. Basingstoke: Palgrave-Macmillan.

Sylven, P., & Sundqvist, L. (2016). *Extramural English in Teaching and Learning*. Basingstoke: Palgrave-Macmillan.

Warschauer, M. & Grimes, D. (2007). Audience, authorship, and artifact: The emergent semiotics of Web 2.0. *Annual Review of Applied Linguistics, 27*, 1-23.

Xodabande, I. (2017). The effectiveness of social media network *Telegram* in teaching English language pronunciation to Iranian EFL learners. *Cogent Education*, *4*(1), 1-14. https://doi.org/10.1080/2331186X.2017.1347081

Zhu, Y., & Chen, H. (2015). Social media and human need satisfaction: Implications for social media marketing. *Business Horizons, 58*, 335-345.