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A Social Semiotic Multimodal Analysis Of The Emojis Used In Students' Facebook Interactions

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I dedicate this humble work to:

My beloved parents Djazira & Hamid for every single thing that I do not find enough space to mention. My sisters Leticia and Melissa, My brother Yanis and my fiancé Anis for always being there.

I also dedicate this dissertation to my friends Kenza, Lydia and Lila. Special dedication goes to my partner and friend Souhila with whom I share endless memories in our department.

To everyone I love, myself included.

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My deepest gratitude to:

My dear parents whose unconditional love strengthens my will, My brothers: Mokrane and Mohand My sisters: Taoues and Naoual All my friends and beloved ones,

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For me since day one. I love you forever.

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The present study investigates the social semiotic multimodal analysis of emojis used on Facebook online interaction by Master one students of the department of English at Mouloud Mammeri University of Tizi-Ouzou. It investigates the attitudes of students towards emojis and their use, and examines the communicative functions of emojis within students' messages. Another objective of this research study is to determine whether emojis have a visual grammar or not. The study is conducted using a questionnaire designed online to Master one students of the department of English in order to get more reliable data about the students' attitudes towards emojis and their use. We have collected a limited number of students' conversations that took place on Facebook Messenger. In addition to students' comments on the Facebook group that we have created specifically for Master one students. Using a mixed method research, the study analyses the linguistic and visual modes of students' conversations and comments of Facebook group in the light of two theoretical frameworks. The first is the Speech Act Theory set by Austin and Searle (1962, 1969) adopted to analyze the effect of emojis on the linguistic mode in terms of applying the locutionary, illocutuionary and perlocutionary acts on emojis in order to derive the different functions that Emojis carry. The second is social semiotic multimodal approach set by Kress and Leeuwen (1996; 2006) used to analyze emojis as semiotic resources that constitute modes and how these resources are combined to convey meaning in terms of having a visual grammar that helps decipher them. The results of the study reveal that master one students of the department of English have positive attitudes towards emojis and are familiar with their use. Furthermore, the findings indicate that emojis, in terms of speech acts, can have literal as well as intended meanings, and they carry communicative functions within students' messages mainly the phatic and emotive function. Finally, using the metaphorical associations derived from the theory of visual grammar, Emojis can be said to have a visual grammar.

Key words: Communicative Functions, Emojis, Facebook Messenger, Multimodality online interaction, Social Semiotics, Speech Act.

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CMC: Computer Mediated Communication

MSN: Multiple Subscriber Number

Q: Question

QCA: Qualitative Content Analysis

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Statement of The Problem

Throughout history, communication has played a crucial role in the survival of the Human species. In daily life, people tend to shift and merge between verbal and nonverbal communication in order to better express their thoughts, ideas and feelings. Nowadays, with the emergence of the Internet and with the increase of smartphones and social media users, communication is no longer the same since there is a kind of effortlessness to communicate at any given time or place. All that is required to communicate is a smart device and an internet connection. However, Language is constantly changing and evolving to suit people's current needs, social trends and advancements. As a matter of fact, language is now and more than ever before subjected to adaptation by social media users. In this respect David Crystal (2006) uses the term "netspeak" to refer to the language used in online interaction.

From the earliest forms of human communication to the development of the social media, Facebook is one of the most popular social networks. It connects users around the world and changes the way people communicate with each other. It allows people to maintain existing relationships and establish new relationships at the same time. From the very beginning, Facebook attracted millions of users and became a revolutionary medium of communication and information that allows its users to interact about various topics (britannica.com). As far as communication styles are concerned on Facebook, both formal and informal styles are necessary, and their appropriateness depends on the setting, the situation and the people involved which is just as in real life. Despite the fact that Facebook interaction is not any different from using language in other contexts, informal communication remains crucial since it is characterized by simple language and the inclusion of visual resources such as: pictures, GIFs, stickers, emoticons and emojis. According to Dr. Katharine Johnson on

(blog.flexmr.net), these visual resources are static or animated digital images used to express ideas or emotions in Internet communication. Their creation intends to assist individuals in expressing more emotions and expressions than fixed written texts, particularly because images can be interpreted more quickly than text. They are available on a variety of platforms, and everyone, not only young people can easily have access them. This type of shorthand communication is quite easy to use, it adds context, joy and character to the conversation (Johnson, 2021). In fact, communication via the inclusion of visuals is highly common in online communication since people are somehow visually driven and attracted to everything that involves visual resources (picktochart.com).

Amongst the most popular and user friendly visuals are emojis which according to the Oxford English dictionary is: "a small digital image used to express an idea or emotion in emails, on the internet, on social media, etc". In fact, their popularity and universality go even further that the Oxford English dictionary chose for the first time ever the 'Face with tears of joy' emoji as the word of the year in 2015, stating that "the emoji have come to embody a core aspect of living in a digital world that is visually driven, emotionally expressive, and obsessively immediate" (Steinmetz, 2015). Indeed, this action itself demonstrates that emoji usage is highly common in contemporary communication.

Some previous studies have dealt with the analysis of emojis using different perspectives. At the national level, in her master dissertation Debba (2017), from University of Mostaganem, has conducted a study about "*Emoji Use In Online Communication And Differences Between Genders*". Her work is concerned with the sociolinguistic side of emojis and all the implications of its use. Her findings suggested that emojis are widely used, and are affecting English language in terms of grammar and pragmatic functions. Also, females are more likely to use emojis than males and the latter have better emoji competence. Moreover, we can mention the dissertation of BACHIR (2019), from the university of Mohamed Boudiaf

in M'sila, has dealt with "Le Rôle Des Emojis Dans La Représentation Du Non Verbal: Cas De La Communication Ecrite Médiée Par Ordinateur", in English: "The role of Emojis in the representation of non verbal: Case of Compter Mediated Communication (CMC)". Her study followed Umberto Eco's framework that allows the analysis of the primary and secondary functions of signs. Her investigation found that emojis cannot be defined as an independent language since they do not have grammatical standardized rules like language does and that their use is culture bound.

At an international level, in her doctoral thesis Al Rashdi (2015) has conducted a study about "*Forms And Functions Of Emojis In Whatsapp Interaction Among Omanis*". Her research found that emoji forms were found to serve various functions such as indicating intensity of emotions, displaying enthusiasm and excitement, indicating insistence, showing solidarity, and adding emphasis or highlighting a certain part of an utterance.

These works show the roles and uses of emojis in online communication from different perspectives. However, an area of study which has not received much attention is the social semiotic multimodal analysis of emojis used in facebook online interaction. Our work is based on the social semiotic multimodal approach set by Kress and Leeuwen (1996; 2006) and the Speech Act Theory set by Austin and Searle (1962, 1969). It also aims at analyzing the effect of emojis on the linguistic mode in terms of the different communicative functions that Emojis carry. Whereas the former aims at the analysis of semiotic resources that constitute multiple modes and how these resources are combined to convey meaning in terms of having a visual grammar that helps decipher them.

• Aims And Significance Of The Study

This dissertation seeks to understand how emojis are used as social semiotic multimodal resources in social medium Facebook by Masters' students of the department of English and how their use affects the linguistic mode. This investigation demonstrates to what extent emojis are involved in creating a new form of visual language. Thus, applying Social semiotic and Multimodality to contemporary communication in the investigation of the uses of emojis remains interesting for people who use emojis on a daily basis. Finally, this study aims to shed light on the significance of emojis in computer mediated communication as a present-day topic.

In order to achieve and fulfill our overall aim, we shall advance these objectives: First, to investigate the attitudes of students towards emojis and their use through a questionnaire designed for master one students of English. Second, to examine the communicative functions of emojis within students' messages, through the application of the speech act theory by Austin(1962). Third, to determine whether emojis have a visual grammar through the application of Kress and Van Leeuwen's theory of 'Visual Grammar' (1996, 2006). Because our topic is concerned with the uses of emojis on Facebook online interaction, our corpus is divided into three parts: the first, is a questionnaire designed for Master one students of the department of English at Mouloud Mammeri University of Tizi-Ouzou. The second, is a collected number of students' personal conversations via Messenger and the third is a collected number of comments from a Facebook challenge that we named "Speak Out Emojis" launched on a Facebook group specifically created for master one students whose link is: https://facebook.com/groups/1200565707083580/₁ in order to investigate emoji meaning potential and whether emojis have the properties of being a visual language.

Due to linguistic preferences, some students we asked are not used to using the English language on Facebook when interacting with each other. However, we managed to collect the conversations of those who do, and we also agreed to keep their personal identity private and confidential. Furthermore, It is worth mentioning that we choose to collect a corpus that is characterized by informal use of language since it is the style that is mostly used with emojis. Unlike formal writing, informal writing is known by being spontaneous, unedited and unmodified. Therefore, the conversations of the students are all informal.

The present study aims at answering the following questions:

- Q1- What are students' attitudes towards emojis and their use?
- Q2- What are the communicative functions within students' messages?
- Q3- Do emojis have a visual grammar?

In an attempt to answer these questions, we advance the following hypothesis:

H.1- Students have positive attitudes towards emojis and their use.

H.2- Emojis carry communicative functions within students' messages such as: the phatic and emotive function.

H.3- Emojis have a visual grammar because they are semiotic resources.

Research Techniques and Methodology

This study aims at the analysis of emojis using two theories: the first is a social semiotic multimodal approach proposed by Kress and Van Leeuwen named 'Visual Grammar' (1996, 2006). The second is through the use of the Speech Act Theory by Austin (1962). Our present project adopts the mixed method research for the analysis of

data. To interpret the findings, we use a combination of qualitative and quantitative research techniques. First, the qualitative research technique is used to analyze the collected comments from the Facebook challenge by relying on Kress and Van Leeuwen's approach to visual grammar. Second, the speech act theory by Austin (1962) is used to analyze the messenger conversations of students; Third, Qualitative content analysis is used to analyze the open-ended questions of the questionnaire whereas the quantitative research technique is a field of study that is used to investigate the attitudes of students towards emojis and their use by relying on a questionnaire. The results are analyzed using the descriptive statistics by following the simple statistic calculation.

• Structure of The Dissertation

The dissertation's overall format is complex standard dissertation structure, with a general introduction that introduces the research topic, four (4) chapters, and a general conclusion that summarizes the key points and findings of the investigation. The dissertation then contains a first chapter that covers past frameworks and concepts related to the topic of our investigation, as well as previous theories of multimodality. The details of the methodology used in the dissertation will then be presented in the second chapter of research design. Then, in the third chapter, after analyzing the use of emojis from the selected conversations, comments, and questionnaire, the research results and findings will be presented. The final chapter, Discussion of the Results, evaluates and interprets the findings of the collected data, as well as offers responses to the research questions in order to confirm or reject the hypotheses proposed in this study. The research concludes with a general Conclusion that summarizes the most relevant aspects of the study and suggests recommendations for future investigation.

Introduction

This chapter is designed to review the literature related to the social semiotic multimodal analysis of emojis. It provides relevant concepts and background knowledge about emojis as well as the review of the theoretical framework used. It is divided into two parts: the first part introduces historical background of Emojis along with its contextualization to the field of social semiotics, multimodality, and the speech act theory. In addition to highlighting key concepts related to these fields. The second part provides the types of online communication where emojis are used in addition to the relationship between emojis and informality on social networking sites and a review of emoji functions in computer mediated communication.

Background of Emojis

1.1. Definition and Origins Of Emojis

From a semiotic perspective, emojis are a mixture of pictograms and ideograms, which means, they represent objects, actions and ideas (Seargeant, 2019). The word 'Emoji' is a loanword in which the form was imported from Japanese to English and is composed of 'e' (絵) for picture and 'moji' (文字) for character. Also, the word emoji can be used as the plural form without the addition of an -s since the Japanese language does not mark the difference between single and plural nouns (ibid).

Emojis gained much popularity on social media and are used extensively by smartphones' users on keyboards, they're grouped according to basic types: Smileys and People; Animals and Nature; Food and Drink; Activity; Travel and Places; Objects; Symbols; and Flags (ibid).



Figure 01: Keyboard with Emoji Characters

In the late 1990s, emojis were first invented by a Japanese telecommunication worker named Shigetaka Kurita for a Japanese telephone company and phone operator called NTT DoCoMo on the I-mode project (Mobile Internet Access Service). Around 1998,Shigetaka Kurita was inspired by manga comics symbols for emotions and from weather forecasts symbols. His original set of emojis contained just 176 characters and were only displayed on NTT DoCoMo platforms exclusive for its Japanese phone owners. However, it was not until the end of 2010 that emojis were implemented by the Unicode Consortium. Soon afterwards, in 2011, Apple launched its operating system five (IOS5) that included emojis for its iPhone. As a result, Emojis spread across the globe and across digital communication (Danesi 2017; Seargeant 2019; Giannoulis and Wilde 2020).

1.2. Emojis and Culture Sensitivity

In 2019, there were over two thousand emojis with sixty or so, new ones have been added each year (Seargeant, 2019). In fact, in the year of 2020, there were 3,521 emojis in the Unicode Standard. The most recent emoji release is Emoji 13.1 that was completed in September 2020 which added variations of skin tone to different emojis (emojipedia.org). With that being said, emojis are updated on a yearly basis by the Unicode consortium. However, the company does not design the look of the emojis, in fact, such work is done by the CMC platforms or mobile phone brands that work with the unicode (Seargeant, 2019).

This yearly update of emojis is culturally motivated as Danesi (2017:26) supports this claim by stating that "*its popularity and spread has caused pressure to add culture-sensitive designs into the Unicode Standard to meet the demands of different nations and their languages*". Therefore, emojis are culture sensitive and their interpretation depends on where and by whom they were used. For example, the aubergine (UK) or eggplant (US) emoji, in certain western cultures, has been associated and used as a representation for male genitalia because of its resemblance to the latter and the unpopularity of the vegetable itself in that area. According to Seargeant (2019) the eggplant "*wasn't getting used for its literal meaning (as it may do in a culture where eggplant-based cuisine is widespread) and was thus an empty sign looking for a meaning*". Whereas in other contexts, where the eggplant is known and used in most cuisines, the emoji only represents the vegetable and not the genital area. In fact, according to Sergeant (2019):

Emoji are far more than a simple set of pictures-representing-objects. To understand the full range of even the standard Unicode ones, you need to have some familiarity with the cultural conventions of various aspects of contemporary society, along with an eclectic range of knowledge from Eastern and Western written and gestural languages, sign languages and even fictional communication systems. But for all this, their essence is still in communication via pictures.(Sergeant,2019:25)

Therefore, In addition to being sensitive to culture, to interpret emojis and to fully understand their connotations, one needs to be somewhat multiliterate.

1.3. Social Semiotic and Online Communication

Social Semiotics is an influential school within the main field of semiotics; it is a new field of research that aims to study the process of meaning-making 'semiosis' as a social context. The development of this approach found its origins in the works of Halliday on Systemic Functional Linguistics (1978), whose focus was on the study of language as a social semiotic system which consists on viewing language as fundamental system resources that influence what the speaker can do with language in a particular social context, that is to say, language is a system of meaning potentials and a set of resources. According to him (1978), language serves three metafunctions in communication. First, ideational metafunction where it helps participants with communicating and addressing their experiences with the world. Second, interpersonal metafunction in which it establishes social relations among producers and receivers of messages, and the third one is textual metafunction that permits us to put together messages to shape reasonable holes, that is the inner and the general association of the language. This semiotic trend has been widely developed by a number of other scholars such as Gunter Kress and Van Leeuwen (1996, 2006) who have extended the three metafunctions of language (Halliday, 1978) to study and analyse visuals.

In fact, Hodge and Kress (1988: 261) state that "social semiotics is primarily concerned with human semiosis as an inherently social phenomenon in its source, function, contexts and effects". This means that semiotic systems deal with meaning in social contexts rather than fixed meanings in isolation. Furthermore, with emojis as being social semiotic resources with semiotic potential, these could rely on useful theoretical frameworks from the field of social semiotics for the analysis and interpretation of their different uses in online interaction.

1.4. Multimodality

Multimodality is a social semiotic approach to contemporary communication which has originated from Systemic Functional Linguistics which was developed by Halliday (1978). Previously, communication was basically dominated mainly by the linguistic mode i.e. either the spoken or the written language, but with multimodality, the interest has shifted into other semiotic modes such as: the visual mode. Kress and Van Leeuwen define it as "*the* use of several modes in the design of a semiotic product or event" (Van Leeuwen, T. 2005:28) . It involves the mixing of different modes in making messages in communication such as word, image, gesture, movement, and sound. These modes can be combined in different ways and presented through a range of media (Bearne, E.AndWolstencroft, H. 2007). In other words, multimodality refers to approaches that understand communication and representation to be more than about language, and which attend to the full range of communicational forms people use -image, gesture, gaze, posture, and so on- and the relationship between them (Jewitt, 2009:14). Multimodality refers to the interaction of various representational modes, and these multimodal representations mediate the sociocultural ways in which these modes are combined in the communication process (Kress & Van Leeuwen 2001, p. 20). Accordingly, multimodality provides a set of tools for analyzing multimodal relations between verbal, visual, and other modes of communication that frequently co-occur in modern communication. Therefore, it extends the three metafunctional dimensions analysis to semiotic modes other than language. Thus, Social semioticians such as O'Toole (1994), Kress and van Leeuwen (1990, 1996), van Leeuwen (2006), and Machin (2007) are prominent figures in the field of multimodality whose work has contributed significantly to the development of this discipline.

1.4.1.Emojis and Multimodal Communication

Emojis are not only culture sensitive, but also contain metaphorical associations. For example, the peach emoji, which was standardized by Unicode in late 2010, slowly started to be used metaphorically because of its resemblance to the shape of a human backside. Put differently, despite the fact that emojis are standardized internationally by the Unicode, they are still used differently by people in divergent cultures and contexts, and because of the similarity of their look they have the metaphoric potential of being associated with either visual or other metaphors (Seargeant, 2019). Seargeant (2019: 70) points out that: The

metaphor works by representing an object or concept by means of or in association with a visual image of something else, thus highlighting some quality that both are meant to share.

The contemporary internet era encourages the use of different modes of writing in combination such as the visual and audio along with alphabetic and non alphabetic scripts, therefore, the composition of the message is a modern-day manifestation of the development of the human communication systems, a new kind of "blended writing" system (Danesi, 2017:4)

Furthermore, Bliss-Carroll argues that "Utilizing emojis along with alphabetic text within computer-mediated communication spaces certainly involves multimodal composition. Instead of producing a detrimental effect on writing, emojis can spark an imaginative course and assist composers in the "process of visual thinking" (Bliss-Carroll 2016: 7). Thus, emojis are multimodal resources in themselves and are also used in combination with the linguistic mode.

1.4.2.Emojis As Semiotic Resources And Affordances

'Semiotic Resources' is a key term in social semiotics, it originates in the work of M.A.K Halliday who argues that the grammar of a language is not a code, not a set of rules for producing correct sentences, but a *'resource for making meanings'* (Halliday, 1978: 192). That is to say, a semiotic resource is any given that is led with meaning potential and possibilities. It is used in combination with other resources to communicate meaning, it includes all the possible meanings that can afford or the meanings that we generate in the immediate context of use which includes images, portraits, gestures, videos, musics, colors...etc. Kress (2010) asserts that semiotic resources have a meaning potential based on their past uses and a set of affordances based on their possible uses. (Kress, 2010: 11) In this respect, Van Leeuwen, T (2005) defines "semiotic resources" as:

The actions and artifacts we use to communicate, whether they are produced physiologically-with our vocal apparatus; with the muscles we use to create facial expression and gestures, etc or by means of technologies-with pen, ink and paper, with computer hardware and software; with fabrics, scissors and sewing machines, etc. Traditionally they were called 'signs' (Van Leeuwen, 2005:03)

In social semiotics, the term 'resource' is preferred, because it avoids the impression that 'what a sign stands for' is somehow pre-given and not affected by its use (ibid). In addition, this notion of semiotic resource, according to Van Leeuwen (2005), considers almost everything that people make or do in order to convey meaning. As a result, it is used to refer to a means for meaning making that is simultaneously a material, social, and cultural resource. In fact, it is simple to put together a collection of semiotic resources, or the actions, materials, and artifacts that people use to communicate thanks to multimodality. Visual communication, gaze, voice, and even music are examples of semiotic resources. Jewitt (2005) states "printbased reading and writing are by nature of constitution, multimodal, this means that they require the interpretation and design of visual marks, space, color, font or style and increasingly image, and other modes of representation and communication" (Jewitt, 2005: 315).

Closely related to the term 'semiotic resource' is the term 'affordances', which originates from the work of the psychologist Gibson (1979). For him, affordances are the potential uses of a given object which stem directly from their observable properties. This means that it refers to all possible meanings that a given semiotic resource can afford in terms of past, present, and future uses. According to Gibson, the meanings we find in the world, are both objective and subjective, this idea is very similar to Halliday's concept of 'meaning potential', according to who linguistic signifiers -words and sentences- display a signifying potential rather than specific meanings, and as such, this need to be studied in the social context.

There is a basic difference between 'meaning potential' and 'affordance' where the first focuses on meanings that have already been introduced into society, whether explicitly

recognized or not while the second brings in meanings that have not yet been recognized and which lie latent in the object, waiting to be discovered. However, "*The fact that resources have no objectively fixed meanings does not mean that meaning is free-for-all. In social life people constantly try to fix and control the use of the semiotic resources - and to justify the rules they make up - although more so in some domains than in others*" (Van Leeuwen, 2005: 05).

1.4.3. Semiotic Mode In Online Interaction

The concept of mode is important in the approach of multimodality. According to kress(2010:79), "a mode is a socially and culturally shaped resource for making meaning". Semiotic modes can include visual, verbal, written, gestural, and musical resources for communication. They are not fixed, they are created through social processes and are subject to debate. i.e. According to multimodality glossary terms, some writers view color and layout as modes, and hence writing as multimodal, whereas others would not make those distinctions. For something to count as a mode, it needs to have a set of semiotic resources and organizing principles that are recognized within a community as realizing meaning. (Josephus Johannes Bezemer, Jewitt and O'halloran, 2016:177). 'Modes' are defined as abstract means of structuring meaning making that can realize ideational, interpersonal, and textual meanings and can do so, in principle, in a range of materially different media, including sound, visuals, or both. As a result, language is a mode since it can realize all three metafunctions, and it can do so in either speech or writing. (Kress and Van Leeuwen, 2001). And according to Kress and Van Leeuwen (2006), visual communication is also a mode because it can also realize all three metafunctions and do so in materially different ways - as drawings, photographs, paintings, etc. Jewitt (2005) asserts "print- based reading and writing are by nature of constitution multimodal this means that they require the interpretation and design of visual marks, space, color, font or style and increasingly image, and other modes of *representation and communication*". (Jewitt, 2005: 315). Moreover, modal affordance is the potentials that a mode can have in a particular social context which later affects the signs maker's choice of a mode.(Josephus Johannes Bezemer, Jewitt and O'halloran, 2016 :72).

All modes are considered as having particular meaning-making potentials in social semiotics. As Kress points out, '*semiotic modes promote different kinds of possibilities of human expression this is because of the varying potentials through which human expression and engagement with the world leads to different possibilities of affective development'* (Kress, 2010: 79). Social media facebook is a multimodal platform that permits the use of multi modes of communication by combining them and even using them as unique devices for interaction such as: facebook post reactions that include six animated emojis that represent like, love, ha-ha, wow, sad, and angry as a quick way to react and interact. In fact, facebook does not only allow its users to have access to a range of multimodal resources, but also to use multimodality to interact.

1.5. The Grammar Of The Visual Design

Visual grammar is an approach by Kress and Van Leeuwen (1996, 2006). It adoptedHalliday's view of systemic functional grammar to englobe the visual mode. Kress and Van Leeuwen have collaborated for the analysis of visuals in the work entitled *Reading Images: the Grammar of Visual Design* (1996, 2006). They argue that linguistic grammar describes how linguistic units (words, phrases, and sentences) are combined to express various meanings. Visual grammar, on the other hand, describes how visual elements (fonts, colors, images, and so on) are organized in a meaningful way to convey various ideas and beliefs. Kress and Van Leeuwen have extended the work of Halliday's three metafunctions: ideational, interpersonal and textual on the three metafunctional dimensions analysis to the semiotic of images (drawings, pictures, graphs, map). In the scope of visual grammar the three metafunctions have been renamed "the representational, interactive, and compositional metafunctions". (Kress and Van Leeuwen, 2006).

Based on Halliday's theory, Kress and Van Leeuwen (2006) use a slightly different terminology in discussing the meaning of image in visual communication: representational instead of ideational; interactive instead of interpersonal; and compositional instead of textual. This theory (1996, 2006) will be applied in order to determine whether emojis convey meaning as a form of visual language.

1.5.1. Simple and Complex Semiotic Systems

According to Kress and Van Leeuwen (2006: 18) "Just as grammars of language describe how words combine in clauses, sentences and texts, so our visual 'grammar' will describe the way in which depicted elements – people, places and things – combine in visual 'statements' of greater or lesser complexity and extension." Moreover, in the past, traditional semiotics focused on the "lexis" rather than the "grammar" side of visuals. In fact, these earlier traditions used a "lexis approach" that regarded "individual signs and their simple direct meanings in terms of what they connote or symbolize" (Machin, 2007). Further, for the lexis approach, signs are studied individually and there can be an infinite number of signs in this "simple system". Whereas the "grammar approach" of semiotics is interested in the combination of signs "In this approach the meaning of signs is treated more as a potential rather than as fixed" in the same idea, he adds "So the meaning of the sign is realized in context through combinations with other signs."(ibid). In fact, this approach is concerned with potential choices of signs and potential combinations and thus treating images as "complex semiotic systems". Additionally, for the grammar approach, semiotic resources are studied in combination and there are "finite rules for combining items in an infinite number of utterances or visual statements." (Machin, 2007: 10-13). Therefore, there is a grammar for images, in fact, a grammar that allows sign makers to create new or multiple meanings while combining

semiotic resources, and these combinations need rules that are dependent on the context and culture.

1.5.2. Emojis and Grammar

Becauseemojis are digital representations of objects, actions and ideas (Seargeant, 2019), they are semiotic resources in their own right since they can be used alone in text messages or elsewhere on social networking websites such as commenting and replying to public as well as private posts. Additionally, they can also be used in combination with the linguistic mode or with one or multiple other emojis. Furthermore, according to Danesi (2017) "the point is that emoji grammar is not just a replica of linguistic grammar with visual symbols; it has its own "syntactics," or system for organizing the emoji to create coherent and meaningful sequences or combinations". Thus, according to Danesi (2017) emojis do have a grammar, but one that has its own characteristics and is distinct from the linguistic grammar. Therefore, he established two characteristics for the grammar of emojis which are Calquing and conceptualization. In fact, calquing is a form of "emoji translation which involves the superposition of emoji forms into the syntactic layout of the word forms" (Danesi, 2017: 78-79). In fact, the calquing is not entirely lexical, but also involves conceptualization. This type of calquing is "Transliteral calquing" where the words in verbal expressions are converted to emojis and therefore creating a concept for word imitation instead of a word for word one. For example, according to Philip Seargeant, the emojification of the phrase "Netflix and chill" m Wshows the popcorn as a representation to cinema and the snowflake as a representation to mean "very relaxed". Another example is the word "bombshell" \bigcirc \checkmark that combines between the bomb and Spiral Shell emoji to connote an unexpected or surprising event, or a very attractive woman. As a result, the combination of emojis does not work randomly but needs to have linguistic references in order to make sense.

Furthermore, "as emoji texts spread throughout the social landscape, knowledge of this grammar is also expanding and developing its own conceptual structure" (Danesi, 2017:80). Thus, anyone who understands emoji grammar and the "referential domain" or the context where it is used can understand the emoji text. In fact, rather than relying on internal rules for sentence formation, this grammar is "self sufficient" that is, composed of the relation of concepts to each other and its relation to the context of use. To summarize, calquing and conceptualization co-occur in the syntactics of emojis in "a semiotically logical order".(ibid)

1.6. Speech Act Theory

Since emojis are semiotic resources that are able to generate meaning differently in different contexts, they are also able to perform speech acts. According to Levinson (1983), pragmatics, syntax and semantics are subfields of semiotics. In fact semiotics is the study of signs, whereas he defines pragmatics as the study of "the relation of signs to interpreters" (cited in Charles Morris, 1938) and "the study of language usage" (ibid). Speech act theory was first presented by Austin (1962) and later expanded by Searle (1969), in fact, Austin (1962) claimed that when someone produces an utterance, that person does not just give information but also performs speech acts "'perform', the usual verb with the noun 'action': it indicates that the issuing of the utterance is the performing of an action -it is not normally thought of as just saying something."(Austin, 1962: 07). Austin (1962) identifies three speech acts, the locutionary act, the illocutionary act, and the perlocutionary act.

First, the locutionary act in a utterance is "The act of 'saying something' in this full normal sense" Austin (1962). Thus, it is the production of a meaningful linguistic expression and its literal meaning. Second, the illocutionary act in a utterance is the intended or hidden meaning of a speech act "the performance of an act in this new and second sense as the performance of an 'illocutionary' act." (ibid).

Furthermore, according to Searle (1979) classifies the different types of illocutionary acts: Assertives are the first category. According to Searle (1979: 29), "an assertion is a (very special kind of) commitment to the truth of a proposition. In fact, when someone produces an assertion or statement, they also perform the illocutionary act of stating that the utterance is true. The second category are directives. These can be: giving commands, suggesting or insisting someone does something. For example, "You need to revise your lessons". In fact, with this illocutionary act, the speaker is trying to get the hearer to do something. The third category is commissives and can be: promises, oaths or other statements where the speaker commits themselves to a future action. For instance, "I promise to come back". The fourth category is expressives. These include speech acts which express the speaker's feelings and attitudes about objects and facts of the world such as: Excuses, "I am so sorry!". Finally, the last category are declarations, when people do things in the world at the moment of the utterance solely by virtue of saying that they do. For example, "I declare you husband and wife". An essential aspect to consider is that the same utterance can have more than one illocutionary act, for instance, the locution of "I will meet you later" has both the commissive and directive illocution. The speaker makes a promise, and also indirectly insists for the hearer to be present. (Kraujalis, 2018).

The last Speech Act that Austin (1962) identifies is the perlocutionary act, which is the actual effect on the hearer of a speech act. For example, according to Searle (1979: 46) "*The meaning of the sentence "Get out" ties it to a particular intended perlocutionary effect, namely getting the hearer to leave.*" Thus the effect on the hearer can be verbal, physical, psychological, or others. Therefore, just like words and sentences, emojis are not just pictographs, but they can also affect the linguistic mode and perform speech acts.(Kraujalis, 2018).

2. Types of Online Communication

On the one hand, synchronous communication is the online interaction that happens in real time when the receiver is aware of the communication. For example, instant messaging is a tool that permits its users to converse instantly, for instance, MSN Messenger (Crystal, 2006; Danesi, 2017). In other words, Synchronous online communication is any tool that allows the users to interact at the same time. A more recent tool is the Facebook Messenger application.

On the other hand, asynchronous communication is the online communication that occurs in a postponed time when the receiver is not necessarily aware that a message has been sent to him or her. For example, Email messaging (Crystal, 2006; Danesi, 2017). This means that asynchronous online communication is any means that permits the users to interact at different times. Another tool would be replying to or creating discussions in the comment section of a facebook post.

2.1. Emojis and informality on Social Networking Sites

Facebook is by far one of the most famous social networking sites. In fact, as of july 2021, facebook had 2.85 billion international users who use it on a monthly basis which makes it, without doubt, the most popular social media platform in the world (statista, 2021). Therefore, facebook allows people to create social bounds and interact with one another across the world and across cultures.

Furthermore, As Crystal, on instant messaging, explains "*The intimacy of the relationships, along with the participants' shared knowledge, promotes a level of informality and inexplicitness in the messaging content which is unique to this medium*"(*Crystal, 2006:14-15*). This means that the closer people are on social networking sites, the more their language is characterized by a level of informality. In fact, the internet and mobile devices era

has offered normal people the ability and accessibility to write informally just as they speak in day to day conversations (McCulloch, 2019). Though the internet has given the ability to formal and informal styles of online writing to coexist, informal online writing remains highly present since texts and chats and posts are characterized by rapid, conversational, unedited and spontaneous language just as in spoken face to face spoken discourse (ibid).

In the context of Emojis, they are mostly associated and used with informal written discourse among different social groups such as family members, colleagues, and friends in order to maintain social relations. However, if they were to be used in formal writing then the discourse would probably be misinterpreted (Danesi, 2017). Thus, in most cases, emojis are used with informal online writing with the sender and receiver having a certain closeness in relationship, or in an informal online context.

2.2. Functions of Emojis in Social Networking Sites

According to previous research, emojis perform a range of functions in computer mediated communication (Escouflaire, 2020). In fact, Al Rashdi (2015) states that "depending on the local context in which they are used, some emojis are multifunctional as they serve different functions in different contexts." (Al Rashdi, 2015: 107). That is to say, emojis are culture sensitive and can have one or multiple functions all dependent on the context of their use. Furthermore, according to Al Rashdi (2015) "emojis are just like words, phrases, and utterances" as Tannen (1996) observed about words and phrases, "ambiguous and polysemous" saying that: "If ambiguity denotes meaning one thing or another, polysemy denotes meaning one thing and another—that is, having multiple meaning simultaneously" cited in (Al Rashdi, 2015).

According to Danesi's research, two of the primary functions of emojis are: the phatic and emotive functions (cited in Jakobson 1960). According to him the phatic function of discourse means that: " emoji usage seems to constitute, above all else, a visually based

version of "small talk" that is used typically for establishing social contact and for keeping the lines of communication open and pleasant." Furthermore, the results of his research shows that the most common phatic functions used in students texts are: utterance opener, utterance ending and silence avoidance in order to keep the interaction friendly and happy (Danesi, 2017). On the other hand, as concerns the emotive function, Danesi states that "This is defined as the use of discourse structures (words, intonations, phrasings, etc.) to portray one's state of mind". Therefore, the results show that the most common emotive functions in students' texts are: first, as substitutes for facial expressions in F2F communications or their corresponding graphic punctuation marks in written communications, and second, to visually emphasize a point of view. Therefore, this research seeks to spotlight previous functions of emojis as well as discovers other possible functions.

Conclusion

This chapter has reviewed the different concepts related to the social semiotic multimodal analysis of emojis. It consists of two sections which provide relevant concepts and background knowledge about emojis as well as the theoretical framework. The first section introduces an overview of social semiotics, multimodality and the Speech Act Theory in addition to highlighting the key concepts related to these fields, along with their contextualization of emojis as social semiotic multimodal resources in online interaction. The second part provides the types of online communication where emojis are used in addition to a review of emoji functions in computer mediated communication and the relationship between informality emojis and social networking sites. on

Introduction

This chapter is methodological and deals with the research design that has been selected to tackle the research issue and the tools by which data is both collected and analysed. It describes the sample selected and the procedures for data analysis. Our work seeks to understand how emojis are used as social semiotic multimodal resources in Facebook online interaction. The research tools which refer to the different data collecting materials that represent the corpus of our investigation are: a questionnaire submitted to randomly selected Masters' Students at the level of the English Department at Mouloud Mammeri University of Tizi-Ouzou. Furthermore, we analyse selected Facebook comments of the challenge we created and some students' conversations. The investigation is carried out using the quantitative and the qualitative research method. That is to say, the Mixed Method Research.

1. Procedures Of Data Collection

In order to understand how emojis are used as social semiotic multimodal resources and how their use affects the linguistic mode, we have used three types of data collection procedures: a questionnaire, Facebook conversations and the Facebook challenge. Therefore, the sample used in this study consists of two corpora, in fact, the study has taken place in a virtual context and it is twofold: the first is a collected number of students' personal conversations via the facebook messenger. The second is a collected number of comments from a facebook challenge named "Speak Out Emojis" launched on a facebook group specifically created for Master one students whose name is: "Master One Students of the Department of English at UMMTO", the total number of the group created is 83 members whose link is: https://facebook.com/groups/1200565707083580/.

1.1.Description Of The Survey Area

This research is carried out on the famous social networking site called "Facebook" that is by far one of the most popular social media website and application of the twenty first century. In fact, as of July 2021, Facebook had 2.85 billion international users who use it on a monthly basis (statista, 2021). Since Facebook is amongst the mostly used social networks, it is the medium that attracts people of all ages, including young adults (Master one students) as the target to our corpus. It is worth mentioning that the Messenger app is part of the Facebook app. The former is a mobile app that allows text messaging, voice and video calls. It is equipped with an emoji keyboard that facilitates the use of emojis on a daily basis.

1.1.1. Sample Population

A sample is "a group of participants whom the researcher examines in an empirical investigation [...] the main goal of sampling is to find individuals who can provide rich and varied insights into the phenomena under investigation so as to maximize what we can learn." (Dornyei, 2007: 96). According to this description, the primary goal is to ensure that the sample chosen is representative of the population. As a result, selecting a random sample is the most effective way to accomplish this. To put it another way, the random sampling technique was chosen for this project since it is more objective in terms of data collection. This technique means that 'every case of the population has an equal probability of inclusion in sample' (Taherdoost, 2016). Therefore, the sample frame that is used in our investigation is a Master's students (randomly selected) from the English Department at the level of Mouloud Mammeri University of Tizi-Ouzou. The selection is done online so that any Master one student will be represented by our sample of 80 participants. They will provide us with the suitable answers that will help in solving the research problems. In fact, we have created a group on facebook specifically for them 'Master One students of the Department English at

UMMTO'; 83 members have joined the group. Consequently, we have collected thirty two conversations and more than 70 comments on the Facebook challenge by the students of the department of English at Mouloud Mammeri University of Tizi-Ouzou. They accepted to participate after asking for their contribution. They are all masters' students and are all members of the group that we have created specifically for them.

2.Data Collection Tool

2.1. Questionnaire To Students

"Ouestionnaires are any written tools that present respondents with a series of questions to which they have to react either by writing out their answers or selecting from existing answers" (Brown 2001: 6 cited in Dornyei 2007: 102). The questionnaire is used and addressed to Master one of English at UMMTO. It seeks to gather information about students' attitudes towards the use of emojis as well as their interpretation of certain emojis in terms of their use with the linguistic mode as well as their use alone. As regards the piloting, we randomly selected five of the Masters' students to answer the questions that we asked in order to test the validity and clarity of the questions. Then, we opted to create our questionnaire online because students were preparing for their exams. Thus, thanks to Google forms whose link https://docs.google.com/forms/, we succeed in creating our questionnaire by following a variety of steps. Once we finished completing it, we shared the link of our questionnaire in different Facebook groups designed for Master one students of the department of English at UMMTO, among them, the group of Master one 'didactics', the group of 'literature and civilization', and the group of 'Département d'Anglais Officiel UMMTO' by highlighting that our case study was Master one students only. The questionnaire is composed of seventeen (17) questions divided into 2 sections. These questions are of two types: closed and open ended. In closed ended questions, students have been given a number of answers to either select or tick or can answer by "yes" or "no". On the other hand, open ended questions are

those which require more thought and time since students are required to give their own answers.

The first section seeks to target the attitudes of students about emojis and their uses. Whereas the second part is concerned with students' interpretations of emojis attached to the linguistic mode as well as separated and independent from it. The investigation has taken place from 25 September to 23 October 2021.

2.2. Facebook Conversations

In order to collect our corpus and request permission for their use, for the first corpus, we created a post in a group named <u>Départementd'AnglaisOfficiel UMMTO</u> []] Where students of the department of English at UMMTO tend to post study related information in which we asked Masters' students who are willing to help us in the completion of our master dissertation to contact us. Once they sent us messages, we kindly asked them to share their conversations with us, in fact, we precisely asked for conversations that contain emojis and the English language. The investigation has taken place on Facebook Messenger, we have collected around 15 conversations from 04 June to 24 June 2021.

2.3. Facebook Challenge

As concerns the second corpus, we asked the same students to join the group that we created and add their classmates. Once they joined, we explained the challenge and assured confidentiality. In both corpora, we got permission to use their comments and conversations as long as we do not mention their names. Our challenge is based on the principle of answering the questions asked only by emojis. The investigation has taken place in the department of English and involves a Facebook group designed for only masters' students from 12 June to 28 June 2021.

Figure 02: Screenshot of Facebook challenge



Through our challenge, we collected more than 80 comments from different students, in order to determine whether emojis convey meaning as a form of visual language. We then selected only a few of them to analyse.

3. Procedures of Data Analysis

This section includes procedures for data analysis. It describes the research method and the

techniques used in analyzing the data.

3.1. Mixed Method Research

Mixed method research involves the combination of qualitative and quantitative methodologies at different levels of the study, namely, data collection and data analysis. Creswell and Plano Clark claim that:

Mixed methods research is a research design with philosophical assumptions as well as methods of inquiry. As a methodology, it involves philosophical assumptions that guide the direction of the collection and analysis and the mixture of qualitative and quantitative approaches in many phases of the research process. As a method, it focuses on collecting, analyzing, and mixing both quantitative and qualitative data in a single study or series of studies. Its central premise is that the use of quantitative and qualitative approaches, in combination, provides a better understanding of research problems than either approach alone. (Creswell and Plano Clark 2007: 5) Creswell (2007) explained that the use of mixed method research is to better understand the research problem and propose effective solutions. Mixed method research is based on qualitative and quantitative methods that aim to collect as much information as possible. In this work, the results of the questionnaire are analyzed following the mixed method that involves both qualitative and quantitative methods of analysis. The quantitative method, using the statistical method, is applied in interpreting the results of the closed ended questions, that is, to analyse the pragmatic and linguistic aspects of the corpus in order to understand how emojis are used as social semiotic multimodal resources in social medium Facebook by Masters' students of the department of English and how their use affects the linguistic mode. And the qualitative method to analyse the open-ended questions and the interpretation of emoji use with or without the linguistic mode in the Facebook challenge as well as the questionnaire.

3.1.1. Qualitative Analysis

The qualitative method is a research that investigates aspects of social life that are not amenable to quantitative measurements, in other words, qualitative research involves an interpretive, naturalistic approach to the world. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or interpret phenomena in terms of the meanings people bring to them (Denzin and Lincoln, 2005:3). In our work, this method is used to analyse open-ended questions as well as the emoji used in students' comments and conversations.

3.1.2. Quantitative Analysis

The quantitative method is an empirical study of phenomena using statistical techniques and objectivity. Creswell (2002: 18) states that quantitative research "*employ strategies of inquiry such as experimental and surveys, and collect data on predetermined instrument that yield statistical data*". That is to say, it involves the collection of data in numerical form for quantitative analysis using questionnaires, structured questions, and converts them into frequencies through referential or descriptive statistics to present them in the form of tables, histograms, pie charts...etc for better understanding the results. In our work, this method is used to analyse the closed-ended questions of the questionnaire.

• Descriptive Statistical Method

A Descriptive Statistical Method (simple statistic calculation) is used to deal with the quantitative data to examine the data gathered from the answers of the respondents. In order to analyze the gathered data, we have relied on Microsoft Excel 2007 Program to arrange it using tables which show both the number of responses and the percentages associated with them for easier reading. The calculation of the percentages is proceeded as follows: $X=(Z\times100)$ ÷Y. The symbol X is the calculated percentage, Z stands for the value of similar replies, and Y is the total number of participants. For instance, 69 of the participants have used an emoji instead of a word among 76. The frequency is calculated $X=(Z\times100)$ ÷Y = 69×100 ÷76=90, 76%.

• Qualitative Content Analysis (QCA)

QCA is "a research method for subjective interpretation of the content of the text data through systematic classification of coding and identifying themes, or patterns" (Hsieh and Shanon, 2005:2). QCA was used to analyse the students conversations of the Facebook group through the speech act theory (1962, 1969) in order to derive the effect of emojis on the linguistic mode in terms of the communicative functions that the emojis have within the conversations of students and the students' comments according to the application of kress and Van Leeuwen's theory of 'Visual Grammar'. In addition the open-ended questions of the questionnaire.

Conclusion

This chapter has outlined the research method and methodology used during the study. First, it has described the data collection procedures which consist mainly in a sample selected and the reason for which it has been chosen, a questionnaire designed for students, in addition to the students' conversations and comments on the facebook challenge. Moreover, it has introduced the procedures followed in analysing the collected data, from the conversion of numbers into percentage through simple statistic calculation to the QCA to interpret the corpus gathered and the qualitative data.

Introduction

This section aims at presenting the findings of the social semiotic multimodal analysis of emojis used in facebook online interaction. It is an empirical section which provides the results of the data collected from the Questionnaire, the students' conversations and the Facebook challenge addressed to Master one students of the department of English at Mouloud Mammeri University. It presents the results according to the research questions and hypotheses set in the general introduction. The first part of this chapter presents the results derived from the questionnaire. The second part categorizes the students' conversations into the three speech acts which are: the locutionary, illocutionary and perlocutionary. Then, the pragmatic functions of emojis are categorized for each and every utterance. Finally, excerpts of emojis used in the students' conversations as well as in their comments are analysed to derive their potential metaphorical associations.

1. Questionnaire's Results

The questionnaire is the first tool used in this research. It was designed for Master one students of the department of English at UMMTO. It contains seventeen (17) questions. We have administered our questionnaire online, we targeted at least 80 answers from the students, however, only 76 responses have been collected. Therefore, this number (76) represents the percentage of 100%. The results of the questionnaire are presented in pie charts, tables and histograms for more readability. The histograms and pie charts are used to interpret the results of the questions with many variables in order to make their values and rate more visible. The tables are used to interpret the numerical data.

1.1. The Results Obtained From Section One

1.2. Q2: Do you know emojis?

For the second question, it is revealed that the majority of the respondents (98, 7%) Know

Emojis or what they mean.

Q3: Do you own/use a Smartphone, tablet, or device equipped with an Emoji keyboard?

*Cross all that apply

a)-Smartphone
b)-Smartphone, pc
c)- Smartphone, pc, other devices
d)-Smartphone, tablet
e)- Smartphone, tablet, pc
f)- Smartphone, tablet, pc, other devices

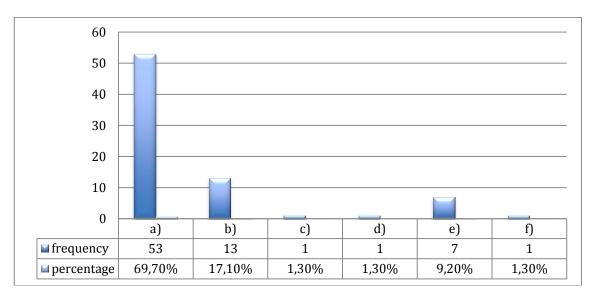


Diagram 01: Percentage of The Most Students' Used Devices Equipped With Emoji Keyboard by students

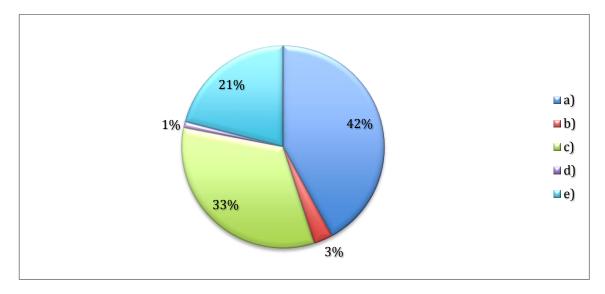
Here, the students were given the chance to check all that apply. The results show that 69, 7% of respondents reported owning or using a smartphone. However, about 17, 10% of the respondents agreed they use or own a smartphone and a personal computer. The other proportion is mitigated between smartphones, tablets, personal computers and other devices.

Q04: Do you use facebook?

The results show that all the participants use facebook.

Q 05: How often do you use emojis in your facebook posts and comments ?

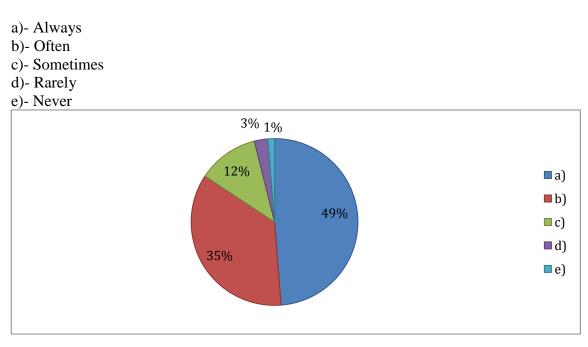
- a)- Always
- b)- Never
- c)- Often
- d)- Rarely
- e)- Sometimes



Piechart 01: Percentage Of The Use Of Emojis In Facebook Posts And Comments

The pie chart shows that most students use emojis in their facebook posts and comments. However, about 3% answered that they never use emojis in their facebook posts and comments and 1% rarely use them.

Q 06: How often do you use emojis in your messenger text messages?



Piechart 02: Percentage Of Students' Use Of Emojis In Messenger Text Messages

The results obtained in question 06 show that 48,70% of the participants always use emojis in their messenger text messages. Close to these results, 35,50% often use them in their messenger text messages. 11,80% of the participants sometimes use them. However, 2,60% of the respondents rarely use them and 1,30% never use emojis in their messenger text messages.

Q 07: Why do you use emojis in your facebook comments and text messages? check all

that apply

- a)- They are fun
- b)- Because it helps me type faster
- c)- Because they are fashionable
- d)- I don't use them
- e)- It explains the thought and idea better
- f)- To text with more evidence
- g)- To make the text easier to understand, they express emotion
- h)- To make the text easier to understand
- i)- To make the text easier to understand, they are fun, they express emotion
- j)- To express emotion

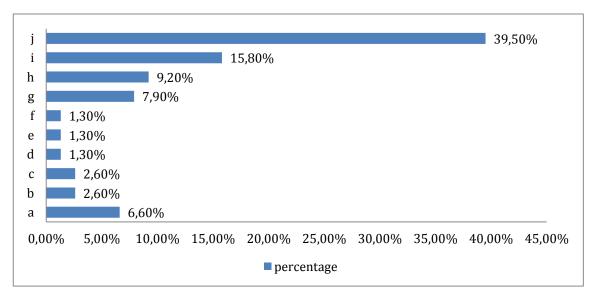


Diagram 02: Percentage of Emoji Functions

The Respondents were encouraged to check all that apply and included a fill-in option for "other." The results show that 39,5% of the respondents admitted to using emojis so as to express emotion while 15,8% admitted that they use emojis so as to make the text easier to

understand as well as express their emotions. 9, 2% argued that they use emojis in order to make the text easier to understand. 7, 9% agreed that they use emojis in order to make the text easier to understand, they are fun and they express emotion. 2, 60% argued they help them type faster. From these figures it was easy to deduce that there is a difference in the way students use emojis either as elements to express their emotions and make the text easier to understand or as a technique that provides them with word alternatives and fun. Accordingly, a smaller number of respondents hold the notion that they only use them because they are fashionable. In fact, Two participants have added their own functions in which one of them uses emojis in their facebook messages and posts in order to text with more evidence, and the other participant because it explains the idea or the thoughts better. Though, 1, 30% of the respondents revealed that they do not use emojis.

Q 08: With whom do you use emojis on facebook? Check all that apply

- a)- with everyone
- b)- with friends
- c)- with friends, classmates
- d)- with friends, classmates, family members
- e)- with friends, classmates, family members, with colleagues
- f)- with friends, classmates, family members, with colleagues, with everyone
- g)- with friends, classmates, with colleagues
- h)- withfriends, familymembers

	a	b	С	d	e	F	g	h	Total
Number of students	30	10	4	16	4	2	1	9	76
Percentage	39,50%	13,20%	5,3%	21,1%	5,3%	2,6%	1,30%	11,8%	100,0%

Table 01: Percentage Of With Whom Students Use Emojis The Most

The results show that 39, 5% of respondents use emojis with everyone. 21, 1% with friends, classmates, family members.13, 2% with friends.11, 8% with friends, family members. That

is most respondents indicated they use emojis with everyone, their friends, everyone, family members and classmates. Fewer respondents indicated to use them with colleagues.

Q 09: With whom do you not use emojis with? Justify your answer

From the results gathered, the majority of respondents reserve their emoji use for people with whom they have a close relationship or who they know well, friends on facebook or intimates for example, as well as in situations that are considered more casual and less formal. In addition to that, some respondents do not use emojis with their family members and elderly people for several reasons: "My mother she is so serious ", "With elderly people or people that are serious (Mean our relationship is based on respect n it's more professional) not intimate or close", "I do not use them with old persons because i think they are more understand by young people and the new generation", "My parents or persons who are older than me because emojis are a part of an informal community", My family cuz we're not talking too much in Facebook", some of the respondents wrote. However, three of the respondents do use them with everyone no matter who the person is, "I use them with all my friends, family....", "I use them with everyone because it helps to express my feelings & emotions", "Honestly I do use them with everyone regardless of their status".

Q 10: If you, for any reason, have no access to emojis, do you feel frustrated by not being able to express your emotions, sarcasm, anxiety, or being annoyed etc?

	Yes	No	Sometimes
Frequency	27	15	34
Percentage	35,50%	19,70%	44,70%

 Table 02: Percentage Of Emoji Importance In Emotions, Sarcasm, Anxiety, Or Being

 Annoyed etc

According to the findings, 44, 70% argued that they sometimes feel frustrated by not being able to express their emotions with emojis and 35, 50% argued they might feel frustrated

when they have no access to emojis that are the best in transmitting the appropriate mood. For the remaining participants (19, 70%), emojis are not important to be used in order to express their feelings and emotions.

Q 11: Do you sometimes find it hard to interpret what your friends mean when they use emojis?

	Yes	No	Sometimes
Frequency	5	53	18
Percentage	6,60%	69,70%	23,70%

Table 03: Percentage Of Emojis Interpretation

This diagram shows that they do not find difficulties in interpreting the received messages including emojis at a percentage of 69,70%. Though, 23,7% face difficulties in understanding them.

Q 12: a)- Do you sometimes find it hard to interpret what your friends mean when they do not use emojis?

	Yes	No	Sometimes
Frequency	20	29	27
Percentage	26%	38,20%	35,50%

Table 04: Percentage Of The Non Use Emoji Interpretation

The results show that 35, 50% sometimes find it hard to interpret what their friends mean when they do not use emojis and 26% still face difficulties in understanding what their friends mean when they do not use emojis, though, 38, 20% don't find it hard to interpret what their friends mean when they do not use emojis.

b- If yes, why?

All of those who responded yes, find it hard to interpret what their friends mean when they do not use emojis, because the latter show emotions of the other person, in fact, when they don't use them all the time, it might influence their understanding of the message especially if it is too personal or a serious matter, "Because sometimes, they might be sending an expression that seems to be serious to me, but they are not really being serious, emojis often clarify this.", "Sometimes because i might not understand how they actually feel about something", "While you can't see a person's gestures or facial expressions, emojis help convey a better meaning to interpret the emotions of the sender" these are some of the answers written by respondents.

Q13: a)- Have you ever used emojis in place of or instead of a word?

	Yes	No
Frequency	69	7
Percentage	90,8%	9,20%

Table 05: Percentage Of Emoji Used Instead Of A Word

The results in diagram 14 show that most of the respondents (90,8%) have used emojis instead of a word. The remaining respondents (9,20%) have not used it before.

b)- If yes, do you think emojis can replace all the words?

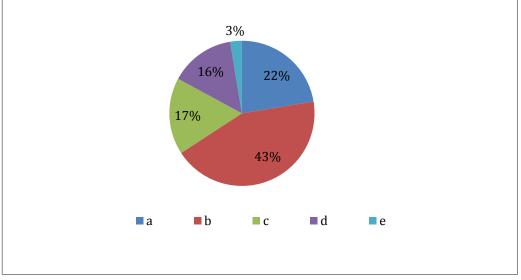
The majority of those who said "yes" argued that emojis can replace only some words not all of them, here are some of the respondents answers about the question: "Not all but some of them yes", "Not all the words actually, some emojis can cause a misunderstanding. In addition, the meaning of emojis is not universal. It varies from one culture to another...", "not really, they can replace a word but not all".

Q 14: Do you think emojis can be used to discuss everyday topics as well as serious matters, or are there any particular circumstances where you think that the use of emojis is inappropriate?

Nearly all of the respondents argued that emojis can be used to discuss everyday topics but not serious matters, there are, however, particular circumstances where they think the use of emojis is inappropriate, "The use of emojis is inappropriate in some circumstances. for example to send ($\widehat{}$) instead of telling your friend whose sibling just die that (you are sorry for his lose ...)", "I don't think emojis should be used in serious matters, like to express condolences (although we can use these $\widehat{}$ which are somehow acceptable, well it depends on the subject but not all of them are appropriate)", "Like said before yes i do think that, in some cases it's inappropriate to use emojis in formal contexts, another example is when applying for a job, you won't include emojis in your cv", in brief, emojis are appropriate only for casual situations between students and their close friends or intimates.

Q 15: a)- Do you send the same types of emojis to your parents as you do to your friends?

a)- Yes
b)- No
c)- Maybe
d)- I have never thought about it
e)- I don't use emojis at all



Piechart 03: Percentage of Emoji Use Among Parents And Friends

It is revealed that 43, 4% of the respondents do not send the same emojis to their parents as they do with their friends. 17, 1% of respondents argued that it is possible to send the emoji they use with their friends to their parents. Though, 14, 5% of the respondents have never thought about it and 2, 6% of them don't use emojis at all.

b)-Justify your answer

According to the results, the majority of respondents have said that they cannot use the same emoji they send to their friends with their parents. There exist some emojis which are inappropriate and could be misunderstood by their parents. Some of the respondents do not find any problem with sending the same emojis they send with their friends to their parents but there are emojis that they can't send to them. Others do not use them or did not think about it since their parents do not use social media and if they want to talk to them they only call them and that if they had social media they would maybe use them.

1.2. The results obtained from section two (Emoji interpretation)

Q 16: How would you interpret these sentences? 1) I miss you 💙 2) I miss you 🗯 3) I

don't care 📾 4) I don't care 🗟 5)Are you angry 👉 6)Are you angry 🙄 7)I am fine 😒

8)I am fine 🖤

Sentences	Interpretation
I miss you (with red heart emoji) I miss you(with crying face emoji)	According to the results gathered the majority of respondents mentioned that these two sentences are the same but with the different emojis it has changed the sense. Nearly all of the respondents believed that 'i miss you communicates longing for the beloved while the other 'i miss you' expresses the sorrow or sadness from the absence of a family member or a friend.
I don't care(Face with symbols on mouth) I don't care (Woman shrugging emoji)	Common answers of the respondents argued that 'i don't care 'expresses that the speaker really cares he/she used that face just to show his/her anger, whereas 'i don't care 'he/ she really does not really care about the situation.

Are you angry(Thumbs up) Are you angry(Face with rolling eyes emoji)	The respondents find that 'are you angry ' is a kind of a rhetorical question, the person knows the answer but still questions. Others agreed that it's a kind of not caring, while for the question 'are you angry '', they agreed that it is like if you are angry for real i will be too since it is not meant to anger him/her.
I am fine (disappointed face emoji) I am fine (smiling face with sunglasses emoji)	The respondents agreed that 'i am fine ² ' communicates that the person is pretending to be fine, that is to say, he is not fine at all while for 'i am fine ² ' they agreed that the person is fine.

Table 06. Emoji Competence

Results displayed a very interesting fact which is that the respondents have a certain degree of

emoji competence or literacy since they are able to interpret the pragmatic meaning that

the emojis add to the utterances. In fact, the majority were able to interpret the emoji text

exactly how we meant them when we created them.

Q 17: . How would you interpret these emoji Texts? 1) 🏃 🏋 😪 🦕



EmojiText	Interpretation
1) 🏃 🏋 😴 🦕 🖿	The results gathered show that the majority of the respondents (90, 81%) have interpreted this emoji text as the user going to the gym or practicing sports, taking a nap, showering then going to sleep. Though, a small number of the respondents (7, 89%) have interpreted it as if the user is describing a daily routine. One female respondent (1, 30%) found it difficult to respond since her phone does not have access to emojis.
	The results show that the majority of respondents (92, 10%) have interpreted this emoji text as related to someone who has the coronavirus or someone ill. Though, a small number of respondents (7,90%) found that there are emojis that are related to sickness but found it hard to interpret the crown emoji they ask us "emojis related to illnesses but i don't know what the crown is doing there"
3)	The majority of respondents (47, 39%) have interpreted this emoji text as 'i love cats'. Twenty five of them (32,89%) have interpreted it as 'I saw three lovely cats'. Ten of the participants (13, 15%) have interpreted it as 'I love your eyes'. Five of the participants (6, 57%) related it to love at first sight.

 Table 07: Emoji Interpretation

Results displayed a very interesting fact that the students have the potential to interpret emojis in their own way and that differs from one student to another concerning the same emoji text. In fact, we asked students to interpret these emoji texts in order to determine whether students' have the same or different interpretations of emoji texts.

1.3. Summary Of The Main Results

As demonstrated in the findings of the questionnaire, the analysis of the data collected made it possible to understand that emojis are almost popular among master one students. The

majority of them are familiar with emojis and use them on their facebook posts, comments as well as their instant messenger text messages. In fact, the results confirm the idea that emojis are crucial and reflect emotions in online interaction. Though the use of emojis remains inside the barrier of informality, students sometimes feel frustrated when not having access to them since the majority of their language use in online written interaction is informal. Therefore, the message is easily interpreted when emojis are included in the sentence. However, the findings show that emojis cannot replace all words or ideas since they do not have fixed meanings. Finally, master one students can be said to have the necessary emoji literacy and competence to interpret emojis used with sentences as well as emoji texts.

2. Results of Students' Conversations

The conversations are analyzed by using the Speech Act Theory (1962, 1969) in order to derive the effect of emojis on the linguistic mode in terms of the communicative functions that the emojis have within the conversations of students.

Conversation number 1:

Chatter A: Hiii dear Chatter B: Hello djou Chatter A: How r u doing in this hot weather Chatter B: It is really hot Chatter A: Yes we're suffering

<u>Ш</u>			Perlocutionary	Emoji Function
	Hand with fingers displayed	Chatter A greets chatter B with the hand with fingers displayed emoji to	As a result chatter B responds to chatter A with the smiling face with hearts emoji to	Phatic function
e	smiling face with hearts	intend a polite greeting gesture. Chatter A asks how chatter B is doing and	welcome. Chatter B confirms the	Emotive function
è	Fire	at the same time expresses their feeling about the weather by	emoji with crossed out eyes and fire.	
	hot face face with	using the fire and hot face emoji to connote the hot weather.	Chatter A reconfirms to chatter B about the weather by using the	Emotive function
	crossed-out eyes and fire	the not weather.	woozy face emoji to connote a feeling of tiredness and being	Emotive and aesthetic
<u></u>	woozy face		overly emotional in relation to the weather.	functions
				Emotive function

 Table 08: Results Of The Analysis Of Conversation Number 01

Conversation number2:

Chatter A: I bought yesterday Chatter B: Ah that's cool Can i see ↔ Chatter A: sure, wait For the wedding of my brother ↔ Chatter B: Waaaw ↔ it's sublime I love it ↔ Chatter A: Thank u

Emoji	Locutionary	Illocutionary	Perlocutionary	Emojifunction
1	Dress emoji smiling face with heart-eyes	Chatter A informs chatter B about her new purchase using	that they are happy for chatter	Aesthetic function
0	smiling face with smiling eyes	the dress emoji that is used as a word replacement	the dress using the smiling face with heart eyes	Emotive function and phatic
•	smiling face with heart-eyes smiling face with	for the word "dress".	emoji that connotes excitement.	function
2	hearts	Chatter A sends her picture	Chatter B	Emotive and
•	two hearts	wearing the dress and informing that it's her brother's wedding using the smiling face with smiling eyes emoji to connote happiness and pride at the brother's wedding.	complements it using the smiling face with heart eyes and says they love it using the smiling face with hearts Chatter A thanks chatter B using	aesthetic

 Table 09: Results Of The Analysis Of Conversation Number 02

Conversation number 3:

Chatter A: Hello dear How are you Chatter B: Hi sweety I'm good you?

Have you started preparing for exams

Chatter A: Yeah a little bit but it's very complicated and you **Chatter B**: No, i even don't have some lectures so.....

Emojis	Locutionary	Illocutionary	Perlocutionary	Emojifunction
	beaming face with smiling eyeS	Chatter A is greeting chatter B and asks how they're doing using	Chatter B responds they are doing good and asks back how Chatter A is doing	Emotive function and phatic function
:	upside-down face	the beaming face with smiling eyes emoji to keep the	using the upside down face emoji to connote a degree of	
÷	winking face with tongue	interaction friendly. Chatter A asks if	, ,	The phatic and emotive function
∷ €	grimacing face sleepy face	chatter B started revising for exams using the winking face with tongue to	complicated and asks back if chatter A started revising using the grimacing face	
•	downcast face with sweat	face with tongue to intend silliness, joke.	the grimacing face emoji to connote nervousness. As a result chatter B responds that they did not start revising and they even have missing lectures using the sleepy face emoji to intend a degree of sadness	

 Table 10: Results Of The Analysis Of Conversation Number 03

Conversation number 4:

Chatter A: I want your opinion about this \uparrow As a gift



Chatter B: I think it's the best



I like Nivea

Also the packaging is very beautiful

I like it 🧡

Chatter A: yes Nivea is the best

Chatter B: yes, my favorite

Emojis	Locutionary	Illocutionary	Perlocutionary	Emojifunction
-	backhand index pointing down	Chatter A is showing a picture by using the backhand index	by using the wrapped present emoji used as a word replacement for the word"	Aesthetic function
	wrapped present thumbs up smiling face with hearts- eyes redheart flexed biceps	pointing down emoji as a pointing finger in the direction of the image.	The thumbs up emoji is used as a gesture to indicate	Emotive function Aesthetic function
			favorite using the flexed biceps emoji to associate "strength" with the brand.	

Table 11: Results Of The Analysis Of Conversation Number 04

Conversation number 5:

Chatter A: Hey How are you ♥ Chatter B: Hi ! I'm fine thank you And you? Chatter A: Fine Thanks what's up ChatterB: Nothing special இ You ChatterA: i'm bored € € € € Chatter B: Let's go out ! € Chatter A: Good idea € okey i'm coming \$

Emojis	Locutionary	Illocutionary	Perlocutionary	EmojiFunction
•	Red heart	Chatter A greets	-	Aesthetic
•••	grinning face	chatter B and asks how they are	they are fine, thanks chatter A for asking	function
	with big eyes	doing using the	and asks back how	Emotive and
<u>@</u>	person	red heart emoji at the end of the	chatter A are doing using the grinning face	phatic
	shrugging	utterance to	with big eyes emoji at	Emotive
		convey affection and closeness.	the end of the utterance to signal closeness and	function
•••	Unamused	Chatter B says	positive humour.	Emotive
	face	there is nothing special, uses the	Chatter A responds they are fine and uses	function
\$	smiling face	person shrugging	the red heart emoji four	Emotive and
	with hearts	emoji to convey"	times at the end of the	aesthetic
*	eyes woman	nothing new" and asks chatter A in	word "thanks" indicating affection and	function
	running	return.	thankfulness.	
	-	Chatter B suggests	Chatter A says they are	
		to Chatter A to go	bored using the	
		out with them	unamused face emoji three times to connote	
		using the smiling face with hearts	unamusement.	
		eyes to connote a	As a result chatter A	
		warmth invitation.	says it's a good idea	
			using the smiling face	
			with hearts eyes and	
			says they are going to chatter A using the	
			woman running emoji	
			that signify the act of	
			"going to"	

 Table 11: Results Of The Analysis Of Conversation Number 05

Conversation number 6: Chatter A: Hi How about the exams?

Chatter B: I don't know i have no idea

Chatter A: I heard it's for September

Chatter B: I'm not ready at all ! what about you? **Chatter A**: Me too, but i think it's the best solution

Chatter B: I don't know i'm confused you know my situation **Chatter A**: I understand you, you are in the same situation as most of our camrades Good luck 💙

Image: SolutionRaised handChatter A greets using the raised hand emoji to salute and asks for updates about the exams using the thinking face emoji at the end of the utterance to convey a deep thought.As a result, chatter B says they do not know using the person shrugging emoji to indicate a lack of knowledge.The phatic functionImage: Solutionperson shruggingchatter A greets updates about the exams using the the utterance to convey a deep thought.As a result, chatter B says they do not know using the person shrugging emoji to indicate a lack of knowledge.The phatic functionImage: Solutionperson salute and asks for updates about the exams using the the utterance to convey a deep thought.As a result, chatter B says they do not know using the person shrugging emoji to indicate a lack of knowledge.The phatic functionImage: Solutionperson exams using the convey a deep thought.chatter A says they heard that the exams are for September using the face with open downcast face down faceChatter A says they heard that the exams are for September using the face with open and upside- down faceChatter A says it to convey surprise convey surprise and upside- down faceChatter A says it is the best solution.Chatter A says it to convey functionEmotive functionImage: SolutionChatter A says it is the bestChatter A says it solution.Chatter A says it to convey surprise and upside- down faceChatter A says it to convey surprise solution.Chatter A says it <b< th=""></b<>
combined to convey sarcasm and a degree of sadness.Aesthetic and emotive functionChatter A says that they understand chatter A's situation and wish themAesthetic and emotive function

Table 13: Results Of The Analysis Of Conversation Number 06

2.1. Summary of The Main Results

As demonstrated in the conversations above 1 to 6, emojis have the possibility, just like utterances, to have pragmatic functions. In fact, by treating emojis as speech act generators, we were able to analyse the three components of the Speech Act Theory on the conversations of students. First, the literal meaning is the locutionary speech act in which each utterance that contains emojis is given a name by the Unicode Consortium official website. Therefore, the locutionary act shows the literal meaning of the utterance that includes emojis just like an utterance that is not used with emojis and without any context usage and interpretation. Second, for the intended meaning, on the other hand, it is the illocutionary speech act in which the intended and contextualized meaning of emojis' utterances is revealed. In fact, the combination of utterances and emojis helps the speaker, in this case Chatter A, and the hearer, in this case Chatter B, to be clearer in their intentions. Thus, the speaker uses emojis to add a visual aid that has clear functions in the clarification of the intended meaning of Chatter A and facilitations for the interpretation of Chatter B who later uses emojis to reply and create a new utterance that also contains emojis. Third, the effect of the utterance is the perlocutionary speech act in which each utterance that contains emojis shows the reaction of the hearer who, in return, selects others emojis to communicate the locutionary speech act.

• The Emoji Function

As demonstrated in the tables above, emojis perform various linguistics and pragmatics functions. In fact, the most common function of emojis is the emotive function, followed by aesthetic and the phatic functions.

3. Results Of Facebook Challenge

This section aims at analyzing students' comments of a facebook challenge that has been launched on a group created specifically for master one students of the department of English at Mouloud Mammeri University. These emoji texts are analyzed through visual grammar focusing on metaphorical associations of emojis and Danesi's (2017) findings on the characteristics of emoji grammar that involve conceptualization and calquing.

Question	Emoji text	Interpretation
How can you describe the exams using emojis?		This emoji text indicates a mixture of mostly negative feelings about the exams. It might indicate worry and unreadiness.
		This emoji text indicates a mixture of fear, surprise and sadness.
	196 60	This emoji text indicates a sequential order that first starts with a feeling of no concern that graduates into strength and finally a degree of success and satisfaction.
	888	This emoji text indicates frustration, sadness and a degree of helplessness.
		This emoji text indicates fear of exams and revision anxiety, or the student is worried because they did not prepare well for exams.
	:	This emoji text indicates that the student is quite neutral and is somehow ready to take the exams.
What is your level of English? Respond using emojis.		This emoji text indicates that the student feels satisfied about their level and feels happy about it.
	000 00	This emoji text indicates that the student is happy about their level and are either humble or do not want to say more.
	0 0	This emoji text indicates a degree of being intellectual and having a good level in English.
	**	This emoji text indicates that the student's level in English is rising and improving and they feel quite happy about that.
	N	This emoji text indicates that the student's level is declining or has a low level.
	*	This emoji indicates that the student might prefer "running" than answering the question about their English level.

How do you feel when you think about covid 19? Use emojis to answer.		This emoji text indicates the danger of the coronavirus and connotes a call for help.
	0 0	This emoji text indicates catching covid 19 and getting sick.
	↓ €3 ₩	This emoji text indicates hope that the student will not catch the covid 19 and prays to God for that.
	~~ ~	This emoji text indicates that the student is afraid, protects themselves with a facemask and prays to god for survival.
		This emoji text indicates that the student is worried and anxious about the coronavirus.
		This emoji text indicates a sequential order where the person did not protect themselves catches, the covid and fights this virus at hospital.

Table 14: Results Of The Analysis Of Students' Comments

3.1. Summary Of The Main Results

3.1.1. Metaphorical Associations

As demonstrated in the tables, as concerns the conversations, emojis can be used as a visual metaphor. In conversation number 2, there is for example, 'the sleepy face' which is originally an emoji that can be used to indicate that the person feels sleepy or tired. However, because it resembles a "crying face", it was used by the students who wanted to express their sadness since they have some missing lectures. In this example, since the sleepy face has a "blue snot bubble coming from its nose", it resembles a "tear" therefore, the student used it as a crying face. Furthermore, in conversation number 1, student used the "fire o" emoji to connote the hot weather, in fact, the fire emoji pictograph is a representation of a real fire which also resembles the fire emoji since it shares the same colors and shape.

As concerns the emoji texts, they can also be used as visual metaphors. For example: 'the page with curl emoji', which is a white piece of paper curled up at the bottom to the right, and 'the page facing up emoji', which is a white piece of paper, its top right corner curled , with text printed on it, and ' the open book emoji', which is an open hardcover book, are used in this context as a representation of various resources and behaviors concerning students' reading, writing, summarizing and others for their examinations. In addition to that, there is 'face mask emoji', the face with thermometer', the sneezing face', and 'emergency room emoji', which represents the different stages of illness and coronavirus. Moreover, there is 'the flexed biceps emoji', which represents hard work and strength associated with passing exams. Other examples include: "up-right arrow emoji" is shows an upwards direction, which in this context, represents that the students' level is improving. However, another student used the "down-left arrow and chart decreasing emojis" to connote a declining or low level of English.

Consequently, since emojis are culture sensitive, "the Palms Up Together emoji" we used to respond to the third question about coronavirus refers to a practice in the religion of islam "duaa" that signifies prayer and asking help from god.

Conclusion

This chapter has presented the results of the social semiotic multimodal analysis of emojis in facebook online interaction. First, the questionnaire has been analysed using the mixed method and the results reveal that students have positive attitudes towards emojis and their use. Second, the Speech Act Theory used to analyse students' conversations has revealed that emojis carry communicative functions within their conversations and can affect the linguistic mode. In fact, the three functions derived are: the emotive, phatic and aesthetic. Third, the analysis of students' comments has been carried out using the metaphorical associations derived from the theory of "Visual Grammar" and emojis' visual grammar possesses its own characteristics.

Introduction

After presenting the results in the previous chapter, this chapter is devoted to the explanation and interpretation of the findings obtained from the social semiotic multimodal analysis of emojis in students' facebook online interactions. In this discussion chapter, the interpretation of the results relates to the review of the literature presented in chapter one in terms of emoji grammar, informality and emoji functions as well as providing answers to the research questions that our study has raised, and hence will check the accuracy of the hypotheses we have advanced in the general introduction. This chapter is divided into three main parts. The first part discusses attitudes of students towards emojis and their use. The second part discusses the speech act theory on the uses of emojis and their function, in which we discuss how emojis affect the linguistic mode. As far as the third part is concerned, it discusses the visual grammar of emojis.

1. Students' Positive Attitudes Towards Emojis And Their Uses

The findings of this work confirm our hypothesis that students have positive attitudes towards emojis and their uses. In fact, our study has been conducted majorly with female students since they represent 88,8% of the participants. In fact, Facebook is used by all the participants and the majority of them state that they use emojis in their facebook comments and posts. Therefore, the majority of students state that they use emojis in their messenger texts. This means that the students believe that emojis are essential in online interaction. Furthermore, we have asked them why they use emojis in their facebook comments and text messages and with whom they use them in order to see how and what they think about emojis and their uses. It is revealed that the majority of respondents use them because they express their emotions and that they make the text easier to understand. Kress (2001:67) states that the "verbal language is being displaced as a communicational mode by image, in many sites of communication: whether in school books, in the electronic media, and in the information and communication technologies in general". Concerning with whom they use emojis on facebook, the majority of respondents use them with everyone including friends, classmates, family members, and others. Though, in reviewing the data gathered, the majority of respondents reserve their emoji use with people they have a close relationship with as well as in situations that are considered less formal and agree that they do not use them with elderly people since they will not understand the meaning of the emoji used, and with colleagues since it is informal and that they prefer to keep a certain distance with them. And some others prefer not to use them with their parents because of being serious, their answers were such as " I do not use them with old persons because i think they are more understand by young people and the new generation", " My parents or persons who are older than me because emojis are a part of an informal community", " I use them with everyone because it helps to express my feelings & emotions", "Colleagues and people I do not know very well for I believe that emojis should be used only with people we are familiar with".

The answers reveal that, as mentioned in the literature review by (Danesi 2017; McCulloch 2019), emojis are indeed associated with informal discourse. In addition, nearly all of the participants argue that emojis can be used to discuss everyday topics and that there are some particular circumstances where emojis are not appropriate. Also, they agree that they do not use the same type of the emoji they use with their friends as they do with their parents because of misunderstanding. Thus, we can synthesize that, the respondents are aware about when emoji use is appropriate. In addition to that, we thought about asking students whether they feel frustrated or not by not being able to express their emotions, sarcasm, anxiety, or being annoyed, and other emotions when having no access to emojis in order to know if they are important to them in online interaction or not, the results show that emojis are important to

use in order to express their emotions, sarcasm...and other emotions. However, 19, 70% of the participants find it not important to use emojis when expressing their emotions. Therefore, the majority of the students find it difficult to interpret what their friends mean when they do not use emojis since the use of emoji replaces the emotion of face to face interaction, and that it may influence their understanding of the message especially if it is too personal or serious matter. Moreover, in order to explore whether visual language can replace the language, we asked the students whether they used an emoji instead of a word before and if yes do you think they replace all the words, the results shows that most of the respondents (90, 8%) have used them before instead of a word. However, they outlined that emojis can replace only some words, not all of them. On the other hand, Walther (1992) argues that the social nature of the human being is the same in CMC and Face-to- Face environments. He posits that the need for special bonding is similar in both forms of communication and believes that when given enough time, people will find a way to compensate for any cues that are filtered in CMC. (Walther, 1992: 52). This means that the usage of emojis in place of actual words is widespread and well accepted.

1.1. Students' Interpretations Of Emojis Attached To The Linguistic Mode

According to the findings, we were able to note that the above answers are often very different from each other since the interpreters did not know any context at all and were just guessing. They could not deduce much from the context of the talk because it was not an ongoing conversation. In fact, the students could not know the exact meaning, only guesses regarding the emoji used next to the sentences. For instance, in the first sentence 'I Miss you + red heart emoji', The majority of respondents think that the user is communicating longing for the beloved while 'I Miss you + crying face emoji', is a sign of the sorrow or sadness from the absence of a family member or a friend. This means that, for the respondents the red

heart emoji is used for the lovers. Moreover, in the second sentence, 'I don't care + Face with symbols on mouth', the respondents see that the user is dishonest, he used the face with symbols on mouth in order to show that he really cares. For example, one of the participants argued 'the person does care'. However, 'I don't care + Woman shrugging emoji', it is a sign that the user is honest, that is, he does not care for real. For instance, 'I dont care here it is used in its real sense', one of the answers written by participants. In addition, in sentence number three, 'Are you angry + thumbs up', it is revealed that some of the respondents find that the user knows the answer but still questions, others find that the user does not care if the person with whom they are talking is angry or not. Whereas, with 'Are you angry + face with rolling eyes emoji', they think that the user tries to say that he does not mean to anger the person with whom he talks to. The final sentence 'I am fine + disappointed face emoji', respondents think that the person is not honest and that he is not fine for real while 'I am fine + smiling face with sunglasses emoji', they agreed that the person is honest regarding the face emoji used. Thus, we can synthesize that emojis are really important in online interaction specifically attached to the linguistic mode, it is thanks to it that we can recognize the attitude of the sender.

1.1.1. Students' Interpretations Of Emojis Without The Linguistic Mode

 hard to interpret the crown emoji. As far as the final emoji text is concerned, The second se

We have the majority of respondents think that this emoji text is expressing '*i love cats*', some others '*i saw three lovely cats*', others interpret it as '*i love your eyes*', the remaining ones relate it to *love at first sight*.

As far as students' emoji interpretations are concerned, we notice that the majority of students are emoji literate in the sense that they understand the connotations behind the use of emojis. In fact, the majority of students interpreted the emojis with or without the linguistic mode exactly how we meant them when we created them as emoji texts or when we incorporated them inside the sentences.

2. Discussion Of Students' Facebook Conversations

2.1. Emojis And Speech Acts

Taking into consideration the results obtained, the Speech Act Theory can be extended to the use of emojis since they are semiotic resources that can convey meaning and can affect the linguistic mode. For example, in conversation 1, the literal meaning of the first emoji is \checkmark , is the locutionary act. The illocutionary act for this emoji is "a polite greeting gesture" that people normally use as a form of non verbal communication in face to face interaction used in the original utterance "*Hiii dear*". And finally, the perlocutionary act for this emoji is when chatter B sees this gesture they reply respectfully in the same manner they were greeted, chatter B uses the emoji to respond to the polite greeting gesture that connotes affection and welcome in the utterance "*Hello djou*". However, if the utterance was to contain a degree of negativity and compliance such as in this the same conversation: O and O have the literal and locutionary meaning of "fire" and "hot face". The illocutionary act for these emojis is to express Chatter A's feeling about the weather to connote "hotness" in the utterance "*How*".

r u doing in this hot weather? Lastly, the perlocutionary act for these emojis is the effect on chatter B who confirms the hot weather by using the emojis $\textcircled{}{}$ in the utterance "*It is really hot* $\textcircled{}{}$ ". Another example is, the utterance "*i'm bored*" literally signifies that the person speaking is bored that is the locutionary act of the utterance, whereas for the illocutionary act for this utterance is not exactly clear and direct because it could be an expressive utterance or a simple statement. However, the addition of the 'Unamused face' emojis makes the whole utterance and its intentions clearer: Chatter A: "*i'm bored*" ". In this example, the intended meaning becomes an indirect invitation to do something with chatter B or to go out with them. Finally, emojis can also be used to show the effect of an utterance, or the perlocutionary act, on the chatter B in their response Chatter B: "*Let's go out* ". Therefore, Danesi (2017) supports this claim by stating that "saying "*sorry I can't go today*." The former version risks being interpreted as conveying a certain nonchalance about being sorry, whereas the emoji version does not.

On one hand, the perlocutionary act is not easily detectable in online written interaction since not all chatters decide to show their non verbal responses by using emojis. Reactions are hard to detect because they need to be explicitly produced and communicated via the use of utterances such as "what you just said made me angry" or use an equivalent emoji such as "the angry face^{∞}". On the other hand, in face to face interaction this process of response recognition can be easily detectable since non verbal communication is direct and easily recognizable.

Therefore, through the use of emojis people can also perform speech acts, that is to say, emojis clarify the intentions, specify the degree of reaction among the two chatters as

well as identify their mood and tempers. Correspondingly, emojis can be used with the linguistic mode and can affect it in terms of disambiguating messages and avoiding misinterpretations which makes the utterance clearer for both chatters.

2.2. Emoji Functions In Students Messages

From the obtained results concerning the application of the speech act theory on the students' conversations to derive their respective intended meanings and functions, we notice that emojis perform various linguistics and pragmatics functions. The most common function of emojis is the emotive function followed by the phatic and aesthetic functions. Moreover, the distance and barrier among the two chatters while using the text messaging feature does not allow the use of non verbal communication, just as in face to face, to clarify their intentions as well as their intended meanings. Therefore, the use of emojis allows the use of an electronic version of non verbal communication that a person would use when interacting in real life.

• The Emotive function

The use of emojis to mimic non verbal cues in online interaction facilitates in conveying the "person's state of mind" (Danesi, 2017) and emotions. Because humans can convey so many different expressions without even speaking, the use of emojis as non verbal cues remains significant for the success in both delivering and interpreting the message; For example, facial expressions (2019; 9), (20, 100),

• The Phatic Function

The phatic function, according to Marcel Danesi, is "a visually based version of "small talk" that is used typically for establishing social contact and for keeping the lines of communication open and pleasant." (Danesi, 2017). Therefore, The results presented in the previous chapter reveal that the emojis used for their phatic functions are: \Downarrow , \Downarrow as a utterance ending.

• The Aesthetic Function

The Facebook platform, just as any other social media, is visually driven. In Fact, most users enjoy using emojis because of their emotive touch, however, many others use them as decorative icons in their messages to refer to concepts by means of emoji representation. For example, 0, 1, 2 and Word replacement, 1, 1.

To put it all together, emojis perform various pragmatic functions in students' facebook conversations. First, the emotive function serves to replace non verbal cues in face to face interaction with an electronic based version known as "emojis" and to express emotions. Second, the phatic function serves to keep social interaction and bring a degree of positive tone to the message (Danesi, 2017). Finally, the aesthetic function is used to make a message visually attractive or indicates the user is being playful in his/her use of emojis. However, it is worth mentioning that the functions are not totally independent from one another since they are sometimes used simultaneously. For instance, the smiling face with hearts emoji conveys the emotive as well as the phatic function since it expresses affection and keeps the interaction open and pleasant. Furthermore, the face with crossed-out eyes and fire emojis are a combination between the emotive as well as the aesthetic function

because they are representations for the concept of hotness of the body or "feeling hot" when there is a heavy increase in temperature.

However, all emojis can have a degree of aesthetics though they clarify ideas and emotions. In fact, according to Vyvian Evans (2017) :

As visual perception has played a central role in the evolution of our forebears, it then seems natural that we read a lot into visual experience: it has pride of place both in conveying information, and in providing aesthetically pleasing experiences. Visual representation has a long and venerable history in our species, and greatly preceded the much later emergence of writing, which depends on it [...] such as cuneiform and hieroglyphs, originated from artistic traditions, with early written symbols deriving from pictograms. And this, as it turns out, was also the basis for Emoji. (Vyvian Evans, 2017: 131)

Therefore, they carry communicative functions at the same time and they are used for their visually appealing designs that are digital concepts relating to reality.

3. Discussion Of Students' Facebook Comments

3.1. Multimodality And The Grammar Of Emojis

Taking into consideration the results obtained from the analysis of emojis' visual metaphors, emojis have the potentiality to connote visual metaphors. As Seargent (2019: 71), on emoji metaphors, explains "The limited vocabulary of the current set of emoji can be extended by having them substitute for something which they resemble or which echoes a pre-existing verbal metaphor." Indeed, when used with or without the linguistic mode, emojis can carry visual metaphors because their lack of vocabulary does not always allow for the right visual design. According to Danesi (2017), emojis have their own rules or "syntactics" that allow cohesion and coherence in emojis use and combinations. In fact, he named the process where the words in verbal expressions are converted to emojis as "transliteral calquing" in which instead of a linguistic word for word imitation, this type of translation is a

concept for word imitation creating a multimodal discourse. For example, in conversation number one, Chatter A wrote "I bought a yesterday" the dress emoji is used as a concept for word replacement. In addition, in conversation number four, Chatter B wrote: "I think it's the best The wrapped present emoji is also used as a text replacement.

To conclude, emojis affect the linguistic mode in terms of syntax and pragmatics whereas in the comments, the emojis were used by themselves without the linguistic mode. Students used emoji texts to answer to the challenge's questions for example:

Q: How can you describe the exams using emojis?

Some of the answers written: 😐 🙃 😴 🥺 🧐



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According to these emoji texts gathered from the corpus as well as the interpretation of the emoji texts gathered from the results of the questionnaire, emojis have a visual grammar since the meaning of the emoji text can be understood to some extent, though not all the time. However, it is worth mentioning that the social context where emojis are used is highly important for the determination of having a visual grammar of emojis, in this context, the question " How can you describe the exams using emojis?" as well as the other questions of the Facebook challenge is the context that generated the use of the emoji text to answer and help us interpret them.

3.2. Emojis And Informal Language In Students Conversations And Interpretations

According to the findings deduced from the analysis of the students' facebook conversations, students use emojis in informal contexts since they did not pay attention to always use the correct grammar or vocabulary. For example, in conversation number 1, Chatter B said "Hi sweety I'm good you?'. In conversation number 5, Chatter B said "Hi I'm fine thank you And you?"

In fact, the use of informal language in facebook among students is "just as they speak in day to day conversations" (McCulloch, 2019). For example, in the sentences: "Can i see " and "Have you started preparing for exams " the chatters did not use the question mark to emphasize that they are asking a question. In fact, the omission of the question mark and other punctuation forms while integrating emojis does not only reflect the close relationship between the chatters, but it also shows that emojis are used as a form of non verbal communication in text messages. Therefore, when emojis are used as non verbal replacements in online interaction, they can indicate a rising intonation at the end of questions just like in face to face. Therefore, according to Gretchen McCulloch (2019):

The internet made our personal punctuation preferences public, and brought with it a different set of priorities: writing needs to be intuitive, easy to create, and practically as fast as thinking or speaking. We drew these requirements together to create a system of typographical tone of voice (2019: 113-114)

In fact, emojis do not only function as a form of visual language that carry emotion and thoughts in online interaction, but have also evolved and became part of the structure of the linguistic mode as explained by Burhanuddin Arafah and Muhammad Hasyim (2019): "The phenomenon of conversational text on social media, emojis, becomes part of the sentence structure." In comparing our present work to recent research, Escouflaire(2020), emojis are increasingly common in computer mediated communication and have multiple communicative functions (expressives, interpretative, and referential) and five secondary functions (rational, politeness, emphatic, structural and aesthetic). This research is closely related to our research since our findings are quite close regarding the communicative functions obtained. However, visual language is highly important in online- rapid interactions. Therefore, further research may investigate the visual aspect as separated from the linguistic one.

Conclusion

To conclude, the discussed results from the social semiotic multimodal analysis of emojis have answered the research questions, confirmed all the hypotheses set in the general introduction. It has demonstrated that the Master one students of the department of English at UMMTO have positive attitudes towards emojis and their use. In addition, these obtained findings demonstrate that emojis carry communicative functions within students' messages such as: the phatic, emotive as well as the aesthetic function. Moreover, it is worth mentioning that emojis have a visual grammar that needs a context to be understood and interpreted correctly. The present work has attempted to investigate the social semiotic multimodal analysis of emojis in Master one students' online interaction. To do so, Two theoretical frameworks have been used: social semiotic multimodal approach set by Kress and Leeuwen (1996; 2006) to analyze the semiotic resources that constitute multiple modes and how these resources are combined to convey meaning in terms of having a visual grammar that helps decipher them and the Speech Act Theory set by Austin and Searle (1962, 1969) in order to analyze the effect of emojis on the linguistic mode in terms of the different functions that Emojis carry.

This study aimed at investigating the attitudes of students towards emojis and their use, how emojis are used as social semiotic multimodal resources in social media Facebook by Master one students of the department of English at Mouloud Mammeri University of Tizi-Ouzou, and how their use affects the linguistic mode as well as investigating to what extent emojis are involved in creating a new form of visual language. The type of sampling used is random sampling and representative of the population. Therefore, all Master one students are represented by a sample of 76 participants.

In the research, mixed method research combining qualitative and quantitative methods has been used. In addition, a corpus of students' conversations and comments on Facebook has been analyzed in relation to the linguistic and visual mode. Moreover, in our research the rule of three has been employed to get numerical data.

The study has shown that the first hypothesis has been confirmed in that students have positive attitudes towards emojis and their use. Second, relying on the results of the students' conversations, we come to the conclusion that the second hypothesis is also confirmed in which emojis carry communicative functions within students' messages such as: the phatic and emotive function with the latter dominating the most. Finally, the last hypothesis has been partially confirmed since emojis have been carried out using the metaphorical associations derived from the theory of visual grammar because they are semiotic resources. In fact, emojis

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have a visual grammar, however, it does not function independently as a new form of syntax or as a new form of language, but needs the linguistic grammar either to be understood as a sequence or to be interpreted verbally. Also, the context is extremely significant in order to understand the emoji text.

The Speech Act Theory reveals that emojis can be used as speech acts generators since just like utterances have locutionary, illocutionary and perlocutionary acts, emojis can affect the utterance and attribute to it a different meaning than it appears to have without an emoji. The locutionary and illocutionary acts revealed that emojis carry intended meanings in particular contexts and that the two chatters interact as a result of the communicative function of the other chatter's use of emojis. The derived communicative functions of students' emojis are the emotive, phatic and aesthetic functions. In fact, these functions sometimes co occur in the sense that they are not entirely independent from one another but can function together.

As far as the theory of visual grammar is concerned, it has been revealed that emojis have a visual grammar in terms of metaphorical associations and transliteral calquing which is a type of translation that takes a visual concept for word imitation in order to create a multimodal discourse. Therefore, the grammar of emojis is a conceptual imitation for words that already exist. The context, however, is essential in understanding the emoji text or sequence that is the visual grammar of emojis.

As for the results obtained from the questionnaire, the analysis of the data collected made it possible to understand that emojis are well known among Master one students. The majority of them are familiar with emojis and use them on their facebook posts, comments as well as their instant messenger text messages. In fact, the results confirm the idea that emojis are crucial and reflect emotions in online interaction. Though the use of emojis remains inside the barrier of informality, students sometimes feel frustrated when not having access to them since the majority of their language use in online written interaction is informal. Therefore,

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the message is easily interpreted when emojis are included in the sentence. However, the findings show that emojis cannot replace all words or ideas since they do not have fixed meanings. Finally, Master's students can be said to have the necessary emoji literacy and competence to interpret emojis used with sentences as well as emoji texts.

All In all, relying on the framework mentioned in the review of literature, mainly the theory of visual grammar proposed by Kress and Van Leeuwen (2006) and on the framework of the Speech Act Theory developed by by Austin (1962), which is based on the idea that utterances perform speech acts that are locutionary, illocutionary and perlocutionary; and the results of that the questionnaire provides, we come to draw the following conclusion. First, the attitudes of students towards emojis and their use are positive in terms of the data gathered from the questionnaire that is their attitudes towards emojis and their emoji competence when they interpreted the emoji texts and sentences that include emojis. Second, the communicative functions of emojis within students' messages are the emotive, phatic and aesthetic functions. Third, emojis do not entirely convey meaning as a form of visual language, but rather as a one type of visual language that has a visual grammar that needs the context to be interpreted to some extent.

• Limitations of the Study

Although our present research tackles the social semiotic multimodal analysis of emojis on Facebook, there are some important limitations that need to be taken into consideration. As concerns the Social Semiotic Theory (1996, 2006), we could not use all of the concepts as well as the procedures for analysis that exist in the theory. In fact, we selected the Speech Act Theory belonging to pragmatics, as a subfield of semiotics, in order to analyse emojis using speech acts as well as deriving their use as social semiotic resources that are able to affect the linguistic mode in terms of having communicative functions. As regards the multimodal theory (ibid), the same happened as well because we only used metaphorical associations and the emojis grammar by Danesi (2017) to analyse the emoji texts gathered from the facebook challenge. In addition to that, we collected either too long conversations or too many emoji texts. Therefore, we had to select some parts of conversations and some emoji texts to analyse. Furthermore, the emoji interpretations that we had on either the conversations or the emoji texts might not be entirely and completely correct since no one but the users are aware of what they really meant with an emoji. Thus, misinterpretations cannot be fully avoided.

• Recommendations for Further Research

We hope that the findings of this humble work will contribute to the field of social semiotics and multimodality in relation to computer mediated communication and current Internet linguistics. The main aim of our research is to find out whether the use of emojis as social semiotic multimodal resources while communicating on Facebook facilitates the communication process or not, and if the use of emojis can reflect the actual mindset of the users. We also hope that our research will open opportunities for further research in different case studies in this area of research. Thus, this work could not cover all the aspects and issues related to both Visual Grammar and The Speech Act theory on Facebook. Researchers interested in this work may enlarge the corpus to allow the generalization of the findings and may as well use a different platform such as Tweeter, Whatsapp, or Instagram to investigate the use of emojis or other visual items such as memes, GIFs, stickers, and emoticons. Other researchers can investigate the use of emojis in relation to education and language assessment by the teachers who emojis positive feedback. use as

• Austin, J.L. (1962).*How to do things with words*. London: Oxford University Press.https://z-lib.org/

• AlRashdi, F. and Washington (2015). Forms and Functions of emojis in Whatsapp interaction Among Omanis. [online] . Available at:https://images-insite.sgp1.digitaloceanspaces.com/dunia_buku/media-sosial/535-forms-and-functions-of-emojis-in-whatsapp-interaction-among-omanis-a-67291578115163.pdf.[accessed on June2021]

• Bearne, E. and Wolstencroft, H. (2007). *Visual approaches to teaching writing : multimodal literacy 5-11*. London: Paul Chapman. https://z-lib.org/

• Bliss-Carroll, N. (2016). The Nature, Function, and Value of Emojis as Contemporary Tools of Digital Interpersonal Communication.MA in English Theses. [online] Available at: https://digitalcommons.gardner-webb.edu/english_etd/15 [Accessed 11 Sep. 2021].

• BurhanuddinArafah and Muhammad Hasyim, (2019), "The Language of Emoji in Social Media".KnE Social Sciences. Available at https://knepublishing.com/index.php/Kne-Social/article/view/4880/9771#:~:text=Thus%2C%20emoji%20is%20composed%20of,in%20 syntactic%2C%20semantic%20and%20pragmatic. [Accessed on September 2021]

• Chandler, D. (2017). Semiotics : the basics. New York : Routledge.

• Cobley, P. (2001) *The Routledge Companion to Semiotics and Linguistics*. Routledge: London.

• Crystal, D. (2017). *Language and the Internet*. Cambridge: Cambridge University Press, Druk.

• Danesi, M. (2017). *The Semiotics of Emoji : the rise of visual language in the age of the Internet*. London ; New York: Bloomsbury Academic, An Imprint Of Bloomsbury Publishing Plc.

 Debba, I. (2017). Emoji use in online communication and differences between genders. ebiblio.univ-mosta.dz.[online]Available at: http://e-biblio.univmosta.dz/handle/123456789/5650[accessed on May 2021]

- Dornyei, Z. (2007). *Research Methods in Applied Linguistics*. New York: Oxford University Press.
- Eggins, S. (2013). *An introduction to systemic functional linguistics*.London ; New Dehli ; New York ; Sydney: Bloomsbury.
- emojipedia.org. (n.d.).Emoji Version 13.1 List. [online] Available at: https://emojipedia.org/emoji-13.1/ [Accessed 2021].

• Escouflaire, L. (2020). Building a typology of the linguistic functions of emoji : a crosslinguistic and cross-platform corpus analysis of emoji in conversation. [online] handle.net. Available at: http://hdl.handle.net/2078.1/thesis:24818 [Accessed 2021].

- Giannoulis, E. and Lukas R A Wilde (2020). *Emoticons, kaomoji, and emoji : the transformation of communication in the digital age*. London: Routledge.
- Hall, M. (2019). Facebook | Overview, History, & Facts. In: *Encyclopædia Britannica*. [online] Available at: https://www.britannica.com/topic/Facebook .
- Halliday, M.A.K(1978). Language and Social Semiotics: The Social Interpretation Of Language and Meaning. Oxford:University Park Press.
- Halliday, M.A.K. (1985) Introduction to Functional Grammar. London: Edward Arnold.
- Halliday, M. A. K. (2004) An Introduction to Functional Grammar. (3rd ed, revised by C.

M. I. M Matthiessen). London: Edward Arnold.

- Hodge, Robert and Gunther Kress (1979). Language as Ideology.London:Routledge.
- Hsieh, H. F., & Shannon, S. E. (2005). *Three Approaches to Qualitative Content* Analysis. Qualitative HealthResearch, 15(9), 1277-1288.

- Jakobson, Roman (1960). "Linguistics and Poetics." In T. A. Sebeok (ed.), Style and Language. Cambridge, MA: MIT Press.
- JaredOtieno, S.(2018). A Socio-Semiotic Multimodal Analysis of Emojis As Used In Text-Messaging.Ma in English theses.[Online]. Available at http://erepository.uonbi.ac.ke/bitstream/handle/11295/105375/ [Accessed on July 2021]

• Jewitt, C. (2009). *Technology, literacy, learning : a multimodal approach*. London: Routledge.

- JohnLangshaw Austin and Lane, G. (1991). *Quand dire, c'estfaire : how to do things with words*. Paris: Éd. Du Seuil.
- John Richard Searle (1992). *Speech Acts : an essay in the philosophy of language. Cambridge:* Cambridge University Press.
- Josephus Johannes Bezemer, Jewitt, C. and O'halloran, K.L. (2016). *Introducing multimodality.London*; New York: Routledge.
- Johnson, K.(2021).Emoji's, Stickers & GIFs: Decoding Complex Visual Responses. Available at: https://blog.flexmr.net/emojis-stickers-gifs-decoding-visual-responses. [Accessed on June, 2021]
- Krajaulis, L.(2018). Emojis through the perspectives of politeness and speech act theories. Thesis final digital version. Available at: <u>https://scripties.uba.uva.nl/download?fid=668135</u>.[Accessed on February, 2021]

• Kress, G. and Theo Van Leeuwen (1996). *Reading images*.London ; New York: Routledge.

- Kress, G., & van Leeuwen, T. (2001) *Multimodal discourse: the modes and media of contemporary communication*. London: Arnold publishers
- Kress, G. and Theo Van Leeuwen (2006). *Reading images : the grammar of visual design*. London: Routledge.

• Kress, G.R. (2010). *Multimodality : a social semiotic approach to contemporary communication*. London: Routledge.

- Levinson, S.C. (1983). *Pragmatics*. Cambridge Cambridge Univ. Press.
- Levinson, S.C. (2003). *Pragmatics*. Cambridge Cambridge Univ. Press.
- Machin, D. (2020). Introduction To Multimodal Analysis. S.L.: Bloomsbury.
- Mcculloch, G. (2019). *Because internet : understanding the new rules of language*. New York: Riverhead Books. Available at <u>https://z-lib.org/</u>

• Morris, C.W. (1938). *Foundations of the theory of signs*. Chicago: University Of Chicago Press.

- O'Toole, Michel, 1994. The Language of Displayed Art, 1st ed. Routledge, London.
- Palmeri, J. (2012).*Remixing composition : a history of multimodal writing pedagogy*. Carbondale: Southern Illinois University Press.
- Seargeant, P. (2019). *The emoji revolution : how technology is shaping the future of communication*. Cambridge ; New York, Ny Cambridge University Press.[online]. Available a thttps://www.cambridge.org/core/terms.https://doi.org/10.1017/9781108677387.001/.

[accessed on February 2021]

- Sanchez, G. (2016). Why People Love Great Visuals, Based on Science. [online] Piktochart. Available at: https://piktochart.com/blog/why-people-love-great-visualsscience/. [Accessed on January 2021]
- Searle, J.R. (2004). *The philosophy of language*. Oxford: Oxford Univ. Press.

• Statista (2021).*Global social media ranking 2019*. [online] Statista. Available at:https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/. [accessed on July 2021]

• Steinmetz, K. (2015, November). *Oxford's 2015 word of the year is this emoji*. Retrieved from http://time.com/4114886/oxford-word-of-the-year-2015-emoji/[Google Scholar][accessed on June 2021] • Van Leeuwen, T. (2005) Introducing Social Semiotics. London: Routledge.

• Vyvyan Evans (2017). *The emoji code : how smiley faces, love hearts and thumbs up are changing the way we communicate.* London Michael O'mara Books Limited.

- Taherdoost, H. (2016). Sampling Methods in Research Methodology; How to Choose a Sampling Technique for Research. *SSRN Electronic Journal*, 5(2), pp.18–27.
- Tannen, D. (1996). Gender and discourse. New York ; Oxford: Oxford University Press.
- Theo Van Leeuwen (2008). *Introducing social semiotics*. London: Routledge. Available at: <u>https://libgen.is/</u>
- Walther, J. B. (1992). Interpersonal effects in computer mediated communication. London:

Thousand	Oaks.[online].	Available	at:
https://www.researchg	ate.net/publication/200772923	Interpersonal_Effects_in_C	Computer-

Mediated_Interaction_A_Relational_Perspective. [Accessed on October 2021]

• Yassine, S. (2012) Culture Issues, Ideology and Otherness in EFL Textbooks: A Social

SemioticMultimodalApproach.Doctoratethesis.[www.ummto.dz/IMG/pdf/YASSINE_Souryana.pdf.][consulted on June 2021]

• Yassine, S. (2014)Multimodal Design of EFL Textbooks: A Social Semiotic Multimodal Approach Linguistics. AnglisticumJournal (IJLLIS).[Online] Available at https://www.academia.edu/9836951/Multimodal_Design_of_EFL_Textbooks_A_Social_Semiotic_Multimodal_Approach/. [Consulted on June 2021]

Students' Questionnaire

Dear students,

This questionnaire is designed to collect data that will help in a research about the completion of a Master dissertation entitled the social semiotic multimodal analysis of emojis used in Facebook online interaction. All the information you provide will be kept anonymous and confidential and will be used only for academic purposes. Your answers will determine the success of this humble investigation. Therefore, please answer the questions as sincerely as you can. Thank you in advance for your time and efforts. Please tick the right answer:

1. Gender:

- Male
- Female

2. Do you know emojis?

- Yes
- No

3. Do you own/use a Smartphone, tablet, or device equipped with Emoji keyboard? *Cross all that apply

Smartphone	tablet	personal computer	otherdevices

4. Do you use facebook?

- Yes
- No
- 5. How often do you use emojis in your facebook posts and comments ?
 - Never
 - Rarely
 - Sometimes
 - Often
 - Always

6. How often do you use emojis in your messenger text messages ?

- Never
- Rarely
- Sometimes
- Often
- Always

7. Why do you use emojis in your facebook comments and text messages? check all that apply

- I do not use them
- Because they are fashionable
- To make the text easier to understand
- Because it helps me type faster
- They are fun
- They express emotion

Otherreasons:

8. With whom do you use emojis on facebook? check all that apply

- Withfriends
- Classmates
- Familymembers
- Withcolleagues
- Witheveryone

9. With whom do you not use emojis with? Justify your answer

10. If you, for any reason, have no access to emojis, do you feel frustrated by not being able to express your emotions, sarcasm, anxiety, or being annoyed etc ?

- yes
- No
- Sometimes

11. Do you sometimes find it hard to interpret what your friends mean when they use emojis?

- Yes
- No
- Sometimes

•

12. Do you sometimes find it hard to interpret what your friends mean when they do not use emojis?

- Yes
- No
- Sometimes
- If yes, why?

13. Have you ever used emojis in place of or instead of a word?

- YES
- NO

IF yes, do you think emojis can replace all the words?

14. Do you think emojis can be used to discuss everyday topics as well as serious matters, or are there any particular circumstances where you think that the use of emojis is inappropriate?

.....

15. Do you send the same types of emojis to your parents as you do to your friends?

- Yes
- No
- I Have never thought about it
- I don't use emojis at all

Justify your answer

16. How would you interpret these sentences?

- 1. I miss you
- 2. I miss you
- 3. I don't care
- 4. I don't care 🧟
- 5. Are youangry?
- 6. Are youangry?
- 7. I am fine
- 8. I am fine 😎

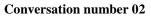
17. How would you interpret these emojis Texts?

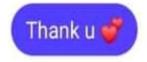


Thank you for taking the time to complete this questionnaire, we really appreciate your participation.

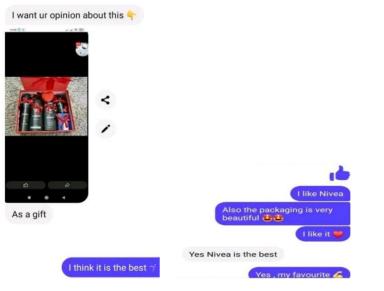


Conversation number 01





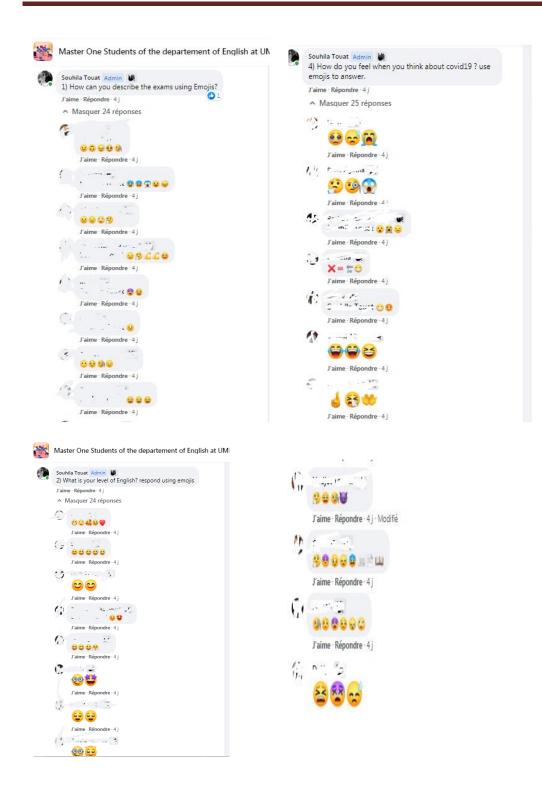




Conversation number 03

Conversation number 04

Students' comments on Facebook challenge



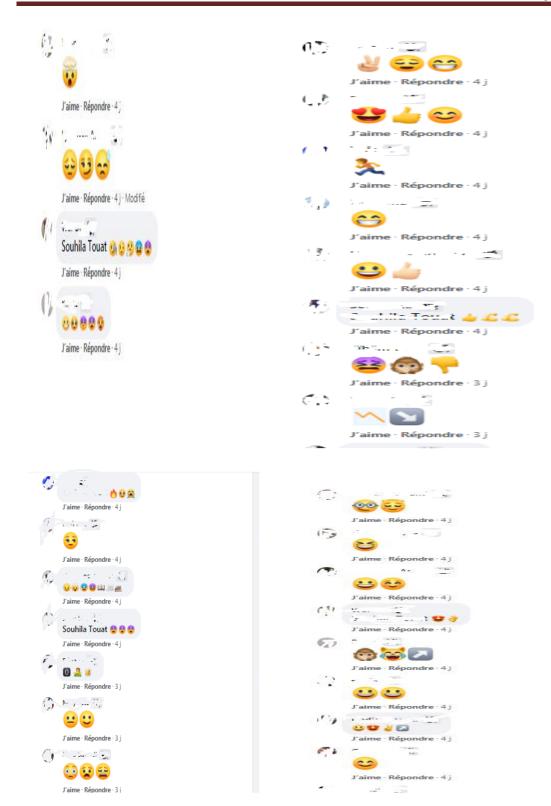




Figure 01: Keyboard with Emoji Characters (Screenshot on Phone ACE BUZZ 2 PLUS)

Master One Students of the departement of English at UM

Figure 02: Screenshot of the challenge created on facebook available at https://facebook.com/groups/1200565707083580/