

## Digital Linguistic Markers of Emotions during the September 2024 Hostilities in Lebanon: A Case Study in Communication Arts Course at a University Level in Southern Lebanon

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[Doi:10.19044/esj.2025.v21n8p47](https://doi.org/10.19044/esj.2025.v21n8p47)

Submitted: 21 January 2025

Accepted: 01 March 2025

Published: 31 March 2025

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*Cite As:*

Joudi N.S. & Ayoub N.N. (2025). *Digital Linguistic Markers of Emotions during the September 2024 Hostilities in Lebanon: A Case Study in Communication Arts Course at a University Level in Southern Lebanon*. European Scientific Journal, ESJ, 21 (8), 47.

<https://doi.org/10.19044/esj.2025.v21n8p47>

### Abstract

Language and emotions are intricate systems that have several interactions. Amid the expeditious spread of digitalization and the upswing of various international issues, this case study seeks to explore how students at the Lebanese University in the South utilize language on social media to convey their emotions as of the 2024 clashes and airstrikes in Lebanon. Further, it aims to identify digital linguistic markers that reflect key emotional states and social identity. Drawing on discourse analysis, which acknowledges language as a dynamic system influenced by shared experiences, values, and beliefs, and notably, by Conceptual Act Theory, which explores how meaning is constructed from experiences and perceptions, and on sentiment analysis, a mixed-methods approach is employed. A convenient sampling of (191) university EFL students taking the Communication Arts module during the fall of 2024-2025 completed an online survey of 15 multiple-choice and Likert scale items. Twelve students joined a focus group discussion, and 155 out of 191 participants interacted on the web-based application Padlet. The findings show that utilizing language in the context of social media platforms through words, emojis, hashtags, slogans, or posting articles, images, or videos plays a vital role not only in channeling positive and negative sentiments but also in signaling belonging to a collective identity during times of crisis in Lebanon.

The overall analysis indicated that using various linguistic practices on social media platforms communicates positive and negative emotions and upholds social norms and ideologies.

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**Keywords:** Discourse Analysis, Sentiment Analysis, Digital Linguistic Markers, Lebanon, War

## Introduction

Language is constantly used from a perspective and always exists within a specific context. It communicates emotion via almost every aspect (Majid, 2012). The choice of linguistic expressions and specific words can reveal social class, cultural background, and personal experiences. It serves as a mechanism that asserts dominance, negotiates power, creates social hierarchies, and upholds or challenges social norms and ideologies (Edward, 2024).

Contextualizing how we use language offers insights into its underlying dynamics and real-life consequences; that is where discourse analysis (DA) comes in. It looks for what is said in a given text and how it is used in social settings and cultural contexts. It explores how language presents different perspectives and understandings of the world and creates social reality (Gee, 2011).

The relationship between the text, the author, and the reader has changed because of social media opportunities (Oprea, 2019). Social media refers to applications and digital platforms premeditated for people to create, share, and be involved with content, communicate, and connect. Blogging on social media often impacts communication, social interactions, and discourse by making it more instantaneous, interactive, and widespread (Joudi, 2024). According to Khan (2024), social media has become a familiar public place in the global village for activism, where people can share targeted messages and emotionally charged content that shapes perceptions and beliefs.

Chalise (2024) stated that since October 7, 2024, social media followers or users have become active bystanders of the war, bound to see, think, like, repost, internalize, respond, and comment about the unprecedented violence. Kharroub (2023) asserted that oppressed populations rely on social media platforms to share their grievances, especially when social media exclude voices, emasculate their suffering, or intend to report practices that dehumanize them. According to Joudi and Ayoub (2024), the platforms have become spaces for conveying emotions. Social media users have started to echo their voices and embellish their engagement by following, commenting, reposting, replying to comments, and liking. In Lebanon, in the context of the September 2024 escalation of hostilities that have led to massive casualties, injuries, destruction, and displacements, followers have started to

exhibit various feelings through empathizing, dreading in disbelief, and, in some instances, expressing contempt for the suffering of the Lebanese people.

Consequently, the exchange of sentiments in the context of social media platforms represents collective consciousness and societal values, which often depend on culturally framed interpretations (Parkinson et al., 2005). This aligns with Smith and Mackie (2008), who noted that emotions pertain to identity as they depend on each other. They stressed that emotion makes identity consequential, and identity makes group-level emotion possible. As psychologist Smith (1993) stated, emotion goes with identity. For example, expressing pride in one's group or hate of one's enemy presupposes identities that one cares about. The analysis features of the prominent Palestinian figures on Instagram, Plestia Alaqaq, Motaz Azaiza, Bisan Owda, and Hind Khoudary, indicate that sympathy and frustration are the most expressed social emotions as these categories score high in both the number of likes and comment responses (Chailse, 2024). However, no studies have explored how digital communication can deeply reflect social and emotional dynamics in the Middle East, emphasizing Lebanon and its youth's social media language, emotions, and social identity, which are closely intertwined.

According to the psychological constructionist Conceptual Act Theory (CAT), emotion occurs when information from one's body is made meaningful in light of the present situation using conceptual knowledge about emotion. The Tajfel and Turner (1986) Social Identity Theory (SIT) suggests defining identities about social groups, and the Sentiment Analysis (SA) discipline suggests mining people's perceptions, opinions, sentiments, emotions, and attitudes in textual data, such as social networks (Pang & Lee, 2008).

Amidst the digital discourses that question the fluidization and the circulation of information in the public space that has not been encountered before (Opreas, 2019), the purpose of this study is to explore how university students in Southern Lebanon, during the ongoing war that began in Lebanon on October 7, 2023, use language on social media to express emotions and social identity. This study also aims to identify linguistic markers that reflect emotional states, such as anger, fear, sadness, hope, pride, social identity, and community affiliation. Thus, the current study has the following questions to answer:

1. How do university students in Southern Lebanon use language on social media to convey their emotions as of September 2024 clashes and airstrikes?
2. What emotional expressions and linguistic markers do university students in Southern Lebanon use on social media as of the September 2024 clashes and airstrikes?

3. How does the language university students in Southern Lebanon use on social media convey social identity as of the September 2024 clashes and airstrikes?

### **Literature Review**

Experiencing situations is the key to learning abstract concepts like anger, love, fear, or pride. According to Lindquist et al. (2015), language is the tool that enables humans to learn and apply concept knowledge to make sense of their experiences, perceptions, and emotions, such as happiness, sadness, anger, or fear. Negri et al. (2020) indicated that online expressive writing has helped respondents get more in touch with the intense emotions they experienced following the upheavals. When someone writes, "I am sad," for instance, it is understood that they are experiencing sadness. The idea of what it means to be "sad" can encompass past physical experiences (such as feeling worn out, exhausted, or unpleasant), past exteroceptive experiences, and external sensations (such as sights, smells, tastes, and sounds connected to various physical contexts in which one was sad), and simulations of representative situations in which loss occurred (such as simulations of the context occurred at the death of a loved one (Lindquist et al., 2015). Discrete emotion emerges and changes with culture and context (Lindquist, 2013).

Consistent with the constructionist Conceptual Act Theory (CAT), which posits that emotions arise from internal bodily sensations, external sensory representations, and conceptual knowledge to make meaning of ongoing sensory perceptions i.e., to give these sensations contextual meaning (Barrett, 2009; Lindquist et al., 2012; Lindquist, 2013), and informed by the field of Sentiment Analysis, which attempts to explore people's perceptions, opinions, sentiments, emotions, and attitudes through the analysis of textual data from social networks based on sentiment polarity (Pang & Lee, 2008), researchers have conducted various studies and presented various findings. Initially, they relied on manually built sentiment lexicons to categorize sentiment as positive, negative, or neutral and later evolved to incorporate multiple shallow machine-learning techniques (Stoy, 2021).

Taboada et al. (2011) utilized a positive and negative word lexicon-based technique to classify documents centered on their sentiments. Sailunaz and Alhaj (2019) analyzed different emotions and sentiments and asserted that multiple positive and negative dimensions can characterize some emotions. Further, Nandy and Sridhar (2020) did not rely only on traditional machine learning-based models to filter six human emotions and synonyms in English words. However, they proposed using both lexicon-based approaches and machine-learning approaches. In Ortigosa, Carro, and Quiroga (2014), sentiment analysis in Facebook transmitted messages has been presented to extract information about the users' sentiment polarity and to detect significant

emotional changes. They found that the classification method, which combines lexical-based and machine-learning techniques, is feasible for performing sentiment analysis on Facebook with high accuracy (83.27%). Further, Alsaedi and Khan (2019) explored various sentiment analysis techniques applied to Twitter data and their outcomes. They demonstrated that lexicon-based techniques were extremely viable at times, requiring little effort in the human-marked archive. Moreover, Nahar et al. (2020) used the Arabic sentiment lexicon-based only to determine the polarity of provided Facebook posts and comments on a public issue concerning the services provided by Jordan's major telecommunications companies. Further, Mehmood et al. (2020) conducted an experimental study on the social issue of illegal immigration. They found an improved technique for lexicon-based sentiment analysis by incorporating verbs with multi-level grammatical dependencies. These studies comply with Calabrese and Cannataro's (2016) findings that confirmed the integration of sentiment analysis and affective computing to obtain a more accurate and reliable detection of emotions and feelings for applications in the life sciences.

Although Sentiment Analysis (SA) is a means of assessing written or spoken languages to decide whether articulation is positive, negative, or neutral and to what degree, many researchers used it in detecting and monitoring depressive states or mood disorders and anxiety conditions (Medhat, Hassan & Korashy, 2014; Ravi & Ravi, 2015), revealing collective behavior (Zafarani & Liu, 2014) and people's self-monitoring (He, Glas, Kosinski, Stillwell, & Veldkamp, 2014). Others use it to explore social identity, i.e., the person's sense of who they are based on their group membership(s) (Tajfel, 1978; Tajfel & Turner, 1979).

Consequently, language is not simply a tool for communication but also a means for establishing social identity; the language we speak and the way we use group talk when people become members of a social group reflect social representations and constitute important markers of social identity (Eastman, 1985; Jaspal, 2009). Thus, drawing upon a wide range of linguistic features within the context of social media posts, especially in times of conflict, and mapping out the structure and expression of language, i.e., patterns that reflect both emotional responses and social identities, serve the purposes of the current research.

## **Methods**

As cited in Joudi (2019), case studies have become one of the most common ways to do qualitative inquiry that investigates a contemporary phenomenon within a particular context to uncover patterns, determine meanings, and construct rich descriptive conclusions derived from multiple pieces of evidence. This exploratory study used a case study research design

that includes a survey, a focus group interview, online reflection logs on Padlet, and a follow-up lexicon-based sentiment analysis of words and phrases that are linked to different positive or negative emotions and social identity.

### **Participants**

The participants in this case study were selected using a convenience sampling technique based on their accessibility and availability to the researchers. Etikan et al. (2016) stated that it is commonly applied in social sciences, education, and healthcare research; it is valuable for case studies and exploratory research as it provides initial insights which ensure that the knowledge gained is representative of the population from which the sample was drawn. 191 students out of 223 enrolled in the Communication Arts course at the Lebanese University (LU), fifth branch, during the fall semester of 2024-2025, willingly participated in the study. For ethical considerations, the researchers provided informed consent, ensuring that participants understood the purpose of the study and how their data would be used anonymously.

### **Data Collection**

During the second week of November 2024, a Google Form was used to track the progress of questionnaire data collection and to view the exported responses from 191 participants on the fifteen items (Appendix A).

Since data obtained through questionnaires come from the individuals' accounts and not from a direct measurement of the experience of emotion that an actual event can trigger (Baele, 2016), the researchers included a focus group that is used for the qualitative data collection to create a complete picture of how a given issue affects a community of people. According to Mack et al. (2005), "Focus groups contribute to this broad understanding by providing well-grounded data on social and cultural norms, the pervasiveness of these norms within the community, and people's opinions about their values"(p. 52) as cited by Chehimi and Joudi (2017). By the end of November, a virtual focus group was organized with twelve students from the Oral Communication class, ensuring representation from different regions in southern Lebanon. The students were invited to provide insights on eight questions covering three main areas: language use on social media in discussions about the September 2024 hostilities, digital emotional expressions and linguistic markers of emotions related to the war in Lebanon, and the expression of social identity and community through language (Appendix B). The session was audio-recorded for transcription.

In December 2024, students were invited to reflect on their experiences through two online reflection logs on the web-based application Padlet, a collaborative platform for sharing content (Appendix C). This microblogging platform fosters collaborative communication, engages students in noticing

linguistic features (Joudi & Ayoub, 2024), and allows them to share examples of their own language choices, such as words, hashtags, or emojis used to convey emotions and reveal aspects of their identity during the war. These posts remained open for one week. Then the researchers applied lexicon-based approaches, looked for consistency in linguistic markers, and chose a lexicon of words and phrases associated with various emotions and social identities.

### **Data Analysis**

This study employed statistical analysis and structured lexicon-based data analysis to examine how university students in Southern Lebanon used language on social media to convey emotions such as anger, fear, sadness, pride, and hope, as well as to express their social identity linguistically during the hostilities in Lebanon.

The responses to the fifteen items in the questionnaire were followed by statistical analysis, using Google Forms' charting tools, which provide an analytical description of the data.

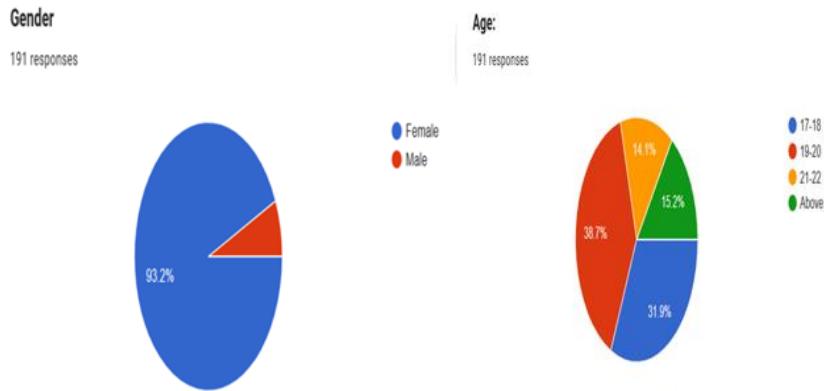
The insights of the focus group and the reflection logs were followed by lexicon-based analysis and feature classification, which entails identifying words and phrases linked to particular emotions and social norms.

The study examined linguistic patterns and detected the expressions of positive and negative emotions while also analyzing the underlying beliefs and social conventions that influence linguistic choices. This analytical framework thoroughly examined the linguistic markers associated with emotions and social identity within the specified context.

### **Results of Survey Analysis**

#### ***Section One: Demographics***

The results show that the participants include (178) females and (13) males from the Communication Arts course at the Lebanese University (LU), fifth branch. The proportions represent 93.2% females and 6.8% males. The majority of the sample, 38.7%, falls within the 19–20 age group, while the minority group, aged 21–22, accounts for only 14.1% of the respondents. 31.9% are between 17–18 years old, while 15.2% are above 22 years. These ranges highlight that the participants are predominantly young university students or recent high school graduates. Figure (1) depicts the results.



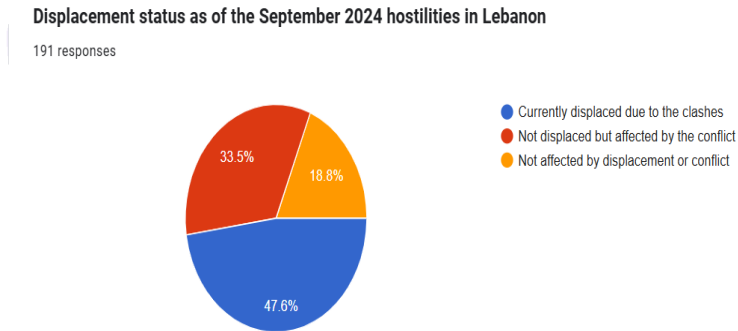
**Figure 1:** Demographics (Gender and Age)

The participants reside in various cities and villages across Lebanon that fall into four of the eight administrative divisions: South Lebanon governorate (50%), Nabatieh governorate (25%), Mount Lebanon governorate (19.2%), and Beirut governorate (5.8%). Table (1) shows the breakdown of the participants’ responses regarding their place of residence before the September 2024 hostilities in Lebanon.

**Table (1):** Place of Residence before the September 2024 hostilities in Lebanon

Place of Residence before the September 2024 hostilities in Lebanon			
Governorates			
South Lebanon	Nabatieh	Mount Lebanon	Beirut
Abra	Adaisseh	Barja	Beirut
Ain el celeb	Blat	Chhim	Jnah
Al Abbasieh	Ebba	Haret al-	New Rawda
AlBurghliyyeh	Hasbaya	Naameh	Dekweneh
Alrashidieh	Chouya	Jadra	
camp	Houmin el	Ketermaya	
Al-Shaatey	tahta	Mazboud	
Borj Rahal	Kawkaba	Wadi el	
Borj Alchamali	Kosaybi	Zayne	
camp	Majdal		
Chehour	Selem		
Deir Kanoun	Marjeyoun		
Al-Nahr	Nabatieh		
Doueir	Nabatieh Al-		
Ghazieh	Fawkaa		
Kharayeb	Kfarjouz		
Majdal Selem	Toul		
Maitake			
Sarafand			
Saida			
Toura			
Tyre			
<b>Total</b>	19 locations	14 locations	7 locations
			3 locations

A large number of the participants, (91/191) representing (47.6%), were displaced, while (64/191), i.e., (33.5%), stayed in their residences but were still affected by the conflict and the clashes. Only a minority (36/191), accounting for (18.8%), were neither displaced nor affected by the hostilities in 34 out of the 44 mentioned locations. Figure (2) depicts the results.

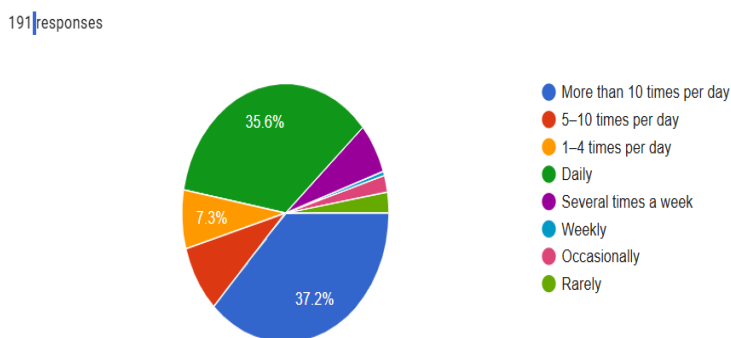


**Figure 2:** Displacement status as of the September 2024 hostilities in Lebanon

***Section Two: Social Media Engagement and Emotional Expression in Response to the hostilities in Lebanon that began in September 2024***

Respondents were asked about their social media engagement and emotional expressions in response to the hostilities in Lebanon. The results of question (1) show that (73%) followed online news about the recent hostilities in Lebanon about 1– 4 times per day, reflecting a significant level of engagement. Only (7.3%), followed the news 5–10 times per day, indicating a moderate interest. Those who checked the news less frequently, several times a week, weekly, occasionally, or rarely, constitute a much smaller share of the responses. Generally, the responses reflect an average to a high level of news consumption among most young adult participants. Figure (3) depicts the results.

1. How often do you follow online news about the recent hostilities in Lebanon that began in September 2024?



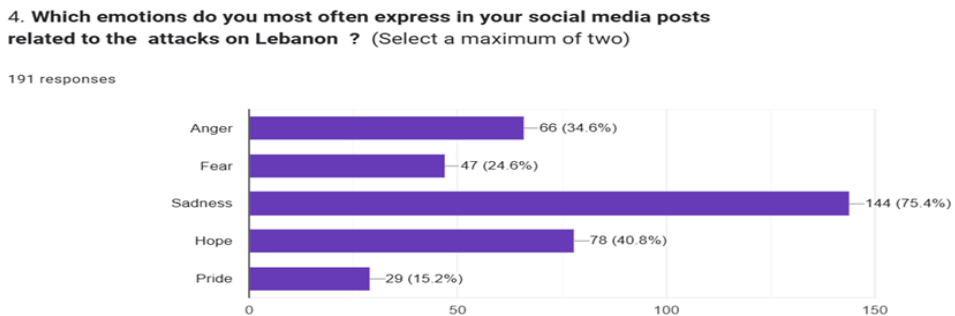
**Figure 3:** Social Media Engagement: News Consumption

When asked question (2), how often do they post online or interact with digitalized content related to the recent hostilities in Lebanon that began in September 2024? The results show a diverse range, with an average leaning toward minimal to moderate interaction. (26.7%) interacted daily, and (25.1%) interacted several times a week, reflecting a consistent level of involvement that exceeds (50%). The minority (9.9%) rarely posted or interacted, showcasing sporadic involvement. Regarding question (3), the input shows that the majority (63%) express anger, fear, hope, and pride on social media when discussing Lebanon's hostilities. The responses to question (3) show that more than (63%) express emotions like anger, fear, sadness, hope, or pride when talking about the attacks on Lebanon on social media daily and several times a week accounted for (44%) and (18.9%) respectively. The minority of 24% rarely do so. Figure (4) below depicts the results.



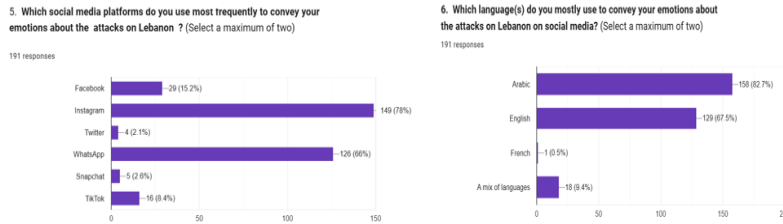
**Figure 4:** Frequency of online interaction and emotional expression on social media during the 2024 hostilities in Lebanon

As question (4) shows, the profile of emotional expressions employed by the participants of the Communication Arts course on social media highlighted that the negative emotions prevailed: sadness (75.4%) – followed by anger (34.6%) and fear (24.6%). However, respondents experienced a parallel set of emotions, such as hope (40.8%) and pride (15.2%). Figure (5) depicts the results.



**Figure 5:** Emotion expressions during the attacks on Lebanon

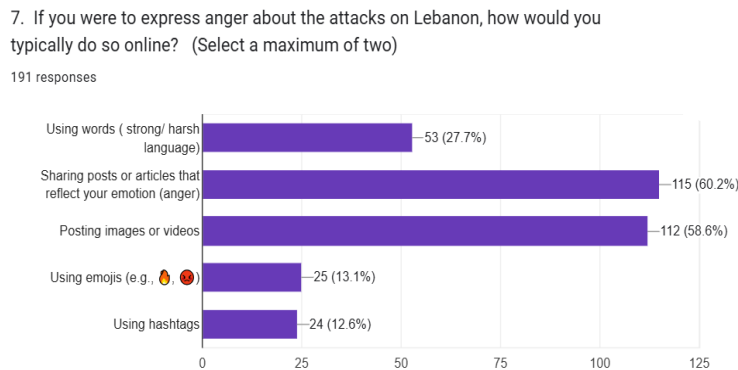
Based on the responses to the question (5), the most frequently used platform is Instagram (78 %), followed by WhatsApp (66%). As for question (6), the majority of respondents (82.7%) prefer using Arabic to convey their emotions about the war, while (67.5%) also use English. Figure (6) depicts the results.



**Figure 6:** Preferred platforms and languages for expressing emotions during the war

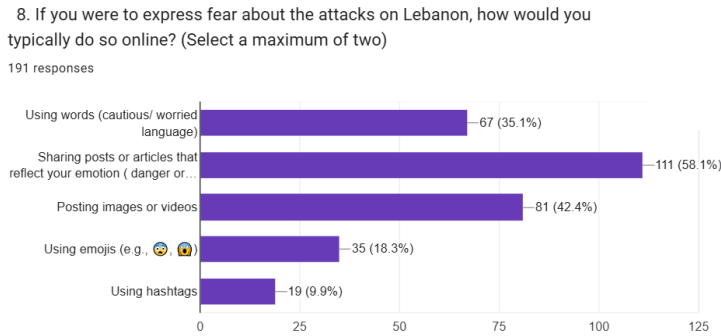
### ***Section Three: Language and Expression of Emotions in Social Media Posts***

A similar manifold profile emerged from analyzing linguistic markers of emotions related to five emotional states. When participants were asked question (7) about their preferred method of expressing emotions about the attacks on Lebanon, (60.2%) typically chose to share posts or articles to convey their anger, (and 58.2%) opted for posting images or videos that reflect their anger. In comparison (27.7%) preferred using strong harsh words, (13.1%) used emojis (e.g., 🤬, 😡), and (12.6%) expressed their anger through hashtags. Figure (7) depicts the results.



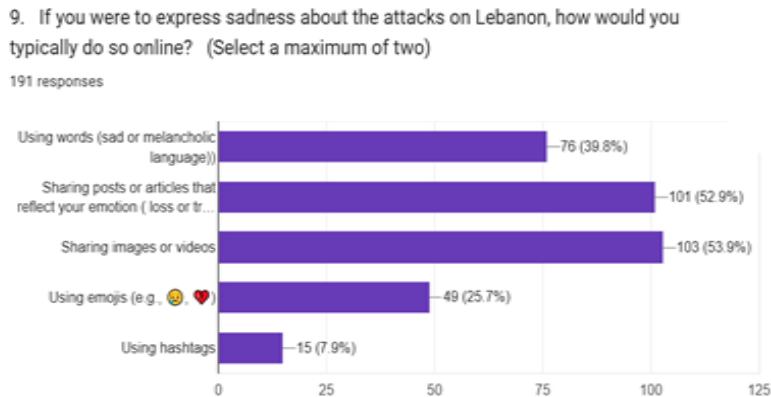
**Figure 7:** Preferred digital linguistic practices for expressing anger during the war

Regarding question (8), when asked how they would express fear about the attacks on Lebanon, the participants reported the following: (58.1%) typically shared posts or articles to convey fear, (42.4%) preferred posting images or videos, (35.1%) opted for cautious, worried language reflecting fear. A minority of (18.3%) used emojis (e.g., 🤬, 😬), and (9.9%) expressed fear through hashtags. Figure (8) depicts the results.



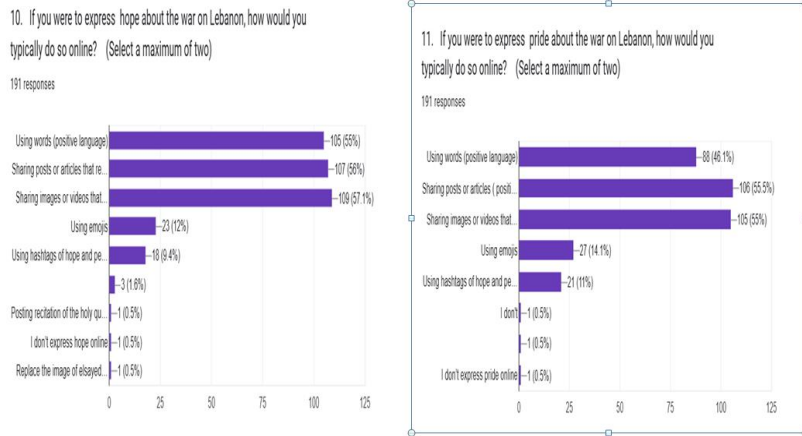
**Figure 8:** Preferred digital linguistic practices for expressing fear during the war

Almost similar percentages were observed for question (9), which asked how they express sadness online. The majority chose to share posts or articles or post images or videos to convey their sadness, accounting for (52.9%) and (53.9%,) respectively. Figure (9) depicts the results.



**Figure 9:** Preferred digital linguistic practices for expressing sadness during the war

In line with determining how participants would express positive feelings about the attacks on Lebanon, question (10), the overwhelming response of around (55%) opted for using words, sharing posts or articles, and sharing images or videos to convey their hope. Only (12%) chose to use emojis (e.g., 🙏, 😊), and (9.4%) chose hashtags to express their hope. Almost similar percentages were observed for question (11), which asked how they would express their pride online during the September hostilities in Lebanon. Figure (10) depicts the results.



**Figure 10:** Preferred digital linguistic practices for expressing hope and pride during the war

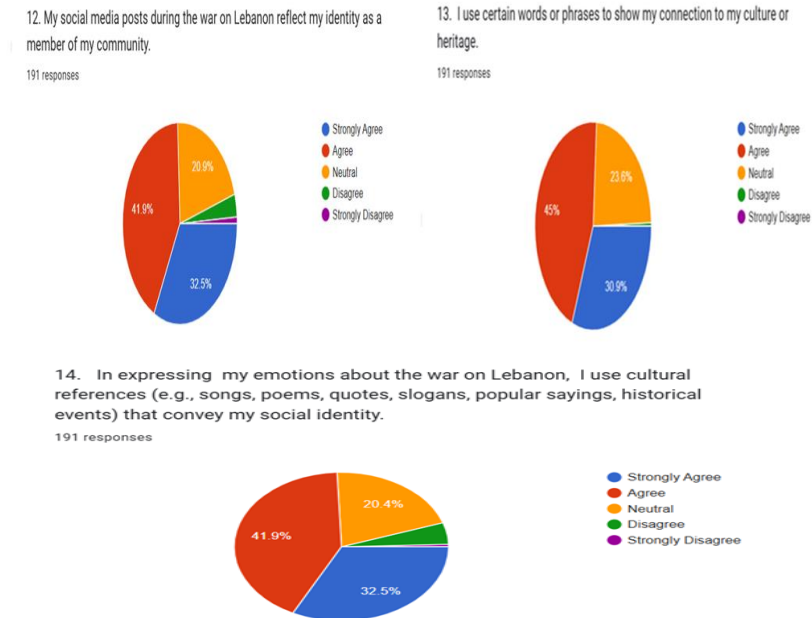
Table (2) summarizes the results of figures (7),(8),(9), and (10).

**Table 2:** Preferred Digital Linguistic Practices for Expressing Emotions during the War on Lebanon as of September 2024

Modes of Digital Linguistic Practices for Expressing Emotions during the War on Lebanon as of September 2024					
	Using words	Sharing posts or articles	Posting images or videos	Using emojis	Using hashtags
Anger	27.7%	60.2%	58.2%	13.1%	12.6%
Fear	35.1%	58.1%	42.4%	18.3%	9.9%
Sadness	39.8%	52.9%	53.9%	25.7%	7.9%
Hope	55%	56%	57.1%	12%	9.4%
Pride	46.1%	55.5%	55%	14.1%	11%

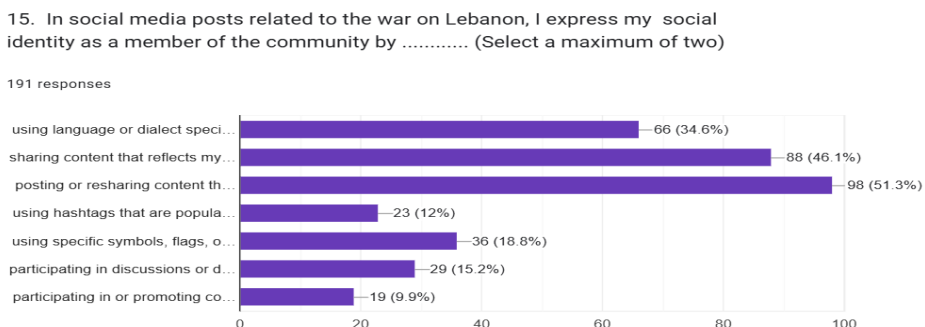
**Section Four: Social Identity and Community Affiliation in Social Media Posts**

When asked question (12) whether social media posts reflect their identity as members of their community, the majority (75%) affirmed the statement, and only (21% ) showed neutrality. In comparison, a significant minority of (4%) only disagreed. Similarly, in response to question (13), whether they use certain words or phrases to show their connection to culture or heritage, a significantly large number more than (76%) agreed. The minority (23.6%) remained neutral, and no significant disagreement was showcased. Furthermore, when asked question (14), if they incorporate songs, poems, quotes, slogans, popular sayings, or historical events to reflect their social identity, the majority of (75%) affirmed, (20.4%) showed neutrality, while only (4%) disagreed. Overall, these responses indicate that most respondents view social media and the use of language as an integral platform for reinforcing their communal ties and cultural references. Figure (11) depicts the results.



**Figure 11:** Digital linguistic practices and identity reflection during the war on Lebanon

Regarding question (15), the participant's responses showcased various ways they use to express their social identity through social media posts related to the September hostilities in Lebanon: (51.3%) preferred posting or re-sharing content that aligns with their community's collective voice (46.1%) chose to share content that reflects their religious or spiritual beliefs; (34.6%) opted for using language or dialect specific to their cultural or regional background. A smaller group (18.8%) employed symbols, flags, or colors associated with their identity, and (15.2%) engaged in discussions or debates reflecting their community's culture or values. The minority (9.9%) participated in or promoted community-driven initiatives or campaigns online to assert their identity. Figure (12) illustrates the responses.



**Figure 12:** Digital linguistic modes of social identity during the September 2024 hostilities in Lebanon

### Results of Focus Group Discussion

In December 2024, one focus group discussion was conducted to gather information about language use on social media, mainly about the digital emotional expressions and linguistic markers of emotions and social identity, in discussing the September hostilities in Lebanon. The participants were males and females, but most (9/12) or (75% ) were females. The group's responses are combined in the following outcomes, and a sample of what was stated is reported.

*Outcome 1. To know about language use on social media in discussing the War on Lebanon*

Languages Used on Social Media: Arabic, English	Language and Expression of Emotions
(Q1) When discussing the war on Lebanon on social media, which language do you use: Arabic, English, or a mix of languages?	(Q2) How does your language affect how you express your emotions about the war on social media?
<ul style="list-style-type: none"> <li>✓ I use Arabic to be perfectly understood.</li> <li>✓ I use English.</li> <li>✓ I use both.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Specific words in Arabic carry emotional weight.</li> <li>✓ Lebanese users might mix Arabic and English to reach diverse audiences.</li> <li>✓ My choice of English words would convey my sadness and anger more. For example, I would say this war is devastating.</li> <li>✓ My Arabic language conveys my emotional engagement more.</li> </ul>

One finds here that the participants' language on social media to express their emotions about the war in Lebanon significantly varies based on their perceptions about the tone and the intensity of the choice of words in Arabic versus English.

*Outcome 2. To know about digital emotional expressions and linguistic markers of emotions in discussing the hostilities in Lebanon*

Digital Emotional Expressions when Discussing the Hostilities in Lebanon	Modes of Expressing Emotions when Discussing the Hostilities in Lebanon	Digital Linguistic Markers of Emotions to Discuss the Hostilities in Lebanon
(Q3) What emotions do you most often feel when you discuss the war on social media? Can you describe a specific moment when you felt strongly about it?	(Q4) How do you express the following emotions online discussing the war? a. Anger b. Fear c. Sadness d. Pride e. Hope	(Q5) What linguistic markers do you include in your posts to convey your feelings about the war? Why do you think you choose them?
✓ I feel <b>sadness</b> , especially seeing children affected	✓ I post <b>messages</b> that convey my <b>anger</b> : I	✓ I use emotionally charged <b>language</b> .

<p>by war. I remember one post I shared that broke my heart: " Stop killing innocent children."</p> <ul style="list-style-type: none"> <li>✓ I feel <b>anxious</b>, especially knowing about being at risk every single moment. I remember one post I shared: I hope not to see a familiar name passed away or a familiar place being bombed.</li> <li>✓ I feel <b>afraid</b>. I posted: I just want to hold my little sister close and protect her from this nightmare. How do I explain war to her? How do I calm her when she is <b>terrified</b> when I am <b>terrified</b>?</li> <li>✓ My heart races every time I hear news of another airstrike. We are in the danger zone, and we feel so <b>powerless</b>. Please, pray for us.</li> <li>✓ I feel <b>afraid</b>. The sounds of airstrikes keep replaying in my head even when it's quiet. Hope to feel safe again. Pray for us and everyone affected.</li> <li>✓ I feel angry and frustrated: I demand justice and call for action.</li> </ul>	<p>am <b>tired</b> of leaders and politicians doing nothing while people are dying!</p> <ul style="list-style-type: none"> <li>✓ I post a <b>question</b> that irritates <b>emotions</b>: Where is humanity?</li> <li>✓ I <b>encourage</b> people in my <b>community</b> to act: Our voices need to be louder, and action needs to happen now.</li> <li>✓ I express my <b>anger</b>: Enough is enough.</li> <li>✓ I express my <b>hope</b> and <b>pride</b> by posting on my Facebook page: Thank you for coming together during tough times.</li> <li>✓ I express what is happening around me through words, whether the sound of airstrikes or the <b>fear</b> of ar.</li> <li>✓ I process my emotions of <b>displacement</b> using <b>angry</b> words that convey my <b>fear</b> and <b>anxiety</b>.</li> </ul>	<ul style="list-style-type: none"> <li>✓ I use <b>hashtags</b>. "#JusticeNow"</li> <li>✓ I post personal <b>anecdotes</b>.</li> <li>✓ I <b>share posts</b> about efforts that inspire people to donate.</li> <li>✓ I use <b>descriptive words</b> to reveal my feelings.</li> <li>✓ I use <b>emojis</b> that show my anger and hatred.</li> <li>✓ I describe my feelings in <b>sentences</b>.</li> <li>✓ I tell what is happening and how I feel using <b>words</b>.</li> <li>✓ The <b>words</b> I use are <b>harsh</b>, like the situation.</li> <li>✓ I post <b>pictures</b> and comment on them.</li> <li>✓ I can communicate the reality of what we are experiencing to people outside Lebanon through <b>posts, hashtags, and live videos</b>.</li> <li>✓ Posting <b>videos</b> helps me process my feelings and spreads awareness about the hostilities in Lebanon.</li> </ul>
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*Outcome 3. To know about digital emotional expressions and linguistic markers of social identity in discussing the hostilities in Lebanon*

Digitalization and Social Identity when Discussing the Hostilities in Lebanon	Digital Linguistic Markers that Signal Social Identity when Discussing the Hostilities in Lebanon	Modes of Expressing Social Identity when Discussing the Hostilities on Lebanon Online
(Q6) Smith and Mackie (2008) noted that emotions pertain to an	(Q7) Provide examples of how your social identity is reflected in the language you use when discussing the	(Q8) Emotion goes with identity (Smith, 1993). For example, expressing pride in

<p>identity as they depend on each other. How does social media help you communicate your emotions during the war on Lebanon?</p>	<p>hostilities in Lebanon on social media. Think about linguistic markers like using specific terms, hashtags, slogans, and emojis that signal your affiliation with certain groups or perspectives.</p>	<p>one's group or hate of one's enemy presupposes identities that one cares about. Can you use any cultural references (e.g., songs, poems, quotes, slogans, popular sayings, historical events) on social media to express your emotions and convey your identity during the war on Lebanon?</p>
<ul style="list-style-type: none"> <li>✓ It allows me to convey my <b>deep emotional connection to Lebanon</b> in words, pictures, or videos.</li> <li>✓ Facebook and WhatsApp applications help me openly <b>express my</b> anger, fear, and sadness without feeling judged.</li> <li>✓ Instagram helps me <b>convey my emotions</b> and connect with people who are going through the same thing.</li> <li>✓ Receiving and posting comments, likes, and messages let me <b>feel that I am not alone</b> in experiencing bad feelings.</li> <li>✓ The platforms help me <b>feel a sense of solidarity and hope</b> to overcome the bad times.</li> </ul>	<ul style="list-style-type: none"> <li>✓ In the middle of despair, sharing posts of solidarity on social media <b>gives hope</b> صامدون</li> <li>✓ Sharing a post hand in hand helps me focus on the <b>positive</b> amidst the chaos.</li> <li>✓ Words like شهداء (martyrs) or مأساة (tragedy) highlight <b>shared suffering</b>.</li> <li>✓ Phrases like Stay strong, لبنان signal my <b>affiliation</b> and perspective.</li> <li>✓ Hashtag لبنان_ينزف# (#LebanonIsBleeding) expressing <b>shared pain and grief</b>.</li> <li>✓ Hashtag لن_نركع# (#WeWillNotBow)</li> <li>✓ Hashtag: #StopTheWar.</li> <li>✓ Hashtag:#PrayForLebanon</li> <li>✓ Hashtag:#WithYouInGrief</li> <li>✓ Hashtag #StayStrong</li> <li>✓ Symbolic emojis:                      a Lebanese bleeding; raised fist for <b>resistance and solidarity</b>; dove for peace.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Lebanese flag for national pride and identity.</li> <li>✓ We refuse to die. A direct appeal to unity and collective identity.</li> <li>✓ لبنان لن ينكسر</li> <li>✓ سلام لأرض السلام</li> <li>✓ على هذه الأرض ما يستحق الحياة. سنبقى صامدين بحبك يا لبنان رغم الجراح</li> <li>✓ Julia Boutros: expressing frustration and a call for solidarity among Arab nations</li> <li>✓ Julia Boutros: أحيائي a <b>tribute to the resilience</b> of those suffering and fighting</li> </ul>

Further, the researchers extracted from the preprocessed focus group documented the lexicons of words associated with various negative and positive emotions, created two tables, placed each feeling into a single row, and included the expressed words.

A Lexicon of Words Associated with Various Negative Emotions	
Feeling	Words
✓ Anger	✓ Outraged ✓ Furious
✓ Fear	✓ Scared ✓ Desperate ✓ Terrified ✓ Helpless
✓ Sadness	✓ Overwhelmed ✓ Broken ✓ Heartbroken ✓ Devastated ✓ Mournful
✓ Others	✓ Frustrated ✓ Helpless ✓ Anxious ✓ Nervous ✓ Worried ✓ Uncertain

A Lexicon of Words Associated with Various Positive Emotions and Social Identity	
Feeling	Words
✓ Hope	✓ Optimistic ✓ Hopeful ✓ Resilient
✓ Pride	✓ Strong ✓ Determined ✓ Proud of my community
✓ Social Identity	✓ Strong ✓ Together ✓ United ✓ We ✓ Strength ✓ Resilience

### Results of Reflection Logs

The 191 participants were required to respond to two questions shared via Padlet (Appendix C). Figures (13) and (14) depict the records which show that (49) students conveyed their emotions and reflected, while (155) viewed their peers' posts. The researchers extracted words and phrases that convey their positive emotional engagement and identity from the preprocessed documents: proud, resistance, dignity, beloved country, hope, confident, patience, unity, empathy, strengthen, prayer, better, victory, broken but strong, together for Lebanon, long live resistance, gorgeous country, stand straight again, determination, persistence, لو هالدنيا سألت انت مين قلهن انك لبناني شمالك لجنوبك بحبك

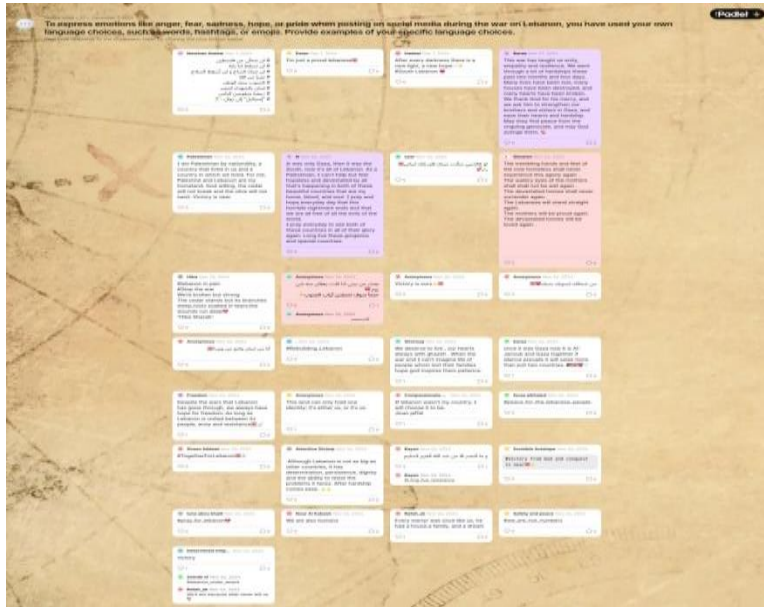


Figure 13: Examples of digital language choices that express emotions during the war on Lebanon

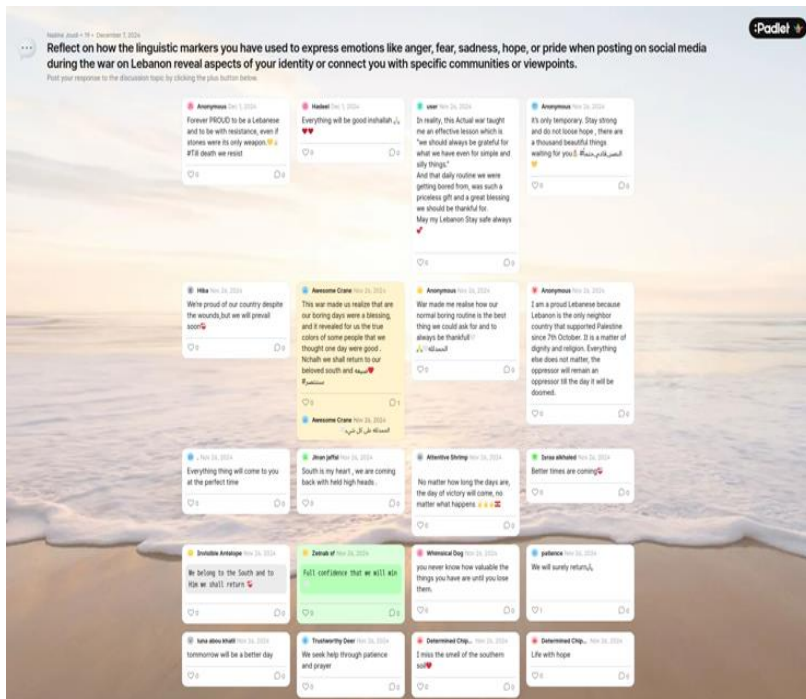


Figure 14: Examples of digital language markers that reveal identity during the war on Lebanon

## Findings and Discussion

The given data analysis is grounded in sentiment polarity and is in line with the domain of Sentiment Analysis (SA) which investigates individuals' perceptions, opinions, sensations, emotions, and attitudes. To obtain a more accurate and reliable detection of emotions and feelings and to decide whether articulation is positive, negative, or neutral, revealing collective social norms, the analysis also deals with the constructionist Conceptual Act Theory (CAT). This theory asserts that emotions are not innate, biologically hardwired responses but rather constructed experiences shaped by context, past experiences, and cultural interpretations. Emotions are shaped as they are dynamic, and they vary depending on contextual information, conceptual knowledge, and situational social norms.

The results reveal a shared theme of social media platforms as a means for expressing social identity during crisis. The participants' posts tried to highlight the use of emotionally charged language, hashtags, and personal anecdotes to communicate their emotions. They channel their emotions by using emotional words, affective adjectives, harsh words, emojis, visual elements, hashtags, or phrases.

All the participants are well aware that social media platforms play a vital role in communicating their emotions during a crisis. They are spaces for self-expression, connection, and advocacy. The linguistic markers not only express emotions but also signal belonging to a collective identity during times of crisis.

The findings are consistent with those of Negri et al. (2020), who found that following online expressive language can be helpful in situations of emergency to get more in touch with intense emotions. Among the predominantly young university student participants who were displaced and affected by the hostilities in Lebanon that began in September 2024, (73%) reported checking the news more than four times daily; more than (51%) leaned towards online interaction several times per week, and (63%) expressed their emotions about the attacks on Lebanon on social media. (78%) preferred using Instagram, while (66%) chose WhatsApp. (82.7%) selected Arabic as their primary communication medium, while (67.5%) opted for using English.

Other findings correspond with Fattah and Fierke (2009), who affirmed that emotion finds expression in a language and culture, and Ye et al. (2023), who considered the relationship between university students' emotional expression and self-presentation in online communication and their well-being. Positive and negative emotional expressions revealed through social media depend on the respective patterns of social media. Table (2) shows that the patterns vary from using words, emojis, and hashtags to posting articles, images, or videos.

According to Halperin et al. (2011), in the pro-Palestinian emotional configuration, anger, sadness, and anxiety are evident emotions in conflict. These results correspond to the findings of the study. Negative emotions such as sadness, anger, and fear prevailed, accounting for (75.4%), (34.6%), and (24.6%) respectively. Regarding expressions of positive emotions during the war, (40.8%) chose to convey their hope, while (15.2%) opted to express their pride.

Further, as the participants' interaction on padlets shows, the university students in Southern Lebanon used emojis and symbols to convey their emotions. This finding aligns with Bleiker and Hutchison (2008), who argued that one of the most promising locations in which emotions are examined is how they are represented and communicated symbolically. They added that religious elements are also constitutive of the emotional states.

In addition, the results of the focus group discussion and the transcription of the reflection logs on the padlet align with Absattar et al. (2022), who affirmed that the lexical and syntactic patterns serve in exploring cognitive perception and building public relations. The participants use adjectives, melancholic expressions, harsh words, and cautious or worried language to convey their emotions. According to Tausczik and Pennebaker (2010), language reflects the text's saliency of positive or negative emotions. It allows the analyst, for example, to get scores for anxiety, anger, and sadness. The language used in the reflection logs and the focus group discussion reflects the participants' emotional state amid the war in Lebanon and conveys their social processes. The use of nouns and adjectives in the microblogging and the focus group transcripts reveal the positive and negative emotional tones and convey what they think about and how they feel. Also, using the pronouns (I, we) reveal the magnitude of intergroup tensions. This aligns with Nerbonne (2014), who proved that the pronouns are robust indicators of the general emotional tone of discourses in that they reveal the distinctions between those in groups and those who are different.

The majority of the participants agreed that when discussing the war on social media, they noticed shared linguistic references such as popular sayings, common slogans, and songs that reveal their culture and community affiliation. The findings align with Kuntsman (2010), who illustrated that digital circulation fosters ingroup cohesion across territorial boundaries, and Cammaerts and Van Audenhove (2005), who proved that it strengthens transnational citizenships. Identities exist at individual, group, and state levels of analysis because emotion exists at these different levels. Monroe's (1996) research on altruism shows some people identify with humanity, even at significant risk to themselves and their families (McFarland et al., 2012).

## **Limitations**

This study has some limitations. Even though 191 EFL university students participated in the survey, the participants were not a casual representative sample; thus, the results may differ from those of the general population. Additionally, among the final 155 responses on microblogging, the reflection logs collected from the respondents were insufficient to generalize. To better understand how social media usage patterns convey emotions and social identities, recruiting more respondents of different ages would be necessary to analyze in more detail.

## **Conclusion**

Multiple linguistic markers evidence that language significantly facilitates the processing of positive and negative emotions and upholds social norms and ideologies.

This study enhances the existing literature on language, warfare, and digital communication and elucidates the digital linguistic indicators of emotions articulated by university students during the September 2024 hostilities in Lebanon. It provides significant insights into the influence of the crisis on online linguistic patterns linked to emotions such as anger, fear, sadness, hope, and pride.

The results showed that utilizing language on social media platforms through words, emojis, hashtags, slogans, articles, images, or videos plays a vital role not only in channeling positive and negative sentiments but also in signaling belonging to a collective identity during times of crisis in Lebanon.

The notion that Lebanese hostilities contribute to these findings is somewhat naive, given the lack of comparable data before the conflict. Nonetheless, the study is essential as it corresponds with other researches on linguistic displays of emotion in conflict contexts; they reinforce the universality of emotional reactions in digital communication while providing a case study specific to Lebanon.

This research highlights the necessity for additional studies that analyze language trends before, during, and after conflicts to enhance the comprehension of the growing dynamics of war-related digital communication.

As the use of words and the choice of terminology carry meanings that can downplay the extent of what is happening (Osman, 2023), linguists have to conduct further studies on social media posts as they can be enough to catalyze action and mobilize activism (O'Brien, 2024). Let us contribute something to the push for peace, which is a worthwhile pursuit.

**Conflict of Interest:** The authors reported no conflict of interest.

**Data Availability:** All data are included in the content of the paper.

**Funding Statement:** The authors did not obtain any funding for this research.

**Declaration for Human Participants:** Appropriate approvals were obtained from the participants of the relevant educational institution (Lebanese University), and the ethical guidelines were followed.

**Acknowledgments:** The authors would like to express their gratitude to all the participants who completed the survey and provided log data and to everyone who offered their kind cooperation. Special thanks go to Miriama Salim Bou Saba and Anthony Salim Bou Saba, 6th-year medical students at the Lebanese University (1st branch), Faculty of Medical Sciences, for their invaluable support in facilitating the smooth conduct of this study.

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## Appendix A

### Questionnaire

#### Section 2:

*Social Media Engagement and Emotional Expression in Response to the September 2024 Hostilities on Lebanon*

**1. How often do you follow online news about the recent hostilities in Lebanon that began in September 2024?** \*

*Mark only one oval.*

- More than 10 times per day
- 5–10 times per day
- 1–4 times per day
- Daily
- Several times a week
- Weekly
- Occasionally
- Rarely

gle.com/forms/d/1\_7Kn5T5R6U-x57FyGX4MjEak4amgNP7Ff02L\_KCii/edit

M Questionnaire: Digital Linguistic Markers of Emotions as of the September 2024 Hostilities in Lebanon: A Case Study in Communication Arts Course at a University Level in Southern

**2. How often do you post online or interact with digitalized content related to the recent hostilities in Lebanon that began in September 2024?** \*

*Mark only one oval.*

- Daily
- Several times a week
- Weekly
- Rarely
- Never

**3. How often do you express emotions like anger, fear, sadness, hope, or pride when talking about the attacks on Lebanon on social media?**

*Mark only one oval.*

- Daily
- Several times a week
- Weekly
- Rarely
- Never

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**4. Which emotions do you most often express in your social media posts related to the attacks on Lebanon ? (Select a maximum of two)** \*

*Check all that apply.*

- Anger
- Fear
- Sadness
- Hope
- Pride

**5. Which social media platforms do you use most frequently to convey your emotions about the attacks on Lebanon ? (Select a maximum of two)** \*

*Check all that apply.*

- Facebook
- Instagram
- Twitter
- WhatsApp
- Snapchat
- TikTok

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**6. Which language(s) do you mostly use to convey your emotions about the attacks on Lebanon on social media? (Select a maximum of two)**

*Check all that apply.*

- Arabic
- English
- French
- A mix of languages

**Section 3:**

**Language and Expression of Emotions in Social Media Posts**

7. If you were to express anger about the attacks on Lebanon, how would you typically do so online? (Select a maximum of two)

Check all that apply:

- Using words (strong/ harsh language)
- Sharing posts or articles that reflect your emotion (anger)
- Posting images or videos
- Using emojis (e.g., 😡, 🤬)
- Using hashtags

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8. If you were to express fear about the attacks on Lebanon, how would you typically do so online? (Select a maximum of two)

Check all that apply:

- Using words (cautious/ worried language)
- Sharing posts or articles that reflect your emotion (danger or uncertainty)
- Posting images or videos
- Using emojis (e.g., 😨, 😱)
- Using hashtags

9. If you were to express sadness about the attacks on Lebanon, how would you typically do so online? (Select a maximum of two)

Check all that apply:

- Using words (sad or melancholic language)
- Sharing posts or articles that reflect your emotion (loss or tragedy)
- Posting images or videos
- Using emojis (e.g., 😞, 😔)
- Using hashtags

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10. If you were to express hope about the war on Lebanon, how would you typically do so online? (Select a maximum of two)

Check all that apply:

- Using words (positive language)
- Sharing posts or articles that reflect your emotion (positive news or stories about resilience)
- Sharing images or videos that convey hope
- Using emojis
- Using hashtags of hope and peace
- Other:

11. If you were to express pride about the war on Lebanon, how would you typically do so online? (Select a maximum of two)

Check all that apply:

- Using words (positive language)
- Sharing posts or articles (positive news or stories about bravery and resilience)
- Sharing images or videos that convey achievements or successes of Palestinians during the
- Using emojis
- Using hashtags of hope and peace
- Other:

**Section 4:**

**Social Identity and Community Affiliation in Social Media Posts**

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12. My social media posts during the war on Lebanon reflect my identity as a member of my community. \*

Mark only one oval.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

13. I use certain words or phrases to show my connection to my culture or heritage. \*

Mark only one oval.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

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14. In expressing my emotions about the war on Lebanon, I use cultural references (e.g., songs, poems, quotes, slogans, popular sayings, historical events) that convey my social identity. \*

Mark only one oval.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

15. In social media posts related to the war on Lebanon, I express my social identity as a member of the community by ..... (Select a maximum of two)

Check all that apply:

- using language or dialect specific to my cultural or regional background.
- sharing content that reflects my religious or spiritual beliefs.
- posting or resharing content that represents my identity and aligns with my community's collective voice or opinions.
- using hashtags that are popular within my community.
- using specific symbols, flags, or colors associated with my social identity and resonate with my community.
- participating in discussions or debates with online communities or groups that reflect my community's culture, traditions, or values.
- participating in or promoting community-driven initiatives or campaigns online.

## Appendix B

### Semi-structured Interview Questions

#### Section One: Language Use on Social Media in Discussing the War

1. When talking about the war on social media, which language do you use: Arabic, English, or a mix of languages?
2. How does the language you use affect the way you express your emotions about the war on social media?

#### Section Two: Digital Emotional Expressions and Linguistic Markers of Emotions in Discussing the War

3. What emotions do you most often feel when you discuss the war on social media? Can you describe a specific moment when you felt strongly about it?
4. How do you express each of the following emotions when discussing the war online?
  - a. Anger
  - b. Fear
  - c. Sadness
  - d. Pride
  - e. Hope
5. What kinds of linguistic markers (emotion words, affective adjectives, metaphors, strong harsh words, symbols, emojis, repetitions, visual elements, hashtags or phrases) do you include in your posts to convey your feelings about the War? Why do you think you choose them?

#### Section Three: Digital Emotional Expressions and Linguistic Markers of Social Identity and Community Affiliation in Discussing the War

*Social identity refers to a person's sense of who they are based on the groups they belong to. These groups can include things like nationality, ethnicity, religion, political affiliation (Tajfel and Turner, 1986).*

6. Smith and Mackie (2008) noted that emotions pertain to an identity as they depend on each other. How do social media help you communicate your emotions during the war on Lebanon ?
7. Provide examples of how your social identity is reflected in the language you use when discussing the hostilities in Lebanon on social media. Think about linguistic markers like the use of specific terms, hashtags, slogans, emojis that signal your affiliation with certain groups or perspectives.

## Appendix C

### Reflection LOGS

- To express emotions like anger, fear, sadness, hope, or pride when posting on social media during the war on Lebanon, you have used your own language choices, such as words, hashtags, or emojis. Provide examples of your specific language choices.

<https://padlet.com/nadinejoudi1/to-express-emotions-like-anger-fear-sadness-hope-or-pride-wh-dcjad25whv5geue3>

- Reflect on how the linguistic markers you have used to express emotions like anger, fear, sadness, hope, or pride when posting on social media during the war on Lebanon reveal aspects of your identity or connect you with specific communities or viewpoints.

<https://padlet.com/nadinejoudi1/reflect-on-how-the-linguistic-markers-you-have-used-to-expre-ewn7j6og1914hpfq>