

Determining Suitable Emoji Designs for Awareness Posters Among Teenagers

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ABSTRACT

Emojis are small digital graphics or icons used as visual representations of emotions, ideas, or concepts in electronic communication. Originating from Japanese mobile technology in the late 1990s, emojis have evolved into a globally recognized visual language that enhances textual communication by conveying tone, emotional context, and non-verbal cues. In the context of awareness poster design, emojis function as effective tools to attract attention, engage viewers, and reinforce the intended message. Therefore, this study aims to identify appropriate emoji designs that can persuade users and sustain their interest in reading the content of an awareness poster. A quantitative research methodology is employed, whereby questionnaires are distributed to respondents to collect feedback. Six emoji designs, featuring various styles such as colored line, vector, line and shadow, 3D, and realistic formats, were selected for evaluation. To determine which designs resonated most effectively on an emotional level, these emojis were tested with 32 primarily university students, who provided valuable insights into the visuals that elicited the most positive reactions.

Keywords: Emoji, Poster, Awareness, Teenager

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1 INTRODUCTION

In the realm of visual communication, emojis have emerged as influential semiotic tools, particularly among younger audiences. Their ability to convey complex emotional cues in a simple and universally recognizable form makes them highly effective in youth-targeted messaging (Sharma & Soni, 2020). Emojis serve as a bridge for emotional expression, often conveying nuanced meanings that words alone cannot (Derks, Fischer, & Bos, 2008). Awareness posters, especially those addressing safety-related topics, benefit greatly from visuals that are not only attention grabbing but also emotionally engaging. When the design elements align with the audience's emotional perception, the message becomes more impactful and memorable (Nobata, 2015). Research has shown that emojis can enhance emotional resonance, especially when the design resonates with the audience's preferences (Kaye et al., 2016). Therefore, this study seeks to identify which emoji design formats are most successful in eliciting positive emotional responses from teenagers, thereby enhancing the effectiveness of awareness campaigns aimed at this demographic.

2 METHODOLOGY

The foundational data for this study was derived from the comprehensive sentiment analysis conducted by Novak et al. (2015), which identified and evaluated 33 commonly used emojis based on their emotional valence. From this dataset, 11 emojis featuring smiling facial expressions were initially shortlisted as potential candidates for positive emotional representation. These were subsequently refined to the six highest-scoring emojis, selected according to both their frequency of use and their consistently strong positive sentiment ratings.

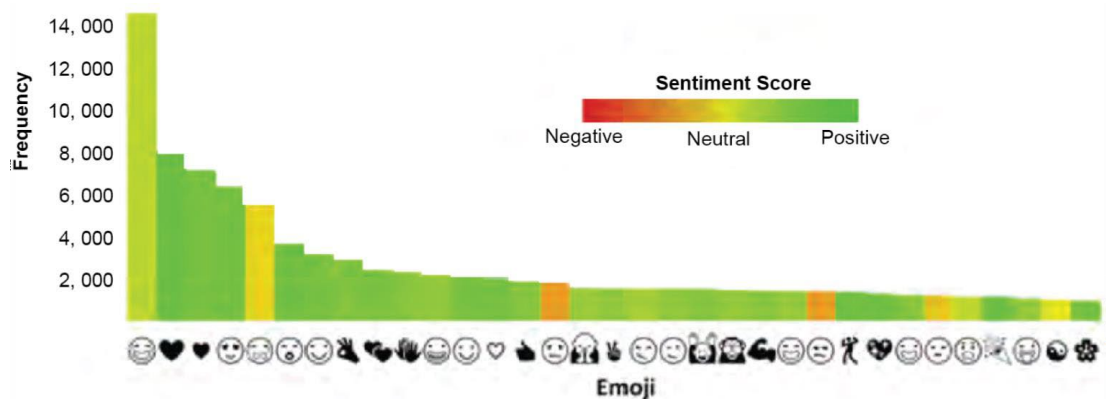


Figure 1 33 Commonly used types of emojis
(Source: Novak, Smailović, Sluban & Mozetič, 2015)

2.1 The selection process involved six distinct types of emoji designs



Figure 2 Six positive emoji designs were selected
(Source: Adapted from Novak et al. (2015) statistics)

The selected emojis then formed the basis for the design phase, where they were adapted into various visual styles such as colored line, vector, line and shadow, 3D, and realistic formats for further testing. To determine which designs resonated most effectively on an emotional level, these emoji styles were evaluated by 32 respondents, primarily university students.

According to Figure 2, the emoji expression positioned furthest to the right recorded the highest frequency of use, with approximately 6,400 occurrences. This was followed by the second emoji at 3,200, the third at 2,400, the fourth at 2,200, the fifth at 1,300, and finally, the leftmost expression with an estimated 1,100 occurrences. These six smiley expressions, originally presented in a black line art style, were not only the most frequently used but also served as the basis for selecting equivalent expressions in five additional visual styles: colored line, vector, line and shadow, 3D, and realistic. This strategic selection constituted the initial stage in developing emotionally resonant emojis for use in safety awareness campaign posters.



Figure 3 Six selected colored line emoji designs
(Source: Adapted from Novak et al. (2015)statistics)



Figure 4 Six selected vector emoji designs
(Source: Adapted from Novak et al. (2015)statistics)



Figure 5 Six selected gradient emoji designs
(Source: Adapted from Novak et al. (2015)statistics)



Figure 6 Six selected 3D emoji designs
(Source: Adapted from Novak et al. (2015) statistics)



Figure 7 Six selected 3D emoji designs
(Source: Adapted from Novak et al. (2015) statistics)

Figures 3 to 7 display emojis with expressions like those in Figure 2 but rendered in different design styles. All emojis across the six styles will be evaluated to determine the most effective design for integration into awareness posters.

3 DATA COLLECTION

To assess the emotional appeal of each emoji design, a test was conducted involving 32 participants, consisting primarily of university students along with a few staff members. Participants were asked to select the emoji expression they perceived as the most joyful from each design set. Their responses provided valuable insights into which visual styles were most effective in evoking positive emotions, thereby serving as the basis for evaluating the impact of each design approach. The data were analyzed using Statistical Package for the Social Sciences (SPSS) to determine the frequency of selections for each emoji design style.

4 RESULTS

The results from Sets 1 to 6 were transformed into percentage values and visualized through charts, allowing for a clear comparison of user preferences across different design styles. These visual representations provided valuable insights into which emoji formats resonated most strongly with users, effectively highlighting the styles that had the greatest emotional impact.

Table 1 Emoji Design Selection Statistics for Set 1

Design	1	2	3	4	5	6
Frequency	104	122	93	120	110	111

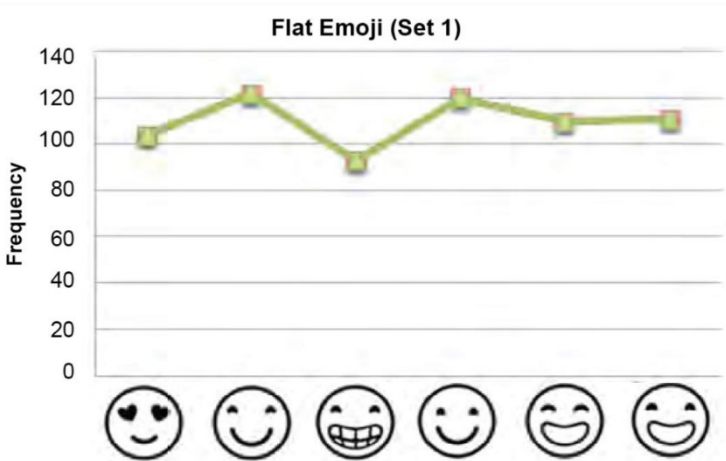


Figure 8 Graph of emoji design selection statistics for Set 1

Table 2 Emoji Design Selection Statistics for Set 2

Design	1	2	3	4	5	6
Frequency	105	118	97	95	110	113



Figure 9 Graph of emoji design selection statistics for Set 2

Table 3 Emoji design selection statistics for Set 3

Design	1	2	3	4	5	6
Frequency	108	112	108	118	120	121

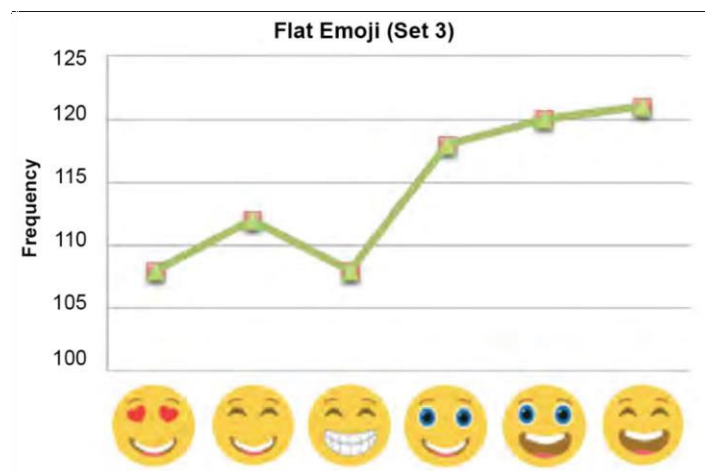


Figure 10 Graph of emoji design selection statistics for Set 3

Table 4 Emoji design selection statistics for Set 4

Design	1	2	3	4	5	6
Frequency	112	119	127	120	138	112

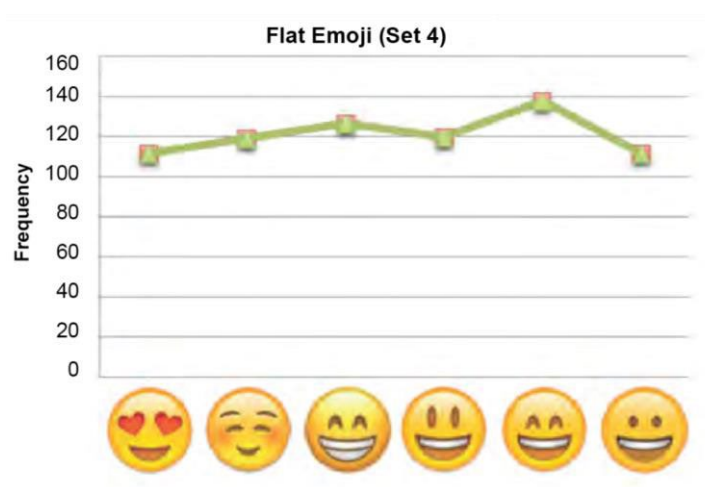


Figure 11 Graf of emoji design selection statistics for Set 4

Table 5 Emoji design selection statistics for Set 5

Design	1	2	3	4	5	6
Frequency	109	112	113	108	119	102

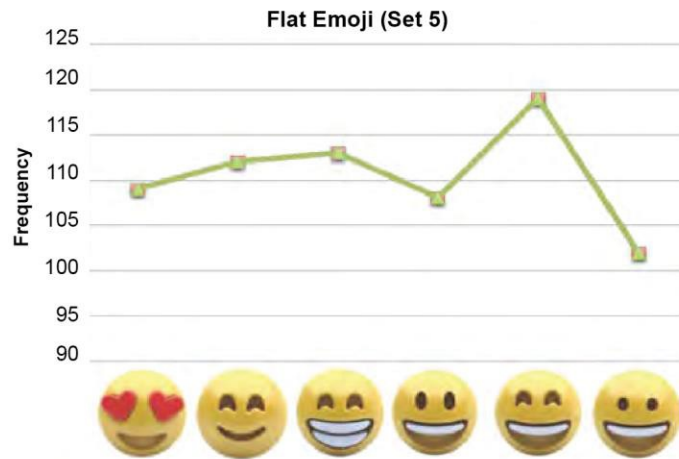


Figure 12 Graph of emoji design selection statistics for Set 5

Table 6 Emoji design selection statistics for Set 6

Design	1	2	3	4	5	6
Frequency	77	86	73	90	90	96

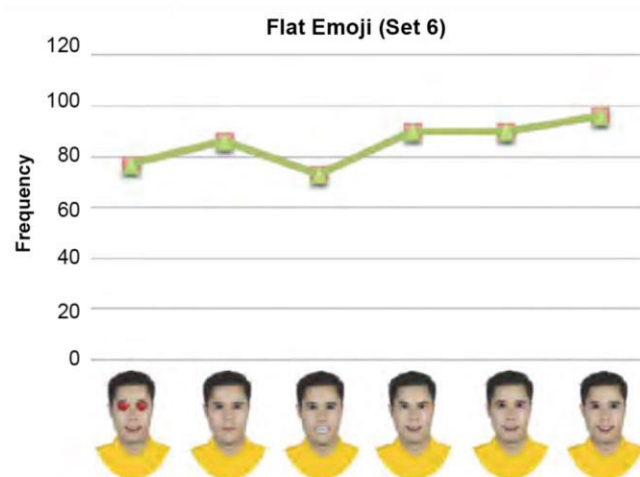


Figure 13 Graf of emoji design selection statistics for Set 6

5 DISCUSSION

Initial analysis indicates a correlation between high sentiment score and user preference. Visual complexity and recognizability also affected selection. For instance, more realistic emojis were sometimes perceived as less relatable than simpler vector styles. After undergoing several rounds of testing, the final emoji designs selected as visual elements for the safety awareness poster are as shown in the table.

Table 7 The final selected emoji designs

Set	1	2	3	4	5	6
Emoji Design						

The predominance of wide-smiling emojis selected in this study aligns with existing research that highlights the positive psychological and communicative impact of broad smiles. Wide smiles are universally recognized as expressions of happiness, friendliness, and approachability, which facilitate positive emotional connections between the sender and receiver in digital communication (Ekman & Friesen, 1975). Furthermore, studies show that exaggerated positive facial expressions, such as broad smiles, tend to enhance perceptions of warmth and trustworthiness, making messages more engaging and persuasive (Krumhuber et al., 2007). In the context of awareness posters, the use of emojis featuring wide smiles is therefore strategically effective, as they can evoke feelings of optimism and encourage audience receptivity to the message. This preference also supports the idea that digital communication relies heavily on clear, easily interpretable emotional cues to compensate for the lack of non-verbal signals present in face-to-face interactions (Derks, Fischer, & Bos, 2008).

The findings of this study indicate that realistic emojis exhibited the lowest frequency of use, registering fewer than 100 occurrences. This observation also suggests a lower preference for realistic emoji designs compared to other stylistic variations. Existing literature corroborates this finding, highlighting that abstract or stylized emojis are generally more effective in digital communication due to their capacity to accommodate flexible interpretation and their broader cultural relatability (Cramer et al., 2016). Conversely, realistic emoji designs may be perceived as overly specific or culturally contingent, thereby constraining their emotional resonance across diverse user populations. Within the realm of visual communication particularly in public awareness campaigns that necessitate immediate emotional engagement, designs are characterized by simplicity, symbolism, and emotional clarity have been demonstrated to yield greater effectiveness (Holliday et al., 2020).

6 CONCLUSION

In conclusion, the initial analysis reveals a clear correlation between high positive sentiment scores and user preference, indicating that emojis with more positive emotional connotations tend to be favored by users (Novak et al., 2015). Additionally, factors such as visual complexity and recognizability significantly influenced emoji selection. Specifically, simpler and more stylized vector designs were generally perceived as more relatable and engaging than their realistic counterparts. These findings corroborate previous research suggesting that minimalistic visual representations foster greater user engagement and emotional connection, whereas overly complex designs may detract from relatability and user appeal (Kaye et al., 2016; McDougall et al., 2006). This study is not yet comprehensive in determining which specific emoji design is most suitable. However, it fundamentally provides valuable insights to assist designers in developing awareness posters by incorporating emojis that more accurately reflect the intended emotions. In particular, designers are encouraged to use emojis with wide smiles in combination with awareness posters, as these have shown to be more effective than emojis with less pronounced expressions.

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AUTHOR CONTRIBUTIONS

Noorlida Daud is the lead author responsible for collecting and analyzing the data, while Mat Redhuan Samsudin and Nurul Shima Taharuddin are responsible for sourcing materials for the literature review and determining the research methodology.

CONFLICT OF INTEREST

There is no potential conflict of interest in this study involving any individuals, organizations, or researchers.

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