Studies in Pragmatics and Discourse Analysis
https://spda.sabapub.com

2022 Volume 3, Issue 2: 50 –60

DOI: https://doi.org/10.48185/spda.v3i2.665

The effect of closeness on Japanese L2 English learners' use of emoji

Stachus Peter Tu[1, *]

[1]Bunkyo English Communication Center, Hiroshima Bunkyo University, Hiroshima City 731-0295, Japan

Received: 16.11.2022 • Accepted: 25.12.2022 • Published: 30.12.2022 • Final Version: 31.12.2022

Abstract: This study investigates the use of emoji by Japanese learners of English in discussion forums. Specifically, the discussion forums refer to online conversations on the LINE smartphone application. The investigations answer the research question: "What is the effect of closeness on learners' rate of emoji use in online discussion?". The aims of the study are pursued by gauging learners' perceived closeness with each other via a questionnaire with five levels of closeness from one to five; the rating of one is the closest and the rating of five is the most distant. Following this, five weeks of online discussions from the LINE discussion forums are investigated, analyzing a total of 123 messages, which contain a total of 10,081 words and 578 emoji. The participants are 25 second-year students who are enrolled at a middle-ranking Japanese university. They are from two classes, consisting of 21 females and four males in total. The investigations find a higher rate of emoji being employed in relationships identified as more distant. The study concludes that L2 English learners may also employ more emoji in distant relationships, where interactants may be attempting to reduce the social distance between each other.

Keywords: Closeness, emoji, Japanese L2 English learners, online discussion

1. Introduction

This article reports on 25 university-level Japanese L2 English learners' use of emoji and focuses on the effect of closeness. Specifically, the investigations analyze messages exchanged in two LINE discussion forums for five weeks. Research on the use of emoji in L1 online conversations found evidence of emoji functioning beyond their role as a clarifiers of emotion during online interactions (Danesi, 2019; Tang & Hew, 2019; Zhou et al., 2017), as expressions of closeness. The investigations that compared the use of emoji between interactants who were close and those who were distant found conflicting results. These studies largely relied on only the number of emoji found in messages, without taking into account the number of words in these messages. Furthermore, these studies gauged closeness with a relatively limiting dichotomous scale that only included the categories of friend and stranger. The investigations reported in this article employ an emoji per 100 words analysis, which is adapted from the approach found in a study by Tossell et al. (2012). In order to report a more precise measure of closeness, the investigations also employ a 5-point scale adapted from the Perceived Interpersonal Closeness Scale (Popovic et al., 2003). Using these approaches, the investigations seek to compare the findings from L2 online conversations with those from previous literature, which focused on L1 interactions. This article begins with a review of previous research, first considering the effect of closeness on emoji use, the measurement of

* Corresponding Author: tstachus@h-bunkyo.ac.jp

closeness, online discussion forums, and the LINE messaging platform. Next, the article describes the method, including the research question, participants, procedures, and data analysis. The article proceeds to the results relating to the research question of this study, including a class-based analysis, an individual-based analysis, and a summary of the results. Finally, the article discusses the results and concludes with a final overview of the study's focus, findings, limitations, and implications.

2. Review of Previous Research

2.1. Defining and Measuring Closeness

Closeness was defined by Ben-Ari and Lavee (2007) as the levels of intimacy, trust, commitment, and caring between interactants, and is described as long term and relatively resistant to the effects of daily occurrences. Berschied et al. (1989) further specified this by situating closeness as a property that underlies most relationship phenomena, while Kowatch et al. (2018) stated that closeness functions as an influencer of interactions and is reflected in the use of language.

Studies that measured closeness (DePaulo & Kashy, 1998; Eisenberg, 1988), determined that it is most accurate when self-assessed by the interactants. Barnes (1997) found that the best definition of a close relationship was provided by the relationship partners themselves, based on their own assessment of how close they perceived the relationship to be. Closeness was measured by multiple researchers by employing the Perceived Interpersonal Closeness Scale (Popovic et al., 2003), which is a self-assessment scale. Green et al. (2015) credited this scale as an empirically validated measure that is available to clinicians and researchers who are evaluating interpersonal closeness. The Perceived Interpersonal Closeness Scale was one of the most widely used closeness scales in research over the past decade (Beaton et al., 2012; Bowman et al., 2016; Magee & Smith, 2013; McCann, 2016; Metcalf & Leake, 2016; Lindblom & Gray, 2010).

2.2. Relationship between Closeness and the Use of Emoji

Several studies that investigated emoji use and closeness (Hu et al., 2017; Janssen et al., 2014; Volkel et al., 2019) recognized emoji use in online conversations as expressions of closeness when interactants were not face-to-face. Cramer et al. (2016) noted that a shared habit of using emoji enables closeness from a distance and makes it easier for interactants to relate to one another. Studies also found that emoji express closeness by showing playfulness (Kelly & Watts, 2015) and informality (Herrmann et al., 2018; Sampietro, 2019).

Although there was an agreement that emoji functioned as expressions of closeness, there was little consensus among researchers who investigated the differences in emoji use between interactants who shared a close or distant relationship. Chang's study (2016) found that individuals who are friends employ emoji more frequently than those who are not. This was echoed by Buakaew (2019) and Konrad et al. (2019), who observed this phenomenon in conversations over the LINE smartphone application. For other researchers, the findings were the opposite. Sun (2019) and Yang (2020) found that interactants who share a distant relationship employ a greater rate of emoji, and explained that emoji are employed to signal friendliness in order to decrease the social distance between two interactants who do not share a close relationship. They reasoned that emoji may signal to the receiver that an attempt at becoming closer is being made. Sun and Yang's observations suggest that the use of emoji were attempts at decreasing social distance; therefore, emoji may be understood as positive politeness strategies (Brown & Levinson, 1987).

2.3. Research question

The contrasting findings of greater rates of emoji use among those who are close (Chang, 2016; Buakaew, 2019; Konrad et al., 2019) and those who are distant (Sun, 2019; Yang, 2020) suggested that further investigations on the effect of closeness on rates of emoji use are necessary. The current research was designed to evaluate this via the following inquiry: "What is the effect of closeness on learners' rate of emoji use in online discussion?"

3. Method

3.1. Participants

The participants were 25 second-year students enrolled in the Department of English at a middle-ranking Japanese university. They were from two classes, referred to as Class C and D, consisting of 21 females and four males in total. Specifically, Class C consisted of 15 participants, with 13 female participants and two male participants. Class D consisted of ten students, with eight female participants and two male participants. The participants were part of a cohort for which the mean TOEIC score, measured in year 2018, was 407, with a range of 225 to 840; ninety percent of these students had a score between 260 to 550. All of the participants were taught by the researcher of the study.

3.2. Procedures

Informed consent. Permission to conduct the study was obtained from an ethics committee at the middle-ranking university. After receiving this permission, the study was explained to the students before they were given the option to participate. Students who provided consent were given the option to withdraw their consent at any time, which would discontinue their participation in the discussion forum and eliminate all data collected from them.

Measuring closeness. The closeness between participants was measured via a questionnaire adapted from the Perceived Interpersonal Closeness Scale (Popovic et al., 2003), which is shown in Figure 1.

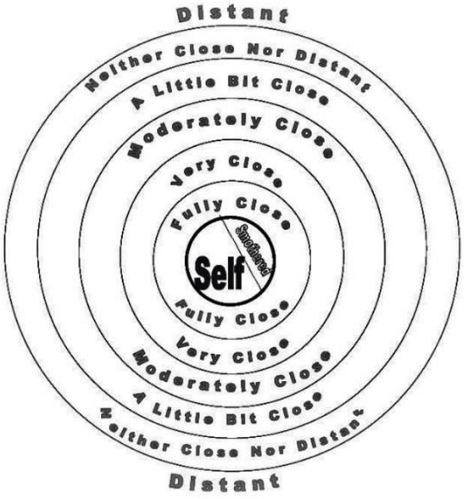

Figure 1. The Perceived Interpersonal Closeness Scale

The six closeness levels: *fully close*, *very close*, *moderately close*, *a little bit close*, *neither close nor distant*, and *distant* were converted to the five levels shown in Table 1, with English translations

provided in brackets. These levels of closeness excluded *fully close* and included a specific description of the relationship. The five levels of closeness were listed from closest to most distant. Level 1 represented the most closeness, while level 5 represented the least closeness. When analyzing data, levels 1 and 2 were considered as "close", while levels 3, 4, and 5 were considered "distant".

Table 1. The Five Levels of Closeness on the Closeness Questionnaire

Level	Description
(1) 親友	よく授業外でも一緒に時間を過ごす。
[Close friend]	[We often spend time together outside of class.]
(2) 友達	たまに授業外でも一緒に時間を過ごす。
[Friend]	[We occasionally spend time together outside class.]
(3) 友達に近い人	偶然会ったら、授業外でもお喋りする。
[Almost a friend]	[We talk outside of class if we happen to meet.]
(4) いい感じのクラスメート	授業では話すけど、授業外で喋るほどではない。
[A classmate I am friendly with]	[We talk during class but not outside of it.]
(5) ただのクラスメート	授業でも授業外でも話したいとは思わない。
[Just a classmate]	[We wouldn't think of initiating talk in or out of class.]

This scale of closeness was on the questionnaire that was used by participants to rate their closeness with their classmates. In our study, the average closeness rating in Class C was 4.314 (SD=1.118) and 3.033 (SD=1.329) in Class D. A smaller value denotes greater closeness.

Collecting and preparing participants' topics statements. Topics for the discussion forums were gathered from the students in each class. The researcher asked participants to propose their own topic statements for which opinions were likely to be divided, such as "Money is more important than love". The researcher collected these topic statements and prepared an equal number of topic statements for each week of the discussion forums. This was done to ensure a consistent number of new topics was being posted each week.

Eliciting emoji use. Previous studies that also employed an online discussion forum (Tu, 2020a, 2020b, 2020c), found that interactants did not employ emoji in their messages, likely due to an assumption that emoji were not appropriate for online discussions that were part of a university course. The current study created an activity in order to elicit emoji use from the participants who may have had this assumption. This activity was first piloted with fourth-year students from a class at the same university before it was given to the participants of the current study. Specifically, the activity allowed students to add emoji and punctuation to the end of pre-made responses. It was conducted at the beginning of the investigations and took ten minutes of class time. Participants were first asked to complete the handout. Once they had finished, they were asked to compare their answers with each other in pairs or in threes and tell each other the meaning they wanted to communicate for each response. Once this was done, they stood up and rotated to another group or pair, and shared and explained their answers again. The handout is shown in Figure 2.

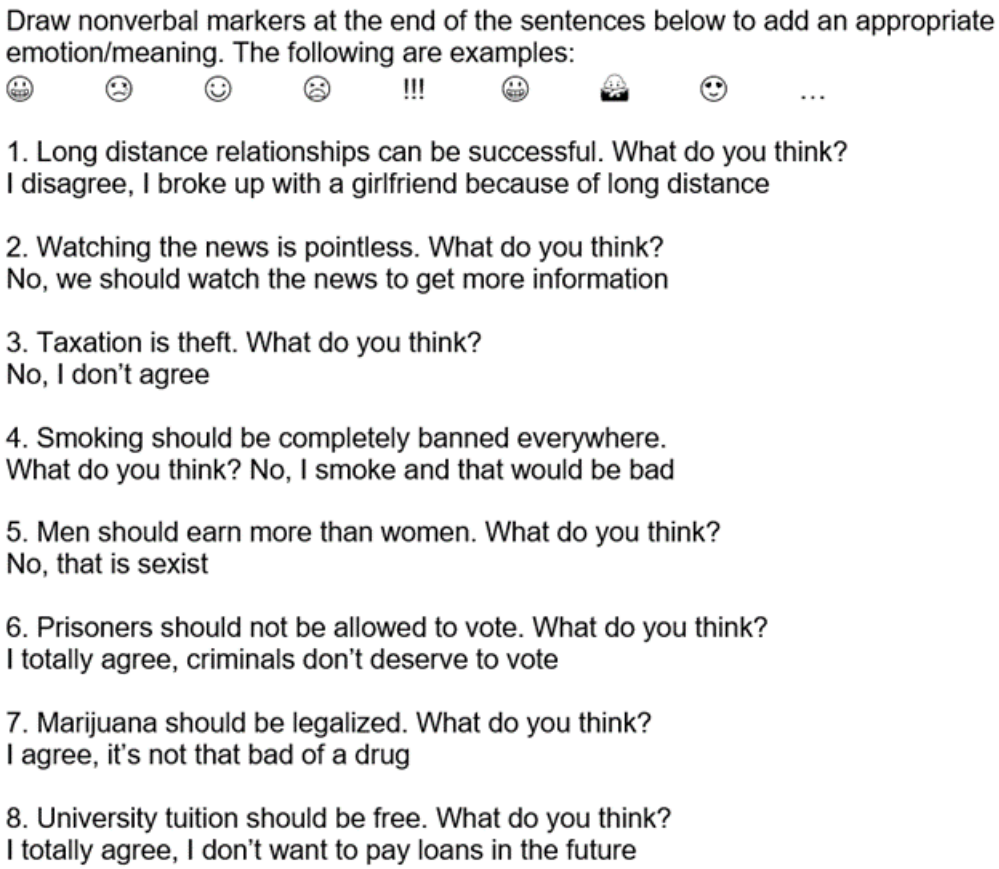

Figure 2. Handout given to participants to elicit the use emoji.

Conducting the discussion forums. The participants joined their respective LINE discussion forums. Each week, the teacher posted an equal number of new topic statements onto their discussion forum, announced new topic statements during class, and reminded participants to check the discussion forum. Additionally, in order to maintain the status of the forum as unsupervised, the teacher did not moderate the content of the participants' contributions to the discussion forum.

3.3. Data analysis

In a five-week period, the investigations analyzed a total of 123 messages exchanged via the LINE discussion forum, which contained a total of 10,081 words and 578 emoji. The data were analyzed by class and then by individual. The class-based analysis showed the rate of emoji use in entire classes, while the individual-based analysis showed the specific rate of emoji use for each participant. The following describes the steps taken in order to find the rates of emoji use.

Marking messages with their closeness ratings. Each message was marked with the closeness rating that the sender assigned to the recipient in the closeness questionnaire. Messages that were not directed towards a specific person were not marked and were excluded from the results.

Grouping messages by their closeness rating. Messages that were assigned a closeness rating of 1 to 2 were grouped together as one block of text and considered as close, while those with a closeness rating of 3, 4, and 5 were grouped together as one block of text and considered as distant.

Counting the number of emoji and words. The study counted the total number of emoji and the total number of words in the close and distant blocks of text. These two values were used to produce the

emoji per 100 words value that was used throughout this study. Specifically, this value was calculated with the following formula:

$$\text{Emoji per 100 words} = \left(\frac{\text{Total emoji}}{\text{Total words}}\right) \times 100$$

This calculation was modeled after the analysis found in a study by Tossell et al. (2012), which investigated the use of emoji in the text-messages exchanged between L1 English speakers. This value showed the density of emoji relative to the text they appeared in. Emoji per 100 words was selected over emoji per word due to values in the latter being too small.

4. Results

The following section reports on the relationship between closeness and rates of emoji use. It includes a class-based analysis, individual-based analysis, and a summary that synthesizes the results and compares the findings to previous research. Throughout the section, participants are referred to with aliases in order to anonymize their identity.

4.1. Class-based Analysis

The rate of emoji use in Class C was relatively similar between those who rated the other person as close or distant. However, the rate of emoji use among those who rated the other person as distant was slightly greater. The difference was more pronounced in Class D, with a noticeably greater rate of emoji use among participants who rated the other person as distant. The data in Table 2 and Figure 3 present the rate of emoji use employed by participants towards those who they viewed as closer or more distant.

Table 2.

	Close (1 to 2)	Distant (3 to 5)
Class C	4.62	4.91
Class D	6.76	7.64

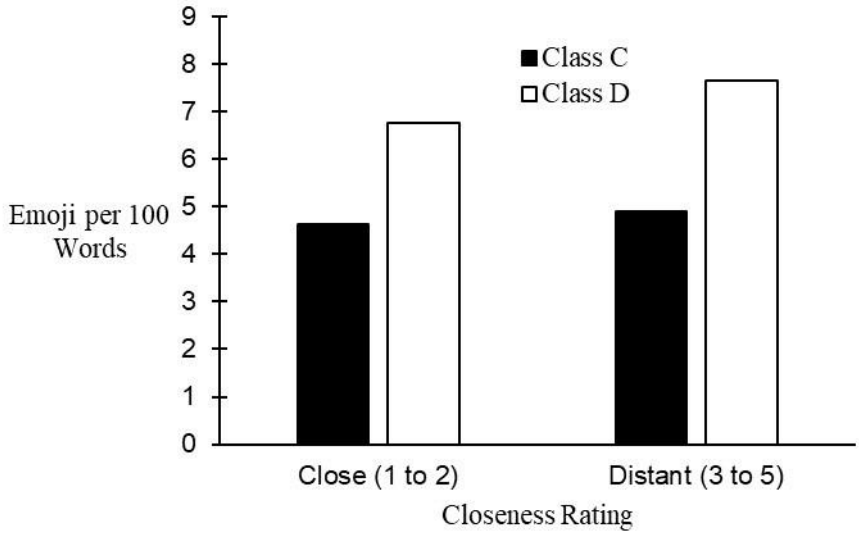

Figure 3. Emoji per 100 words for closer and more distant relationships.

4.2. Individual-based Analysis

Among the participants from Class C, six sent messages to those who they rated as close as well as to those who they rated as distant. Of these participants, three employed a greater rate of emoji use towards those who they rated as distant, while three employed a greater rate of emoji use towards those who they rated as close. Five participants from Class D sent messages to those who they rated as close as well as to those who they rated as distant. Four of these participants employed a greater rate of emoji use towards those who they rated as distant, while only one of these participants employed a greater rate of emoji use towards those who she rated as close. These results are consistent with those found in the class-based analysis, which indicated a less noticeable difference between messages sent to those who were rated as close or distant in Class C, with a more noticeable difference in Class D. Table 3 shows the rate of emoji use by each participant from Class C and Class D. The data that is bolded reports on participants who sent messages to those who were given a closeness rating of 1 or 2 as well as to those who were given a closeness rating of 3, 4, or 5. Data that is highlighted in gray reports on participants who employed a greater rate of emoji use towards those who they rated as distant. The blanks indicate that no messages were sent to those who were given the corresponding closeness rating. In Table 3, bolded values indicate participants who sent messages to those who they rated as close as well as to those who they rated as distant. Bolded values highlighted in gray indicate participants who employed a greater rate of emoji use towards those who they rated as distant. Bolded values that are not highlighted indicate participants who employed a greater rate of emoji use towards those who they rated as close.

Table 3. Emoji per 100 Words for Closer and More Distant Relationships

	Participant	Close (1 to 2)	Distant (3 to 5)
Class C	Anna	-	2.51
	Ayaka	-	7.37
	Chiaki	-	6.33
	Kaori	**4.03**	**4.55**
	Kiara	-	5.94
	Mika	**4.40**	**3.91**
	Miyuki	**10.81**	**5.30**
	Momo	**3.57**	**4.29**
	Nano	-	2.42
	Rena	-	8.19
	Ryu	-	3.50
	Taichi	**7.50**	**5.08**
	Yua	-	6.19
	Yuki	-	5.65
	Yumiko	**1.65**	**2.95**
Class D	**Kazuya**	**0**	**7.79**
	Maho	**9.71**	**11.37**
	Maki	8.57	-
	Miki	**6.56**	**6.47**
	Narumi	-	7.32
	Rino	**6.39**	**6.82**
	Rui	-	4.99
	Saki	**4.72**	**5.51**
	Shino	-	7.76
	Yuu	8.47	-

4.3. Summary

When calculating the mean from the data found in the class-based analysis, the results showed a greater rate of emoji use in messages sent to those who were rated as distant. Table 4 and Figure 4 show the average rate of emoji use between the classes.

Table 4.

Close (1 to 2)	Distant (3 to 5)
5.692	6.272

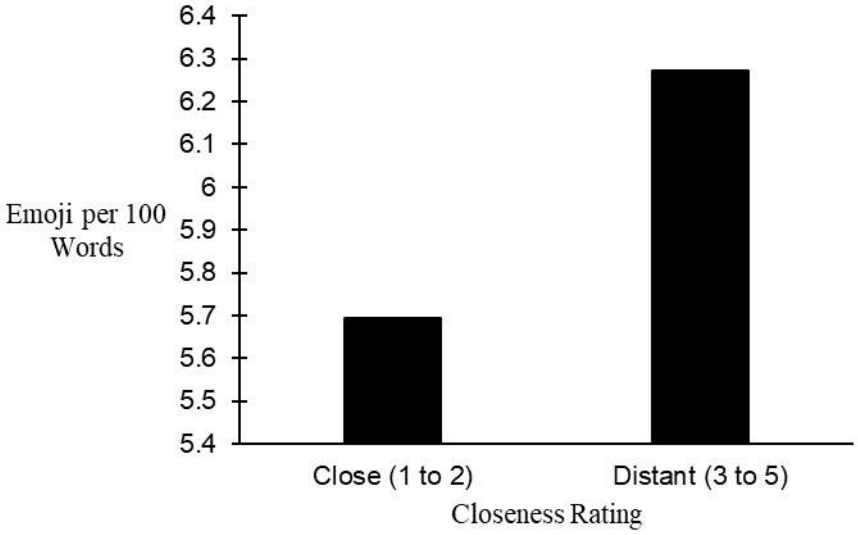

Figure 4. Average emoji per 100 words for close and distant relationships.

The individual-based analysis revealed that among the participants who sent messages to those who they rated as close as well as distant, that the majority employed a greater rate of emoji use in the messages towards those who they rated as distant. Table 5 shows the rate of emoji use by each participant who sent messages to those who they rated as close as well as distant. Data that is highlighted in gray reports on participants who employed a greater rate of emoji use towards those who they rated as distant.

Table 5. Rate of Emoji Use Among Participants Who Replied to Those Rated as Close as Well as Distant

Participant	Close (1 to 2)	Distant (3 to 5)
Kaori	4.03	4.55
Kazuya	0	7.79
Maho	9.71	11.37
Mika	4.40	3.91
Miki	6.56	6.47
Miyuki	10.81	5.30
Momo	3.57	4.29
Rino	6.39	6.82
Saki	4.72	5.51
Taichi	7.50	5.08
Yumiko	1.65	2.95

5. Discussion

The combined data from the class and individual-based analyses show a general trend towards greater emoji use in the messages sent to recipients who are rated as distant. This finding is supported by Sun (2019) and Yang (2020) and suggests that emoji are employed as an attempt at reducing social distance. In this regard, attempts at decreasing social distance via the use of emoji may be positive politeness strategies (Brown & Levinson, 1987). This communication of friendliness may not be as necessary between interactants who already share a closer relationship. As a result, participants who share a close relationship may not feel the need to employ emoji as frequently. Since emoji also function as a clarifiers of emotion during interactions (Danesi, 2019; Tang & Hew, 2019; Zhou et al., 2017), there may be less of a need for closer interactants to clarify their intended meaning via emoji. This may be attributed to closer interactants misunderstanding each other less often. These conclusions come with a caveat, arising from the relatively similar rates of emoji use between the close and distant categories in Class C and the noticeable minority of participants who employ greater rates of emoji towards those who they rate as close. These data indicate that the studies by Chang (2016), Buakaew (2019), and Konrad et al. (2019) cannot be disregarded.

6. Conclusion

The aim throughout this study has been to investigate the effect of closeness on the use of emoji by Japanese learners of English in interactive written media. The study indicates a tendency for greater rates of emoji use in messages directed towards the learners who are rated as distant. However, the findings also show that this tendency is not universal, as a noticeable minority may demonstrate the opposite.

At this stage, it is important to recognize that the study was relatively limited by the academic nature of the discussions. Although the discussion forums were designed to be nonobligatory unsupervised discussions outside of the classroom, there were evidence that they were perceived as homework that was part of an English course. The discussions contained many messages that were akin to short paragraphs written in EFL writing courses, despite participants being told that the discussion forums were not homework. The fact that the use of emoji needed to be elicited also suggests that the participants perceived the discussion forums as an extension of the classroom, rather than a space for self-initiated discussions on a familiar social media platform. With these considerations, the findings regarding the relationship between closeness and the use of emoji may be limited to online discussions that occur in the classroom setting that do not extend to more informal contexts.

References

[1] Barnes, J. (1997). Closeness, strength, and satisfaction: Examining the nature of relationships between providers of financial services and their retail customers. Psychology & Marketing, 14(8), 765-790.

[2] Beaton, A., Monger, T., Leblanc, D., Bourque, J., Levi, Y., Joseph, D., Richard, J., Bourque, P., & Chouinard, O. (2012). Crossing the divide: The common in-group identity model and intergroup affinity. International Journal of Intercultural Relations, 36(3), 365–376.

[3] Ben-Ari, A., & Lavee, Y. (2007). Dyadic closeness in marriage: From the inside story to a conceptual model. Journal of Social and Personal Relationships, 24(5), 627-644.

[4] Berschied, E., Snyder, M., & Omoto, A. (1989). The relationship closeness inventory: Assessing the closeness of interpersonal relationships. Journal of Personality and Social Psychology, 57(5), 792-807.

[5] Bowman, N., Banks, J., & Westerman, D. (2016). Through the looking glass (self): The impact of wearable technology on perceptions of face-to-face interaction. Communication Research Reports, 33(4), 332-340.

[6] Brown, P., & Levinson, S. (1987). Politeness: Some universals in language usage. Cambridge University Press.
[7] Buakaew, S. (2019). The semiotics reflection of stickers used in the LINE application. Political Science and Public Administration Journal, 10(2), 1-22.
[8] Chang, C. (2016). EFL reviewers' emoticon use in asynchronous computer-mediated peer response. Computers and Composition, 40, 1-18.
[9] Cramer, H., De-Juan, P., & Tetreault, J. (2016). Sender-intended functions of emojis in US messaging. Proceedings of the 18th International Conference on Human-Computer Interaction with Mobile Devices and Services, 18, 504-509.
[10] Danesi, M. (2017). The semiotics of emoji. Bloomsbury.
[11] DePaulo, B., & Kashy, D. (1998). Everyday lies in close and casual relationships. Journal of Personality and Social Psychology, 74(1), 63-79.
[12] Eisenberg, A. (1988). Grandchildren's perspectives on relationships with grandparents: The influence of gender across generations. Sex Roles, 19(3), 205-217.
[13] Green, J., Magee, J., Steiner, A., & Teachman, B. (2015). When the ''golden years'' turn blue: Using the healthy aging literature to elucidate anxious and depressive disorders in older adulthood. International Journal of Behavioral Development, 41(2), 1-13.
[14] Herrmann, T., Laukemann, A., Binz, H., & Roth, D. (2018). The emoji method: An approach for identifying and formulating problem ideas. International Journal of Computer and Information Engineering, 12(12), 1071-1086.
[15] Hu, T., Guo, H., Sun, H., Nguyen, T., & Luo, J. (2017). Spice up your chat: The intentions and sentiment effects of using emojis. Proceedings of the Eleventh International AAAI Conference on Web and Social Media, 11, 102-111.
[16] Janssen, J., Ijsselsteijn, W., & Westerink, J. (2014). How affective technologies can influence intimate interactions and improve social connectedness. International Journal of Human-Computer Studies, 72(1), 33-43.
[17] Kelly, R., & Watts, L. (2015). Characterising the inventive appropriation of emoji as relationally meaningful in mediated close personal relationships. Experiences of Technology Appropriation: Unanticipated Users, Usage, Circumstances, and Design, 1, 1-8.
[18] Konrad, A., Herring, S., & Choi, D. (2019). Sticker and emoji use in Facebook messenger: Implications for graphicon change. Journal of Computer-Mediated Communication, 25(3), 217-235.
[19] Kowatsch, T., Niben, M., Ruegger, D., Stieger, M., Fluckiger, C., Allemand, M., & Wangenheim, F. (2018). Twenty-Sixth European Conference on Information Systems, 26, 1-13.
[20] Lindblom, K., & Gray, M. (2010). Relationship closeness and trauma narrative detail: A critical analysis of betrayal trauma theory. Applied Cognitive Psychology, 24, 1-19.
[21] Magee, J., & Smith, P. (2013). The social distance theory of power. Personality and Social Psychology Review, 17(2), 158-186.
[22] McCann, B. (2016). Intimacy. In C. Shehan (Ed.), The Wiley Blackwell encyclopedia of family studies (pp. 1-3). John Wiley.
[23] Metcalf, K., & Leake, D. (2016). A computational method for extracting, representing, and predicting social closeness. Proceedings of the Twenty-second European Conference on Artificial Intelligence, 22, 1176-1184.
[24] Popovic, M., Milne, D., & Barrett, P. (2003). The scale of perceived interpersonal closeness (PICS). Clinical Psychology and Psychotherapy, 10, 286-301.
[25] Sampietro, A. (2019). Emoji and rapport management in Spanish WhatsApp chats. Journal of Pragmatics, 143, 109-120.
[26] Sun, N. (2019). Using and perceiving emoji in design peer feedback. Proceedings of the International Conference on Computer-Supported Collaborative Learning, 1, 296-303.
[27] Tang, Y., & Hew, K. (2019). Emoticon, emoji, and sticker use in computer-mediated communication: A review of theories and research findings. International Journal of Communication, 13, 2457-2483.
[28] Tossell, C., Kortum, P., Shepard, C., Barg-Walkow, L., Rahmati, A., & Zhong, L. (2012). A longitudinal study of emoticon use in text messaging from smartphones. Computers in Human Behavior, 28, 659-663.
[29] Tu, S. P. (2020). EFL learners' strategy use in online discussion. The English Literary Society of Japan: The Regional Branch of Chugoku and Shikoku District 72nd Branch Conference Proceedings.

[30] Tu, S. P. (2020). Japanese EFL learners' discussions on Google Classroom: Use of stance-support strategies and hedges. Shudai Ronso, 40.
[31] Tu, S. P. (2020). Japanese university students' experiences from participating in an unsupervised Google Classroom debate forum. Mask & Gavel, 8, 13-32.
[32] Volkel, S., Buschek, D., Pranjic, J., & Hussmann, H. (2019). Understanding emoji interpretation through user personality and message context. Proceedings of the 21st International Conference on Human-Computer Interaction with Mobile Devices and Services, 3, 1-12.
[33] Yang, Y. (2020). Are you emoji savvy? Exploring nonverbal communication through emojis. Communication Teacher, 34(1), 2-7.
[34] Zhou, R., Hentschel, J., & Kumar, N. (2017). Goodbye text, hello emoji: Mobile communication on WeChat in China. Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems, 17, 748-759.