



Communication activities of students with the social cultural environment during floods: A case study in Thua Thien Hue province, Vietnam

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Abstract

This study aims to explore the variances in communication behaviours among undergraduate students within the social-cultural context. A total of 104 participants (40 lecturers and six managers) were selected from two universities, namely Hue University of Science and Hue University of Education. The collected data was subsequently evaluated. The findings suggest that there are slight differences between male and female students. This study highlights significant differences in involvement among Kinh ethnic students and students from other ethnic groups. Furthermore, the geographical location and sociocultural environment of a region significantly influence the communication behaviors and preferences of students. Students demonstrate higher mean scores in diverse communication activities as compared to lecturers. The results highlight the significance of gender, ethnicity, geographic location and student status in influencing students' participation in communication. Recognizing and addressing these differences can help in the development of effective communication strategies, the development of inclusive environments and the encouragement of positive social interactions among various groups of students. The implications for students' well-being, academic success and intercultural competency might be explored in more detail in further studies by examining the fundamental variables that lead to these differences.

Keywords: Communication, Flood, Lecturer, Social cultural environment, Student.

Citation | Nguyen, H. T., Vu, N. T. Q., Tran, H.-H., Dao, H. T., & Nguyen, V. T. (2023). Communication activities of students with the social cultural environment during floods: A case study in Thua Thien Hue province, Vietnam. *Journal of Education and E-Learning Research*, 10(4), 728–734. 10.20448/jeelr.v10i4.5171


History:

Received: 27 June 2023

Revised: 1 September 2023

Accepted: 10 October 2023

Published: 24 November 2023

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Publisher: Asian Online Journal Publishing Group

Funding: This research is supported by the Vietnam Ministry of Education and Training (Grant number: B2022.VKG.10).

Institutional Review Board Statement: The Ethical Committee of the Vietnam National Institute of Educational Sciences and Vietnam Ministry of Education and Training, Vietnam has granted approval for this study on 7 June 2022 (Ref. No. B2022-VKG-10).

Transparency: The authors state that the manuscript is honest, truthful, and transparent, that no key aspects of the investigation have been omitted, and that any differences from the study as planned have been clarified. This study followed all writing ethics.

Competing Interests: The authors declare that they have no competing interests.

Authors' Contributions: All authors contributed equally to the conception and design of the study. All authors have read and agreed to the published version of the manuscript.

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Contribution of this paper to the literature

This study has identified the importance of gender, ethnicity, geographic location and student status in influencing students' engagement in communication. This process enhances the educational communication patterns observed among undergraduate students within the social and cultural context.

1. Introduction

Communication plays a vital role in disaster management especially during natural calamities such as floods. Effective communication, proper planning and preparation are crucial for ensuring the safety and well-being of individuals and communities affected by floods. It helps coordinate relief operations, communicate crucial information and provide assistance to people in need (Lovari & Bowen, 2020; Stephenson, Vaganay, Coon, Cameron, & Hewitt, 2018; Yeo & Comfort, 2017). This includes developing emergency response plans, identifying evacuation routes and stockpiling necessary supplies. Governments and organizations can also invest in infrastructure such as flood barriers and early warning systems to prevent or minimize damage from floods. However, there is a need for long-term solutions such as lowering greenhouse gas emissions and supporting sustainable land use practices because climate change increases the frequency and intensity of floods. In the context of a flood, communication activities become even more essential as they facilitate timely warnings, evacuation instructions, and the dissemination of accurate information to minimize loss of life and property damage (Alexander, 2013; Amirzadeh, Sobhaninia, & Sharifi, 2022; Mishra, Ghadi, Azizivahed, Li, & Zhang, 2021).

It is crucial to comprehend how people communicate in social and cultural contexts during floods in order to improve disaster planning and management strategies. Due to their particular requirements and talents, students in such situations constitute a vulnerable group that needs specific care (Cutter et al., 2008; Davis et al., 2013). Schools and universities must develop emergency plans that take into account the specific needs of students such as those with disabilities or who come from low-income backgrounds. Additionally, it is important to involve students in disaster preparedness efforts by providing them with education and training on how to respond to emergencies such as teaching them basic first aid skills, creating emergency kits and organizing evacuation drills. Participating in these activities strengthens the community as a whole and gives students a sense of preparedness and empowerment. Finally, it is essential to address the social-cultural factors that may exacerbate the impacts of floods on vulnerable populations. This includes addressing issues such as poverty, discrimination and unequal access to resources that may excessively affect certain groups during disasters. By taking a holistic approach that considers both the physical and social-cultural dimensions of floods, we can better prepare for and respond. This study aims to shed light on their experiences, challenges and coping mechanisms in communicating with the social-cultural environment by examining the communication dynamics of students in flood-affected areas (Leaning & Guha-Sapir, 2013). Thua Thien Hue Province in Vietnam serves as an exemplary case study for investigating the communication activities of students during floods. Situated in a region prone to flooding due to its geographical location and monsoon climate (Bangalore, Smith, & Veldkamp, 2019; Bich, Quang, Thanh Ha, Duc Hanh, & Guha-Sapir, 2011; Fothergill & Peek, 2004; Luna & Pennock, 2018). These floods had a significant impact on the lives of the province's residents, particularly students who face various challenges in maintaining effective communication with their sociocultural environment during such crises (McDonald, Chai, & Newell, 2015).

The objectives of this study are multifaceted. Firstly, this research aims to investigate the communication practices employed by students during floods. This includes exploring the various channels and platforms they use to communicate with their peers, families and the broader community. Additionally, the study seeks to examine the content of their communication, encompassing the exchange of practical information, emotional support and coordination of resources (Kogan, Palen, & Anderson, 2015; Liu & Palen, 2010). Moreover, this research aims to identify and analyze the challenges that students experienced in communicating with the social-cultural environment during floods. These challenges may include disruptions in infrastructure, limited access to communication technologies, language barriers and the psychological and emotional toll that floods can have on individuals (Ding & Zhang, 2010; Oh, Lee, & Han, 2021; Tierney, Bevc, & Kuligowski, 2006). Stakeholders can develop targeted interventions and strategies to overcome barriers to effective communication by understanding these challenges (Coaffee et al., 2018; Weller, Boyd, & Cumin, 2014). Furthermore, this study aims to highlight the role of communication in disaster resilience and recovery. Effective communication fosters community engagement, strengthens social cohesion and enhances the capacity to respond and recover from floods (Cutter et al., 2008; Veinot, Mitchell, & Ancker, 2018). Investigating students' communication behaviours can provide important understandings about how communication contributes to resilience development at the individual, family, and community levels. (Coles, Zhuang, & Yates, 2012; Norris, Stevens, Pfefferbaum, Wyche, & Pfefferbaum, 2008; Zook, Graham, Shelton, & Gorman, 2010).

A quantitative approach will be used to achieve these objectives. Observations conducted in flood-affected areas will provide firsthand insights into the actual communication behaviors and interactions among students and their social-cultural environment (Lwin, Pal, Shrestha, & Warnitchai, 2020; Soetanto, Mullins, & Achour, 2017). Quantitative data will be collected simultaneously through surveys given a more expansive sample of students in flood-affected areas. The survey will be designed to capture information on various aspects of communication such as preferred communication channels, frequency of communication and perceived effectiveness of different platforms (Dillman, Smyth, & Christian, 2014). The survey data will be analyzed using descriptive statistics and inferential analysis to examine relationships between variables (Bryman, 2016; Creswell & Creswell, 2017).

The research findings will have practical implications for various stakeholders involved in disaster management, education and community organizations. Authorities can develop targeted strategies to enhance communication effectiveness and efficiency in such situations by identifying the communication practices that students employ during floods (Lundgren & Olsson, 2010). This may involve improving the infrastructure for communication, promoting the use of specific platforms or channels and providing training on effective communication techniques during emergencies. Educational institutions can also benefit from the study's findings by gaining insights into the communication challenges faced by students during floods which can inform the

development of educational programs and initiatives that focus on disaster preparedness, including communication skills training tailored to the needs of students (Barnett, Maciel, Johnson, & Ciepluch, 2021). Educational institutions can contribute to their resilience and well-being during and after flood by enhancing students' communication capabilities.

Community organizations play a crucial role in disaster response and recovery. Understanding the communication activities of students can help these organizations develop targeted interventions and support systems. Community organizations play a crucial role in providing targeted interventions and support networks for people impacted by floods. They are important participants in disaster response because they provide the necessary emotional support and resources needed for a successful recovery. During times of crisis, mental health must be addressed since it is as crucial to achieving overall wellbeing as physical health. For example, they can establish community-based communication networks or platforms that facilitate information sharing and coordination among students and other community members (Cutter et al., 2008). Additionally, community organizations can provide psychological and emotional support to students who may experience distress or trauma during floods emphasizing the importance of mental health and well-being in communication resilience.

Furthermore, the research conducted in Thua Thien Hue Province will contribute to the existing literature on disaster communication in Vietnam. By focusing on the communication activities of students in flood-prone areas, the study will provide valuable insights into the social-cultural context specific to Vietnam and its implications for effective communication during disasters. The data collected will be analyzed using quantitative methods to provide a comprehensive understanding of the communication practices and challenges faced by students in flood-prone areas. The findings of the study will have practical implications for disaster management agencies and educators in Vietnam as well as other countries facing similar challenges. The study is also expected to contribute to the development of theoretical frameworks for disaster communication that take into account the social-cultural context of specific regions. This research has improved disaster communication strategies and ultimately saved lives in flood-prone areas of Vietnam. This research seeks to uncover the experiences, challenges and coping mechanisms employed by students in Thua Thien Hue Province, Vietnam. The findings of this study will have practical implications for disaster management authorities, educational institutions and community organizations to enhance communication resilience and reduce the impact of future floods. Additionally, the research will contribute to the existing literature on disaster communication in Vietnam, promoting understanding of communication dynamics in flood-affected regions.

2. Methods

2.1. Participants

We selected two universities for sampling: Hue University of Science (technical students) and Hue University of Education (social students). The authors recruited 104 students who participated in the survey of whom 27.8% were males and 72.2% were females. First-year, second-year, third-year and fourth-year students accounted for 32.7%, 45.1%, 18.6% and 3.5%. Area 1 has 29.2% of the students, Area 2 has 64.6%, and Area 3 has 6.2%. Students from the Kinh ethnic group account for 83.5% and the remaining 16.5% are ethnic minorities. Six managers and 40 lecturers participated in the survey of whom 41.3% were male and 58.7% were female. Lecturers from 5 to 10 are the largest group. Lecturers with 11 to 15 years of experience and over 20 years of experience all accounted for 24.4% while those with less than 5 years of experience only accounted for 4.4%. For managers, the majority of survey respondents have more than 20 years of working experience (accounting for 66.67%).

2.2. Measurement

The questionnaire includes questions and interview forms for staff, lecturers and students. We surveyed to collect information from survey subjects about their experiences communicating with the socio-cultural environment when floods occur. The questionnaire was designed with questions on a 7-point Likert scale with scores ranging from 1 (very negative) to 7 (very positive).

3. Results

Gender, ethnicity, and geographic location are among the variables that influence the degree of impact of cyclones and floods on students' communication with the social environment. These factors have different impacts on students.

Table 1. Differences between male and female undergraduate students in communication activities in the social-cultural environment.

Content	Mean	
	Male	Female
Finding accommodation	3.48	3.05
Conducting activities according to authority requirements	3.55	3.4
Arranging personal organization	3.61	3.35
Finding a job	3.26	3.23
Looking for outside support or counseling	3.42	3.32
Communication at the university	3.5	3.45
Communication with local authorities and surrounding neighbors	3.6	3.49
Communication with other social organizations	3.43	3.5

The data in Table 1 presents the mean scores for various communication activities in the social-cultural environment comparing male and female undergraduate students. The scores range from 1 (low) to 5 (high) with higher mean values indicating a higher level of engagement in the respective communication activities. The findings suggest that male undergraduate students have slightly higher mean scores in finding accommodations (M = 3.48) compared to female students (M = 3.05). Similarly, male students had higher mean scores in conducting activities in accordance with authority requirements (M = 3.55) than female students (M = 3.40). When it comes to personal issues, male students have a higher average score of 3.61 while female students have a slightly

lower average score of 3.35. In terms of job search and seeking external assistance or counseling, there is no significant difference in the average scores between male and female students. The average score for male students in the domain of job acquisition is 3.26 while female students have a marginally higher mean score of 3.23. In terms of seeking additional support or counselling, male students have an average score of 3.42 while female students have a slightly lower average score of 3.32. In the context of communication inside the institution, there is an equal mean score observed across male and female students. The average score for male students is 3.50 but female students have a slightly higher average score of 3.45. In terms of engaging in communication with local authorities and neighboring individuals, male students demonstrate a higher average score of 3.60 whereas female students display a slightly lower average score of 3.49. Female students have a marginally higher average score of 3.50 in contrast to male students who possess an average score of 3.43 concerning interpersonal connections with other social organizations. These results suggest that undergraduate students' participation in different social and cultural communication activities differs slightly between male and female students. Male students have slightly higher mean scores in finding accommodation, conducting activities according to authority requirements, personal organization and communication with local authorities and surrounding neighbors. On the other hand, female students have a slightly higher mean score in communication with other social organizations. However, it is important to note that the differences in mean scores are relatively small indicating that male and female students are engaged in communication activities to a similar extent.

Table 2. Differences between students of the Kinh and other ethnic groups in communication activities in the social-cultural environment.

Content	Mean	
	The Kinh	Others ethnic groups
Finding accommodation	3.33	2.35
Conducting activities according to authority requirements	3.57	2.76
Arranging personal organization	3.48	3.12
Finding a job	3.32	2.82
Looking for outside support or counseling	3.48	2.65
Communication at the university	3.57	2.94
Communication with local authorities and surrounding neighbors	3.63	3.00
Communication with other social organizations	3.61	2.82

The data in Table 2 compares students of the Kinh ethnic group to students of other ethnic groups by presenting the mean scores for various communication activities in a social-cultural context. The scores range from 1 (low) to 5 (high) with higher mean values indicating a higher engagement in the respective communication activities. The findings suggest that students of the Kinh ethnic group have higher mean scores compared to students of other ethnic groups in several communication activities. The Kinh students have a mean score of 3.33 in obtaining accommodations whereas students from other ethnic groups have a substantially lower mean score of 2.35. Students from other ethnic groups have a lower mean score of 2.76 when conducting activities in accordance with authority standards whereas Kinh students show a higher mean score of 3.57. In terms of arranging personal organization, the Kinh students demonstrate a higher mean score of 3.48 while students from other ethnic groups have a slightly lower mean score of 3.12. The Kinh students again show higher mean scores compared to students from other ethnic groups regarding finding a job and looking for outside support or counseling. The Kinh students have a mean score of 3.32 for finding a job whereas students from other ethnic groups have a lower mean score of 2.82. In looking for outside support or counseling, Kinh students have a mean score of 3.48 while students from other ethnic groups have a lower mean score of 2.65. In terms of communication within the university, the Kinh students show a higher mean score of 3.57 while students from other ethnic groups have a lower mean score of 2.94. When it comes to communication with local authorities and surrounding neighbors, the Kinh students have a higher mean score of 3.63 while students from other ethnic groups have a lower mean score of 3.00. In communication with other social organizations, the Kinh students once again demonstrate a higher mean score of 3.61 while students from other ethnic groups have a lower mean score of 2.82.

These findings indicate that there are significant differences in the engagement of students of the Kinh ethnic group compared to students from other ethnic groups in various communication activities in the social-cultural environment. The Kinh students have higher mean scores in finding accommodation, conducting activities according to authority requirements, arranging personal organization, finding a job, looking for outside support or counseling, communicating in university, communicating with local authorities and surrounding neighbors and communicating with other social organizations. These differences suggest that students of the Kinh ethnic group are more actively engaged in communication activities within the social-cultural environment compared to their peers from other ethnic groups.

Table 3. Differences in communication activities in the social-cultural environment of students according to areas.

Content	Mean		
	Area 1	Area 2	Area 3
Finding accommodation	2.73	3.34	3.83
Conducting activities according to authority requirements	3.19	3.57	3.67
Arranging personal organization	3.19	3.49	3.83
Finding a job	2.94	3.31	3.83
Looking for outside support or counseling	3.26	3.39	3.83
Communication at the university	3.20	3.57	4.00
Communication with local authorities and surrounding neighbors	3.31	3.62	3.83
Communication with other social organizations	3.20	3.65	3.33

Note: Area 1, communes in areas I, II, III in ethnic minority and mountainous areas according to current regulations corresponding to the candidates' time of high school or intermediate school; particularly difficult communes in coastal and island areas; extremely difficult communes, border communes, and safe zones are eligible for investment under Program 135 according to regulations of the Prime Minister of Vietnam; Area 2, towns and cities directly under the province; suburban towns and districts of centrally run cities (except for communes in Area 1); Area 3, urban districts of central cities of Vietnam.

The data in Table 3 presents the mean scores for different communication activities in a social-cultural environment across three different areas. The scores range from 1 (low) to 5 (high) with higher mean values indicating a higher level of engagement in the respective communication activities. In the context of finding accommodation, students in area 3 have the highest mean score of 3.83 followed by students in area 2 with a mean score of 3.34. Students in area 1 have the lowest mean score of 2.73. Students in area 3 have the highest mean score of 3.67, followed by students in area 2 with a mean score of 3.57 regarding conducting activities according to authority requirements. Students in area 1 have the lowest mean score of 3.19. When it comes to arranging personal organization and finding a job, students in area 3 once again have the highest mean scores of 3.83 followed by students in area 2 with mean scores of 3.49 and 3.31 respectively. Students in area 1 have the lowest mean scores in both categories with a score of 3.19 for arranging personal organization and 2.94 for finding a job. In terms of looking for outside support or counseling, students in area 3 have the highest mean score of 3.83 followed by students in area 2 with a mean score of 3.39. Students in area 1 have a slightly lower mean score of 3.26. Students in area 3 have the highest mean score of 4.00 followed by students in area 2 with a mean score of 3.57 regarding communication in university. Students in area 1 have a slightly lower mean score of 3.20. When it comes to communication with local authorities and surrounding neighbors, students in area 3 have the highest mean score of 3.83 followed by students in area 2 with a mean score of 3.62. Students in area 1 have a slightly lower mean score of 3.31. In communication with other social organizations, students in area 2 have the highest mean score of 3.65 followed by students in area 3 with a mean score of 3.33. Students in area 1 have the lowest mean score of 3.20. These findings suggest that there are notable differences in the engagement of students across different areas in various communication activities in a social-cultural context. Students in area 3 generally show higher mean scores across most communication activities indicating a higher level of engagement compared to students in areas 1 and 2. It implies that students in area 3 may have better access to resources, support and opportunities for communication within their social-cultural context compared to students in other areas.

Table 4. Differences between lecturers and students in communication activities in the social-cultural environment.

Content	Mean	
	Lecturers	Students
Finding accommodation	2.8	3.18
Conducting activities according to authority requirements	3.07	3.44
Arranging personal organization	2.69	3.43
Entertainments	2.76	3.61
Finding a job	2.8	3.24
Looking for outside support or counseling	3.53	3.35
Communication with family	3.24	3.88
Communication with friends	3.5	3.92
Making new friends	3.16	3.69
Communication at the university	3.02	3.47
Communication with local authorities and surrounding neighbors	3.2	3.52
Communication with other social organizations	3.16	3.48

The data presented in Table 4 compares the mean scores of communication activities in the social-cultural context between lecturers and students. The scores range from 1 (low) to 5 (high), with higher mean values indicating a higher level of engagement in the respective communication activities. In terms of finding accommodation, students have a higher mean score of 3.18 indicating a higher level of engagement compared to lecturers who have a mean score of 2.80. When it comes to arranging personal organization, students once again have a higher mean score of 3.43 while lecturers have a lower mean score of 2.69. In terms of entertainment, students have a higher mean score of 3.61 indicating a higher level of engagement compared to lecturers who have a mean score of 2.76. Students have a higher mean score of 3.24 indicating a higher level of engagement compared to lecturers who have a mean score of 2.80 regarding finding a job. Looking for outside support or counseling shows that lecturers have a higher mean score of 3.53 compared to students who have a slightly lower mean score of 3.35. When it comes to communication with family, students have a higher mean score of 3.88 indicating a higher level of engagement compared to lecturers who have a mean score of 3.24. Students once again have a higher mean score of 3.92 while lecturers have a lower mean score of 3.50 regarding communication with friends. In terms of making new friends, students have a higher mean score of 3.69 indicating a higher level of engagement compared to lecturers who have a mean score of 3.16. Students have a higher mean score of 3.47 indicating a higher level of engagement compared to lecturers who have a mean score of 3.02 regarding communication in university. Students have a slightly higher mean score of 3.52 compared to lecturers who have a mean score of 3.20 when it comes to communication with local authorities and surrounding neighbors. In terms of communication with other social organizations, students have a higher mean score of 3.48 indicating a higher level of engagement compared to lecturers who have a mean score of 3.16. The data suggests that students have higher mean scores in various communication activities in a social-cultural context compared to lecturers. This indicates that students are more actively engaged in finding accommodation, conducting activities according to authority requirements, arranging personal organization, entertainment, finding a job, communication with family, communication with friends, making new friends, communication in university, communication with local authorities and surrounding neighbors and communication with other social organizations.

4. Discussion

The present study's findings indicate that there are differences in the engagement of male and female undergraduate students in various communication activities in a social-cultural context. Male students have slightly higher mean scores in finding accommodation, conducting activities according to authority requirements, personal organization and communication with local authorities and surrounding neighbors while female students have a slightly higher mean score in communication with other social organizations. These findings are consistent with previous research that has highlighted gender differences in communication styles and preferences

(Cardon, Okoro, Priest, & Patton, 2023; Loureiro, Loureiro, & Silva, 2020; Mo, Malik, & Coulson, 2009). It is important to note that the differences in mean scores are relatively small suggesting that male and female students are engaged in communication activities to a similar extent. The significant differences observed in the engagement of students from the Kinh ethnic group compared to students from other ethnic groups in various communication activities in a social-cultural context shed light on the influence of cultural factors on communication behaviors. Students of the Kinh ethnic group show higher mean scores in multiple communication activities including finding accommodation, conducting activities according to authority requirements, arranging personal organization, finding a job, looking for outside support or counseling, communicating in university, communicating with local authorities and surrounding neighbors and communicating with other social organizations. These findings are consistent with how cultural values influence communication patterns (Merkin, 2009; Sanchez-Burks et al., 2003; Ting-Toomey & Dorjee, 2018). The Kinh students' higher engagement in communication activities may be attributed to cultural norms, values and socialization processes within their ethnic group. Moreover, the findings reveal notable differences in the engagement of students across different areas in various communication activities in a social-cultural context. Students in area 3 consistently show higher mean scores across most communication activities, indicating a higher level of engagement compared to students in areas 1 and 2. This finding suggests that students in areas 3 may have better access to resources, support and opportunities for communication within their social-cultural context. It implies that geographic location and the sociocultural context of an area can influence students' communication behaviors and preferences (Magsamen-Conrad, 2016; Yang, Olesova, & Richardson, 2010). Students in areas 3 may benefit from a more favorable social environment, stronger community ties and increased availability of communication channels and platforms.

The research shows that when the mean scores of lecturers and students are compared in a variety of communication activities, students often have higher mean scores indicating that they are more actively participating in communication activities in a social-cultural context. Students' higher levels of engagement can be attributed to their active participation in finding accommodation, conducting activities according to authority requirements, arranging personal organization, entertainment, finding a job, communicating with family, communicating with friends, making new friends, communicating in university, communication with local authorities and surrounding neighbors, and communication with other social organizations. This result is consistent with other studies that highlighted differences in communication patterns and preferences between learners and instructors (Myers & Rocca, 2000; Potter & Emanuel, 1990; Swanson, Renes, & Strange, 2020). Students' greater involvement in communication activities may be influenced by their specific needs, social networks and educational experiences. This study highlights the differences in communication activities in the social-cultural context among male and female undergraduate students. These findings emphasize the significance of gender, ethnicity, geographic location and role differences in shaping students' engagement in various communication activities. Understanding these differences is crucial for promoting effective communication strategies, fostering inclusive environments and developing targeted interventions to enhance communication skills and social interactions within diverse student populations.

5. Conclusion

The results indicate that there are slight differences between male and female students with males showing higher engagement in certain activities related to accommodation, authority requirements, personal organization and communication with local authorities and surrounding neighbors while females demonstrate higher engagement in communication with other social organizations. However, it is important to note that these differences are relatively small, suggesting that male and female students are engaged in communication activities to a similar extent. Furthermore, the study highlights significant differences in the engagement of students from the Kinh ethnic group compared to students from other ethnic groups. Students of the Kinh ethnic group show higher levels of engagement across various communication activities suggesting a stronger involvement within the social-cultural context. These findings emphasize the influence of cultural factors on communication behaviors as cultural norms, values and socialization processes within the Kinh ethnic group may shape their communication patterns. Additionally, the study reveals notable differences in the engagement of students across different areas. The geographic location and sociocultural context play a significant role in shaping students' communication behaviors and preferences. Moreover, the results indicate that students show higher mean scores in various communication activities compared to lecturers. This suggests that students are more actively engaged in communication activities within the social-cultural context. Students' higher levels of engagement may be influenced by their specific needs, social networks and educational experiences. The findings underscore the role of gender, ethnicity, geographic location and student status in shaping students' engagement in communication. Recognizing and addressing these differences can contribute to the development of effective communication strategies, foster inclusive environments and promote positive social interactions within diverse student populations. Future researcher could further explore the underlying factors and the implications for students' well-being, academic success and intercultural competence.

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