Exploring intercultural sensitivity in higher education students of the Peruvian Amazon: a descriptive study

Explorando a sensibilidade intercultural em estudantes de educação superior da Amazônia peruana: um estudo descritivo

Explorando la sensibilidad intercultural en estudiantes de educación superior de la Amazonía peruana: un estudio descriptivo

Yesenia Verónica Manrique-Jaramillo
https://orcid.org/0000-0001-7707-2182
Professor and researcher at the Escuela de Educación Superior Pedagógica Nuestra Señora del Rosario, Peru
ymanrique@pedagogicomadrededios.edu.pe
(correspondence)

Edwin Gustavo Estrada-Araoz
https://orcid.org/0000-0003-4159-934X
Professor and researcher at the Universidad Nacional Amazónica de Madre de Dios, Peru

Elizabeth Orfelia Cruz-Laricano
https://orcid.org/0009-0003-0266-4126
Graduate Researcher and Student at the Universidad Nacional Amazónica de Madre de Dios, Peru

Víctor Hugo Díaz-Pereira
https://orcid.org/0000-0001-8313-8408
Professor and researcher at the Escuela de Educación Superior Pedagógica Nuestra Señora del Rosario, Peru

Maribel Mamani-Roque
https://orcid.org/0000-0002-9918-8554
Professor and Researcher at the Universidad Nacional del Altiplano, Peru

ABSTRACT

Understanding and valuing cultural differences has become an essential skill in an increasingly globalized world. This research aimed to explore intercultural sensitivity among higher education students in the Peruvian Amazon. A quantitative, non-experimental, descriptive, and cross-sectional study was conducted to achieve this. The sample consisted of 147 students of both genders selected through non-probabilistic sampling, to whom the Intercultural Sensitivity Scale—a tool with adequate psychometric properties—was applied. The results showed that the level of intercultural sensitivity reported by the students was moderate. The dimensions were also categorized as moderate, except for the dimension engagement in interaction, which was rated as high. Additionally, it was observed that women and those aged 16 to 25 experienced greater enjoyment in interaction and respect for cultural differences, respectively. These differences were statistically significant ($p < 0.05$). Furthermore, it was found that the variable cultural sensitivity had a high and significant correlation with the dimensions engagement in interaction ($r = 0.772$), respect for cultural differences ($r = 0.558$), confidence in interaction ($r = 0.798$), enjoyment in interaction ($r = 0.814$), and attentiveness in interaction ($r = 0.912$). It was concluded that the cultural sensitivity displayed by the students was moderate; therefore, implementing educational programs and practical activities that promote more significant intercultural interaction is recommended.

Keywords: intercultural sensitivity; culture; cultural diversity; university students; interaction; Peru.

RESUMO

Compreender e valorizar as diferenças culturais tornou-se uma habilidade essencial em um mundo cada vez mais globalizado. Esta pesquisa teve como objetivo explorar a sensibilidade intercultural entre estudantes de ensino superior na Amazônia peruana. Para isso, foi realizado um estudo quantitativo, não experimental, descritivo e de corte transversal. A amostra consistiu em 147 alunos de ambos os sexos selecionados por amostragem não probabilística, aos quais foi aplicada a Escala de Sensibilidade Intercultural, uma ferramenta com propriedades psicométricas adequadas. Os resultados mostraram que o nível de sensibilidade intercultural relatado pelos alunos foi moderado. As dimensões também foram classificadas como moderadas, com exceção da dimensão envolvimento na interação, que foi classificada como alta. Além disso, observou-se que as mulheres e os alunos com idade entre 16 e 25 anos tiveram mais prazer na interação e respeito pelas diferenças culturais, respectivamente. Essas diferenças foram estatisticamente significativas ($p < 0,05$). Além disso, verificou-se que a variável sensibilidade cultural tinha uma correlação alta e significativa com as dimensões envolvimento na interação ($r = 0,772$), respeito pelas diferenças culturais ($r = 0,558$), confiança na interação ($r = 0,798$), prazer na interação ($r = 0,814$) e atenção na interação ($r = 0,912$). Concluiu-se que a sensibilidade cultural demonstrada pelos alunos foi moderada; portanto, a implementação de programas educacionais e atividades práticas que promovam uma sensibilidade cultural mais significativa é necessária.

Palavras-chave: sensibilidade intercultural; cultura; diversidade cultural; estudantes universitários; interação; Peru.

RESUMEN

En un mundo cada vez más globalizado, comprender y valorar las diferencias culturales se ha vuelto una habilidad imprescindible. El objetivo de la presente investigación fue explorar la sensibilidad intercultural en estudiantes de educación superior de la Amazonía peruana. Para ello, se realizó un estudio cuantitativo, no experimental, descriptivo y transversal. La muestra estuvo conformada por 147 estudiantes de ambos sexos seleccionados de manera no probabilística a quienes se les aplicó la Escala de Sensibilidad Intercultural, un instrumento con adecuadas propiedades métricas. Los resultados mostraron que el nivel de sensibilidad intercultural reportado por los estudiantes fue moderado. Respecto a las dimensiones, también fueron categorizadas en el nivel moderado, a excepción de la dimensión implicación en la interacción, la cual se ubicó en un nivel alto. De igual manera, se observó que las mujeres y quienes tenían entre 16 y 25 años experimentaron un mayor disfrute de la interacción y respeto por las diferencias culturales, respectivamente. Estas diferencias fueron estadísticamente significativas ($p<0.05$). Por otro lado, se halló que la variable sensibilidad cultural se correlacionó de manera alta y significativa con las dimensiones implicación en la interacción ($r = 0.772$), respeto por las diferencias culturales ($r = 0.558$), confianza en la interacción ($r = 0.798$), disfrute de la interacción ($r = 0.814$) y atención en la interacción ($r = 0.912$). Se concluyó que la sensibilidad cultural que los estudiantes mostraban era moderada, por ello, se recomienda la implementación de programas educativos y actividades prácticas que promuevan una mayor interacción intercultural.

Palabras clave: sensibilidad intercultural; cultura; diversidad cultural; estudiantes universitarios; interacción; Perú.

INTRODUCTION

During higher education, students from diverse cultures, social realities, and personal backgrounds come together, each with their own way of seeing the world, communicating, and relating (Mittelmeier et al., 2018). This diversity greatly enriches the educational context, offering opportunities to learn from each other and grow together (Karacsony et al., 2022). However, this coexistence can also present challenges, such as misunderstandings or stereotypes, which hinder mutual understanding and respect (Elias & Mansouri, 2020). Therefore, it is necessary to foster skills that contribute to recognize and value these differences, creating a more inclusive and harmonious learning space (Pérez et al., 2023). In this sense, one of the most important concepts in recent years has been that of intercultural sensitivity.

Intercultural sensitivity is an important skill in a globalized world, where interactions between people from different cultures are increasingly frequent (Yanto et al., 2022). This construct refers to the ability to recognize, respect and adapt to cultural differences, promoting harmonious coexistence and mutual understanding (Bennett, 1993). In contexts such as the Peruvian Amazon, where diverse traditions and worldviews converge, this ability is fundamental to strengthen social relations and contribute to inclusive development (Ramirez, 2021). Intercultural sensitivity is also defined as the willingness and ability to experience, analyze and respond appropriately to cultural differences (Klenner et al., 2021). According to Bennett (1993), it is an essential component of the intercultural competence model, which includes the knowledge, skills, and attitudes necessary to interact effectively in culturally diverse environments (Purabdollah et al., 2021).

Bennett's Developmental Model of Intercultural Sensitivity describes a continuum of six stages that reflect how people perceive and respond to cultural differences (Hammer et al., 2003). It begins with denial, where people do not recognize cultural differences, and moves to defense, where differences are perceived negatively and "us" versus "them" attitudes emerge. In the minimization stage, although the existence of differences is recognized, there is a tendency to downplay their importance, suggesting that all cultures are essentially the same. As it progresses, acceptance is reached, where diversity of behaviors and values is valued and understood, followed by adaptation, which involves the ability to change behaviors and perceptions to interact effectively in different cultural contexts. Finally, integration is the stage in which people not only understand and accept cultural differences, but actively incorporate them into their daily lives, achieving full appreciation and adaptation to diverse cultures. This model reflects a gradual process of development towards ethnorelativity, where cultural diversity is valued and responded to in a more flexible and respectful manner (Karababa, 2024).

Education plays an important role in the development of intercultural sensitivity (Rodriguez, 2022). In multicultural educational environments, this skill allows students to interact respectfully and effectively with people from different cultures, fostering respect for diversity and reducing prejudice (Chen, 2024). Furthermore, in regions such as the Peruvian Amazon, where indigenous, mestizo and Andean cultures converge, integrating intercultural sensitivity into educational programs is vital to ensure inclusive and respectful coexistence (Comboni & Juárez, 2020). In higher education, promoting intercultural sensitivity prepares students to face challenges in a globalized environment, strengthening their communication skills, empathy and ability to resolve cultural conflicts (Montes & Cáceres, 2024).

The development of intercultural sensitivity is influenced by several factors. Previous experience with other cultures, such as direct contact with people from different backgrounds, plays a determining role in fostering understanding and appreciation of diversity (Tomul et al., 2024). Academic training is also determinant, since educational programs that integrate intercultural perspectives contribute significantly to strengthening this ability (Vromans et al., 2023). In addition, the socioeconomic environment, particularly in culturally diverse contexts, offers more opportunities to learn and adapt to different realities (Huff et al., 2021). Finally, personal attitudes, such as openness, curiosity and empathy, are essential for accepting and valuing cultural differences, facilitating coexistence in an intercultural environment (Fong et al., 2020).

The present research approached intercultural sensitivity through five dimensions proposed by Ruiz (2012), which highlight relevant aspects related to interaction and valuing cultural diversity. Involvement in interaction refers to the interest and willingness to relate to people from other cultures, characterized by the active search for multicultural experiences and the valuing of these as enriching. Respect for cultural differences addresses the ability to recognize and accept the particularities of other cultures, overcoming prejudices and avoiding ethnocentric attitudes. Confidence in interaction reflects the level of personal security when interacting with people from other cultures, considering social skills and comfort in these contexts. Enjoyment of interaction focuses on the ability to enjoy and find satisfaction in intercultural relationships, including communication and openness to new perspectives. Finally, mindfulness in interaction assesses sensitivity to the values, beliefs, and cultural expressions of others, highlighting active listening, detailed observation, and open-mindedness to better understand cultural differences.

In the Peruvian Amazon, intercultural sensitivity faces some challenges, such as educational inequality, cultural biases and lack of resources to integrate interculturality in the classroom (Fuller, 2002). Disparities between indigenous, mestizo and urban communities make it difficult to create an inclusive educational environment, where diverse worldviews are recognized

and valued (Corbetta et al., 2018). However, there are also great opportunities, such as the cultural richness of the region, which includes enormous linguistic diversity, ancestral traditions and community practices that could be integrated into educational programs (Ministry of Culture, 2014). Promoting intercultural sensitivity in this context can not only benefit students, but would also strengthen the social fabric, foster mutual respect, and contribute to the sustainable development of the region and the country, creating a more united and resilient society in the face of contemporary challenges (Chen & Hu, 2023).

This research is relevant because of the impact it can have on the improvement of educational policies and practices in the region, characterized by its cultural diversity and intercultural richness. In higher education, recognizing and working on intercultural sensitivity is not only a necessity, but an opportunity to build a more inclusive and respectful society. Understanding the challenges students face when interacting with different cultures, as well as the opportunities to strengthen these interactions, will allow us to design strategies that promote mutual respect and inclusion. This will have an impact on the lives of indigenous, Andean and other students, who will be empowered in an educational space that values their origins and allows them to develop fully. It also offers the possibility of adjusting academic programs to better reflect the cultural realities of the students and foster harmonious coexistence inside and outside the classroom. Ultimately, it is about building an education that not only teaches, but also inspires and connects, strengthening ties between communities and contributing to a more equitable and enriching society.

Finally, the objective of this research was to explore intercultural sensitivity in higher education students in the Peruvian Amazon.

METHODS

Design

The research adopted a quantitative approach, focused on the collection of numerical data to identify patterns of behavior within the sample studied. The research design was non-experimental, as the study variable was not intentionally manipulated, but was carried out in the natural context of the participants. In addition, the study was descriptive and cross-sectional, since it focused on analyzing the characteristics and properties of the cross-cultural sensitivity variable, and the data were collected at a single point in time.

Population and sample

The population consisted of all students enrolled in the 2024-II cycle at the *Escuela de Educación Superior Pedagógica Pública Nuestra Señora del Rosario*, the *Universidad Nacional Amazónica de Madre de Dios* and the *Universidad Andina del Cusco* (Puerto Maldonado branch). On the other hand, the sample consisted of 147 students, selected by non-probabilistic convenience sampling. Table 1 shows that, of the total number of participants, 68% were women and 32% were men. In addition, 84.4% were between 16 and 25 years old, while 15.6% were between 26 and 35 years old.

Table 1. Distribution of the sample.

Variables	Sociodemographic characteristics	n= 147	%
Sex	M	47	32.0
	F	100	68.0
Age	Between 16 and 25 years old	124	84.4
	Between 26 and 35 years old	23	15.6

Note. Authors' development with the research data

Instruments

As for the data collection instruments, a structured digital form was used through the Google Forms platform. In the first section, students were asked to provide sociodemographic information, which included aspects such as gender and age.

In the second section, the Intercultural Sensitivity Scale was administered. This scale serves to measure a person's capacity to understand, value and adapt to cultures different from his or her own. In addition, it evaluates the degree of openness and flexibility that a person shows towards cultural diversity, which is essential in globalized and multiculturally diverse contexts. It consists of 24 Likert-type items structured in 5 dimensions: involvement in the interaction, respect for cultural differences, confidence in the interaction, enjoyment of the interaction, and attentiveness in the interaction. The metric properties of the questionnaire were evaluated in a previous study conducted in Peru by Tapia (2022), which showed that the instrument presented adequate validity and internal consistency (Aiken's V = 0.926; α = 0.847).

Procedures

Data collection was carried out following a planned and organized process. First, the corresponding authorization was requested from the educational authorities to carry out the research. With the approval obtained, students were invited to participate by means of a message sent through the WhatsApp platform. In the message, a link to the survey was included, the objective of the study was clearly explained, and detailed instructions were provided on how to complete the questions. Once the participation of the 147 students required for the sample was reached, access to the survey was deactivated.

Data analysis

Statistical analysis was carried out using both descriptive and inferential techniques. First, descriptive statistics were calculated for the variable, dimensions and items. Subsequently, Student's t-test was used to identify statistically significant differences in cross-cultural sensitivity according to sex and age. A significance level of $p < 0.05$ was adopted to determine the statistical validity of the results. In addition, Cohen's d test value was calculated to assess the magnitude of the effect of the observed differences. Finally, Pearson's r correlation coefficient was used to examine the correlations between the study variable and dimensions.

Ethical aspects

This research was conducted in accordance with the principles established in the Declaration of Helsinki. The students received clear and detailed information on the purpose and characteristics of the study, and their informed consent was obtained voluntarily, respecting their autonomy and right to withdraw at any time. Likewise, measures were adopted to ensure the privacy and confidentiality of the data, guaranteeing the anonymity of the participants and safe handling of the information collected.

RESULTS AND DISCUSSION

Table 2 shows that the mean of the intercultural sensitivity variable was 77.76 (SD = 16.440), which, when compared with the maximum and minimum possible values, can be categorized at a moderate level. Regarding the dimensions, under the same criteria they were categorized at a moderate level, except for the interaction involvement dimension, which was placed at a high level. On the other hand, it is observed that the skewness and kurtosis coefficients of the variable and dimensions were within the range of ±2, which indicates that the data distribution is close to normality (Gravetter & Wallnau, 2014).

Table 2. Descriptive statistics of the intercultural sensitivity variable and its dimensions

Variable and dimensions	N	Minimum	Maximum	Media	SD	Asymmetry	Kurtosis	Valuation
Cross-cultural sensitivity	147	24	120	77.76	16.440	-1.319	1.341	Moderate
Involvement in the interaction	147	3	15	12.12	3.343	-1.617	1.902	High
Respect for cultural differences	147	7	35	17.16	5.818	0.489	-0.175	Moderate
Confidence in interaction	147	4	20	14.12	3.792	-0.858	0.433	Moderate
Enjoy the interaction	147	3	15	10.16	2.910	-0.643	0.175	Moderate
Attention in the interaction	147	7	35	24.19	5.717	-1.363	1.059	Moderate

Note. Authors' development with the research data

Following, Table 3 presents the descriptive results of the items that make up the Intercultural Sensitivity Scale, organized into five dimensions. In the interaction involvement dimension, the highest rated item was "I like interacting with people from other cultures" (M = 4.07, SD = 1.133), which reflects a strong inclination towards interacting with people from different cultures. In the dimension respect for cultural differences, the greatest barrier identified was "I find it uncomfortable to work or share other spaces with people from different cultures" (M = 2.14, SD = 1.066), reflecting some difficulty in accepting diversity in these contexts. In the interaction confidence dimension, the item "I am equally sociable with people from my own culture as with people from other cultures" (M = 3.71, SD = 1.135) stood out, indicating confidence in cross-cultural interactions. In the enjoyment of interaction dimension, the highest rated item was "When conversing with a person from another culture, I try to show them that I understand them, through words or gestures" (M = 3.59, SD = 1.134), reflecting a conscious effort to establish effective communication. Finally, in the dimension attention in interaction, the most prominent item was "I respect the values of people from other cultures" (M = 4.04, SD = 1.204), underlining a positive attitude towards understanding and respecting cultural differences.

According to Table 4, the comparative results of intercultural sensitivity and its dimensions as a function of sex show non-significant differences in most cases, except for the interaction enjoyment dimension, where women (M = 10.51, SD = 2.721) obtained higher scores than men (M = 9.43, SD = 3.181), this difference being statistically significant (p<0.05). In addition, the magnitude of the effect was small (d= 0.365), indicating that there are variations in the perception and attitude towards intercultural interaction according to sex.

Table 3. Descriptive results of the Academic Situations Specific Perceived Self-Efficacy Scale (ASSPSE)

Dimension	Items	M	SD
Involvement in the interaction	I enjoy interacting with people from other cultures.	4.07	1.133
	I respect the way people from other cultures behave.	4.05	1.161
	I like people from different cultures because they are very interesting encounters.	4.01	1.236
Respect for cultural differences	I think people from other cultures are very closed-minded.	2.73	0.878
	I find it difficult to talk to people from other cultures, even if I know their language.	2.73	1.132
	I find it stressful to interact with people from other cultures.	2.47	1.049
	I find it uncomfortable to work or share other spaces with people from different cultures.	2.14	1.066
	I am usually more accepting of the opinions of people from my own culture than I am of the opinions of people from other cultures.	2.50	1.155
	I think my culture is better and more open than other cultures.	2.37	1.111
	In general, I try to avoid situations that require me to interact with people from other cultures.	2.22	1.126
Confidence in interaction	When I interact with people from different cultures, I feel quite confident.	3.58	1.027
	When I interact with people from other cultures, I always know what to say.	3.29	1.014
	I am equally sociable with people from my own culture as I am with people from other cultures.	3.71	1.135
	I believe I have social skills to relate to people from a different culture than my own.	3.54	1.106
Enjoy the interaction	I have a more observant and attentive attitude when I interact with people from other cultures than when with people from my own culture.	3.46	1.074
	When I interact with people from other cultures who speak another language, I feel that I communicate very well with them.	3.12	1.097
	When I converse with a person from another culture, I try to show them that I understand them, through words or gestures.	3.59	1.134
Attention in the interaction	I respect the values of people from other cultures.	4.04	1.204
	When I meet someone from another culture, I get carried away by prejudices about their culture.	2.40	1.090
	I often do not feel at ease when I am with people from other cultures.	2.35	1.146
	I consider myself an open-minded person to cultural differences.	3.79	1.112
	When I deal with people from other cultures, I pay close attention to their explanations to understand them well.	3.96	1.085
	When dealing with people from other cultures, I clearly notice the small differences in the meaning of words or ideas in communication.	3.76	1.044
	Normally, when I interact with people from other cultures, I tend to be quite positive with them to show interest and attention.	3.89	1.129

Note. Authors' development with the research data

Table 4. Comparative results for the intercultural sensitivity variable and its dimensions with respect to gender

Variable and dimensions	M		F		t	p	d
	M	SD	M	SD			
Cross-cultural sensitivity	74.45	19.041	79.32	14.914	-1.687	0.094	0.085
Involvement in the interaction	11.43	3.815	12.45	3.063	-1.745	0.083	0.095
Respect for cultural differences	17.38	5.566	17.06	5.957	0.313	0.755	0.056
Confidence in interaction	13.30	4.043	14.51	3.625	-1.822	0.071	0.115
Enjoy the interaction	9.43	3.181	10.51	2.721	-2.133	0.035	0.365
Attention in the interaction	22.91	6.517	24.79	5.229	-1.728	0.088	0.118

Note. Authors' development with the research data

Analyzing Table 5, the comparative results of intercultural sensitivity and its dimensions according to age show, for the most part, non-significant differences between the groups evaluated. However, in the dimension respect for cultural differences, participants aged 16 to 25 years (M = 17.77, SD = 5.852) obtained significantly higher scores than those aged 26 to 35 years (M = 13.91, SD = 4.481), with a statistically significant difference (p < 0.01) and a small effect size (d = 0.304). This finding indicates that perceptions of cultural differences may vary relevantly as a function of age.

Table 5. Comparative results for the cross-cultural sensitivity variable and its dimensions with respect to age

Variable and dimensions	Between 16 and 25 years old		Between 26 and 35 years old		t	p	d
	M	SD	M	SD			
Cross-cultural sensitivity	78.04	16.676	76.26	15.363	0.476	0.635	0.011
Involvement in the interaction	12.15	3.268	12.00	3.802	0.191	0.849	0.004
Respect for cultural differences	17.77	5.852	13.91	4.481	2.996	0.003	0.304
Confidence in interaction	13.91	3.781	15.26	3.732	-1.575	0.117	0.036
Enjoy the interaction	10.10	2.830	10.52	3.356	-0.642	0.522	0.014
Attention in the interaction	24.12	5.745	24.57	5.680	-0.341	0.733	0.008

Note. Authors' development with the research data

Furthermore, results in Table 6 show that the intercultural sensitivity variable is strongly correlated with all its dimensions ($p < 0.01$). The highest correlation is found with the dimension attention in interaction ($r = 0.912$), followed by enjoyment of interaction ($r = 0.814$) and confidence in interaction ($r = 0.798$). Likewise, involvement in the interaction also presents a high correlation ($r = 0.772$). On the other hand, the lowest correlation, although significant, is with respect for cultural differences ($r = 0.558$).

Table 6. Correlation between the intercultural sensitivity variable and its dimensions

Variable and dimensions	1	2	3	4	5	6
1. Cross-cultural sensitivity	1	-	-	-	-	-
2. Involvement in the interaction	0.772**	1	-	-	-	-
3. Respect for cultural differences	0.558**	0.107	1	-	-	-
4. Confidence in interaction	0.798**	0.690**	0.149	1	-	-
5. Enjoy the interaction	0.814**	0.634**	0.224**	0.702**	1	-
6. Attention in the interaction	0.912**	0.747**	0.312**	0.718**	0.769**	1

Note. Authors' development with the research data
**$p<0.01$

Discussion

In an increasingly globalized world, the ability to understand and respect cultural differences becomes essential to build harmonious and collaborative relationships. In the context of higher education, where students from diverse regions, traditions and values coexist, this skill becomes even more important. They, being immersed in a shared learning space, can explore different perspectives and build a coexistence based on mutual respect. For this reason, the present research focused on exploring intercultural sensitivity in higher education students from the Peruvian Amazon.

Preliminarily, it was found that students reported moderate levels of intercultural sensitivity. Similarly, the dimensions involvement in interaction, respect for cultural differences, trust in interaction, enjoyment of interaction, and attention in interaction were also rated at the moderate level, while the dimension involvement in interaction was placed at a high level. This means that students have a general intercultural sensitivity that, although present, is not prominently manifested in most of the dimensions assessed, suggesting that they need to be addressed to relate empathetically and respectfully with people from different cultures. However, the dimension of involvement in interaction, when placed at a high level, reveals an active interest and outstanding participation in intercultural contexts, which could be a starting point for strengthening the other dimensions.

This result partially coincides with that reported by Chen and Hu (2023), who found that university students in Macau present partially high levels of intercultural sensitivity due to their multicultural context and the educational approach that promotes intercultural competencies. However, they identified that certain factors, such as lack of international experiences and limited interaction with external cultures, may negatively influence the full development of these skills, highlighting the need to strengthen educational programs and practical experiences that enhance intercultural sensitivity. Similarly, our results are similar to the findings of Martínez et al. (2020), who determined that the predominant level of intercultural sensitivity was moderate, indicating that participants showed a basic disposition to understand and accept cultural differences, although they still present limitations in their ability to interact effectively in intercultural contexts.

Another interesting result shows that women showed greater enjoyment of the interaction than men. This means that women tend to find greater emotional and social satisfaction in interacting with other people, which may be related to cultural or socialization factors that favor emotional expression and the establishment of interpersonal connections. This finding could imply that women value shared experiences more, which leads them to become more actively involved in activities that foster the enjoyment of interaction. The above was corroborated by some research that found that women tend to show higher levels of empathy, emotional openness, and satisfaction in social interaction contexts compared to men (Zhang et al., 2024; Cerić et al., 2023; Lin et al., 2003).

It was also found that younger students, aged between 16 and 25, experienced greater respect for cultural differences than those over 25. This may be because younger students have grown up in a globalized context where cultural diversity is more visible and promoted through education, media and social networks. This context may have fostered a greater awareness of cultural differences and a more open attitude towards inclusion and tolerance. In addition, at this stage of development, young people are often in a process of identity formation and social learning, which makes them more receptive to new ideas and perspectives. Similar results were reported by Tapia (2022), who found that students in intermediate cycles, who mostly belong to the youngest age group, reached the highest levels of intercultural sensitivity, evidencing the influence of social and educational factors in their development.

Among the strengths of this research is its current relevance and novelty in the Peruvian context, especially in the Madre de Dios region, where cultural diversity is significant, but little explored in academic terms. By providing a deeper understanding of intercultural sensitivity in higher education students, the study not only fills a gap in the literature but also offers empirical evidence for the design of educational policies and intervention programs that foster intercultural interaction. Furthermore, the use of a validated and reliable instrument ensures the methodological rigor and quality of the findings, which reinforces their relevance.

Limitations of the study

Finally, it is important to note that this study has some limitations that should be considered when interpreting the results. First, the sampling was not probabilistic, which could limit the representativeness of the sample and, therefore, the generalizability of the findings. In addition, a self-administered instrument was used, which may have introduced social desirability biases or errors in participants' understanding of the questions. Finally, the cross-sectional design of the study allows only capturing a static view of students' perceptions and behaviors, without assessing changes or trends over time. To address these limitations in future research, it would be pertinent to employ probability sampling, to combine data collection methods such as interviews or observations, and to consider a longitudinal design that allows for the analysis of the evolution of the variables studied.

FINAL REMARKS

Today, Peru, and especially the Madre de Dios region, is a place of great cultural diversity. This area, located in the Amazon jungle, is home to indigenous communities, people who have arrived from different parts of the country and from other countries, which creates an environment of interaction between different cultures. This diversity presents both challenges and opportunities for social relations, so it is very important that students develop intercultural sensitivity. In a place like Peru, where traditions and customs from different places are mixed, it is essential that students learn to understand, respect and adapt to these differences. Having an open and respectful attitude towards different cultures is not only important for living together harmoniously, but also for personal enrichment and learning from others.

Our main finding indicates that the cultural sensitivity that students show is moderate. This means that, although students do not show a lack of sensitivity to other cultures, they do not reach a high level of involvement in intercultural interactions. In that sense, it is observed that students can recognize and value cultural differences at a basic level; however, they do not feel completely comfortable or engaged in situations that require deep immersion in intercultural contexts. This could reflect a lack of more developed social skills or confidence when interacting with people from different cultures.

Therefore, the implementation of educational programs and practical activities that promote greater intercultural interaction is recommended. This could include workshops, cultural exchanges, and group activities that allow students to experience and reflect on cultural differences directly. In addition, it is necessary to incorporate in the curricular designs content that fosters respect and understanding of diverse cultures, developing intercultural communication skills, empathy and conflict resolution. Likewise, it is suggested to create spaces where students can express their experiences and opinions on intercultural interaction, facilitating an inclusive learning environment. These actions will help students overcome cognitive and emotional barriers, increasing their involvement in intercultural interactions and favoring greater openness towards cultural diversity.

REFERENCES

Bennett, M. J. (1993). Towards ethnorelativism: A developmental model of intercultural sensitivity. In R. M. Paige (Ed.), *Education for the intercultural experience* (pp. 21–71). Intercultural Press.

Cerić, H., Alić, A., & Habibović, S. (2023). Evaluating intercultural sensitivity among high school and university students. In L. Kasumagić-Kafedžić & S. Clarke-Habibi (Eds.), *Peace pedagogies in Bosnia and Herzegovina* (pp. 175-191). Springer. https://doi.org/10.1007/978-3-031-26246-3_13

Chen, A. S. (2024). Study on teaching practices of multicultural competences: Fostering a cultural connection between new immigrant females and undergraduate students. *International Journal of Intercultural Relations, 100*, 101968. https://doi.org/10.1016/j.ijintrel.2024.101968

Chen, H., & Hu, B. (2023). On the intercultural sensitivity of university students in multicultural regions: A case study in Macao. *Frontiers in Psychology, 14*, 1090775. https://doi.org/10.3389/fpsyg.2023.1090775

Comboni, S., & Juárez, J. M. (2020). *Interculturalidad y diversidad en la educación: Concepciones, políticas y prácticas*. Universidad Autónoma Metropolitana.

Corbetta, S., Bonetti, C., Bustamante, F., & Vergara, A. (2018). *Educación intercultural bilingüe y enfoque de interculturalidad en los sistemas educativos latinoamericanos: Avances y desafíos*. Comisión Económica para América Latina y el Caribe (CEPAL). https://hdl.handle.net/20.500.12799/6134

Elias, A., & Mansouri, F. (2020). A systematic review of studies on interculturalism and intercultural dialogue. *Journal of Intercultural Studies, 41*(4), 490-523. https://doi.org/10.1080/07256868.2020.1782861

Fong, J. (2020). An evaluation of an education abroad program on the intercultural learning and cross-cultural adaptability skills of university undergraduates. *Higher Education Evaluation and Development, 14*(2), 55-68. https://doi.org/10.1108/heed-01-2020-0002

Fuller, N. (2002). *Interculturalidad y política: desafíos y posibilidades*. Red para el Desarrollo de las Ciencias Sociales en el Perú. http://hdl.handle.net/11354/137

Gravetter, F., & Wallnau, L. (2014). *Essentials of statistics for the behavioral sciences* (8th ed.). Wadsworth.

Hammer, M. R., Bennett, M. J., & Wiseman, R. (2003). Measuring intercultural sensitivity: The intercultural development inventory. *International Journal of Intercultural Relations, 27*(4), 421-443. https://doi.org/10.1016/s0147-1767(03)00032-4

Huff, S. T., Hanek, K. J., Lee, F., & Brannen, M. Y. (2021). Cultural adaptation and societal context: The role of historical heterogeneity in cultural adaptation of newcomers. *International Journal of Intercultural Relations, 85*, 141-155. https://doi.org/10.1016/j.ijintrel.2021.09.008

Karababa, A. (2024). A new look at parenting through the cultural context: Development and initial psychometric evidence of the Interculturally Sensitive Parenting Scale (ISPAS). *International Journal of Intercultural Relations, 100*, 101966. https://doi.org/10.1016/j.ijintrel.2024.101966

Karacsony, P., Pásztóová, V., Vinichenko, M., & Huszka, P. (2022). The impact of multicultural education on students' attitudes in business higher education institutions. *Education Sciences, 12*(3), 173. https://doi.org/10.3390/educsci12030173

Klenner, M. P., Gálvez, J. L., & Beltrán, J. C. (2021). Factor structure of the Intercultural Sensitivity Scale (ISS) in a sample of university students from Chile. *International Journal of Intercultural Relations, 82*, 168-174. https://doi.org/10.1016/j.ijintrel.2021.03.015

Lin, Y., & Rancer, A. S. (2003). Sex differences in intercultural communication apprehension, ethnocentrism, and intercultural willingness to communicate. *Psychological Reports, 92*(1), 195-200. https://doi.org/10.2466/pr0.2003.92.1.195

Martínez, G. P., Mera, M. J., & Bilbao, M. (2020). Preferencias aculturativas y su relación con la sensibilidad intercultural y el bienestar: chilenos como sociedad receptora ante la inmigración latinoamericana. *Revista de Psicología, 29*(2), 1-15. https://doi.org/10.5354/0719-0581.2020.55961

Ministerio de Cultura (2014). Diversidad cultural, desarrollo y cohesión social. http://repositorio.cultura.gob.pe/handle/CULTURA/50

Mittelmeier, J., Rienties, B., Tempelaar, D., & Whitelock, D. (2018). Overcoming cross-cultural group work tensions: Mixed student perspectives on the role of social relationships. *Higher Education, 75*(1), 149-166. https://doi.org/10.1007/s10734-017-0131-3

Montes, P., & Cáceres, J. (2024). Educación intercultural en el rendimiento académico de estudiantes en una Universidad Nacional Intercultural. *LATAM Revista Latinoamericana de Ciencias Sociales y Humanidades, 5*(1), 2605-2622. https://doi.org/10.56712/latam.v5i1.1785

Pérez, D., González, A. I., González, M., & Santos, A. G. (2023). Reality and future of interculturality in today's schools. *Education Sciences, 13*(5), 525. https://doi.org/10.3390/educsci13050525

Purabdollah, M., Tabrizi, F. M., Khorami Markani, A., & Poornaki, L. S. (2021). Intercultural sensitivity, intercultural competence and their relationship with perceived stress among nurses: Evidence from Iran. *Mental Health, Religion & Culture, 24*(7), 687-697. https://doi.org/10.1080/13674676.2020.1816944

Ramírez, Y. (2021). Interculturality in Peruvian society and the training of intercultural teachers. *South Florida Journal of Development, 2*(2), 2759-2769. https://doi.org/10.46932/sfjdv2n2-129

Rodríguez, R. M. (2022). International experiences and the development of intercultural sensitivity among university students. *Educación XX1, 25*(1), 93-117. https://doi.org/10.5944/educXX1.30143

Ruiz, M. P. (2012). *Validación de un instrumento para el estudio de la sensibilidad intercultural en la provincia de Castellón* (Tesis doctoral). Universitat Jaume I. http://hdl.handle.net/10803/83300

Tapia, A. E (2022). *La sensibilidad intercultural en estudiantes de carreras de Educación en una universidad peruana* (tesis de maestría). Universidad Peruana Cayetano Heredia. https://hdl.handle.net/20.500.12866/13300

Tomul, E., Taslidere, E., Almış, S., & Açıl, E. (2024). The moderation effect of economic, social and cultural status on mediating role of adaptability and intercultural sensitivity in the relationship between self-efficacy and attitudes towards immigrants in Türkiye. *Current Psychology, 43*(21), 19264-19282. https://doi.org/10.1007/s12144-024-05720-3

Vromans, P., Korzilius, H., Bücker, J., & Jong, E. (2023). Intercultural learning in the classroom: Facilitators and challenges of the learning process. *International Journal of Intercultural Relations, 97*, 101907. https://doi.org/10.1016/j.ijintrel.2023.101907

Yanto, M., Warsah, I., Morgana, R., Muttaqin, I., & Destriani. (2022). Intercultural sensitivity of educational management students as the future's educational leaders in Indonesia. *International Journal of Sociology of Education, 11*(3), 263-290. http://dx.doi.org/10.17583/rise.10483

Zhang, X. (2024). Gender differences in intercultural competence: The moderating role of intercultural experiences. *Journal of International and Intercultural Communication, 17*(3), 313-335. https://doi.org/10.1080/17513057.2024.2355873

Contribution of each author to the manuscript:

Task	% of contribution of each author				
	A1	A2	A3	A4	A5
A. theoretical and conceptual foundations and problematization:	20%	20%	20%	20%	20%
B. data research and statistical analysis:	20%	20%	20%	20%	20%
C. elaboration of figures and tables:	20%	20%	20%	20%	20%
D. drafting, reviewing and writing of the text:	20%	20%	20%	20%	20%
E. selection of bibliographical references	20%	20%	20%	20%	20%
F. Other (please indicate)	-	-	-	-	-

Indication of conflict of interest:

There is no conflict of interest

Source of funding

There is no source of funding

Acknowledgments

There is no acknowledgment

Note

This research stems from the academic work titled "Intercultural sensitivity in higher education students from the Madre de Dios region" as part of the requirements for obtaining a second specialization in Didactics of Research in Virtual Environments