



## RESEARCH PAPER

# Cultural Synergy in Learning English: Co-Cultural Communication's Role in Collaborative Learning at Northwest Institute of Health Sciences, Peshawar, Pakistan

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## ABSTRACT

This study explored how co-cultural communication affects group learning among students at Northwest Institute of Health Sciences, Peshawar. Classrooms today are more culturally diverse. Students from different backgrounds bring unique communication styles which impact their intragroup collaboration. A 5-point Likert Scale questionnaire was employed to collect data 100 undergraduates. The survey asked about culture, communication, and learning satisfaction. Descriptive and regression analysis were used. Divergent views prevail among participants, many preferring working with students from similar backgrounds, others prioritizing solo study. Regression analysis reveals a positive correlation between collaboration and communicative comfort and respect was identified. Communication style predict 18.2% of satisfaction levels. The findings further highlight the salience of respecting communicative diversity, teacher's role, and learning style for collaborative learning. The findings suggest training for teachers is needed. Culturally aware classrooms support all learners, preparing them for real-world teamwork in diverse healthcare settings.

**KEYWORDS** Co-Culture Theory, Collaborative learning strategies, communication, English language classroom

## Introduction

Health sciences education is becoming more culturally diverse. Students now study in global, multicultural classrooms worldwide (Kunwar, 2021). Diversity influences communication, behaviour, and group dynamics deeply. Teamwork is essential in healthcare training today (Bonello et al., 2018). Students must collaborate and solve problems together.

Group learning reflects real healthcare environments. But cultural barriers can affect collaboration outcomes. Students bring varied values and learning preferences (Kunwar, 2021). Some prefer direct speech, others indirect communication. These differences cause misunderstanding or reduce group participation (Amos et al., 2016). Co-cultural communication explains these behaviors in education. It shows how minority students adjust in dominant groups (Amos et al., 2016). Some students assimilate; others keep cultural identity. This choice affects collaboration and learning styles (Kunwar, 2021). When ignored, students may feel left out. Exclusion lowers participation and engagement in group tasks.

Collaborative learning is now widely used in health education (Bonello et al., 2018). It improves critical thinking and communication. But it works best in inclusive

environments. Teachers must understand students' cultural needs. They must design fair, respectful group experiences. Without inclusion, collaboration may lead to isolation. Students might avoid teamwork completely. Educators must promote open communication. Respect for diversity improves teamwork success (Goulart et al., 2018).

Cultural communication strongly affects how students work together. It influences their roles, participation, and comfort levels. When students from different backgrounds join a team, views may clash or blend well (Kunwar, 2021). Students from collectivist cultures often prefer group harmony. They may avoid conflict and speak less in group settings. In contrast, students from individualist cultures value independence. They are more likely to speak out and lead group tasks (Arpacı, 2016). These differences affect how tasks are handled. Some students may dominate while others stay silent. Educators must balance this. Teaching should support all voices. Co-cultural theory helps explain this. It shows how minority students adapt. They may adjust their style, stay silent, or assert identity depending on how safe they feel (Razzante & Orbe, 2018). A study in Taiwan found that adapting collaboration tools helped students from different backgrounds work better. Students communicated more clearly and worked with more trust (Rosé et al., 2007).

Collaborative learning can boost skills and teamwork. But success depends on understanding cultural styles. In health sciences, this matters even more. Teamwork is essential for patient care. So, learning to collaborate across cultures builds real-world skills. With proper support, culturally diverse teams can thrive. Respect and inclusion are key. When students feel heard, they perform better and engage more (Sampieri-Cabrera et al., 2019). This study focuses on a Northwest Institute of Health Sciences, Peshawar, Pakistan. It explores how co-cultural communication affects learning. The findings aim to improve multicultural collaboration. Understanding these factors helps boost academic performance. Research on co-cultural communication in Pakistan is limited. Most studies focus on global or Western classrooms. They often ignore regional contexts and student diversity (Kunwar, 2021). In Pakistan, cultural norms strongly shape classroom interaction. However, this influence is rarely studied in health education settings (Goulart et al., 2018). Group learning is vital in healthcare education. But cultural misunderstandings can affect its success. Students may struggle to collaborate effectively. This is due to language barriers and differing expectations (Amos et al., 2016). Some students avoid speaking in groups. Others dominate discussions unintentionally. These behaviours can hurt group outcomes. At Northwest Institute of Health Sciences, diversity is growing. Students come from many ethnic and linguistic backgrounds. Their communication styles and learning habits vary. These differences impact group learning experiences (Bonello et al., 2018). There is a need to study this issue locally. Understanding how co-cultural communication works here is essential. It can help improve teamwork and academic success. This research fills that gap and brings new insights. To examine the impact of co-cultural communication on collaborative learning strategies among undergraduate students at Northwest Institute of Health Sciences, Peshawar, Pakistan, in order to enhance teamwork and academic success in a multicultural educational environment.

## **Literature Review**

The co-cultural communication is the interaction between the people from different cultural backgrounds in the same environment. Effective communication bridges the gap in the health sciences education for learning outcomes and teamwork (Waham et al., 2023). The collaborative learning, which is based on the student-centred approach, corresponds to the reality of clinical practice since it enables interdisciplinary teamwork (Sampieri-Cabrera et al., 2019). Students' learning preferences are shaped by their culture as students prefer individual or group learning (Kunwar, 2021). This chapter explores how co-cultural

communication affects health sciences students' collaborative learning strategies and experiences with satisfaction in culturally inclusive educational experiences (Rubtsova et al., 2023).

Co-Culture Theory is developed by Mark Orbe (1998), which argues how marginalised groups do communicate in a dominant sociological structure. Drawing from Razzante (2020), he argues that people from non-dominant cultural origins employ various strategies to overcome communication barriers and to assert their identity and to adapt to new environment conditions.

In an educational context, Rodriguez (2023) explains this by saying that students from different cultural backgrounds adapt their communication styles so that they are able to participate in the collaborative learning environment. Based on the theory, there are three strategies of communication, and those are assimilation (when we assimilate into the dominant culture), accommodation (when we communicate at the same time, we practice our cultural identity), and separation (when we try to avoid communication with any dominant group) (Razzante & Orbe, 2018). In diverse classrooms, these strategies have considerable impact on students' interactions in group discussions, teamwork, knowledge sharing, academic engagement and overall learning experience (Orbe et al., 2015). Educators can recognize and understand co-cultural communication styles and develop inclusive learning environments that foster collaborative learning experiences for all students in multicultural academic settings (Hidleburg-Johnson, 2022).

Health sciences education uses collaboration as a student focused approach that promotes knowledge sharing and teamwork (Yang, 2023). It promotes interdisciplinary collaboration and strengthens students' critical thinking, problem-solving, and communication skills, which are crucial for the professional healthcare settings (Wicaksono, 2024). Working in teams gives students practical skills for patient-centred care and collaborative clinical decision making. According to Rahman et al (2022), collaborative learning has the benefit of enhancing creative and analytical thinking at the healthcare students by employing interactive groups discussions and hands on group projects. According to Gamble and Gamble (2013), this approach results in higher knowledge retention, more student engagement and more readiness for teamwork in healthcare settings.

However, collaborative learning has its challenges, especially in culturally diverse classrooms. Language, communication styles, and social norms tend to be different enough to make participation and teamwork difficult (O'Brien & English, 2022). Structured team based learning models and digital tools such as virtual simulations have been recommended to overcome these barriers and improve collaborative effectiveness (Pozzi et al., 2023). In health sciences, understanding the effect of collaborative learning is fundamental to optimise the student engagement and to prepare future professionals to work in the multidisciplinary healthcare environments (Strijbos, 2016).

Factors that shape students' learning behaviour through co-cultural affiliation includes race, ethnicity, socioeconomic background and language proficiency (Basnet, 2024). These affiliations then influence how students interact with one another, instructors, and course materials (Eden et al., 2024).

According to Alisoy (2024), cultural differences affect language acquisition and classroom communication, and hence learning strategies among students of different backgrounds. Different students like to study individually while others prefer collaborative learning environments that match their cultural values (Alisoy, 2024).

Research indicates that students from collectivist cultures seem to excel in group-based learning whereas the students from individualist cultures often favour self-directed learning (Sukying, 2021). Cultural adaptation is critical in students' engagement with collaborative learning. Mitakidou and Tamoutseli (2011) express that cooperative learning allows students from different backgrounds to build cross cultural competencies through cultural interactions. However, active participation in group learning is hindered due to language barriers and unfamiliar academic norms (Chao, 2023). To have inclusive learning environment, educators have to adopt the culturally responsive teaching methods. The integration of cultural awareness in curricula and the encouragement of multicultural activities in groups will narrow the gap in communication and the collaborative learning experiences (Mohamad, 2024).

Cultural background and the influence on cultural communication styles affect learning preferences. Indirect, implicit communication is prevalent in High context cultures (like in Asia and Latin America), while explicit, direct communication is more prevalent in Low context cultures (typically found in the Western culture) (Alisoy, 2024). Such differences influence student engagement, group dynamics and involvement in the classroom.

Madhu and Bhattachryya (2023) found that students from high-context cultures prefer collaborative learning environment, and students from low-context cultures tend to learn better in individual environments. Moreover, students from collectivist cultures rely on teamwork and group decision making while those from individualistic cultures prefer independent study and self-paced learning (Islam, 2024).

Teamwork and knowledge sharing are influenced by indirect vs. direct communication. As Brown (2021) explains, students from indirect communication cultures have difficulties in expressing themselves in groups and asserting themselves in discussions for the reasons of misunderstandings and leading to reduced participation. In contrast, direct communicators may rule the discussion and sometimes may exclude the indirect communicators (Tanova & Nadiri, 2010).

Educators should be incorporating culturally responsive methods of teaching in order to enhance the group learning effectiveness. Structures of discussion formats, peer mentoring, and role-based activities are used as strategies that can bridge communication gaps and build an inclusive learning environment (Triandis, 2022).

Student satisfaction in collaborative learning settings depends on engagement, cultural inclusivity, and effective communication (Rubtsova et al., 2023). Students from different co-cultural backgrounds may perceive group work differently, influencing their willingness to participate and overall learning experience (Grothaus, 2022).

Communication styles determine engagement levels in collaborative tasks. Agustina (2022) found that students with direct communication styles experience greater satisfaction, as they openly express ideas, while students from indirect communication cultures may struggle with assertiveness. Similarly, language barriers and unfamiliar group dynamics can reduce satisfaction, particularly in culturally diverse teams (Cruz & Xiang, 2023). To enhance satisfaction, structured multicultural teamwork strategies are recommended. Garza-Olivares et al. (2021) highlighted the success of global classroom initiatives, where students develop cultural awareness through inter-country collaboration. Additionally, peer mentoring and digital collaboration platforms support students from diverse backgrounds, ensuring inclusive and effective learning environments (Zach & Avugos, 2024).

Existing research on co-cultural communication and collaborative learning in health sciences education lacks focus on Pakistan's diverse academic environment. Studies rarely explore how communication styles impact student engagement, learning preferences, and satisfaction. Further research is needed to examine cultural adaptation strategies and enhance inclusivity in collaborative learning environments (Grothaus, 2022). It highlighted various cultural influences on learning preferences, teamwork, and satisfaction. Inclusive teaching strategies can address language barriers and communication styles in order to increase collaborative engagement.

### **Material and Methods**

This study adopted a quantitative cross-sectional design. A structured online survey was used to collect data. This method fits short-term studies with limited time. It allowed gathering diverse student views quickly and efficiently. A survey helped capture current attitudes and behaviors with ease (Jin et al., 2016). Responses reflected real-time student opinions without manipulation. This approach was ideal for measuring perceptions statistically. It suited the aim of exploring cultural impacts on learning. The online format enabled wider reach across student groups. Participants answered anonymously, encouraging honest feedback. Co-cultural factors and learning preferences were examined clearly. Such surveys work well in multicultural learning studies (Jin et al., 2016).

The target population included BS undergraduates. These students were enrolled at Northwest Institute of Health Sciences. A simple random sampling method was used for fair selection. This approach gave each student an equal chance to participate from diverse backgrounds like Chitrali and Pathan. The final sample included 100 students from various programs. A total of 100 students participated in the survey. Most of them aged 21–22 (44%), followed by 18–20 years (39%), and 23–25 years (17%). In terms of gender, 61% were male and 39% female. This sample size was manageable and statistically sound. It provided enough diversity to reflect key student views. Random sampling helps reduce bias and supports valid inference. It ensures each selected unit fairly represents the larger group (Singh, 2003). The approach allowed clear insights into student communication and learning behaviors.

The data collection tool used was a structured questionnaire. It focused on three main areas: students' cultural backgrounds, communication preferences, and satisfaction with group learning. It consisted of 15 items divided into three focus areas (see appendix 1). These included co-cultural affiliations, communication styles, and collaborative learning satisfaction. All items used a 5-point Likert scale. Responses ranged from strongly disagree to strongly agree. Likert scales are widely used in educational research. They are effective in measuring attitudes and perceptions accurately (Oliver, 2004). The questionnaire was developed using insights from academic literature. Items were aligned with the research objectives of this study. The design ensured clarity and consistency for respondents. Students could respond quickly and with minimal confusion. The online format supported ease of access and submission. This tool effectively captured relevant data from the participants.

The online survey was created and distributed using Google Forms. Students were first informed about the study during class. The research purpose was explained, and voluntary participation was encouraged. After gaining verbal interest, the survey link was shared via student emails. Students were encouraged to complete the form in their free time. This approach built trust and improved response rates. Online surveys are easier and faster than paper forms. They reduce printing costs and save time on data entry. Responses

are stored automatically and can be analyzed quickly. Research shows online surveys are efficient for student studies (Evans & Mathur, 2005). Students appreciated the flexibility and confidentiality of the method. This made online data collection both practical and effective.

Data analysis was done using SPSS software. All responses were first checked for completeness. Each survey item was coded into numeric values. Data was entered manually into SPSS spreadsheet. Simple errors were cleaned before final analysis. Descriptive statistics like frequencies and percentages were used. These showed trends in student responses clearly. Charts and tables were also created in SPSS. Composite scores were made for key variables. Items Q1–Q5 measured communication style together. Items Q11–Q15 measured group satisfaction levels. Scores were combined using the “Compute Variable” tool. A linear regression analysis was later performed. It checked if communication predicted group satisfaction. The regression model gave values of R and R<sup>2</sup>. R value showed the strength of the relationship. R<sup>2</sup> explained how much variance was predicted. This method followed standard analysis guidelines. The SPSS tools help make the results easy to understand (Pallant, 2020; Field, 2018)

Verbal consent was obtained from all participants. The researcher clearly explained the study’s purpose. Students were told their participation was voluntary. They were informed they could withdraw anytime freely. No names or IDs were collected for privacy. All responses were kept confidential and secure. Ethical research must protect participants’ rights (Kavanaugh & Werner, 2000). Ethical approval was granted by the college review board. Students were assured there were no risks involved. These steps ensured the study met ethical standards.

## Results and Discussion

### Influence of Co-Cultural Affiliations on Collaborative Learning Strategies

Five survey items explored how students’ cultural backgrounds influenced their collaborative learning strategies. A majority of students (49%) agreed and 20% strongly agreed that their cultural background influences how they work with others. Only 10% disagreed or strongly disagreed. When asked if it is easier to collaborate with students from the same culture, 48% agreed and 26% strongly agreed. Only 7% disagreed, while 19% stayed neutral. Cultural beliefs also impacted communication during group learning for many students. 45% agreed, and 17% strongly agreed. In contrast, 22% disagreed, and 16% were neutral. On group learning methods common in their culture, 41% agreed and 18% strongly agreed. 20% disagreed and 21% remained neutral. Finally, regarding cultural identity shaping group behavior, 53.5% agreed and 19.2% strongly agreed. Only 13.1% disagreed.

**Table 1**  
**Influence of Co-Cultural Affiliations on Group Learning**

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Q1. Cultural background influences how I work	2%	8%	21%	49%	20%
Q2. Easier to collaborate with same culture	1%	6%	19%	48%	26%
Q3. Cultural beliefs affect communication	5%	17%	16%	45%	17%
Q4. Prefer group methods from my culture	5%	15%	21%	41%	18%

Q5. Cultural identity shapes behavior in groups	4%	9%	14%	53.5%	19.2%
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### Relationship between Communication Styles and Preference for Individual Learning

Most students showed a preference for individual learning due to their communication style. For Q6, 29.3% agreed and 23.2% strongly agreed they feel more comfortable learning alone, while only 20.2% disagreed. In Q7, 41% agreed and 25% strongly agreed that studying individually helps them express themselves better. Q8 revealed that 30% agreed and 21% strongly agreed they avoid group learning to manage communication more easily. A total of 44% disagreed or stayed neutral. For Q9, 41% agreed and 14% strongly agreed their communication style supports solo learning. Only 26% disagreed. Q10 showed 48% agreed and 17% strongly agreed they often choose individual tasks due to communication preferences, while only 16% disagreed.

**Table 2**  
**Communication Style and Preference for Individual Learning**

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Q6. Prefer learning alone due to communication	4%	16.2%	27.3%	29.3%	23.2%
Q7. Express better individually	5%	10%	19%	41%	25%
Q8. Avoid group learning for easier communication	5%	22%	22%	30%	21%
Q9. Communication style supports solo learning	5%	21%	19%	41%	14%
Q10. Choose individual activities due to communication	2%	14%	19%	48%	17%

### Communication Style as Predictor of Group Satisfaction

The results show that most students are satisfied with group learning when their communication style is respected. For Q11, 48% agreed and 32% strongly agreed. Only 5% disagreed. In Q12, 45% agreed and 32% strongly agreed that they enjoy group learning when they can speak in their own way. Very few (3%) disagreed. Q13 had 37% agree and 29% strongly agree that they feel less satisfied when their communication style is ignored. In Q14, 44% agreed and 29% strongly agreed that satisfaction increases when everyone values different communication styles. Only 9% disagreed. For Q15, over half (51%) agreed and 19% strongly agreed that their communication preferences affect how much they enjoy group work.

**Table 3**  
**Communication Style and Satisfaction in Collaborative Learning**

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Q11. I am satisfied with group learning when my communication style is respected	3%	2%	15%	48%	32%
Q12. I enjoy collaborative learning when I can speak or contribute in my own way	1%	2%	20%	45%	32%
Q13. I feel less satisfied in group tasks when my communication style is ignored	2%	13%	19%	37%	29%

Q14. My satisfaction in group work increases when everyone values different ways of communicating	4%	5%	18%	44%	29%
Q15. My communication preferences affect how much I like group learning	–	5%	25%	51%	19%

A linear regression analysis was conducted to examine whether students' co-cultural communication style could predict their satisfaction with collaborative learning. This analysis was chosen because the goal was to determine the strength and direction of a predictive relationship between two continuous variables (Pallant, 2020)

Composite scores were created in SPSS for both variables. The Communication Style Score was calculated by combining responses from Q1 to Q5. The Satisfaction Score was calculated from Q11 to Q15. Both scores were computed using the "Transform and Compute Variable" function. These composite scores were then entered into a linear regression model following standard assumptions (Field, 2018).

The regression analysis revealed a moderate positive relationship between communication style and satisfaction in collaborative learning. The model summary showed an R value of .426, indicating a moderate correlation. The R Square value was .182, meaning that approximately 18.2% of the variance in satisfaction can be explained by students' communication styles. These findings suggest that students who feel their cultural communication style is respected and expressed in group settings are more likely to be satisfied with collaborative learning.

**Table 4**  
**Regression Model Summary**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.426 <sup>a</sup>	.182	.173	2.94150

a. Predictors: (Constant), Communication\_style

## Discussion

### Influence of Co-Cultural Affiliations on Collaborative Learning Strategies

The findings show culture affects how students collaborate. Most students agreed that their cultural background shapes behavior. Specifically, 49% agreed and 20% strongly agreed. This reflects the strong role of culture in group learning. It supports the idea that co-cultural affiliations matter. This aligns with Kunwar (2021), who noted cultural norms shape collaboration. Students from collectivist cultures tend to prefer teamwork. In contrast, students from individualist cultures favor independence (Kunwar, 2021).

A majority also found it easier to work with same-culture peers. Around 48% agreed and 26% strongly agreed. This confirms the influence of shared culture on collaboration comfort. Students feel more at ease with familiar customs. This aligns with Mitakidou and Tamoutseli (2011), who said that cultural familiarity boosts participation. Alisoy (2024) adds that shared norms help reduce misunderstandings. So, the results match literature showing same-culture collaboration is smoother.

Responses also indicated that cultural beliefs shape communication. 45% agreed and 17% strongly agreed. This suggests beliefs guide how students speak in groups. Some cultures value silence and respect. Others value assertiveness and debate. These patterns

impact classroom participation. Chao (2023) notes that beliefs affect how students express themselves. The study's results confirm this influence.

Students also preferred group methods familiar to their culture. 41% agreed and 18% strongly agreed. This highlights the link between cultural learning habits and group tasks. Some students prefer discussion-based activities. Others are more comfortable with role-based group work. Eden et al. (2024) found similar results in multicultural classrooms. Students brought their home learning styles into university settings.

Cultural identity was another strong influence on behaviour. Over 72% of students felt their identity shaped their group role. This confirms that identity impacts interaction patterns. It aligns with Co-Cultural Theory, which suggests that minority groups adapt in various ways. Orbe (1998) explains students may assimilate, accommodate, or separate. These behaviours depend on whether students feel accepted or excluded.

The survey data fits with Razzante and Orbe's (2018) theory. Students modify behaviour to suit the group. When culture is respected, they participate more. When it is not, they withdraw or isolate. This reflects separation strategies in diverse groups. It suggests educators must understand student identity. Culturally responsive strategies help include all voices.

This finding also supports Basnet (2024), who said that race, language, and class affect participation. At Northwest Institute of Health Sciences, students come from different provinces. They speak Urdu, Pashto, Punjabi, and English. These differences influence their comfort in group learning. Group norms may unintentionally exclude quieter voices.

Hence, findings align with past literature. Culture clearly affects group work in health education. When cultural identity is respected, students engage more. When ignored, group participation suffers. Educators must be trained to recognize these dynamics. Inclusive strategies improve collaboration across diverse classrooms (Mohamad, 2024). This will prepare students for multicultural clinical environments.

### **Relationship Between Communication Styles and Preference for Individual Learning**

The results show a strong individual learning preference. Many students link this to their communication style. For example, 29.3% agreed and 23.2% strongly agreed with Q6. They feel more comfortable learning alone. This suggests that communication barriers affect learning choices. It reflects what Madhu and Bhattachryya (2023) observed. Students often choose the mode that fits their expression style.

In Q7, 66% said they express better individually. This shows that group settings can limit clarity. Group pressure or fast-paced dialogue may reduce confidence. Students want time to process ideas alone. This aligns with Islam (2024), who noted that low-context culture students prefer clarity. Direct speech is easier in solo learning.

Q8 showed mixed responses. About 51% agreed or strongly agreed they avoid group learning. Yet 44% were neutral or disagreed. This suggests not all students avoid groups. Some may still value team learning, despite difficulties. Tanova and Nadiri (2010) explain this divide well. In high-context cultures, indirect speakers may struggle in groups. They prefer quiet spaces for reflection.

In Q9, 55% said their style supports solo learning. This supports the idea that speaking style matters. Communication shapes comfort zones and learning outcomes.

Students feel more confident when working in their preferred mode. Brown (2021) argued that indirect communicators often remain silent in groups. This limits their academic engagement.

Q10 further confirmed these trends. Around 65% choose solo tasks due to communication preferences. This shows that communication style directly influences learning mode. Students are selecting methods that match their comfort levels. This supports Goulart et al. (2018), who noted cultural barriers lead to withdrawal. Students avoid activities that demand uncomfortable communication.

These findings support existing theories in cross-cultural education. High-context culture students favour quiet, indirect communication. Low-context cultures value openness and self-expression. This was noted by Alisoy (2024) and Kunwar (2021). The results here align well with their conclusions. Cultural style defines how students engage and perform.

However, there's some divergence as well. While many students prefer individual work, not all do. A significant number were neutral or disagreed in Q8 and Q9. This may be due to hybrid communication patterns in Pakistan. Students may combine both indirect and direct communication styles. Waham et al. (2023) suggest that global exposure blends traditional norms. Some students adapt to group work despite cultural norms.

Rodriguez (2023) also found similar shifts. Students use accommodation strategies to fit into dominant norms. They may still prefer individual tasks, but adjust when needed. This flexibility is part of Co-Cultural Theory. Not all students follow one fixed path. Some adapt based on environment and expectations.

Hence, most students prefer individual learning due to communication preferences. This aligns with literature on high- vs. low-context cultures. Still, not all responses were one-sided. Some students may be adapting to group norms. These findings reinforce the need for inclusive learning models. Educators must support both styles in classrooms. Doing so can enhance participation and academic success.

### **Communication Style as Predictor of Group Satisfaction**

The results show clear support for communication respect. Students feel more satisfied when communication styles are valued. For Q11, 80% of students agreed or strongly agreed. They felt group learning improved when their style was respected. This supports Rubtsova et al. (2023), who found that satisfaction rises with inclusive communication environments.

Similarly, Q12 confirmed this trend. Around 77% enjoyed group learning when they could speak freely. This shows that autonomy in expression boosts engagement. When students use their natural style, participation improves. Grothaus (2022) also observed this in cross-cultural classrooms. Flexible spaces allow students to thrive in groups.

Q13 revealed the opposite. Students were less satisfied when styles were ignored. A total of 66% agreed or strongly agreed. This finding echoes Cruz and Xiang (2023), who reported negative experiences in mixed communication groups. When students feel excluded, satisfaction drops. Ignoring cultural styles causes withdrawal or silence.

Q14 and Q15 strengthened this pattern. About 73% said group satisfaction improved when all styles were valued. Half of students confirmed their enjoyment

depends on communication fit. These results highlight the importance of inclusive methods. Zach and Avugos (2024) support this too. They show diverse teams succeed when members respect each other's voices.

The regression analysis deepens these insights. A moderate positive correlation was found ( $R = .426$ ). This means communication style predicts satisfaction. If students feel understood, they are more content.  $R^2 = .182$  confirms 18.2% of satisfaction variance is explained. This aligns with Agustina (2022), who found communication respect boosts team morale.

These findings also support Co-Cultural Theory. Orbe (1998) explains how students adapt to dominant groups. If their styles are respected, they use accommodation strategies. If ignored, they may withdraw or separate. Razzante and Orbe (2018) note satisfaction is linked to acceptance. This study's results follow the same logic.

Interestingly, students from indirect communication cultures struggle more. They may not speak unless invited or encouraged. Brown (2021) argues this reduces satisfaction. These students feel unheard or rushed in discussions. Tanova and Nadiri (2010) support this too. Direct communicators can dominate group talk, limiting balance.

However, inclusive teaching methods can help. Garza-Olivares et al. (2021) found success with structured dialogue tools. Role-based discussions and peer mentoring bridge communication gaps. Educators can use these to support all styles. Mohamad (2024) suggests cultural awareness training for teachers. This helps create safe, inclusive learning spaces.

Though results align with most literature, some divergence exists. Some students may still feel satisfied even when misunderstood. Hybrid communicators adapt better in multicultural classrooms. Rodriguez (2023) observed this in bilingual learning settings. Students mix strategies to manage group dynamics.

In conclusion, the study confirms a strong link. Respecting communication styles increases group learning satisfaction. Findings match theories and past research broadly. Educators must design inclusive, flexible classrooms. They should support varied styles equally. Doing so improves collaboration, learning, and satisfaction for all students.

## **Conclusion**

This study explored culture's role in group learning. It focused on students from diverse backgrounds. Most students said culture affects collaboration styles. They felt more comfortable with same-culture peers. These responses confirmed the importance of cultural identity. Shared backgrounds help reduce misunderstandings and increase trust. Many students preferred solo learning activities. This was mostly due to communication style. Indirect speakers found it hard to speak in groups. They felt more confident learning alone instead. This matches findings from previous research studies. Cultural expression strongly shapes classroom behavior. Students also said they feel more satisfied when respected. Group learning was more enjoyable when communication styles were valued. The regression analysis confirmed this pattern. Communication style moderately predicted group satisfaction. When students could speak their way, they felt included. If not, they felt ignored and frustrated. Co-Cultural Theory helped explain these patterns. Students chose between assimilation, accommodation, or separation. Their satisfaction depended on how others responded. If peers accepted their styles, they stayed engaged. If excluded, they withdrew or stayed silent. In conclusion, culture and communication

matter deeply. Educators must consider these factors in group learning. Respecting diverse communication can improve teamwork success. This will benefit future healthcare professionals in multicultural settings.

### **Recommendations**

Teachers should understand different cultural communication styles. Training helps them build inclusive classrooms where all students feel welcome and heard. When teachers know how students communicate, they can design better group tasks. These tasks will support both direct and indirect communicators. This improves class participation and student comfort (Mohamad, 2024).

Peer mentoring is another helpful tool. Students with quiet or indirect styles often struggle to speak in groups. Mentors can guide and support these students. They help create a safe space for sharing ideas. Peer support boosts confidence and improves group learning outcomes (Garza-Olivares et al., 2021).

Educators should also use structured group activities. Assigning clear roles can reduce power imbalances. Stronger voices will not dominate discussions. Each student can contribute equally. This method promotes fairness and builds teamwork. It also improves satisfaction in collaborative learning settings (Zach & Avugos, 2024).

Further research is important. This study only looked at one college. Future studies should include more institutions across Pakistan. Both urban and rural colleges should be explored. This would reveal differences in communication and collaboration. It would also show how local cultures affect learning. Researchers should also examine the effects of cultural training. It may improve student satisfaction and teamwork.

Together, these steps can make health education more inclusive. They support diverse learners and enhance collaboration. In the long term, such efforts help students become better healthcare professionals in multicultural environments.

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