



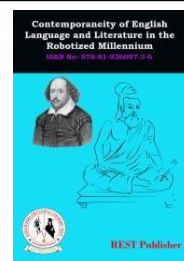
## Contemporaneity of Language and Literature in the Robotized Millennium

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# Analysis of Cross-Cultural Communication Using the DEMATEL Method

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**Abstract:** *Cross-Cultural Communication encompasses a diverse range of interactions within cultural contexts, involving the exchange of ideas and emotions. This exchange can occur through both verbal and non-verbal means, encompassing various cultural norms, values, and customs. Effective communication is integral in numerous contexts such as business, education, healthcare, and social organizations, and is particularly crucial in our interconnected world, where individuals with diverse backgrounds frequently engage. In this globalized landscape, cross-cultural communication stands as an indispensable tool for successful interaction and mutual understanding. Awareness of Cultural Differences: Understanding that different cultures have distinct communication styles, norms, and etiquette is fundamental. This awareness helps in avoiding misunderstandings and misinterpretations. Language Proficiency: Language is a primary tool of communication. While English is often used as a global lingua franca, it's important to recognize that not everyone may be equally proficient. Accommodating different levels of language proficiency is crucial. Motions, posture, reactions to situations, even eye contact are all examples of communication that is not verbal. convey a significant portion of a message. These can vary widely across cultures and can sometimes lead to misinterpretations. Listening Skills: Actively listening and paying attention to verbal cues, tone, and non-verbal cues is crucial. It helps in understanding not only the words being spoken but also the underlying feelings and intentions. Respect and Open-Mindedness: Respecting and valuing different cultural perspectives is key to successful cross-cultural communication. Being open-minded and curious about other cultures fosters positive interactions. Avoiding Stereotypes and Assumptions: Making assumptions based on stereotypes can lead to misunderstandings. It's important to approach each individual as just that—an individual with unique experiences and perspectives. Cross-cultural communication research holds a profound significance in our increasingly interconnected world. It serves as a crucial foundation for fostering understanding, tolerance, and cooperation between people from diverse cultural backgrounds. In a globalized society where individuals and groups regularly interact, the research equips us with essential insights into the nuances of communication across cultures, helping to mitigate misunderstandings and conflicts. Beyond interpersonal interactions, it plays a pivotal role in promoting successful international business relationships, enhancing diplomatic ties, and ensuring the efficacy of educational exchange programs. Moreover, it contributes to the creation of inclusive environments, where diversity is celebrated, and individuals from various backgrounds can thrive. In healthcare, cross-cultural communication research is vital for delivering equitable and effective services, and it also aids in the resolution of conflicts by considering cultural perspectives. This research, spanning multiple academic disciplines, has far-reaching implications for enhancing the quality of our personal, professional, and societal interactions. Cultural Sensitivity Training, Awareness of Cultural Differences, Language Proficiency, Non-Verbal Communication and Listening Skills. the Rank using the DEMATEL for Cross-Cultural Communication. Cultural Sensitivity Training is got the first rank whereas is the Awareness of Cultural Differences is having the Lowest rank.*

**Keywords:** *MCDM, Cultural Sensitivity Training, Awareness of Cultural Differences, Language Proficiency, Non-Verbal Communication and Listening Skills.*

## 1. INTRODUCTION

The goal of cross-cultural communication is to close the gap beyond established spheres of engagement and the study of cultures. In essence, it entails comprehending how individuals from diverse cultural backgrounds engage with one another. Its aim is to establish guidelines to enhance communication between people of different cultures. This field necessitates an interdisciplinary approach, encompassing expertise in areas like anthropology, cultural studies, psychology, and communication. It has evolved to focus on interpersonal relationships and the examination of communication techniques employed by intercultural groups, particularly in interactions with

majority or mainstream populations [1]. Learning languages beyond one's own not only fosters an understanding of our shared human experience, but also unveils the diversity inherent in how our languages shape and structure knowledge. This understanding holds significant implications for developing a critical awareness of social dynamics, which is crucial for successful global business endeavors. Language socialization, broadly defined as the exploration of how language introduces and establishes new social connections within a cultural context, requires the speaker to understand a language's grammatical characteristics as well as how its parts interact convey social meaning [2]. Human experiences are intrinsically linked to culture, and thus, linguistic elements are culturally significant. When comparing cross-cultural norms, a thorough evaluation of semiotics and sign systems must be undertaken. However, there are potential challenges associated with language socialization, including the tendency to oversimplify or characterize cultures based on subjective traits. Additionally, documenting alternative cultural norms is complex, as no individual consistently employs language in a manner perfectly aligned with normative characteristics. A methodology for examining how a person utilizes The study of language socialisation should take into account how language and other semiotic mechanisms interact to create and execute new behaviours, and how this departs from cultural norms [3]. The importance of cross-cultural communication theory in foreign language education is gaining recognition worldwide. Universities are now offering cross-cultural communication courses within their foreign language departments, while others have established dedicated programs in their academic departments. In response to the challenges and opportunities brought about by In order to advance the internationalisation of higher education, the creation of global networking alliances has grown to be an essential tool. numerous universities worldwide have taken significant steps towards enhancing cultural understanding through institutional transformations and innovative initiatives [4]. These university-wide endeavors typically revolve around four key dimensions: organizational restructuring, curriculum development, professional growth for faculty and staff, and fostering student mobility. Ellingbo underscores these dimensions while providing specific guidelines for the internationalization process. His recommendations encompass aspects such as leadership within the institution, faculty engagement in global activities and collaborations, ensuring study abroad opportunities are accessible and affordable for students, integrating Establishing multinational co-curricular units (such as dormitories, conference centres, unions for learners, employment services, linguistic and language residencies, student clubs, and organisations) as well as integrating students from abroad, researchers, and visiting educators into campus life. In particular, universities must remain flexible and attuned to shifts in the external landscape [5]. The entire campus group (staff, students, educational programme, and activities) must remain aware of changing cultural conditions and prepared to adjust for internationalisation efforts to be really effective. As Ellingbo asserts, internationalization is an ongoing, forward-looking, multi-faceted, interdisciplinary vision that requires leadership involvement and engages multiple stakeholders in reshaping the internal dynamics of an organization—in response to changes in the external environment. Cross-language research pertains to studies that involve two or more languages [6]. This could encompass scenarios where researchers interact when researchers converse with people in a dialect that they are not fully fluent in or when participants speak a language other than their native tongue. The transfer of study data or outcomes into another dialect can also be referred to. Although the research method and results are aimed for an English-speaking audience, in some situations, investigators and the subjects might utilise the same language (other than English). In qualitative analysis, which seeks to understand human behaviour completely, and experiences, cross-linguistic challenges have become increasingly prevalent [7]. Qualitative researchers utilize inductive methods to explore the meanings individuals attribute to their actions, behaviours, and interactions. This involves techniques such as direct observation, interviews, open-ended surveys, focus groups, content analysis of visual and textual materials, and oral histories. Studies employing qualitative methods that encounter cross-linguistic complexities face the task of delving into the interpretations, symbols, and social processes and relationships inherent in human life. While numerous scholars have explored the intricacies of conducting qualitative research in cross-cultural contexts, a definitive consensus on best practices has yet to emerge. For instance, Edwards highlights how the inconsistent or improper utilization of translators or interpreters can jeopardize the reliability of cross-language qualitative research and the relevance of translated findings to participants [8]. Researchers who overlook methodological considerations in the reliability of data as well as the general validity of the study may be compromised by the role of translators and interpreters. Temple and Edwards stress the critical importance of translation in research, emphasising that language is more than just a means of communicating ideas; it also carries cultural, social, and political subtleties unique to a particular social context. These subtleties might not have a straight translation in the original language, illustrating how words can have various cultural connotations. As stated by Temple et al., word choice is extremely important. As a result, it is essential to pay close attention to researchers' treatment of the usage of translators along with interpreters because it indicates their ability to grapple with language as a systemic issue [9]. Culture encompasses a set of attitudes, values, norms, and beliefs instilled and reinforced within a community, shaping individuals' perspectives and ways of life. It comprises shared assumptions and problem-solving approaches, passed down through generations to ensure societal continuity. Cultural principles, both explicit and implicit, govern how individuals engage with the world around them. Commonalities among members of a culture may be forged through factors such as religion, geography, race, or ethnicity. Our cultural lens profoundly influences how

we perceive and interact with the world, including our communication patterns. It shapes the language we use and our conduct in social interactions. Cross-cultural communication pertains to interactions between individuals who possess differences in aspects like occupation, age, nationality, race, ethnicity, gender, or sexual orientation [10]. Communication, encompassing language, gestures, and body language, serves as a means to bridge and navigate cultural disparities, impacting how individuals from diverse backgrounds engage with one another. People engage with culture on multiple levels, from the societal culture they grow up in to the work culture of their workplace, and any additional cultures they actively engage with or gradually disengage from. This dynamic often leads to an ongoing internal conflict between one's original culture and the prevailing majority culture encountered daily. Instances of cultural discord can arise when individuals hold the belief that their own cultural framework is superior to others [11]. Cross-cultural communication draws insights from various academic disciplines to prevent misunderstandings that could potentially escalate into conflicts among individuals or groups. It fosters trust and facilitates collaboration by prioritizing effective conveyance of meaning over merely providing correct responses. Encounters between individuals from different cultures entail not only varying cultural backgrounds but also distinct communication styles, including language use and conversational dynamics [12]. Effective cross-cultural communication is greatly enhanced when both parties are attuned to the conversational norms, such as ensuring balanced turn-taking and avoiding monopolization. Experiencing a different cultural viewpoint can sometimes instill uncertainty in an individual about how to appropriately engage or behave in a given context. For instance, a Japanese and an American engaged in a tentative business meeting may grapple with the unfamiliarity of each other's cultural norms. To surmount potential barriers in intercultural communication, honing listening skills is invaluable. This allows for a deeper understanding of the intended meaning behind words, beyond surface interpretations. Acknowledging our own biases and emotions ensures that we refrain from prematurely judging or stereotyping others. Embracing diversity and acknowledging our own limitations fosters more open and inclusive exchanges. Seeking feedback, taking initiative in communication, and assuming responsibility for our actions and feelings play a crucial role in minimizing miscommunication [13]. Cross-cultural communication pertains to interactions, particularly with individuals from different nationalities, where understanding how people from diverse cultures communicate, interact, and perceive the world is crucial. There are various facets of communication that vary across cultures, including volume and directness of speech, as well as the expression of emotions through verbal and non-verbal cues like facial expressions, eye contact, posture, and pitch. Importantly, these cues can be interpreted differently based on the recipient's own cultural background and upbringing, presenting significant challenges for effective communication across cultural barriers in the workplace. In the current business landscape, substantial transformations have occurred on political, social, economic, and financial fronts. These changes necessitate not only resilience but also superior skills compared to competitors, be it as an individual, team, or company [14]. Cross-cultural communication is integral to international business, including creating products and services, liaising with foreign business partners, selecting overseas distributors, and participating in exhibitions and trade fairs held abroad. Globalization is now fundamental to success, as competition extends far beyond local and national boundaries. Effective and transparent cross-cultural communication is essential in navigating today's global workplace. A deeper grasp of cultural distinctions, etiquette, ethics, and communication significantly heightens the likelihood of achieving business objectives. Another critical facet of Cross-cultural communication was the sharing of ideas among persons from various cultural backgrounds, hemispheres, presenting challenges in interpersonal communication due to varying cultural nuances [15]. Coping with cross-cultural communication involves addressing non-verbal discrepancies, language variations, and the distinction between civilizations with high and low contextual. Contemporary societies place a significant emphasis on non-verbal clues and established relationships for communication, as seen in countries like Mexico, Brazil, India, China, and Japan. In contrast, Communities with little context prioritise clear spoken expression more necessitating clear articulation of cultural behaviours and beliefs. Countries like the United States, Germany, and Australia fall into this category. Cross-cultural communication benefits greatly from indirect signals, as gestures and expressions may carry different meanings in different countries [16].

## 2. MATERIALS AND METHOD

**Cultural Sensitivity Training:** Formal training in cultural sensitivity equips those who are knowledgeable about and skilled at navigating cross-cultural encounters. Common themes covered by these programmes include cultural awareness, communication techniques, and the avoidance of stereotypes. Through exercises, case studies, and interactive learning, participants gain a deeper understanding of how to engage effectively and respectfully with people from diverse backgrounds.

**Awareness of Cultural Differences:** Understanding and appreciating the diversity of cultures is paramount in fostering effective cross-cultural communication. This awareness entails recognizing that people from different backgrounds may have distinct values, beliefs, communication styles, and social norms. It also means being mindful of potential pitfalls, such as making assumptions based on one's own cultural perspective. Developing

cultural awareness allows individuals to approach interactions with curiosity, respect, and an open mind, ultimately paving the way for more meaningful and harmonious connections.

**Language Proficiency:** Proficiency in a language, whether it's a native tongue or a shared second language, is a cornerstone of successful cross-cultural communication. It involves not only speaking fluently but also listening attentively and understanding nuances in expression. Language proficiency extends beyond mere vocabulary; it encompasses the ability to convey ideas clearly and comprehend the intentions behind others' words. When language barriers are bridged, it opens the door to more meaningful and accurate exchanges of information.

**Non-Verbal Communication:** Often underestimated, Cross-cultural encounters are greatly aided by nonverbal exchanges. This includes nonverbal cues including body language, movements, and even proxy phenomena (the use of nonverbal space). Different cultures may interpret these cues in varying ways, so being aware of how one's non-verbal cues may be received is crucial. A nod, a smile, or a handshake can convey respect and goodwill, while misinterpreted cues can lead to misunderstandings. Developing proficiency in non-verbal communication adds depth and nuance to cross-cultural interactions.

**Listening skills:** are a fundamental aspect of effective communication. They involve the ability to receive, interpret, and respond to verbal and non-verbal messages from others. A person with strong listening skills not only comprehends the words being spoken but also grasps the underlying emotions, intentions, and context behind the message. Here are some key elements of effective listening:

**Method:** The DEMATEL technique aids in pinpointing specific problems and feasible solutions within a hierarchical framework. It uncovers the interconnections among organizational elements, revealing cause-and-effect relationships. The use of directional diagrams is emphasized due to the influence of these elements [17]. Operating on the fundamental principles of DEMATEL, this approach employs a visualization method to analyze and resolve issues. It adopts a motivational diagram format, illustrating causal relationships to quantify the interplay and influence between factors. By scrutinizing the visual connections among conditions and formal factors, they are categorized into causal and effect groups. This approach provides researchers with a clearer understanding of the relationships and complexities involved in solving computer-related problems [18]. The DEMATEL system integrates emergency management seamlessly. Notably, this method obviates the need to convert fuzzy numbers before applying DEMATEL. Consequently, it accurately captures the uncertainty inherent in estimations. Our application of DEMATEL yields the final results derived from distinct features in each combined BPA [19]. The DEMATEL method, employed in the Results Testing and Evaluation Laboratory, serves as a potent tool for aggregating group knowledge to construct a structured model and visualize subsystem causal relationships. However, it's noted that smooth values may not entirely capture the ambiguity inherent in the real-world context [20]. DEMATEL scrutinizes the interdependencies among stocks and investment factors, incorporating ANP to assess their magnitudes and dependencies. The process first establishes network relationships through DEMATEL, then assigns increased weightage based on ANP applications for each factor. Finally, a systematic data collection procedure is delineated [21]. Effectively calculating the effects between criteria, the DEMATEL method adeptly segregates complex components into sender and receiver systems. This method offers a refined technique for selecting the management tool, factoring in transparent priority weights among alternative configurations [22]. The DEMATEL method evaluates barriers, both affective and causal groups, which may indicate bias or influenced group barriers. Therefore, prioritizing the consideration of barriers associated with stakeholders or influential groups is crucial for the effective implementation of e-waste management. Decision-makers must thus identify and address these barriers, ensuring a robust legal framework with controls to mitigate potential impacts. Consequently, the results obtained from both the ISM and DEMATEL methods show a degree of consistency. The integrated ISM and DEMATEL results for managing e-waste constraints not only establish the framework but also illuminate the interactions among these constraints [23]. DEMATEL investigates the specific applications for which it is employed. It classifies into three categories: firstly, discerning the relationships between factors or criteria; secondly, identifying pivotal factors based on the extent of causal relationships and interdependencies; and thirdly, evaluating impact levels by employing a scale to determine the relationships and weights of the criteria [24]. In the context of the DEMATEL method, the initial concern (cluster one) revolves around topics such as the relative weighting assigned by decision-makers in the demodel approach. In situations of group decision-making, conventional decision-makers often lean on their own viewpoints, hoping they are widely shared by others. In this manner, the final evaluation guidelines should align closely with their judgments. If the final evaluation deviates significantly, they may be inclined to reject it. This discrepancy is believed to be primarily due to methods rooted in unstructured comparisons, like DEMATEL [25]. DEMATEL is widely employed to analyze the comprehensive relationships between factors, categorizing them into cause and effect groupings. This paper treats each source as a criterion in the decision-making process. By applying DEMATEL, the importance and level of significance of each source can be managed, incorporating a combination of conflicting evidence. To enhance results, extending the DEMATEL method with source theory is deemed essential. In this article, instead of relying solely on the comparison criteria provided by experts in DEMATEL, alternative approaches are explored [26]. There's a transformation in the corresponding propositions

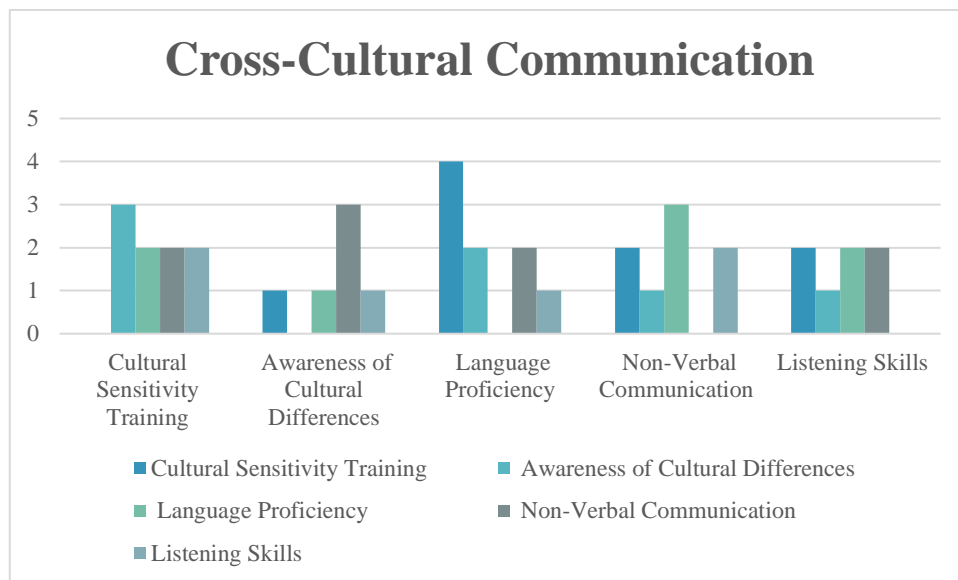
among bodies of evidence. The DEMATEL technique also integrates multidimensional decision-making (MCDM) to establish causal relationships between criteria when assessing the outreach personnel program. It combines DEMATEL with a novel cluster-weighted system, where DEMATEL functions as a unit. This approach serves to visualize the intricate web of relationships and can also gauge in discerning vital Six Sigma projects and, notably in logistics companies, prioritizing these projects [27].

### 3. ANALYSIS AND DISCUSSION

**TABLE 1.** Cross-Cultural Communication

	Cultural Sensitivity Training	Awareness of Cultural Differences	Language Proficiency	Non-Verbal Communication	Listening Skills	Sum
Cultural Sensitivity Training	0	1	4	2	2	9
Awareness of Cultural Differences	3	0	2	1	1	7
Language Proficiency	2	1	0	3	2	8
Non-Verbal Communication	2	3	2	0	2	9
Listening Skills	2	1	1	2	0	6

Table 1 shows that DEMATEL Decision making trail and evaluation laboratory in Cross-Cultural Communication with respect to Cultural Sensitivity Training, Awareness of Cultural Differences, Language Proficiency, Non-Verbal Communication and Listening Skills it is also sum of Value.



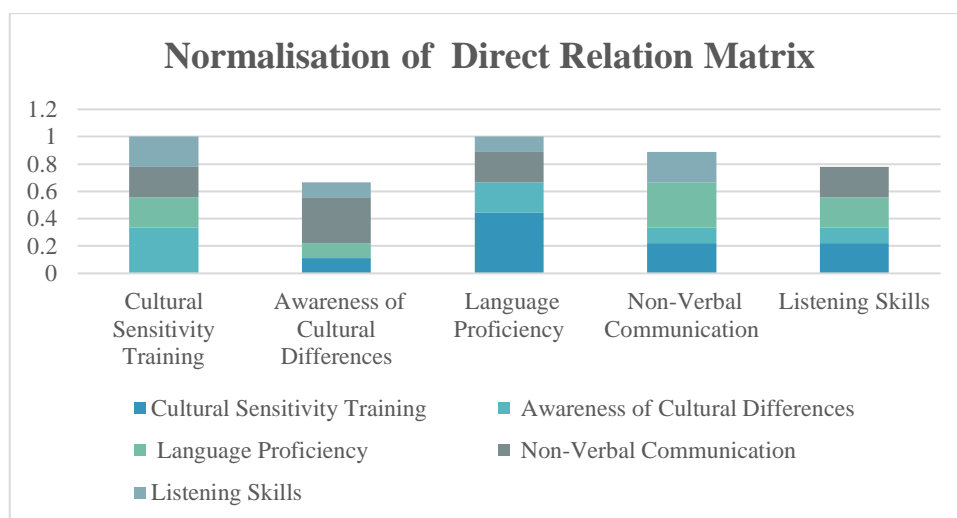
**FIGURE 1.** Cross-Cultural Communication

Figure 1 shows that DEMATEL Decision making trail and evaluation laboratory in Cross-Cultural Communication with respect to Cultural Sensitivity Training, Awareness of Cultural Differences, Language Proficiency, Non-Verbal Communication and Listening Skills it is also sum of Value.

**TABLE 2.** Normalization of Direct Relation Matrix

	<b>Cultural Sensitivity Training</b>	<b>Awareness of Cultural Differences</b>	<b>Language Proficiency</b>	<b>Non-Verbal Communication</b>	<b>Listening Skills</b>
Cultural Sensitivity Training	0	0.111111111	0.444444444	0.222222222	0.222222222
Awareness of Cultural Differences	0.333333333	0	0.222222222	0.111111111	0.111111111
Language Proficiency	0.222222222	0.111111111	0	0.333333333	0.222222222
Non-Verbal Communication	0.222222222	0.333333333	0.222222222	0	0.222222222
Listening Skills	0.222222222	0.111111111	0.111111111	0.222222222	0

Table 2 shows that the Normalising of direct relation matrix in Cross-Cultural Communication with respect to Cultural Sensitivity Training, Awareness of Cultural Differences, Language Proficiency, Non-Verbal Communication and Listening Skills the diagonal value of all the data set is zero.



**FIGURE 2.** Normalisation of Direct Relation Matrix

Figure 2 shows that the Normalising of direct relation matrix in Cross-Cultural Communication with respect to Cultural Sensitivity Training, Awareness of Cultural Differences, Language Proficiency, Non-Verbal Communication and Listening Skills the diagonal value of all the data set is zero.

**TABLE 3.** Calculate the Total Relation Matrix

	<b>Cultural Sensitivity Training</b>	<b>Awareness of Cultural Differences</b>	<b>Language Proficiency</b>	<b>Non-Verbal Communication</b>	<b>Listening Skills</b>
Cultural Sensitivity Training	0	0.11111	0.444444444	0.222222	0.222222
Awareness of Cultural Differences	0.3333333	0	0.222222222	0.111111	0.111111
Language Proficiency	0.2222222	0.11111	0	0.333333	0.222222
Non-Verbal Communication	0.2222222	0.33333	0.222222222	0	0.222222
Listening Skills	0.2222222	0.11111	0.111111111	0.222222	0

Table 3 Shows the Calculate the total relation matrix in shows that DEMATEL Decision making trail and evaluation laboratory in Cross-Cultural Communication with respect to Cultural Sensitivity Training, Awareness of Cultural Differences, Language Proficiency, Non-Verbal Communication and Listening Skills is Calculate the Value.

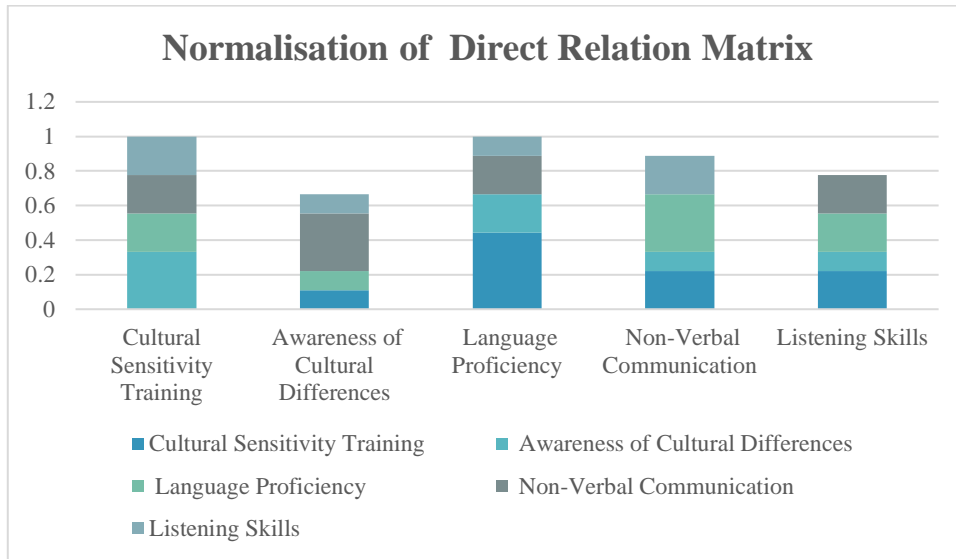


FIGURE 3. Calculate the Total Relation Matrix

Figure 3 shows the Calculate the Total Relation Matrix in shows that DEMATEL Decision making trail and evaluation laboratory in Cross-Cultural Communication with respect to Cultural Sensitivity Training, Awareness of Cultural Differences, Language Proficiency, Non-Verbal Communication and Listening Skills is Calculate the Value.

TABLE 4.  $T = Y(I - Y)^{-1}$ , I= Identity matrix

1	0	0	0	0
0	1	0	0	0
0	0	1	0	0
0	0	0	1	0
0	0	0	0	1

Table 4 Shows the  $T = Y(I - Y)^{-1}$ , I= Identity matrix in Cross-Cultural Communication with respect to Cultural Sensitivity Training, Awareness of Cultural Differences, Language Proficiency, Non-Verbal Communication and Listening Skills is the common Value.

TABLE 5. Y Value

0	0.111111	0.444444	0.222222	0.222222
0.333333	0	0.222222	0.111111	0.111111
0.222222	0.111111	0	0.333333	0.222222
0.222222	0.333333	0.222222	0	0.222222
0.222222	0.111111	0.111111	0.222222	0

Table 5 Shows the Y Value in Cross-Cultural Communication with respect to Cultural Sensitivity Training, Awareness of Cultural Differences, Language Proficiency, Non-Verbal Communication and Listening Skills is the Calculate the total relation matrix Value and Y Value is the same value.

**TABLE 6.** I-Y Value

1	-0.11111	-0.44444	-0.22222	-0.22222
-0.33333	1	-0.22222	-0.11111	-0.11111
-0.22222	-0.11111	1	-0.33333	-0.22222
-0.22222	-0.33333	-0.22222	1	-0.22222
-0.22222	-0.11111	-0.11111	-0.22222	1

Table 6 Shows the I-Y Value Cross-Cultural Communication with respect to Cultural Sensitivity Training, Awareness of Cultural Differences, Language Proficiency, Non-Verbal Communication and Listening Skills table 4  $T = Y(I-Y)^{-1}$ , I= Identity matrix and table 5 Y Value Subtraction Value.

**TABLE 7.** (I-Y)-1 Value

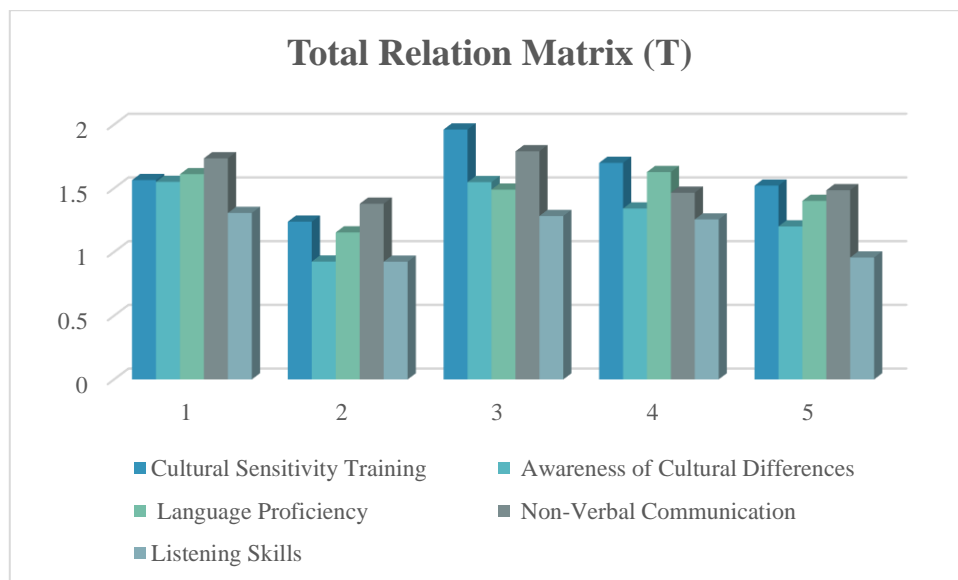
2.564094701	1.238162	1.961298	1.699092	1.520792
1.550601079	1.924865	1.548393	1.341389	1.200626
1.610770363	1.153705	2.489573	1.627331	1.401006
1.734973013	1.378373	1.790174	2.465285	1.48436
1.306611874	0.923516	1.282323	1.255275	1.956882

Table 7 Shows the (I-Y)-1 Value Cross-Cultural Communication with respect to Cultural Sensitivity Training, Awareness of Cultural Differences, Language Proficiency, Non-Verbal Communication and Listening Skills Table 6 shown the Minverse Value.

**TABLE 8.** Total Relation matrix (T)

	Total Relation matrix (T)				
Cultural Sensitivity Training	1.564094701	1.238162	1.961298	1.699092	1.520792
Awareness of Cultural Differences	1.550601079	0.924865	1.548393	1.341389	1.200626
Language Proficiency	1.610770363	1.153705	1.489573	1.627331	1.401006
Non-Verbal Communication	1.734973013	1.378373	1.790174	1.465285	1.48436
Listening Skills	1.306611874	0.923516	1.282323	1.255275	0.956882

Table 8 shows the Total Relation Matrix the direct relation matrix is multiplied with the inverse of the value that the direct relation matrix is subtracted from the identity matrix.



**FIGURE 4.** Total Relation Matrix (T)

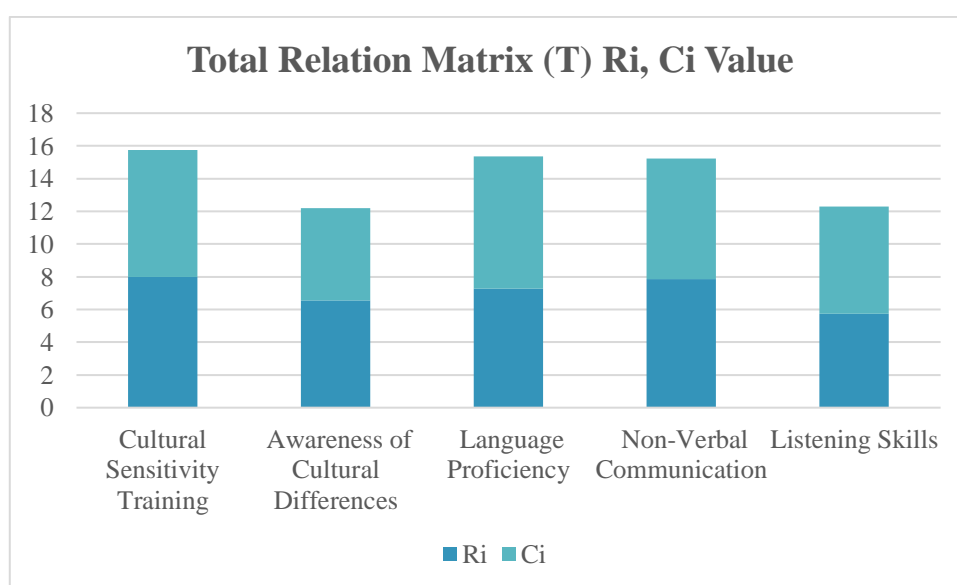


Figure 4 shows The Total Relation Matrix the direct relation matrix is multiplied with the inverse of the value that the direct relation matrix is subtracted from the identity matrix.

**TABLE 9.** Cross-Cultural Communication Ri, Ci Value

	Ri	Ci
Cultural Sensitivity Training	7.98344	7.767051
Awareness of Cultural Differences	6.565873	5.618621
Language Proficiency	7.282385	8.071762
Non-Verbal Communication	7.853165	7.388371
Listening Skills	5.724607	6.563665

Table 9 shows the Cross-Cultural Communication Ri, Ci Value Cultural Sensitivity Training is showing the Highest Value for Ri and Listening Skills is showing the lowest value. Language Proficiency is showing the Highest Value for Ci and Awareness of Cultural Differences is showing the lowest value.



**FIGURE 5.** Total Relation Matrix (T) Ri, Ci Value

Figure 5 shows the Total Relation Matrix (T) Ri, Ci Value Cross-Cultural Communication Ri, Ci Value Cultural Sensitivity Training is showing the Highest Value for Ri and Listening Skills is showing the lowest value. Language Proficiency is showing the Highest Value for Ci and Awareness of Cultural Differences is showing the lowest value.

**TABLE 10.** Calculation of Ri+Ci and Ri-Ci To Get The Cause And Effect

	Ri+Ci	Ri-Ci	Rank	Identity
Cultural Sensitivity Training	15.75049	0.216389	1	cause
Awareness of Cultural Differences	12.18449	0.947252	5	cause
Language Proficiency	15.35415	-0.78938	2	effect
Non-Verbal Communication	15.24154	0.464794	3	cause
Listening Skills	12.28827	-0.83906	4	effect

Table 10 shows the Calculation of Ri+Ci and Ri-Ci to Get the Cause and Effect. Cross-Cultural Communication is Cultural Sensitivity Training, Awareness of Cultural Differences, Language Proficiency, Non-Verbal Communication and Listening Skills of Cultural Sensitivity Training, Awareness of Cultural Differences and Non-Verbal Communication is Showing the highest Value of cause. Language Proficiency, Listening Skills is Showing the lowest Value of effect.

TABLE 11. T Matrix Value

<b>1.564095</b>	1.238162	<b>1.961298</b>	<b>1.699092</b>	<b>1.520792</b>
<b>1.550601</b>	0.924865	<b>1.548393</b>	1.341389	1.200626
<b>1.61077</b>	1.153705	<b>1.489573</b>	<b>1.627331</b>	1.401006
<b>1.734973</b>	1.378373	<b>1.790174</b>	<b>1.465285</b>	<b>1.48436</b>
1.306612	0.923516	1.282323	1.255275	0.956882

Table 11 shows the T Matrix Value Calculate the Average of the Matrix and Its Threshold Value (Alpha) **Alpha 1.416378803** If the T matrix value is greater than threshold value then bolds it.

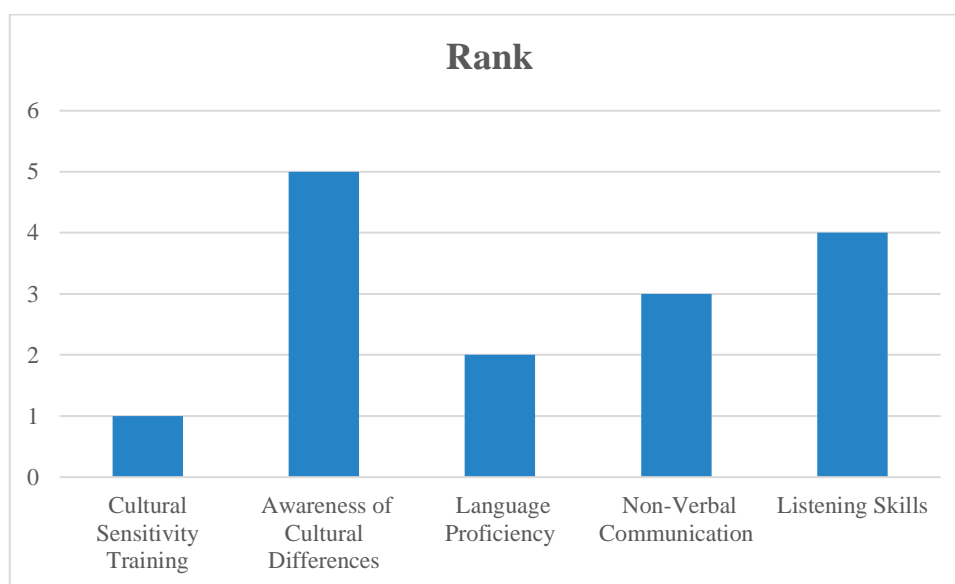


FIGURE 6. Shown the Rank

Figure 6 shows the Rank using the DEMATEL for Cross-Cultural Communication. Cultural Sensitivity Training is got the first rank whereas is the Awareness of Cultural Differences is having the Lowest rank.

#### 4. CONCLUSION

Cross-Cultural Communication encompasses a diverse range of interactions within cultural contexts, involving the exchange of ideas and emotions. This exchange can occur through both verbal and non-verbal means, encompassing various cultural norms, values, and customs. Effective communication is integral in numerous contexts such as business, education, healthcare, and social organizations, and is particularly crucial in our interconnected world, where individuals with diverse backgrounds frequently engage. In this globalized landscape, cross-cultural communication stands as an indispensable tool for successful interaction and mutual understanding. Awareness of Cultural Differences: Understanding that different cultures have distinct communication styles, norms, and etiquette is fundamental. This awareness helps in avoiding misunderstandings and misinterpretations. Language Proficiency: Language is a primary tool of communication. While English is often used as a global lingua franca, it's important to recognize that not everyone may be equally proficient. Accommodating different levels of language proficiency is crucial. Motions, posture, reactions to situations, even eye contact are all examples of communication that is not verbal. convey a significant portion of a message. These can vary widely across cultures and can sometimes lead to misinterpretations. Listening Skills: Actively listening and paying attention to verbal cues, tone, and non-verbal cues is crucial. It helps in understanding not only the words being spoken but also the underlying feelings and intentions. The goal of cross-cultural communication is to close the gap beyond established spheres of engagement and the study of cultures. In essence, it entails comprehending how individuals from diverse cultural backgrounds engage with one another. Its aim is to establish guidelines to enhance communication between people of different cultures. This field necessitates an interdisciplinary approach, encompassing expertise in areas like anthropology, cultural studies, psychology, and

communication. It has evolved to focus on interpersonal relationships and the examination of communication techniques employed by intercultural groups, particularly in interactions with majority or mainstream populations. Learning languages beyond one's own not only fosters an understanding of our shared human experience, but also unveils the diversity inherent in how our languages shape and structure knowledge. This understanding holds significant implications for developing a critical awareness of social dynamics, which is crucial for successful global business endeavors. Language socialization, broadly defined as the exploration of how language introduces and establishes new social connections within a cultural context, requires the speaker to understand a language's grammatical characteristics as well as how its parts interact convey social meaning. Learning languages beyond one's own not only fosters an understanding of our shared human experience, but also unveils the diversity inherent in how our languages shape and structure knowledge. This understanding holds significant implications for developing a critical awareness of social dynamics, which is crucial for successful global business endeavors. Language socialization, broadly defined as the exploration of how language introduces and establishes new social connections within a cultural context, requires the speaker to understand a language's grammatical characteristics as well as how its parts interact convey social meaning. The Rank using the DEMATEL for Cross-Cultural Communication. Cultural Sensitivity Training is got the first rank whereas is the Awareness of Cultural Differences is having the Lowest rank.

## REFERENCES

- [1]. Munter, Mary. "Cross-cultural communication for managers." *Business horizons* 36, no. 3 (1993): 69-79.
- [2]. Wierzbicka, Anna. "Cultural scripts": A new approach to the study of cross-cultural communication." *Language contact and language conflict* (1994): 69-87.
- [3]. Ruben, Brent D. "Guidelines for cross-cultural communication effectiveness." *Group & Organization Studies* 2, no. 4 (1977): 470-479.
- [4]. Pym, Anthony. "Propositions on cross-cultural communication and translation." *Target. International Journal of Translation Studies* 16, no. 1 (2004): 1-28.
- [5]. Rosen, Joel, Erica S. Spatz, Annelise MJ Gaaserud, Henry Abramovitch, Baruch Weinreb, Neil S. Wenger, and Carmi Z. Margolis. "A new approach to developing cross-cultural communication skills." *Medical teacher* 26, no. 2 (2004): 126-132.
- [6]. Wang, Jian, and Donald G. Frank. "Cross-cultural communication: Implications for effective information services in academic libraries." *portal: Libraries and the Academy* 2, no. 2 (2002): 207-216.
- [7]. Wierzbicka, Anna. "Cultural scripts": A semantic approach to cultural analysis and cross-cultural communication." *Pragmatics and language learning* 5 (1994): 1-24.
- [8]. Maruyama, Magoroh. "Paradigmatology and its Application to Cross-Disciplinary, Cross-Professional and Cross-Cultural Communication." *Dialectica* 28, no. 3-4 (1974): 135-196.
- [9]. Gilleard, Jenni, and John D. Gilleard. "Developing cross-cultural communication skills." *Journal of professional issues in engineering education and practice* 128, no. 4 (2002): 187-200.
- [10]. Evans, Nancy H. "Tourism and cross cultural communication." *Annals of Tourism Research* 3, no. 4 (1976): 189-198.
- [11]. Lifintsev, Denys, and Wanja Wellbrock. "Cross-cultural communication in the digital age." *Estudos em Comunicação* 1, no. 28 (2019).
- [12]. Putsch, Robert W. "Cross-cultural communication: the special case of interpreters in health care." *Jama* 254, no. 23 (1985): 3344-3348.
- [13]. Parthab Taylor, Shena, Colette Nicolle, and Martin Maguire. "Cross-cultural communication barriers in health care." *Nursing Standard* 27, no. 31 (2013).
- [14]. Skelton, J. R., Joseph Kai, and R. F. Loudon. "Cross-cultural communication in medicine: questions for educators." *Medical education* 35, no. 3 (2001): 257-261.
- [15]. Smith, Larry E., and Khalilullah Rafiqzad. "English for cross-cultural communication: The question of intelligibility." *Tesol Quarterly* (1979): 371-380.
- [16]. Levine, Timothy R., Hee Sun Park, and Rachel K. Kim. "Some conceptual and theoretical challenges for cross-cultural communication research in the 21st century." *Journal of Intercultural Communication Research* 36, no. 3 (2007): 205-221.
- [17]. Shieh, Jiunn-I., Hsin-Hung Wu, and Kuan-Kai Huang. "A DEMATEL method in identifying key success factors of hospital service quality." *Knowledge-Based Systems* 23, no. 3 (2010): 277-282.
- [18]. Lin, Ru-Jen. "Using fuzzy DEMATEL to evaluate the green supply chain management practices." *Journal of cleaner production* 40 (2013): 32-39.
- [19]. Li, Ya, Yong Hu, Xiaoge Zhang, Yong Deng, and Sankaran Mahadevan. "An evidential DEMATEL method to identify critical success factors in emergency management." *Applied Soft Computing* 22 (2014): 504-510.
- [20]. Kurinjimalar Ramu, M. Ramachandran, M. Nathiya, and M. Manjula. "Green Supply Chain Management; with Dematel MCDM Analysis." *Recent trends in Management and Commerce* 2, no. 3 (2022): 8-15.
- [21]. Wu, Wei-Wen, and Yu-Ting Lee. "Developing global managers' competencies using the fuzzy DEMATEL method." *Expert systems with applications* 32, no. 2 (2007): 499-507.

- [22]. Lee, Wen-Shiung, Alex YiHou Huang, Yong-Yang Chang, and Chiao-Ming Cheng. "Analysis of decision making factors for equity investment by DEMATEL and Analytic Network Process." *Expert Systems with Applications* 38, no. 7 (2011): 8375-8383.
- [23]. Tsai, Wen-Hsien, and Wen-Chin Chou. "Selecting management systems for sustainable development in SMEs: A novel hybrid model based on DEMATEL, ANP, and ZOGP." *Expert systems with applications* 36, no. 2 (2009): 1444-1458.
- [24]. Subramani, Chandran, M. Ramachandran, Chinnasami Sivaji, and Kurinjimalar Ramu. "Environmental Impact Assessment of Using Decision Making trial and Evaluation Laboratory (DEMATEL) Method." *Journal on Materials and its Characterization* 1, no. 1 (2022): 6-16.
- [25]. Kumar, Ashwani, and Gaurav Dixit. "An analysis of barriers affecting the implementation of e-waste management practices in India: A novel ISM-DEMATEL approach." *Sustainable Production and Consumption* 14 (2018): 36-52.
- [26]. Si, Sheng-Li, Xiao-Yue You, Hu-Chen Liu, and Ping Zhang. "DEMATEL technique: A systematic review of the state-of-the-art literature on methodologies and applications." *Mathematical Problems in Engineering* 2018 (2018).
- [27]. Kurinjimalar Ramu, M. Ramachandran, and Malarvizhi Mani. "Evaluation of Marine Currents Energy Plant Using DETMAL MCDM Method." (2022).
- [28]. Yazdi, Mohammad, Faisal Khan, Rouzbeh Abbassi, and Risza Rusli. "Improved DEMATEL methodology for effective safety management decision-making." *Safety science* 127 (2020): 104705.
- [29]. Zhang, Weiquan, and Yong Deng. "Combining conflicting evidence using the DEMATEL method." *Soft computing* 23, no. 17 (2019): 8207-8216.
- [30]. Lee, Hsuan-Shih, Gwo-Hshiung Tzeng, Weichung Yeih, Yu-Jie Wang, and Shing-Chih Yang. "Revised DEMATEL: resolving the infeasibility of DEMATEL." *Applied Mathematical Modelling* 37, no. 10-11 (2013): 6746-6757.