
RESEARCH ARTICLE

Developing Intercultural Competence via Virtual Exchange Programs: The Case of Moroccan University Students

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ABSTRACT

This article presents the results of a study conducted at the School of Law and Economics of Casablanca. The study explores the effect of intercultural interventions in developing the learners' intercultural competence. Two groups of informants representing two different master programs participated in this study. While the control group (29) attended only a traditional classroom course on Intercultural Awareness in Business, the treatment group (37) took the same class and also participated in a virtual exchange program that counted for 15% of their final grades. The study used the Intercultural Sensitivity Scale (ISS) to investigate the developmental patterns of the learners' intercultural competence following the two intercultural interventions. The study sought to investigate how virtual exchange programs affected participants' intercultural competence and sensitivity in comparison to those who had a traditional classroom experience. The results exhibited significantly elevated levels of intercultural sensitivity in the treatment group compared to the control group, indicating that the treatment group exhibited markedly significant levels. The findings provide support for the recommendation to implement virtual exchange programs as a practical method to improve employability skills and global awareness among university students. Consequently, these findings substantiate the recommendation to incorporate virtual exchange programs as an efficacious approach for enhancing employability skills and fostering global awareness within formal academic settings, particularly among university students.

KEYWORDS

Intercultural competence; Virtual exchange; global awareness; EFL.

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1. Introduction

Enhancing employability skills through the development of soft skills is a crucial step in preparing learners for professional environments. These transferable skills enable students to expand beyond their areas of expertise and seize new opportunities and job prospects. In today's interconnected and interdependent world, effective communication across cultural boundaries is increasingly necessary. Developing intercultural competence has become essential for learners to ensure successful communication with individuals from diverse cultural backgrounds, including nationalities, ethnicities, religious affiliations and more.

In Morocco, virtual exchange programs at the tertiary level would offer a means for students to develop intercultural competence without physical travel. These programs provide opportunities for online collaborative learning and the development of interpersonal skills, expanding access for non-traveling students to participate in virtual mobility experiences. By fostering intercultural competence, virtual exchange programs can help prepare learners for a globalized world and maximize their chances for success in cross-cultural communication. It then adopts an inclusive approach to accommodate the maximum number of students who can benefit from such opportunities of exchange.

The current study delves into the impact of virtual exchange on the enhancement of Moroccan students' intercultural competence. The theoretical part primarily focuses on elucidating the evolution of the two concepts of intercultural competence and virtual exchange.

2. Background

2.1 Intercultural Competence

A handful of scholars have extensively investigated IC across various disciplines such as psychology, education sciences and soft skills development.

The shift from linguistic competence to communicative competence, and subsequently to intercultural competence, signifies an evolution in the perception of the intricate concepts of language and communication. Initially, linguistic competence, as dealt with by Chomsky (1972), focused on the mastery of language rules devoid of consideration of the social and cultural context of language use. This would also later include the ability to use language effectively in various communicative situations. However, as the importance of cultural context in communication became increasingly recognized, the concept of intercultural competence emerged. Intercultural competence includes not only linguistic proficiency and communicative ability but also a grasp of cultural norms, values, and attitudes and the ability to adjust communication styles to different cultural contexts. This shift reflects a more comprehensive view of the role of culture in shaping communication, underscoring the necessity for individuals to adeptly navigate cultural differences to achieve effective communication in a globalized world.

The choice to investigate intercultural competence stems from the premise that our learners need to adjust themselves to a world shaped by the phenomenon of globalization.

The notion of intercultural communicative competence per se is complicated to define. In order to give a well-established definition of what intercultural competence is or how it was developed, it is important to highlight its theoretical development among scholars.

In the 1960s, Chomsky introduced the concept of linguistic competence to the field of linguistics. He characterized the process of language acquisition as the acquisition of a set of rules governing the association of sound and meaning. Essentially, individuals develop linguistic skills, enabling them to produce and comprehend sentences. Chomsky made a critical distinction between competence and performance in this context. Competence is defined as a psychological or cognitive function encompassing the understanding of language, while performance pertains to the practical application of language in real-world situations influenced by external factors such as distractions and errors.

Hymes (1974) criticized Chomsky's stand and then developed his theory on a specific aspect of linguistic competence, i.e., communicative competence. Hymes (1974) argued that Chomsky's notion of linguistic competence was too narrow and oversimplified as it excludes the tacit knowledge and other skills of a speaker. Hymes (1974) asserted that 'competence' should not be limited to an individual's linguistic knowledge but should also include their sociolinguistic knowledge, such as the social rules for using language in different contexts. Hymes also pointed out that 'performance' should not only include errors and deviations but also the appropriate use of language in specific social situations. In his view, both competence and 'performance' are shaped by a speaker's sociolinguistic environment, and a full understanding of language use requires a consideration of both linguistic and sociolinguistic factors.

Byram's (1997) theory on language learning represented a departure from the conventional view of communicative competence by highlighting the significance of being able to apply language proficiency in real-life communication. Byram's model of intercultural competence emphasized the impact of social and cultural identity on intercultural interactions and emphasized the need for a more comprehensive view of language proficiency. According to Byram, intercultural competence is achieved through five "savoirs" or types of knowledge: "savoir être" (understanding that values and world views may vary among cultures), "savoirs" (awareness of social groups and their practices), "savoir comprendre" (skills of interpretation and relating), "savoir apprendre/faire" (ability to learn and acquire knowledge and skills in intercultural contexts), and "savoir s'engager" (critical examination of one's own and other cultures). Byram views intercultural competence as a dynamic and evolving process of learning and development, requiring an open mind to learning and an interest in exploring other cultures.

Significantly, Deardroff's contribution to the realms of communication and education has had a substantial impact on the conceptualization of intercultural competence as a key component that has to be leveraged. Her research accentuates the pivotal role of self-awareness and self-reflection in fostering intercultural competence in learners. The fundamental idea Deardroff (2006) emphasized is the critical role of communication skills in intercultural interactions. Accordingly, Deardroff (2006) affirms that IC can be achieved through knowledge of diverse cultures, encompassing their values and norms. This competence, she contends,

may also be cultivated through heightened awareness of cultural biases and assumptions, coupled with the adoption of attitudes characterized by openness, respect, and empathy towards others.

Fantini (2009) categorizes intercultural competence into four dimensions, including intercultural knowledge, intercultural attitude, intercultural skills, and intercultural awareness. The first encompasses knowledge of one's own culture and the host culture, the second refers to openness to different cultures and a positive approach to cultural discovery, the third involves the ability to observe, interpret, and evaluate intercultural interactions, and the last is the capacity to objectively compare one's own culture with others.

In conclusion, these theories collectively highlight the importance of a multifaceted approach to intercultural competence, incorporating knowledge, attitude, skills, and awareness to navigate an increasingly globalized world marked by international exchange and mobility.

2.2 Virtual Exchange

Virtual exchange programs have been gaining widespread recognition and acceptance in the academic community, especially among international learning management organizations such as Soliya and iEARN. These programs offer students and educators a unique opportunity to engage with their peers from diverse parts of the world with the ultimate goal of fostering intercultural understanding and collaboration. The School of Law and Economics of Hassan II University has established a partnership with the Stevens Initiative through the Soliya Connect program, facilitating a platform for virtual exchange and collaboration. In my capacity as an instructor and implementor at the School of Law and Economics, I bear the responsibility of overseeing students' participation in the virtual exchange program through weekly reports and reflection papers.

Recent studies within the fields of interculturalism and education have shed light on the benefits virtual exchange programs offer to the participants. Researchers such as Li (2013) and Bassani & Buchem (2019) have specifically addressed the positive impact of these programs on students' intercultural competence.

In Li's (2013) study, an investigation of a virtual exchange initiative involving American and Chinese business students revealed a significant enhancement in the global competence of American participants when compared to a control group within the same university. This enhancement was discerned through comparative studies on business practices in their respective countries. The findings accentuate the idea that global competence can be effectively cultivated through well-designed learning opportunities (Li, 2013, p. 138). Similarly, Bassani and Buchem (2019) undertook a virtual exchange project involving participants from Germany, France, and Brazil. The project aimed to explore intercultural dimensions through online collaboration. Results from pre- and post-project online surveys indicated an increased degree of confidence in collaborating with individuals from other countries and a notable improvement in intercultural skills (Bassani & Buchem, 2019, p. 33).

2.3 Intercultural Sensitivity Scale

The Intercultural Sensitivity Scale assesses an individual's intercultural sensitivity, including awareness, knowledge, and skills related to different cultures and cross-cultural interactions. Intercultural Sensitivity Scale serves as an evaluative instrument for gauging an individual's intercultural sensitivity, encompassing dimensions such as awareness, knowledge, and skills pertinent to diverse cultures and cross-cultural interactions. The scales also delve into a person's awareness of cultural and religious biases through a set of questions. By quantifying an individual's intercultural competence, the scales provide a baseline for further development and growth. This approach is consistent with Byram's (1997) conceptualization of intercultural competence, which posits it as a fusion of knowledge, skills, and attitudes. The scales, thus, function as pragmatic tools for both individuals and organizations to assess and enhance their intercultural competence. Researchers from diverse disciplines, including Communication Studies, Education, and Psychology, emphasize the significance of intercultural sensitivity. The consensus among researchers such as Chen and Starosta (1997), Bennett (1993), Hammer et al. (2003), and Tamam (2010) is that intercultural sensitivity is pivotal for fostering successful and productive communication in interactions involving individuals from distinct cultural backgrounds.

Intercultural sensitivity is a crucial component of intercultural competence, as reflected in the developmental model of intercultural sensitivity proposed by Bennett (1993) and the model of cultural intelligence introduced by Hammer et al. (2003). Both models stress the importance of cultural awareness, understanding, and sensitivity, recognizing cultural differences and biases, and being open to learning about and accepting other cultures. They also stress the process of progressing from the stages of adaptation to the stages of acceptance.

A high degree of intercultural sensitivity is associated with a greater potential for intercultural competence and intercultural encounters. (Hammer et al. 2003, p. 422). The specificities of a particular culture shape the individual's world view. Individuals who

have had a largely monocultural interaction have access only to their own cultural worldview; hence, they are unlikely to interpret the difference between their own perceptions and those of people from culturally different backgrounds.

The current study adopts the framework of The Intercultural Sensitivity Scale (ISS) developed by Chen and Starosta (2000). This model has five dimensions: engagement in interaction (7 items), respect for cultural differences (6 items), confidence in interaction (5 items), enjoyment of interaction (3 items), and attentiveness in interaction (3 items). These dimensions assess an individual's ability to effectively interact with people from different cultures, show respect for cultural differences, feel confident in intercultural interactions, enjoy intercultural interactions, and pay attention to cultural cues.

However, the model has faced criticism, with Tamam (2010) asserting that Chen and Starosta's five-factor model lacks universal applicability and cultural impartiality. Consequently, he urges researchers to exercise caution when utilizing this instrument in non-Western cultures and advocates for its adaptability through modifications that account for the specific local culture under consideration. This adaptability, according to Tamam, may involve the elimination or merging of elements into more refined categories. In response to these concerns, researchers are advised to exercise prudence when applying the ISS in non-Western contexts, considering adjustments to align its elements with local cultural nuances. Such flexibility holds the potential to enhance the ISS's pertinence and efficacy as a tool for assessing intercultural sensitivity. Yet, the adoption of the ISS in this study is motivated by its clear instructions, offering a distinct advantage over other models.

3. Methods

3.1 Research Question and Hypothesis

- How does the level of Intercultural Sensitivity among students who participate in a VE program compare to that of students who did not participate in the program, and what are the implications of this comparison for the value of VE as a means of developing intercultural competence?
- It is hypothesized that virtual exchange participants will report higher levels of intercultural competence compared to non-participants, indicating the effectiveness of virtual exchange as a means of developing intercultural sensitivity.

3.2 Setting and Sample

The study was carried out at Hassan II University, Casablanca's School of Law and Economics. It involved 66 Master program students representing two different classes, with an experimental group of 37 and a control group of 29 participants. The experimental group received a two-hour session per week for the fall semester of 2022-2023 as part of their participation in the Soliya Connect Program exchange. This program brought Moroccan students together with others from various regions, including MENA, Europe, the USA, and Latin America, to discuss cultural civic education as well as other topics that revolved around the participants' respective cultures. Assignments included reflection essays and readings.

3.3 Data collection technique

Data was collected using the Intercultural Sensitivity Scale (ISS) questionnaire adopted by Chen and Starosta (2000). The 24 item questionnaire incorporates both positively and negatively worded statements, with some items subject to reverse coding to ensure the precision of intercultural sensitivity measurement. In instances where participants responded "Strongly Disagree" to negatively framed statements, a score of 5 was assigned to maintain consistency and accuracy in reverse-coded item scoring.

To establish the reliability of the ISS, the Cronbach's alpha coefficient was computed, yielding a value of 0.859. Prior studies by Ozdamar (2004) and Tavsancil (2014) reported Cronbach's alpha coefficients for the ISS within the range of 0.80 to 1.00, indicating high reliability. In the current study, the 15-item, 3-factor ISS scale demonstrated a Cronbach's alpha reliability coefficient of 0.79, with a corresponding test-retest reliability of 0.74, indicating satisfactory internal consistency.

The total Cronbach's alpha for the ISS was found to be 0.859. Previous research (Ozdamar, 2004; Tavsancil, 2014) has reported Cronbach's alpha coefficients for the scale ranging between 0.80 and 1.00, indicating high reliability. In the current study, the 15-item, 3-factor scale exhibited a Cronbach's alpha reliability coefficient of 0.79 (with a test-retest reliability of 0.74), suggesting adequate internal consistency. Chen and Starosta (2000) also reported a reliability coefficient of 0.85 for the scale, indicating that the translated version of the scale is valid as the two values closely align.

3.4 Data analysis

Before the intervention, both groups underwent a pre-test employing a five-point Likert questionnaire. In the post-test phase, the questionnaire was administered again, accompanied by a semi-structured interview. A semi-structured interview was used to gather more in-depth and qualitative information. For the sake of triangulation, the interviews were utilized to allow for a deeper

understanding of participants' experiences and perspectives about the intervention and to gather additional data that may not be captured by a questionnaire.

This can provide a more comprehensive picture of the participants' level of intercultural sensitivity and the impact of the exchange program on their development.

The research employed descriptive statistics, including mean scores and standard deviations, within IBM SPSS (Version 26). It then applied paired samples t-tests to assess the mean score differences between the pre-test and post-test for both control and experimental groups, aiming to establish the significance of these disparities. Additionally, the Wilcoxon signed-rank test was used to compare the pre-test and post-test scores within each group, enabling the evaluation of significant differences in these two related sets of data.

4. Results and Discussion

4.1 Quantitative Analysis

The results of the data analysis are presented to evaluate the changes in student responses to the Intercultural Sensitivity Scale post-test. The test group participated in a virtual exchange program called the Soliya Connect Program, while the control group received only a conventional intercultural competence and communication course for comparison purposes.

Table 1
Paired sample t-test on pretest and post-test for EG at the 5 dimensions

Factors	Group	Mean	Std. Deviation	t	Asymp. Sig. (2- tailed)
Interaction engagement	Pre-test	03.32	3.632	-4.833	.000
	Post-test	03.83	2.588		
Respect for cultural differences	Pre-test	02.63	3.233	-8.356	.000
	Post-test	03.63	3.406		
Interaction confidence	Pre-test	03.56	2.887	1.453	.155
	Post-test	03.27	2.508		
Interaction enjoyment	Pre-test	1.87	2.289	-3.903	.000
	Post-test	02.76	2.788		
Interaction attentiveness	Pre-test	03.72	1.754	-3.253	.002
	Post-test	04.14	1.519		

The null hypothesis was based on the premise that students in the program wouldn't exhibit a substantial change in intercultural sensitivity. In this section, the results of the data analysis are presented to evaluate the changes in student responses to the Intercultural Sensitivity Scale post-test. To verify the null hypothesis, a paired sample t-test and Wilcoxon Rank Test were used to analyze data from the intercultural sensitivity questionnaire (Likert scale) and determine any differences in mean scores pre and post-program.

The results from the paired-samples t-test (see Table 1) reveal significant differences between pretest and posttest scores across four factors at a level below .05, all favoring the posttest levels. On the other hand, the comparison of the means at the level of the "Interaction confidence" section showed no statistically significant difference. The mean scores in this section were 3.56 and 3.27, respectively ($p > .05$).

The above mentioned findings align with research conducted by Bennet (1984) and Zhao (2019), indicating a prevailing inclination of individuals toward a positive and open-minded perspective regarding intercultural interaction. However, there is still room for improvement in terms of sensitivity and confidence when it comes to these interactions. It is important to note that language proficiency can play a significant role in shaping one's confidence in intercultural encounters. A lack of proficiency in the language being used in the interaction can lead to a lack of confidence and reluctance to communicate. This highlights the importance of language teaching along with intercultural interventions and support for individuals who are engaging in intercultural interactions so that they can feel more confident and equipped to communicate effectively with people from different cultural backgrounds.

Getting a clearer picture in this direction involves comparing the results of the control group (CG) with those of the treatment group (TG) to scrutinize and explore whether observed differences stem from variations in proficiency or signify broader developments in intercultural awareness.

Table 2
Paired sample t-test on Pretest and post-test for CG at the 5 dimensions

Factors	Intervention	Mean	Std. Deviation	t	Asymp. Sig. (2- tailed)
Interaction engagement	Pre-test	03.25	5.200	-3.735	.001
	Post-test	03.77	2.791		
Respect for cultural differences	Pre-test	02.58	2.452	-1.696	.101
	Post-test	02.69	1.461		
Interaction confidence	Pre-test	03.33	2.9914	-.679	.505
	Post-test	03.43	2.172		
Interaction enjoyment	Pre-test	01.85	2.022	-1.608	.119
	Post-test	02.13	2.112		
Interaction attentiveness	Pre-test	04.00	2.071	.082	.935
	Post-test	03.98	1.054		

As indicated in (table 2), there was no statistically significant developmental pattern from pretesting to post-testing for the CG, with the exception of one dimension, interaction engagement. This particular dimension reveals a statistically significant developmental pattern at the level of intercultural sensitivity. With regards to the remaining four dimensions, the results indicate the absence of any significant differences ($p > .05$). The Control Group (CG) exhibited a limited pattern towards the development of Intercultural Sensitivity (ISS). Previous studies on intercultural competence development posit that targeted intercultural programs can effectively enhance individuals' intercultural skills and attitudes. Interventions such as virtual exchanges expose learners to diverse cultural values, beliefs, practices and equip them with skills for effective communication and conflict resolution in intercultural encounters (Brislin, 2000).

The significant developmental pattern observed in the control group within the dimension of interaction engagement suggests that, even in the absence of specific intercultural training, individuals can demonstrate improvement in their willingness to engage in intercultural interactions. This improvement may be attributed to the natural exposure to intercultural experiences encountered in everyday life, interactions on social media platforms, or the classes they attended. However, it is crucial to note that without targeted intercultural experiences, individuals may not fully develop their intercultural sensitivity and competence. However, without targeted intercultural experiences, individuals may not be able to adequately develop their intercultural sensitivity and competence.

Table 3
Means comparison of EG and CG for the 5 dimensions before and after the intervention

Factors	Groups	Pretest	Posttest	p*
Interaction engagement	EG	03.32	03.83	.000*
	CG	03.25	03.77	.001*
Respect for cultural differences	EG	02.63	03.63	.000*
	CG	02.58	02.69	.101
Interaction confidence	EG	03.56	03.27	.155
	CG	03.33	03.43	.505
Interaction enjoyment	EG	01.87	02.76	.000*

	CG	01.85	02.13	.119
Interaction attentiveness	EG	03.72	04.17	.002*
	CG	04.00	03.98	.935

*p<.05

Significant statistical differences were observed within the EG across four dimensions, namely Interaction Engagement, Respect for Cultural Differences, Interaction Enjoyment, and Attentiveness. This indicates that, by the conclusion of the semester, learners in the EG exhibited heightened awareness of cultural differences, fostered a positive perception of individuals from other parts of the world and their respective cultures, and derived pleasure from engaging in intercultural interactions. Conversely, among learners who solely adhered to their regular university curriculum in the CG, there were no statistically significant signs of developmental progress in intercultural sensitivity, with the exception of the dimension of interaction engagement. This implies that the standard university classes did not significantly impact intercultural sensitivity. In contrast, the Virtual Exchange (VE) experience offered learners an opportunity to reevaluate their perceptions about their respective cultures through engaging in cultural awareness activities and reflective tasks. Therefore, such activities will enable students to move from 'ethnocentric to ethno-relative stages of intercultural sensitivity' as suggested by Bennett (1983) based on his framework of the Developmental Model of Intercultural Sensitivity (DMIS) that emphasizes the behavioral, cognitive and affective skills in fostering intercultural competence.

Table 4

Results of the Wilcoxon Rank Test analysis for the EG

		Number	p*
Posttest-Pre-test	Negative Differences	11 ^a	.002
	Positive Differences	26 ^b	
	Number of ties	0 ^c	
	Total	37	

a. Posttest < Pretest

b. Posttest > Pretest

c. Posttest = Pretest

p >.05

Concerning EG, the analysis of the results, as indicated in table 4, showed both positive and negative differences between the pre-test and post-test scores of intercultural sensitivity. Specifically, 11 participants scored lower in the post-test than in the pre-test (negative differences), while 26 participants scored higher in the post-test than in the pre-test (positive differences). The data did not have any ties, indicating that no two participants had the same score. The p-value indicated that the differences between the pre-test and post-test scores were statistically significant, suggesting that the virtual exchange program had a noteworthy impact on the development of intercultural sensitivity in the EG.

Table 5
Wilcoxon Rank Test analysis for the CG

	Number	p*
Posttest-Pretest		
Negative Differences	11 ^a	
Positive Differences	16 ^b	.211
Number of ties	2 ^c	
Total	29	

a. Posttest < Pretest

b. Posttest > Pretest

c. Posttest = Pretest

p > .05

The results for the CG indicated that 11 participants had lower post-test scores compared to their pre-test scores (negative differences), while 16 participants had higher post-test scores compared to their pre-test scores (positive differences). There were two ties in the data, indicating that two participants had the exact same score. The p-value for the test (0.211) showed that the differences between the post-test and pre-test scores were not statistically significant. This suggests that there was no significant change in the intercultural sensitivity scores of the participants in the control group who did not participate in the virtual exchange program. Overall, these results suggest that the changes observed in the experimental group can be attributed to participation in the virtual exchange program, as there were no significant changes observed in the control group.

The gender composition of the study groups was as follows: 51.4% of the experimental group were female, while 58.6% of the control group were female. The remaining students in the experimental group were male (48.6%), and those in the control group were male (41.4%). These gender ratios are consistent with the proportion of female students enrolled in Moroccan universities, which is reported to be 53% by the Ministry of Higher Education in 2022. The average age of students in both groups ranged between 18 and 25 years old, making up 97.3% of the sample.

Due to the vast majority of students having never traveled abroad (93.6%), the variable of traveling abroad was not taken into account in the analysis. Additionally, the similar average age of the experimental and control groups indicates that age was not a determining factor for the level of intercultural sensitivity among the students, and therefore, no further analysis was conducted on this basis.

The objective of this study was twofold: to examine the development of Moroccan students' intercultural sensitivity following their participation in a virtual exchange program and to make the learners reflect upon their learning experiences. The results indicated a statistically significant developmental pattern in the EG across four dimensions of ISS after participation in a virtual exchange program that lasted one semester. This proves that engaging the learners in intercultural experiences yields significant results. In contrast, the Control Group (CG), exposed solely to a conventional class on intercultural business communication, exhibited no significant developmental changes. Notably, while the mean scores in all dimensions were high for participants, the subscale of interaction confidence was the only dimension displaying no significant differences. The observed significant differences across

the four dimensions collectively indicated an overall development of ISS among the participants. Given the participant majoring in legal and economic studies, the cultivation of intercultural competence through a nuanced understanding of these dimensions becomes imperative for their integration into today's increasingly globalized job market.

4.2 Qualitative Analysis

The qualitative data for this study were collected using reflective essays wherein students evoked some key insights gained from participating in the program and the extent to which this experience enhanced their intercultural awareness. Participants were required to elaborate on and explore the aspects of VE that contributed to their developed awareness if any improvement was noted. In this context, the qualitative examination focused on the essays submitted by 32 students whose quantitative results indicated significant developmental patterns. The outcomes of this qualitative analysis are succinctly presented in Table 6, outlining recurring themes along with their respective frequencies.

Prevalent among the identified themes was the development of communication skills, a theme noted by a majority of participants. Specifically, 15 students expressed that the VE experience facilitated the acquisition of communication skills, including empathy, interaction, active listening, and conflict resolution. One participant noted, "The VE program helped me improve my oral communication skills. I learned to formulate my thoughts clearly and concisely and use communication tools effectively. I also learned to actively listen to others, work in teams, and give and receive constructive feedback" (Student #9). She also wrote, "Finally, it is important to practice conflict resolution strategies, such as negotiation and compromise, when disagreements arise. This involves identifying common goals and interests, exploring different options, and finding mutually beneficial solutions." (Student #9).

Moving from the theme of communication skills, students also made reference to another noteworthy aspect of their participation in the program: an enhanced degree of independence. This theme comprises sub-themes such as Confidence, sense of initiative, self-knowledge, and Problem solving skills. According to the participants, developing such an area led them to a better understanding of cultural differences through adopting a neutral perspective and embracing diversity beyond their own cultural norms. For instance, one student stated that the experience helped her overcome her fear of talking to new people and manage her anxiety in an effective way. This newfound sense of independence, they stated, was a fruit of their participation in the program.

Furthermore, among the insights shared by students, another notable theme revolved around an increased degree of adaptability and flexibility (6 times). This theme includes sub-themes such as cooperation, flexibility, knowledge, and patience. One student reported that participating in the VE "taught (him) adaptability and the ability to connect with others despite physical distance" and added that "this virtual exchange program provided "him" with valuable skills in communication, cultural understanding, and adaptability" (#3). Other Skills that participants mentioned in this regard were the ability to cope with time zone differences in attending meetings, breaking the intercultural cap and balancing schedules. While challenges exist, navigating these challenges enhances resilience, adaptability, and intercultural competence.

In addition to the previously discussed themes, another noteworthy aspect that some participants highlighted, mentioned 4 times, was the development of collaboration skills, which was acknowledged by students as a positive outcome of the course. Students reported a heightened sense of self-assuredness in their interactions, particularly when engaging with students from diverse countries. They expressed a new sense of happiness and satisfaction arising from effective communication. For instance, Student (#15) shared their experience, emphasizing how the course enhanced their ability to engage confidently with individuals from different cultural backgrounds. Another student (#23) described a sense of global interconnectedness that enabled them to communicate effectively with even the most initially reserved cultures. This underlines the valuable impact of the program on enhancing students' collaborative abilities and their ability to bridge cultural divides. Table 6 presents a list of exchange program components the participants believed have helped them improve their intercultural competence.

Table 6
Students' Perception on VE development factor

Perceptions of developing ISS	Communication skills empathy, Interaction active listening, conflict resolution Conflict resolution:	15
	Independence Confidence, Self-awareness, Problem solving skills	7
	Adaptability Cooperation, flexibility, knowledge, patience	6
	Collaboration skills Diplomacy, leadership, positivity	4

The virtual exchange program brought participants from a wide range of geographical and cultural backgrounds which constituted a unique opportunity for the Moroccan students to be exposed to a variety of perspectives and world view opinions during their asynchronous interactions and synchronous weekly meetings. Additionally, the program played a significant role in fostering the development of students' writing and reading skills, given the substantial emphasis on assignments as a core component of the course. Moreover, these opportunities played a pivotal role in cultivating the learners' critical thinking abilities, particularly in relation to their own cultures in comparison to others.

In light of this VE program, students were instructed to engage in reflective practices concerning their respective cultures, aiming to mitigate potential cultural biases. According to Bennett (2013), effective management of cultural differences is within reach when individuals are prompted to rethink their own cultural perspectives. Deardorff and Hunter (2006) emphasized that achieving cultural self-awareness is crucial, and this can be accomplished by encouraging students to reflect on themselves and venture outside their cultural comfort zones. This can be facilitated by various means, such as education abroad, cross-cultural simulations, or meaningful intercultural interactions on campus or in the community (p. 79).

5. Conclusion:

In summary, the study's findings suggest that virtual exchange programs play a positive role in fostering the development of intercultural competence of the students within the higher education context. in higher education. These programs can promote inclusivity by providing students with the opportunity to engage in international and intercultural activities without the constraints of travel or international mobility. The virtual program also facilitated the establishment of global networks by the students.

The implementation of the program encountered some obstacles. Drawing students' attention to the relevance of virtual exchanges was one challenge since VE is still in its infancy in Morocco. Thus, It required explaining the benefits and the importance of student engagement, including attendance, assignments, and active participation. Additionally, some participants faced some challenges related to language proficiency, internet connectivity issues, and time zone differences. Therefore, It is recommended that students undergo a placement test in the target language prior to their participation in VE, as this process serves to enhance communication efficacy among participants and ensures a cohesive group dynamic. Within the context of our investigation, disparities in language proficiency could potentially impede the attainment of desired research outcomes, thus impacting the significance of pre-assessment measures.

As virtual exchange programs gain global popularity as effective tools for enhancing learning and intercultural awareness, Moroccan higher education institutions should be encouraged to embrace virtual exchange programs to equip students with 21st-century skills through an inclusive approach to internationalization. This approach not only guarantees accessibility and inclusivity but also prepares students for future challenges.

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References

- [1] Bennett, J. M. (1993). Toward Ethnorelativism: A Developmental Model of Intercultural Sensitivity. In R. M. Paige (Ed.), *Education for the Intercultural Experience* (21-71). Yarmouth, ME: Intercultural Press.
- [2] Bennett, J. M., & Bennett, M. J. (2004). Developing Intercultural Sensitivity: An Integrative Approach to Global and Domestic Diversity. In D. Landis, J. M. Bennet, & M. J. Bennet (Eds.), *Handbook of Intercultural Training* (3rd ed.) (pp. 147–165). Thousand Oaks, CA: Sage Publications, Inc.
- [3] Bassani, P., & Buchem, I. (2019). Virtual exchanges in higher education: developing intercultural skills of students across borders through online collaboration. *Revista Interuniversitaria de Investigación en Tecnología Educativa*, 6(2019), 22-36.
- [4] Brislin, R. (2000). *Understanding Culture' Influence on Behavior* (2nd edn). Fort Worth, TX: Harcourt
- [5] Byram, M. (1997). *Teaching and Assessing Intercultural Communicative Competence*. USA/UK: Multilingual Matters Ltd. Byram, M. (2003). On being 'Bicultural' and 'Intercultural'. In G. Alred, M. Byram, & M. Fleming (Eds.), *Intercultural Experience and Education* (pp. 50-66). Tonowanda: Multilingual Matters.
- [6] Chomsky, C. (1972). Stages in language development and reading exposure. *Harvard Educational Review*, 42(1), 1–33.
- [7] Chen, G.-M., & Starosta, W. J. (2000a). Intercultural Sensitivity. In L. A. Samovar, & R. E. Porter, (Eds.), *Intercultural Communication: A Reader*. (pp. 406–414). Belmont, CA: Wadsworth Publishing Company.
- [8] Chen, G.-M., & Starosta, W. J. (2000b). The Development and Validation of the Intercultural Sensitivity Scale. *Human Communication*, 3, 1–15.
- [9] Deardoff, D.K. (2006). Identification and Assessment of Intercultural Competence as a Student Outcome of Internationalization. *Journal of Studies in International Education*, 10 (3) 241-267.
- [10] Fantini, A.E. (2009). Assessing Intercultural Competence. Issues and Tools. In D. Deardoff (Ed.), *Intercultural Competence* (pp. 456-476). Thousand Oaks: Sage.
- [11] Hammer, M. R., Bennet, M. J., & Wiseman, R. (2003). Measuring Intercultural Sensitivity: The Intercultural Development Inventory. *International Journal of Intercultural Relations*, 27, 421–443. doi: 10.1016/S0147–1767(03)00032–4
- [12] Hymes, D. (1974). Ways of Speaking. Explorations in the Ethnography of Speaking, 1, 433-451. <https://doi.org/10.1017/CBO9780511611810.029>
- [13] Li, Y. (2013). Cultivating student global competence: a pilot experimental study. *Decision Sciences Journal of Innovative Education*, 11(1), 125-143.
- [14] Ozdamar, K., (2004). *Statistical Data Analysis with Package Programs*. Kaan Press. Turkish Migration Statistics, 2016. <http://www.tuik.gov.t>
- [15] Tamam, E. (2010). Examining Chen and Starosta's model of intercultural sensitivity in a multiracial collectivistic country. *J. Intercult. Commun. Res.* 39, 173–183. doi: 10.1080/17475759.2010.534860
- [16] Zhao, G.C. (2019) Research on Intercultural Adaptation of Chinese Enterprise Personnel in Saudi Arabia. *Higher Education Studies*, 9, 105-115.