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INTERNATIONAL EXPERIENCES AND THE DEVELOPMENT OF INTERCULTURAL SENSITIVITY AMONG UNIVERSITY STUDENTS

(EXPERIENCIAS INTERNACIONALES Y DESARROLLO DE LA SENSIBILIDAD INTERCULTURAL DE LOS ESTUDIANTES UNIVERSITARIOS)

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ABSTRACT

International cultural immersion experiences are deemed one of the most effective ways to prepare multicultural and global citizens. The purpose of the study was to determine: (1) first-year and final-year university students' levels of Intercultural Sensitivity (henceforth IS); (2) if there was a relationship between IS and experiences of intercultural contact; and (3) the variables that might predict the development of IS. A longitudinal method and a correlational-predictive design was used. The sample comprised 1645 (52.5% women and 47.5% men) undergraduate students from 8 public universities and one private university in Andalusia (Spain) with a mean age of 23.29 (*SD* = 4.99). The *Intercultural Development Inventory (IDI)* was used to measure IS, and the *Intercultural Experiences Inventory (IEI)*

was administered to explore students' intercultural experiences. Findings highlighted that there is little change in the IDI scores among first-year and final-year students, and most students were found to be in the intermediate stages of intercultural development (the *minimization* stage according to Bennett's model, characterized by the widespread belief that everyone is quite similar). The lack of development found in the students' IS could have something to do with the lack of opportunity to reflect and think about cultural differences. Positive correlations were found between IS and mobility experiences and intercultural friendships, and negative correlations were found with the number of intercultural interactions and language knowledge. Having mobility experiences, being female, and having friends from other cultures were predictive variables of IS. Finally, the educational implications are discussed.

KEY WORDS

Intercultural Sensitivity, International Experiences, Contact Theory, Intercultural Friendships, Gender, Higher Education

RESUMEN

Las experiencias internacionales de inmersión cultural se consideran una de las formas más efectivas de preparar ciudadanos multiculturales y globales. El propósito de este estudio fue examinar: (1) el desarrollo de la Sensibilidad Intercultural (en adelante SI) en estudiantes universitarios de primer y último año; (2) las relaciones entre la SI y las experiencias de contacto intercultural, y (3) las variables que podrían predecir el desarrollo de la SI. Se utilizó un diseño un diseño longitudinal y correlacional-predictivo. La muestra estuvo compuesta por 1645 estudiantes universitarios (52.5% mujeres y 47.5% hombres) de ocho universidades públicas y una privada de Andalucía (España) con una edad media de 23.29 (*DT* = 4.99). El *Inventario de Desarrollo Intercultural (IDI)* fue utilizado para medir la Sensibilidad Intercultural y el *Inventario de Experiencias Interculturales (IEI)* se administró para explorar las experiencias interculturales de los estudiantes. Los resultados mostraron que hay pocos cambios en las puntuaciones del IDI entre los estudiantes de primer y último año, y la mayoría resultaron estar en etapas intermedias de desarrollo intercultural (la etapa de *minimización*, caracterizado por la creencia generalizada de que todos somos bastante similares). La falta de desarrollo encontrada en la SI de los estudiantes podría tener algo que ver con la falta de oportunidades para reflexionar y pensar sobre las diferencias culturales). Se encontraron correlaciones positivas entre la SI y las experiencias de movilidad y amistades interculturales, así como

correlaciones negativas con el número de interacciones interculturales y el conocimiento del idioma. Tener experiencias de movilidad, ser mujer y tener amigos de otras culturas fueron variables predictivas de la SI. Finalmente, se discuten las implicaciones educativas.

PALABRAS CLAVE

Sensibilidad Intercultural, Experiencias Internacionales, Teoría del Contacto, Amistades Interculturales, Género, Educación Superior

INTRODUCTION

Numerous studies have highlighted the importance of Intercultural Sensitivity (henceforth IS), as a key competence in complex and multicultural societies, where learning to live together, communication with people from different cultural backgrounds, mutual respect and the elimination of prejudices have proven to be essential issues affecting professional success (Sá & Serpa, 2018). IS can be defined as the development of "a set of cognitive, affective and behavioral skills and characteristics that support effective and appropriate interaction in a variety of cultural contexts" (Bennett, 2004, p. 97).

Indeed, cultural diversity is a critical consequence of globalization. Throughout the world, the Higher Education (HE) environment is changing rapidly in light of certain phenomena such as multiculturalism, global communication or migration. The development of intercultural competence is increasingly taken into consideration as an outcome for university graduates, often under the heading of internationalization (Deardorff, 2006) or the way in which universities instill "international, intercultural, or global dimensions" into their institutions (Knight & De Wit, 2018, p. 3).

The results of this process are also visible in Spain. The Spanish government has made great efforts to promote the internationalization of HE, partly by supplying grants for study abroad programs and partly by offering opportunities for foreign students in its institutions. As a result of its adherence to the Bologna Process, Spanish universities also adopted several instruments to offer students various intercultural experiences such as internships and international dimension courses, in the belief that students must be educated in a global context to develop intercultural skills (Rodríguez-Izquierdo, 2015). Since then, it is essential to position cultural differences centrally within university training since Spain is one of the European countries with the highest mobility among university students. However,

it remains unclear whether Spanish universities are really graduating interculturally competent students. Potentially, international experiences could foster the development of IS among university students. Despite the growing interest in internationalization, in the Spanish Higher Education context, little is known about the extent to which international experiences may or may not help foster the development of IS among university students. Furthermore, to date, studies on the variables which predict IS development are practically non-existent (Rodríguez-Izquierdo, 2018). Through this work we expect to contribute to debates on intercultural training in HE, which are sparse in Spain, and to add new depth to the knowledge of which kinds of international experiences develop students' IS. Such knowledge might have wide implications for policymakers and educators interested in promoting effective experiences for increasing university students' IS.

Additionally, in Spain intercultural competence has not been significantly integrated into the curriculum and, as a result, deficiencies in its development are detected among university students (Rodríguez-Izquierdo, 2018). Moreover, most studies related to this topic focus almost exclusively on study abroad programs rather than university students in general (Pedersen, 2010; Rodríguez-Izquierdo, 2015). Hence, Pendry, Driscoll and Field (2007) strongly recommend further research to inform the effectiveness of intercultural training efforts implemented by HE institutions.

However, social psychologists have always understood that mere contact is insufficient to build rewarding relationships between groups of different cultures. The contact hypothesis (Allport, 1954; Pettigrew & Tropp, 2005, 2006) predicts the need for: (1) equal status; (2) a culture of egalitarianism; (3) interdependence; and (4) opportunities for positive inter-group interaction. Whilst the first two factors can be assumed within HE, there are serious doubts about the presence of the last two. Students will not develop IS simply by coming into contact with real life situations; rather, development is grounded in providing students with opportunities for meaningful intercultural contact. This paper argues that the Allport's contact hypothesis may not be enough to promote the development of IS for most students.

Vande Berg, Paige and Lou (2012) refer to the "immersion assumption", which presumes that students automatically mix on university campuses and, thus, develop intercultural competence. Nonetheless, a raft of scientific production questions whether mere interaction works. In this vein, Brewer (2003) posits that often when culturally diverse individuals or groups meet, interactions are difficult as they encounter different behaviors, norms, values and beliefs, leading to feelings of anxiety or avoidance behavior. As an outcome, feelings of suspicion, distrust and threat can result in

stereotyping, prejudice and discrimination. Thus, the presence of cultural diversity on campuses does not automatically lead to intercultural contact. For the understanding and the relationship between international students and home students to occur, interaction is necessary. However, left to their own devices, interaction is unlikely to happen, as the literature has shown (He, Lundgren & Pynes, 2017).

Likewise, Mostafaei and Nosrati (2018) report that interactions of international students in study abroad programs with students from the host culture are not an automatic process, and that many international students have difficulty establishing relationships with national students; therefore, they tend to group with students of their same nationality. Harrison and Peacock (2010) refer to this phenomenon as the "illusion of internationalization" and Jackon (2018) to the "immersion myth". Additionally, a qualitative study exploring home student perspectives found that they believed they lacked enough courage, motivation and skill to successfully engage in intercultural interactions (Harrison & Peacock, 2010).

In short, the question of whether undergraduate students (national and international) develop IS through contact is not sufficiently addressed in the literature, and we have conflicting information about the variables that influence its development. Several articles point to the need for more definitive empirical data (Deardorff, Wit & Heyl, 2012). Furthermore, in the case of Spain, the model advanced by Chen and Starosta (2000) has received the most attention when examining this topic, and studies have tended to focus on primary and secondary stages of education. Studies under Bennett's model and among university students are virtually non-existent which can be regarded as a relevant contribution in furthering this field of study in Spain. Bearing all this in mind, this article sought to fill this gap in the literature by presenting the results from a study examining the ID scores among undergraduate students, to explore the relationships between IS and experiences of intercultural contact and finally to predict the variables that impact its development.

THEORETICAL FRAMEWORK

Allport (1954) undertook years of research to explore how prejudices could be reduced and how to foster better relationships. Some theories of intercultural development are anchored in the notion that prejudiced attitudes must be overcome for individuals to develop IS. In recent decades, IS has received growing attention from researchers and practitioners (Deardorff et al., 2012). To develop the theoretical underpinnings of this

study, we drew on the complex and polysemous notion of IS, which has given rise to different approaches (Arasaratam-Smith, 2017).

The concept of IS originated in studies focused on the field of intercultural communication (Bennett, 1986, 1993) and had been regarded as interchangeable with related concepts such as cultural competence and cultural awareness (Deardorff and Arasaratam-Smith, 2017). For Bennett and his colleagues (Hammer, Bennett & Wiseman, 2003), IS refers to the ability to effectively identify and appreciate cultural differences, while intercultural competence is the ability to act appropriately in situations characterized by cultural diversity (Arasaratam-Smith, 2017). In this vein, the term IS is understood as one of the crucial skills to prevent stereotypes and false assumptions about how a person from a given cultural group thinks and behaves. I have selected Bennett's model as the most appropriate one for our study because it highlights a continuous cognitive process of development that involves learning to recognize and manage relevant cultural differences.

For this study, Bennett's *Developmental Model of Intercultural Sensitivity (DMIS)* was selected to comprehend the different orientations toward cultural differences (Bennett, 1993; Hammer et al., 2003; Vande Berg, Paige, & Lou, 2012). Bennett and his colleagues theorized how people respond to cultural dissimilarities through various processes of cultural adaptation. This approach is fundamentally cognitive in nature: the model is one of changes in the structure of thought and worldview. Additionally, expanding IS entails learning to recognize and handle relevant cultural differences and the different viewpoints of culturally different people in a way that prevents misunderstandings and generates "the capacity to interpret, and therefore to experience cultural difference in a more complex way" (Hammer et al, 2003, p. 423).

IS could be seen in terms of stages of personal growth. The DMIS suggests that individuals move through six stages based on how people perceive and respond to cultural difference (Table 1). The first three stages: *denial, defense*, and *minimization* are considered *ethnocentric*. Individuals view their own culture as central to all reality and act by avoiding cultural differences through denying their existence, raising the defense against their differences and minimizing their importance. The following three stages: *acceptance, adaptation* and *integration* are considered *ethnorelative* (a tendency to prefer members of the endo-group). In the *ethnorelative* view, difference is not perceived as a threat but as a challenge, and people become more sensitive to cultural differences through accepting their importance, adapting a perspective to take them into account or by integrating the whole concept into a definition of identity. In short, people become more sensitive

to cultural differences, which means that their own culture is experienced within the context of other cultures until they recognize other cultures as equally valid.

Table 1
Bennett's model (Bennett and Bennett 2004)

Ethnocentric Orientation	*Denial*	Individuals deny the existence of cultural differences due to lack of contact, disinterest and/or fear.
	Defense	Cultural differences are perceived as a threat.
	Minimization	Only cultural commonalities, not differences, are recognized.
Ethnorelative Orientation	*Acceptance*	An orientation that recognizes and appreciates patterns of cultural difference and commonality in one's own and other cultures.
	Adaptation	An orientation that can act appropriately according to the environment, without renouncing one's own values.
	Integration	Cultures are adopted and integrated into one's own identity.

The DMIS is based on three assumptions: 1) The development of IS is a continuum of increasing sophistication in dealing with cultural difference which changes over time; 2) The progression from one to another stage is not sequential (Hammer & Bennett, 2003). That is, individuals do not need to have one phase completely resolved to progress to later developmental stages. 3) As one's understanding of cultural differences becomes more sophisticated and complex, the propensity for intercultural competence increases (Hammer et al., 2003).

While there are many models to measure IC (Deardorff, 2009), this study is grounded in Bennett's evolutive model (1986, 1993), which has received little attention in the context of Spanish university education, as opposed to Chen and Starosta's (2000) model, which understands IS as the emotional dimension of intercultural communicative competence and has been widely used. However, measuring the degree of empathy or tolerance, for example, can be a difficult task because of the abstract nature of these terms. Bennett's model is also theoretically consistent with decades of research which describes the challenges associated with intercultural contact and how individuals move through different states, claiming that IS development is not a linear process as most models describe (Allport 1954; Pettigrew & Tropp, 2005, 2006).

LITERATURE REVIEW

Numerous empirical studies revealed that the development of IS is associated with various socio-cultural, social-psychological, personality and individual determinants. However, findings on which factors contribute to its development are contradictory. A large body of research in North America focuses its attention on how international mobility experiences favor the advancement of IS. In such experiences, students face a continuum of stimuli that forces them into a process of decoding the other culture. This exercise involves comparisons between the different and the analogous, forcing learners to move from an external evaluation of the "other" to an assessment of their own identity (Jackson, 2018). While previous studies suggested that interaction with a diverse "other" is one of the strongest factors in fostering IS, there is no conclusive evidence that mobility experiences *per se* lead to the growth of IS (Lantz-Deaton, 2017; He, Lundgren, & Pynes, 2017).

Researchers have long recognized the need to address difficulties associated with cross-cultural contact. For example, Vande Berg, Paige and Lou (2012), in a study with more than 1300 North American students studying abroad, concluded that simply being exposed to a different cultural environment did not prove to be a sufficient condition for greater intercultural learning, with some students even showing a decrease in the development of IS over time. Similarly, Pedersen (2010) supports the findings that simply sending students abroad is not enough for the improvement of IS and suggests the need for planned interventions and programs during study abroad experiences.

Previous research has primarily examined the practices that foster increased IS. In a recent study, Rodríguez-Izquierdo (2018) found that after participating in international mobility programs, most students were at the *minimization* level according to Bennett's model, characterized by a greater appreciation of cultural similarities than differences. Others postulate that development requires students to acquire critical insight on their own and other cultures which involves more than just being in contact with cultural difference but engaging with it (Deardorff, 2009). Consequently, it is not just a matter of accumulating experiences but experiences that provide opportunities for direct engagement with differences and for sustained reflection. Additionally, positive intergroup contact increased IS by prompting students to hear others' voices and to consider viewpoints that were not aligned with their own (Pettigrew & Tropp, 2006).

Studies such as those by Engle and Engle (2004) revealed differences in the development of IS according to the length of the program, in favor of long-term programs. In Spain, Cots at al. (2016), in a mixed-methods study, analyzing the results of a quantitative pre-stay post-stay survey administered

to 110 students from two universities in Catalonia, as well as one student's discursive construction of this impact during her study abroad, showed that study abroad of between 5 and 10 months had a stronger impact on the knowledge component of IC than on the behavior and attitude components. While Paige, Cohen and Shively (2004) and Bunch et al. (2018) found that short-term overseas programs have the potential to develop IS.

Furthermore, McMurrary (2007) analyzed the impact on IS of several variables, namely: gender, type of students (national vs. international), international travel and stays abroad. The results of her study revealed no significant differences in the development of IS between men and women, although she discovered that women scored higher than men. She also found no difference between national and international students, even if international students obtained higher scores than national students. Likewise, there were no differences in the IS of students who had participated in international mobility programs and students who had not. The data only suggested some statistically significant effect of international travel among national students.

Regarding gender and language, Anderson et al. (2006) described higher IS in women compared to men and people who had lived in different countries. Vande Berg (2007) suggests that there are other predictive variables for the development of IS along with gender, in favor of women, such as experiences abroad and literacy in a second language, highlighting that students who did not study abroad but received cultural training attained greater development of IS. More recent work has shown that intercultural training plus the experience of living abroad can create optimal conditions for students to develop their IS (Liu, 2019). The findings imply that IS is closely related to learners' linguistic, psychological and demographic variables.

In summary, despite extensive research on the variables that might affect the advancement of IS, there is considerable debate about whether and to what extent various demographic factors and experiences of intercultural contact lead to its development. Consequently, these discordant results indicate the need to further examine the effects of these variables. Furthermore, findings connecting international experiences with the development of intercultural competence are judged indispensable in increasing multicultural societies (Knight & De Wit, 2018).

METHOD

This study used a two-phase method design. The first gathered data was based on a short-term longitudinal method approach to investigate

the levels of IS overtime, and to gather data which would allow for the exploration of the relationship between students' IS development and international experiences during university. The second was a correlational-predictive design with the intention to identify the variables that might predict the development of IS.

Participants

A total of 1645 undergraduate students from 8 public universities and one private university in Andalusia (Spain) participated in this study, 52.5% of which were women and 47.5% men. Pearson's chi-square test indicated that there were no differences according to sex ($\chi^2 = 2.78$, $p > .05$). The age range was between 18 and 32 years of age. The mean age was 22.29 (SD = 3.99 years). Pearson›s chi-square test also showed that there was no difference in the distribution of the number of participants of each sex in the different age ranges ($\chi^2 = 3.92$, $p > .05$). 23.8% were first-year students, 23.1% second-year, 28% third-year, and 25.1% fourth-year. 28.4% spoke a second language and 71.6% could not communicate in another language. Regarding the field of study, 16.6% were Science students (Mathematics and Physics, Chemistry, Biology, Biomedical and Natural Sciences), 13.9% Engineering and Architecture, 14.1% Social Sciences (Behavioral and Educational Sciences) and Politics, 15.1% Law, 12% Humanities (History, Geography and Art), 16% Economic and Business Sciences and 12.3% Language Studies. A stratified sampling technique was used to select the random sample, dividing the population into strata according to their most notable characteristics. In this study, these parameters were: sex, age, year of study, field of study and type of university.

Measures

The dependent variable was the IDI score. The IS predictor variables were: sex, year of study, mobility experiences, program duration, international travel, knowledge of other languages, friends from other cultures and field of study.

Instruments

Two instruments were administered in this study:

- *International Experiences Inventory (IEI*), built *ad hoc* for this research, to gather the students' demographic information (age,

sex, year of study, etc.) and the students' intercultural contact experiences (mobility experiences, international travel, friends from other cultures, the number of international interactions per week, etc.)

- The *Intercultural Development Inventory (IDI)* was composed of 36 items rated on a five-point Likert scale (1=strongly disagree; 5=strongly agree), grouped into five factors: (1) *denial/defense*; consisting of 8 items, explains 30.26% of the variance and examines the view that simplifies and/or polarizes cultural differences (α = .91); (2) *minimization*; consisting of 7 items, explains 15.51% of variance and examines the view that emphasizes cultural similarities and universal values in a tendency to assume that people from other cultures are basically "like us" (α =.85); (3) *reversal*; consisting of 6 items, explains 10.82% of variance and refers to a view that inverts the "us" and "them", in which "them" is superior (α =.82); (4) *acceptance/adaptation*, consisting of 8 items, explains 8.49% of variance and examines the view that understands and accommodates cultural differences (α =. 83); and (5) *cultural marginality*, consisting of 7 items, explains 4.93% of variance and examines multicultural identity, where one's identity is separated from any specific cultural context (α =.84).

The values for Cronbach's Alpha, Composite Reliability (*CR*) and Maximum Reliability (*MR*) all exceeded the minimum limit (.70), whilst the percentages of Average Extracted Variance (*AVE*) were adequate, all being above.50. After comparing different explanatory models, a factorial structure of 5 factors was found, explaining 70.01% of the total variance. Cronbach's Alpha was .85 for the whole instrument, and the Confirmatory Factor Analysis (*CFA*) fit was highly satisfactory (χ^2/df = 1.64, *GFI* =.86, *RMR* =.07 and *RMSEA* =.03). Rodriguez-Izquierdo (2018) details the construction and validation of this instrument and describes further details on the procedure employed, as well as the reliability and validity tests of both convergent and discriminatory content.

Procedure

Data collection was carried out online. The students received an email informing them of the objectives of the study, assuring confidentiality, asking for informed consent and providing the link to access the instruments. The estimated average response time was 30 minutes.

The data collection was carried out in two phases. The first gathered quantitative data using the IDI which was administered to first-year and final-year students in two waves of data collection: in October 2019 and in May 2020 using the IDI and IEI to learn about students' development alongside their contact experiences. Data collection followed the same model as outlined above. The design thus not only considered the changes that occur between these two temporal periods but also traced the possible changes experienced by students who carry out an international mobility experience with those who do not.

The study was approved by the Ethics Committee of University Pablo de Olavide (Seville, Spain). It also complies with the ethical values required in research with human beings and respects the fundamental principles included in the Declaration of Helsinki.

Data analysis

Data analysis began with frequencies of the data to understand the participant profile(s) at the two time points. Additionally, normality of the variables was assessed to determine the use of parametric or non-parametric tests in the comparison of related and independent means. To this end, the Shapiro-Wilk Test was performed. After verification of the above assumptions, non-parametric tests were applied.

To decide whether there was a significant change in the IDI scores of students, t-tests were used as distribution scores were found to be normal. Pearson's correlation coefficients were run to analyze whether any of the intercultural contact experiences (language knowledge, mobility experiences, friends from other cultures and number of intercultural interactions, etc.) were related to changes in the IDI scores.

Finally, as this study focused in part upon identifying factors which might predict IS development, stepwise linear regression analysis was applied. When running the regression, variance inflation factors and tolerance were studied to prevent multicollinearity problems. As multicollinearity was deemed not to be a problem, all variables remained in the regression model. Assumptions of linearity and homoscedasticity were also measured and met. The data were analyzed using statistical package SPSS V.23.0.

RESULTS

Analysis of intercultural contact experiences

As noted in Table 2, half of the students reported having 7 or more cross-cultural interactions per week and almost two-thirds reported having friends from other cultures. Approximately one quarter of the students indicated that they had taken part in mobility experiences. Specifically, the descriptive analysis of students' intercultural contact experiences showed the following characteristics.

Table 2
Students' intercultural contact experience

Category	Percentage of students (%)
Mobility experiences	
Yes	21%
No	79%
Duration of the program	
One semester	49%
Less than one semester	15%
More than one semester	36%
International travel	
Never traveled abroad	21.4%
Traveled only once	43.2%
Have traveled more than once	35.4%
Friends from other cultures	
Agree	67.8%
Disagree	22.1%
Neither agree nor disagree	12.1%
Number of intercultural interactions per week	11.8%
1 to 3	14.9%
4 to 6	19.8%
7 to 10	25.7%
11 to 14	16.0%
15 or more	

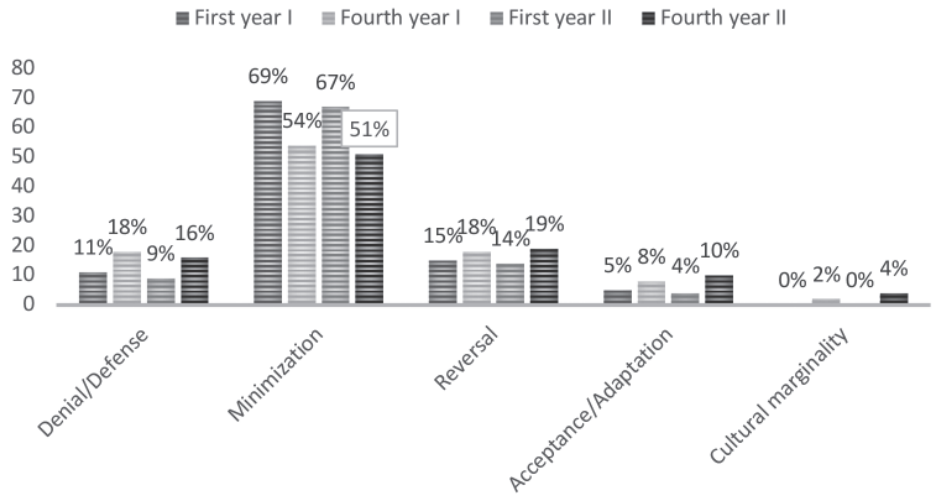
Developmental stages of intercultural sensitivity among first-year and final-year students

The first part of the study was to examine whether first-year and fourth-year students developed IS. For this question, their mean IDI scores from waves I and II were compared. The mean decreased slightly from 93.41 in wave I to 89.98 in wave II. The mean change in score was -1.43 (*SD* = 11.29).

Although these means were somewhat different, both were in the same developmental stage, *minimization*, characterized by being able to recognize cultural differences in a superficial way, indicating that overall, there was little change between the first-year and final-year students. This was verified by means of a *t*-test comparing the mean scores t (112) = 1.41, p =.19.

As shown in Figure 1, just over half (59.6%) of the students remained at the same developmental stage, over one quarter (29.6%) shifted down one or more stages, whilst only 15.2% moved up one or more stages. This propounds that a slight number of students developed their IS during their studies, whilst the majority remained at the same stage and a substantial proportion returned to a previous stage. It is worth noting that in this study sample: 1) most students began and stayed in *ethnocentric* stages with very few students beginning in or entering *ethnorelative* stages; 2) few students were in the *cultural marginality* stage of difference, which is characterized by experiencing one's own culture as one of the many possible cultural perspectives.

Figure 1
IDI developmental stages of first-year and final-year students at wave I and wave II



Relationship between intercultural development, demographic variables and intercultural contact experiences

Table 3 shows Pearson's correlation coefficients between IS and language knowledge, having friends from other cultures, mobility experiences and the number of intercultural interactions, calculated both for the sample as a whole and controlling for year and gender effect.

Table 3
Pearson's correlations between intercultural development, language knowledge, mobility experiences, friends from other cultures, international travel and program duration; and partial correlations controlling for year and sex

	Total sample *n* **= 1645**	**Total sample controlling for year and sex**	**Females** *n* **= 864**	**Males** *n* **= 781**
		SI		
Language knowledge	.07*	.07*	11*	.05
Mobility experiences	.43***	.42***	.40***	.46***
Friends from other cultures	.36***	.36***	.31***	.40***
Number of intercultural interactions per week	.29***	.27***	.27***	.29***
Program duration	-.25***	-.23***	-.33***	-.26***
International travel	-.29***	-.27***	-.39***	-.29***

Note. * p <.05 ** p <.01 *** p <.001

First, the results showed that having knowledge of other languages does not bear a significant relationship with IS (Table 3). Only positive, low-magnitude correlations between language knowledge and IS were found among the female participants, suggesting that females with high IDI scores had knowledge of other languages. In the sample of male participants, no correlation was found between the two variables. Partial correlations controlling for year and sex effect showed similar results.

Second, Pearson's coefficients confirmed that having friends from other cultures and mobility experiences correlated significantly (p <.001) with IS, both for the sample as a whole and analyzing the samples of male and female participants independently. The correlations in the women's sample between IS and mobility experiences and friends from other cultures were of greater magnitude. Partial correlations controlling for year and sex effect showed similar results. The results suggested a strong relationship between IS and intercultural experiences, as people with high IDI scores had more friends from other cultures and more mobility experiences within the total number of intercultural experiences.

Third, Pearson's coefficients corroborated moderate significant correlations (p <.001) between the number of cross-cultural interactions and IS, both for the sample as a whole and in the samples of male and female participants analyzed independently. Partial correlations controlling for year and sex effect displayed similar results.

Finally, Pearson's coefficients confirmed moderate negative significant correlations ($p < .001$) between IS and cultural trips and the duration of the mobility program, both for the sample as a whole and for the samples of male and female participants analyzed independently. Partial correlations controlling for the effect of sex and year indicated similar outcomes. The findings suggested a strong inverse relationship between IS and international travel.

IDI predicting variables

To examine the predictive power of the different variables on the IDI, the following variables were inserted in the multiple linear regression analysis: age, sex, year, knowledge of other languages, friends from other cultures, mobility experiences, program duration, number of intercultural interactions and intercultural experience.

As shown in Table 4, of the set of predictor variables for IS, only three were statistically significant predictors: experiences of mobility, sex and having friends from other cultures. Beta standardized regression coefficients indicated that these variables have some weight in the IS criterion variable. The percentages of explained variance (adjusted coefficients of determination) for each of these predictor variables were of medium magnitude. The three predictor variables explain 33.4% of the variance. Among the female students, three variables were significant: mobility experiences, friends from other cultures and language knowledge, explaining 33.3% of the variance. Beta standardized regression coefficients suggested that both mobility experiences and having friends from other cultures had some weight in IS and, although to a lesser extent, also in language knowledge. The percentages of variance explained by each of these predictor variables were of medium magnitude. In the male sample, two variables were significant: mobility experiences and having friends from other cultures. Beta standardized regression coefficients indicated that both types of variables were predictors of IS, but their explanatory power was low, explaining 21.1% of the variance.

Table 4
Multiple regression results: predicting IDI change

	R	R^2	ΔR^2	B	Standard Error	Constant	β	t
					SI			
Total sample		.						
Mobility experiences	.488	238	.237	.339	.058	3.366	.286	.583***
Sex	.563	.317	.315	-6.704	.697	14.095	-.280	-9.61***
Friends from other cultures	.580	.336	.334	.282	.059	14.092	.235	4.78***
Females								
Mobility experiences	.549	.301	.299	.409	.086	4.678	.341	4.730***
Friends from other cultural	.574	.330	.326	.314	.085	4.916	.266	3.960***
Knowledge language	.583	.339	.333	.050	.022	-2.845	.096	2.230*
Males								
Mobility experiences	.449	.202	.200	.310	.078	2.943	.292	3.962***
Friends from other cultures	.464	.215	.211	.215	.081	2.897	.185	2.649**

Note. * p<.05. ** p<.01. *** p<.001

DISCUSSION

This study explored the first-year and final-year university students' levels of IS, the possible relationships between IS and intercultural contact experiences (experiences of mobility, friends from other cultures, number of intercultural interactions, etc.) and identified the predictive variables for IS. Bennett's model was used, which adopts a cognitive-evolutive perspective, something that, in the Spanish context, can be considered a relevant contribution in furthering this field of study.

Regarding the first objective, the results suggested that the development of IS was very limited, with few differences in IDI scores between first and fourth-year students. The fact that most students were in the *minimization* stage, characterized by the widespread belief that everyone is quite similar, is not surprising since recognizing the value of cultural differences can be very difficult (Bennett, 1993; Deardorff, 2006; Hammer & Bennett, 2002). *Minimization* is within the *ethnocentric* phase and still presupposes that values are universal. This stage is indicated by statements such as: "In other cultures you just have to be yourself", "what you have to apply is common sense" or "there are things that work everywhere". The lack of significant changes in the development of IS within the *ethnocentric* stages is very similar to the results found by Paige et al. (2004).

These findings seem to indicate that participants show a great lack of knowledge about cultural differences and a significant educational gap considering the limited development in their IS (Deardorff et al., 2012). The lack of development found in the students' IS could have something to do with the lack of opportunity to reflect and think about cultural differences. These findings support the concerns highlighted in the literature that university strategies may rely too heavily on immersion as an assumption for the development of IS, even though research suggests this might involve more than just coming into contact with cultural difference, thus posing significant challenges to educational institutions (He, Lundgren, & Pynes, 2017; Vande Berg, Paige & Lou, 2012).

A recent study conducted by Rodríguez-Izquierdo (2015) reveals that students require reflective training to develop their appreciation for cultural differences. Nevertheless, findings obtained in this study indicate that, according to Bennett's model, although the IS scores of final-year students generally showed greater development, the impact was not sufficient to move students from an *ethnocentric* phase, which considered its own culture as "central to all reality", to an *ethnorelative* phase which involves recognizing cultural difference by accepting that other world views are legitimate (*acceptance*), adapting to differences (*adaptation*) and in some cases integrating cultural differences into one's own identity (*cultural marginality*).

Additionally, positive correlations were found between IS and mobility experiences and having friends from other cultures, as well as negative correlations with the number of intercultural interactions and language knowledge. Regarding mobility experiences, the conclusions reiterate previous research findings (Bunch et al., 2018), which suggest that mobility experiences improve IS, encouraging flexibility and interest in other cultures, thus reducing *ethnocentrism* (Rodríguez-Izquierdo, 2018). The findings are also congruent with those of the meta-analysis test of intergroup contact theory, following the literature on Allport's contact hypothesis (1954), which indicates that intergroup friendships are important factors affecting contact positively (Pettigrew & Tropp, 2005). Classical theories also indicate that intergroup contact may reduce prejudice under conditions of group equality, common goals, institutional support and intergroup cooperation.

For example, the meta-analysis results of Pettigrew and Tropp (2006, p. 269) showed that "intergroup friendship" and "structured programs for optimal contact" are significantly effective in creating a favorable impact on intergroup contact. This study demonstrates little evidence that the contact hypothesis requirements for the number of interpersonal relationships and for international travel were met in practice. This outcome suggests that quantity of interaction and travel does not guarantee quality of interaction

and that more work is needed to provide a context in which the number of intercultural encounters is positive and meaningful. Thus, the number of interactions might not be enough to promote the development of IS for most students who remain in the *ethnocentric* phases. The results aligned with the fact that the presence of many international students on campus does not mean that contact will occur (He, Lundgren & Pynes, 2017). These findings support the concern found in the literature that universities need to be more pro-active in introducing intercultural training in their programs (Cost et al., 2016).

Finally, this study identified that only three of the predictive variables studied present statistically significant differences in relation to IS: having mobility experiences, being a woman and having friends from other cultures. With respect to sex, women showed a higher level of IS towards differences. These results concur with the findings of Anderson et al. (2006) and Vande Berg (2007). One possible explanation offered to account for the higher IS of women could be related to the different models of socialization, which could partially explain the difference in developmental levels between men and women. However, this is an issue that should be examined in future research. Furthermore, the data for variables that were found to be poor IS predictors require further consideration, one of which is having knowledge of other languages. One of the possible reasons to explain this might be: on the one hand, in the sample, the number of students who were able to speak a second language was very small (28.4%); and on the other hand, knowledge of languages might not necessarily imply maintaining contact with people from different cultures. Whilst these findings are exploratory, they are consistent with those found by Liu (2019). It is likely that with other kinds of samples (with more knowledge of second languages), these correlations might have been different. Concerning the number of intercultural interactions, although participants reported having frequent interactions, it is hard to examine how in-depth students' intercultural interactions were and if they were the kind of exchanges that lead to intercultural learning.

One last possible explanation to explain the paucity of development in participants may correlate to the IDI measure itself. The literature reveals that intercultural competence is a complex notion including a range of factors such as flexibility, adaptability, self-awareness, empathy, curiosity, openness, tolerance of ambiguity and an *ethnorelative* perspective (Deardorff 2006). While the IDI puts students on a developmental continuum ranging from *ethnocentric* to *ethnorelative* worldviews, it might not explain the variety of factors argued in research. Therefore, it is more of a broad guide, which does not give a complete enough picture through which slight changes in development may be identified.

Educational implications

The findings from this study provide theoretical information to rethink curricula from the perspective of intercultural education with a view to proposing improvements in the acknowledgement of the other. In line with such evidence, Pendry et al. (2007, p. 29) claim that it is necessary to work on a "set of programmes, which aims to influence participants to increase their positive […] intergroup behaviours, such that less prejudice is displayed towards others perceived as different in their group affiliation(s)".

Finally, as IS did not appear to develop for most students, universities might need to do more to enhance it. Thus, HE institutions might need to pay attention to the competence of teachers to generate intercultural learning from international experiences (Knight, & De Wit, 2018), while training students to acknowledge cultural differences should be viewed as part of the social responsibility of universities in our globalized and complex societies.

Limitations and future work

The present study has limitations and elicits suggestions for future studies. Firstly, it should be noted that, since the data are correlational in nature, they provide little information on the causal relationship that might exist between the variables studied. lopment (Deardorff & Arasaratam-Smith, 2017). The next limitation is a clear lack of prior research studies on this topic in Spain, so it is tough to compare our findings with other scholars to offer a more complete view on the issue.

Future research could complement this study with multiple methods of collecting data and with long-longitudinal designs that would further contribute to a more comprehensive understanding of what sort of contact experiences foster the IS development.

CONCLUSIONS

While globalization might create more complex cultural scenarios, the study of IS and programs that favor it might identify how cultural diversity could be harnessed to promote more open and innovative societies rather than more intolerant ones that are closed to diversity. Until the development of IS is accepted as a learning process in Spanish HE policies, the widely held assumption of "immersion and contact" will probably continue,

and thus the development of students' IS to *ethnorelative* stages will be disappointing. Hence, acknowledging the significance of developing IS with a view to tackling all forms of diversity and discrimination play a vital role in progressing towards more inclusive and just societies.

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