

# Attitudes towards the practice of interculturality: An instrument for its measurement

Actitudes hacia la práctica de la interculturalidad: Un instrumento para su medición

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# Abstract

In this research, an instrument has been designed to measure attitudes toward the practice of interculturality. This is an instrumental research through a sequential methodological process supported by a review of the literature, content validity, and reliability analysis (correlation analysis, exploratory factor analysis, and reliability of the instrument). The results show that the factorial exploration (*KMO=0.818; Chisquare=1242.718; gl=300; Sig.<0.000; D=6.338E-9*) defined an instrument with three-dimensional factors (affective, cognitive and behavioral) consolidated in 25 items with a discrimination in the category of very good, likewise, a highly favorable internal consistency ( $\alpha$ =0.93;  $\omega$ =0.93;  $\lambda$ 2=95); and statistically significant correlations between the factors with a greater relationship between the cognitive and behavioral dimensions. It is concluded that the scale of attitude towards the practice of interculturality contributes to inquiry about the affective, cognitive, and behavioral processes that are manifested in the intercultural classroom, therefore, in the inter-learning of the students.

Keywords: interculturality, attitudes, affective, cognitive, behavioral

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# Resumen

En esta investigación se ha diseñado un instrumento para medir las actitudes hacia la práctica de la interculturalidad. Se trata de una investigación de carácter instrumental a través de un proceso metodológico secuencial sustentado en una revisión de la literatura, validez de contenido y análisis de fiabilidad (análisis de correlaciones, análisis factorial exploratorio y confiabilidad del instrumento). Los resultados muestran que la exploración factorial (*KMO=0.818; Chi-cuadrado=1242.718; gl=300; Sig.<0.000; D=6.338E-9*) definió un instrumento con tres factores dimensionales (afectivo, cognitivo y conductual) consolidados en 25 ítems con una discriminación en la categoría de muy bien, así mismo, una consistencia interna altamente favorable ( $\alpha=0.93$ ;  $\omega=0.93$ ;  $\lambda 2=95$ ); y correlaciones entre los factores estadísticamente significativa con mayor relación entre las dimensiones cognitivo y conductual. Se concluye que, la escala de actitud hacia la práctica de la interculturalidad contribuye a indagar sobre los procesos afectivos, cognitivos y conductual que se manifiestan en aula intercultural, por consiguiente, en los interaprendizajes de los estudiantes.

Palabras clave: Interculturalidad, actitudes, afectivo, cognitivo, conductual

# I. Introduction

The Horizon of Nicaraguan Higher Education is based on an educational model that is committed to learning focused on the person, family, and community, taking as a reference that university education must be inclusive, intercultural, innovative, creative, and flexible with the objective of strengthening students' creative and purposeful thinking to learn to be people and not human capital (Consejo Nacional de Universidades [CNU], 2022, p. 23). For this reason, the study of attitudes toward the practice of interculturalism is fundamental because interculturality allows the establishment of horizontal dialogues through the recognition of the differences of others to create fairer societies (Rossmann-Hooker, 2019).

In the literature some studies try to identify attitudes toward intercultural education; attitudes toward cultural diversity; beliefs about interculturality and intercultural competence. For example, Llorent and Álamo (2016) say that the evaluation of attitudes, beliefs, emotions, intentions and behavior toward cultural diversity is valuable information for the planning and implementation of teaching processes by teachers, as well as, the social interactions to generate in the formation of learning in the student body, who will need intercultural competence throughout their academic and working life (Ricardo-Barreto & Medina-Rivilla, 2013; Peñalva-Velez & López-Goñi, 2014; Figuera *et al.*, 2021).

In accordance with the above, the purpose of this research is to design an instrument to measure attitudes towards the practice of interculturality in the context of higher education. For this, an initial questionnaire consisting of 37 items that try to characterize the affective, cognitive, and behavioral dimensions of the practice of interculturality is applied. The study was carried out based on expert judgment, discrimination analysis, and reliability analysis. This will help to deepen the identification and study of attitudes toward the practice of interculturality.

## II. Literature

In intercultural higher education, the concept of attitude has been used, such as respect for cultural diversity and expansion of knowledge about the customs and beliefs of others (Aguado-Díaz *et al.*, 2008). This means the development of intercultural attitudes, ranging from tolerance and empathy to the elimination of prejudices and stereotypes, and the improvement of personal and cultural self-concept (Yus-Ramos, 1993; Sáez, 2006). These conceptions highlight the cognitive and belief elements, their affective and evaluative load, as well as the intention and behavior related to these attitudes (Flores-López & Auzmendi, 2015).

Among the existing instruments to measure attitudes toward the practice of interculturality, Rojas-Tejada *et al.* (2003) propose an Inter-ethnic Endogroup Bias Test to measure acculturation, group identification, and perceived cultural enrichment, allowing its members to define their belonging to the group and their differences with the rest, through the assessment of different elements inherent to ethnic groups. While Merino-Mata and Ruíz-Román (2005) evaluate attitudes towards intercultural education through dimensions related to cultural knowledge, attention to diversity, and educational values, recognizing the reality of the multiculturalism of the student body and the need to be able to face the social conflicts in the classroom.

Rodríguez-Izquierdo (2006) develops the scale of attitudes to study intercultural education and cultural diversity with student teachers, delving into values for the recognition of a multicultural and multilingual society based on the coexistence and cultural sensitivity of the students. Likewise, Solórzano-Salas (2013) affirms that it is necessary to measure sensitivity to cultural diversity based on existing human differences in personal, cultural, and cognitive aspects. However, Llorent and Álamo (2016) evaluate attitudes, beliefs, emotions, intentions, and behaviors based on their positive presence and their negative absence in university students, highlighting that attitudes toward cultural diversity are valuable information for planning and implementation of teaching and learning processes by teachers.

For their part, Carrera-Fernández *et al.* (2018) analyze the joint influence of sexism, homophobia, and moral disengagement on attitudes towards cultural diversity in students between the ages of 14 and 19, highlighting the implications for an intercultural and queer educational practice (p. 17) through a critical and liberating pedagogy aimed at the socio-emotional development of the student body and training

in values of justice and social commitment. On the other hand, Rodríguez-Izquierdo (2016) analyzes the beliefs that university students have about the notion of interculturality and about how educational practices in multicultural contexts should be approached, concluding that students identify interculturality with immigration, which in turn sometimes associated with problems or deficits, especially linguistic and communication.

The contribution of Ricardo-Barreto and Medina-Rivilla (2013) to analyze the attitudes and beliefs of the intercultural competence of teachers who teach through virtuality, contributes to the recognition of education with an intercultural approach through the dimensions of awareness and cultural values; cultural perspective; culturally appropriate educational strategies that teachers assume in their educational practice. In turn, the scale of citizen and intercultural competencies of Peñalva-Velez and López-Goñi (2014) contributes to the "formation of critical, communicative and social competence, but it does not ensure that citizen competence for conflict resolution is developed, that seems to demand specific training" (p. 149). Finally, Figuera *et al.* (2021) evaluate intercultural competencies based on the perceptions of university students, concluding that the measurement instrument is a useful tool to promote social cohesion and develop inclusive education in students.

Based on the review of the literature, the comprehensive analysis of Table 1 suggests the redistribution of the scales in three main aspects: attitudes towards intercultural education; attitudes towards cultural diversity; beliefs about interculturality and intercultural competence.

Instruments	Dimensions - Attitudinal	Psychometric Evidence
Interethnic Endogroup Bias Test (Rojas-Tejada <i>et al.,</i> 2003).	Acculturation, group identifica- tion, perceived cultural enrich- ment.	Exploratory Factorial analysis. Cronbach's alpha: 0.828 (N=1109)
Attitudes toward intercultu- ral education (Merino-Mata & Ruíz-Roman, 2005).	Cultural knowledge, attention to cultural diversity, educational values.	Descriptive and qualitative data analysis.
Attitudes toward cultural diversity (Rodríguez- Izquierdo, 2006).	Intercultural Education; and cultural diversity.	Exploratory Factor Analysis. Cronbach's alpha: 0.8126 (N=143)
Attitude toward diversity (Solórzano-Salas, 2013).	Sensitivity to cultural diversity; My world in cultural diversity.	Exploratory Factor Analysis. Cronbach's alpha: 0.829 (N=593)

Table 1.Instruments to assess attitudes towards cultural diversity, beliefs, competence, and intercultural education

Instruments	Dimensions - Attitudinal	Psychometric Evidence
Attitudes and beliefs of intercultural competence (Ricardo-Barreto & Medina- Rivilla, 2013).	Cultural awareness and values; cultural perspective; culturally appropriate educational stra- tegies.	Descriptive and qualitative data analysis.
Civic and intercultural com- petences (Peñalva-Velez y López-Goñi, 2014).	Critical citizen competence; communicative and social citi- zen competence; citizen com- petence in conflict resolution.	Descriptive analysis, parametric and non-parametric tests, and CHAID segmentation analysis (N=120).
Attitudes toward cultural diversity (Llorent & Alamo, 2016).	Attitudes, emotions, behaviors, beliefs and intentions.	Exploratory Factor Analysis. Cronbach's alpha: 0.934. (N=514).
Beliefs about interculturality (Rodríguez-Izquierdo, 2016).	Beliefs and assessments about interculturality; beliefs about people/collectives; beliefs about educational practice.	Descriptive and qualitative data analysis.
Attitudes toward cultural diversity (Carrera-Fernández <i>et al.</i> , 2018).	Hostile sexism; benevolent se- xism; gay homophobia; lesbian homophobias; moral disenga- gement; racism/xenophobia.	Confirmatory Factor Analysis RMSEA= 0.051; SRMR=0.047; NFI=0.952; CFI=0.963. Alfa de Cronbach: 0.83 (N=1245)
Intercultural competence (Figuera <i>et al.</i> , 2021).	Attitudes, identification; and interest in the framework of intercultural competence.	Confirmatory Factor Analysis. IFC=0.735; GFI=0.739; RMSEA= 0.052; TLI=0.920; RMR=0.0730 Cronbach's Alpha: 0.875 (N=1245)

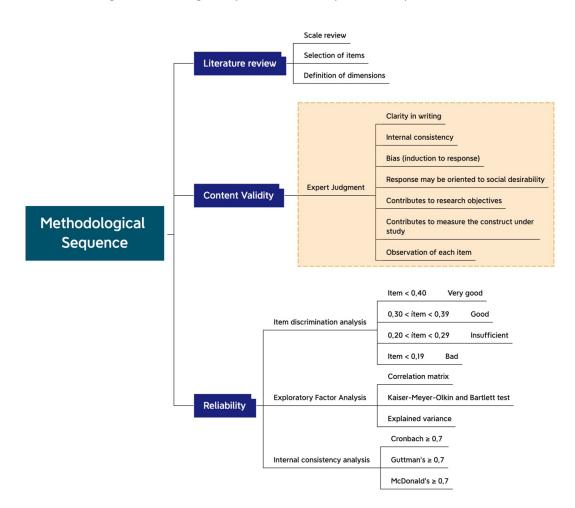
The theoretical model proposed for the present study is based on this categorization and has a three-dimensional and non-hierarchical approach. The three related first-order latent factors have the following definitions: affective, manifested through emotions and feelings of acceptance or rejection that the subject activates motivationally in the presence of the object, person, or situation that generates said attitude (Flores-López & Auzmendi, 2018); cognitive, it is manifested or expressed through perceptions, ideas, opinions, conceptions and beliefs from which the subject is placed in favor or against the expected behavior (Auzmendi, 1992); and behavioral or attitudinal constitutes the observable conduct, properly speaking, which according to Postic and De Ketele (1992), is conceived as a set of behaviors. In short, attitudes are not only beliefs about a certain object accompanied by affection regarding it, but dispositions to react to a stimulus (Flores-Auzmendi, 2018, p. 234).

# III. Investigation methodology

## 3.1 Design

This research is instrumental in nature because it responds to problems aimed at demonstrating the psychometric properties of measurement instruments (Montero

& León, 2007). According to Hernandez *et al.* (2014), the quality of a measurement instrument must have two essential requirements: validity and reliability (See Figure 1). The first is the degree to which an instrument actually measures the variable that it seeks to measure, and the second is the degree to which it produces consistent and coherent results (Llovera-López *et al.*, 2022).





### 3.2 Participants

An expert judgment was carried out to review the conceptual, methodological, and organizational structure of the measurement instrument. The content validation criteria used are (Soriano-Rodríguez, 2014): clarity in writing, internal coherence; bias (induction to responses); wording appropriate to the study population; responses may be oriented to social desirability; contributes to research objectives; contributes to measure the construct under study; and observation of each item (consider whether it should be eliminated, modified).

Also, a discrimination analysis, exploratory factorial analysis, and reliability analysis of the attitude scale toward the practice of interculturalism were carried out from a pilot study with 76 students (M=43; H=33) from the University of the Autonomous Regions of the Nicaraguan Caribbean Coast – Bluefields University Campus, from the peoples: 13% indigenous Miskitus, 7% Ulwa indigenous, 14% Creole and 66% mestizo with ages ranging from 16 to 36 years. It is important to mention that the type of sampling that we have used has been non-probabilistic causal or accidental sampling is the one in which the researcher directly and intentionally selects the sample, mainly because he/she has easy access to it and representativeness of the population (Gil *et al.*,1995; Albert, 2006; Sabariego, 2004).

#### 3.3 Instrument

A systematic review of items that contribute to the construct of attitudes toward intercultural practice in the affective, cognitive, and behavioral dimensions was carried out (See Table 2).

Dimension	k	Items
	1	I avoid those situations in which I have to work with students from other cultures.
	2	l am quite sure of myself when conversing with students from other cultures.
3 I feel comfortable when conversing tures.		I feel comfortable when conversing with students from other cul- tures.
Affective	4	When I talk to students from other cultures, I am a very observant person.
	5	When I talk to students from different cultures, I try to learn as much as I can about them.
	6	I often show my colleagues from different cultures that I unders- tand what they are saying to me, through words or gestures.
	7	I can be as sociable as I want when I talk to colleagues from other cultures.

Table 2. Dimensions and items of the scale (Final Version)

Dimension	k	Items
	8	Students must have a preparation in culture, languages, religion, spirituality, interculturality, gender equality, customs, and tradi- tions of different peoples.
Come it is a	9	In order to have a better understanding of cultural diversity, interculturality, and intercultural practices, teachers must have knowledge and experience on the subject.
Cognitive	10	Training aimed at students should focus on positive attitudes towards cultural diversity and interculturality.
	11	Training for students should focus on positive attitudes toward cultural diversity and interculturality.
	12	The presence of students from different cultures causes problems and delays in the classroom.
	13	To colleagues from cultures different from mine, their culture of origin is respected.
	14	The university must promote interculturality and cultural diversity, to be better every day.
	15	The value of intercultural education is essential to be a better person.
	16	Intercultural education favors attitudes of respect and apprecia- tion of cultural diversity.
	17	Intercultural education is essential to promote access to quality education for all.
	18	Intercultural education seeks equal opportunities for all students from any culture.
Behavioral	19	Cultural diversity in the classroom allows for the exchange of experiences and greater learning.
	20	We all have the right to study at any university, without any type of restrictions.
	21	The interaction that occurs in the classroom between students from different cultures allows them to be better prepared profes- sionals for the future.
	22	It would have been better for each cultural group to remain in their place of birth/origin.
	23	It annoys me when other cultural groups try to introduce their practices and traditions into the classroom.
	24	It annoys me when other cultural groups try to introduce their practices into our society.
	25	I believe that interaction in the classroom allows classmates to learn from other cultures.

### **IV. Results**

#### 4.1 Expert judgment

It was submitted to a review by five experts who analyzed the relevance and quality and clarified the wording of each item and the relevance of categories. Then, it was found that "there is clarity and precision in the wording of the items" (Judgment-Experto, 2022), because the items have a logical, precise, concise, and fluid order (Delgado, 2016) in addition, the language used responds to the contextual and experiential processes of the participants with "internal coherence between the items" (Judgment-Expert, 2022). On the other hand, regarding the criteria linked to the biases (induction to the answer) in the wording of the items, the experts will consider eliminating and modifying the items associated with the affective, cognitive, and behavioral dimensions towards the practice of intercultural education (See Table 3).

Dimension	Items	
Affective	<ul> <li>I enjoy talking with people from different cultures.</li> <li>I respect the way my colleagues from different cultures behave.</li> <li>I respect the beliefs of students from different cultures.</li> <li>I do not accept the opinion of colleagues from different cultures.</li> <li>I think my culture is better than others.</li> <li>I always know what I want to say when I talk to students from other cultures.</li> <li>I get easily upset when talking to peers from different cultures.</li> </ul>	
Cognitive	<ul> <li>The knowledge about cultural diversity and interculturality is only necessary when there are students from different cultures.</li> <li>It is not necessary to train and know about cultural diversity and interculturality.</li> <li>Cultural minority students have more difficulty learning/grasping classes.</li> <li>Conflicts in the classroom are produced above all by the majority's rejection of cultural minorities.</li> </ul>	
Behavioral	<ul> <li>I would prefer not to have classmates from other cultures, in the classroom.</li> <li>It bothers me that other cultural groups try to introduce their practices into our society.</li> </ul>	

#### Table 3. Bias in the wording of the items

It is necessary to mention that it was found that the wording is ambiguous, the participants interpreted the initial intention differently, therefore, their answer is not admitted (Judgment-Expert, 2022). In addition, bias, as a complex or long question, is assumed that the respondent has the necessary preparation, time, and patience to adequately analyze and answer long or complex questions, which is not necessarily true (Choi *et al.*, 2010) ... In this sense, recommendations are oriented according to Table 4.

Assessment criteria	Recommendations	
Appropriate wording for population under study	The wording of the items is adapted to the context of the popula- tion under study: indigenous, Afro-descendant and mestizo popu- lations.	
Answer may be oriented to social desirability	It is appreciated that the items refer to the sincerity with which people can respond. Also, they are oriented to the conscious and unconscious tendency that the individual can manifest favorably in the responses.	
Contributes to research objectives	The instrument is associated with the measurement of the variables that are identified in the research objectives.	
Helps to measure the construct un- der study	The items measure the construct under study, and attitudes toward intercultural practice in its cognitive, affective, and behavioral dimensions.	

Table 4. Assessment criteria, an instrument through the Expert's judgment methodology

### 4.2 Discrimination analysis

The discrimination analysis was obtained through the coefficient of correlation between the item under study and the total score (Flores-López & Auzmendi, 2015). In this sense, it was found that the values of the discrimination index oscillate between 0.31 and 0.79. In this sense, it was found that the values of the discrimination index oscillate between 0.31 and 0.79. In other words, 80% of the total items discriminate very well, since they obtained scores between 0.40 and 0.79, while the remaining 20% discriminate well because they have scores ranging from 0.31 to 0.39. It can also be seen that the average scores between the items are in a range of 3.70 to 4.70, with item 5 showing the lowest score and item 4.70 being the highest score. While the standard deviation between the items has a frequency from 0.92 to 1.40, with item 20 having the lowest deviation and item 22 having the highest deviation (See Table 5).

k	Items	м	SD	r <sub>ix</sub>
1	I avoid those situations in which I have to work with students from other cultures.	4.20	1.22	0.40
2	I am quite sure of myself when conversing with students from other cultures.	4.08	1.29	0.31
3	I feel safe when conversing with students from other cultures.	4.07	1.19	0.34
4	I am a very observant person when I talk with students from other cultures.	4.05	1.28	0.32
5	When I talk to students from different cultures, I try to learn as much as I can about them.	3.70	1.36	0.40
6	I often show my colleagues from different cultures that I understand what they are saying to me, through words or gestures.	3.91	1.19	0.38
7	I can be as sociable as I want when I talk to colleagues from other cultures.	3.82	1.05	0.42

Table 5. Discrimination analysis of the attitude scale toward the practice of interculturality

k	ltems	M	SD	r <sub>ix</sub>
8	Students must have a preparation in culture, languages, religion, spirituality, interculturality, gender equality, customs, and traditions of different peoples.	4.49	1.22	0.63
9	In order to have a better understanding of cultural diversity, interculturality, and intercultural practices, teachers must have knowledge and experience on the subject.	4.45	1.16	0.66
10	Training for students should focus on positive attitudes toward cultural diversity and interculturality.	4.22	1.20	0.54
11	I believe that when I finish my studies, I will have the knowledge and experien- ce to work with people from different cultures.	4.33	1.17	0.50
12	The presence of students from different cultures causes problems and delays in the classroom.	3.93	1.30	0.39
13	Companions from cultures different from mine are respected for their culture of origin.	4.30	1.30	0.60
14	The university must promote interculturality and cultural diversity, to be better every day.	4.64	1.02	0.63
15	The value of intercultural education is fundamental for being a better person.	4.47	1.05	0.67
16	Intercultural education favors attitudes of respect and appreciation of cultural diversity.	4.47	1.13	0.78
17	Intercultural education is essential to promote the right to access quality educa- tion for everyone.	4.50	1.13	0.72
18	Intercultural education seeks equal opportunities for all students of any culture.	4.46	1.08	0.77
19	Cultural diversity in the classroom allows for the exchange of experiences and greater learning.	4.42	1.10	0.79
20	We all have the right to study at any university, without restrictions of any kind.	4.70	0.92	0.78
21	The interaction that occurs in the classroom between students from different cultures allows them to be better prepared professionals for the future.	4.30	1.27	0.60
22	It would have been better for each cultural group to remain in their place of birth/origin.	4.22	1.40	0.58
23	It bothers me that other cultural groups try to introduce their practices and traditions into the classroom.	4.29	1.36	0.65
24	It bothers me that other cultural groups try to introduce their practices into our society.	4.33	1.29	0.57
25	I believe that interaction in the classroom allows classmates to learn from other cultures.	4.29	1.34	0.58

## 4.3 Exploratory Factorial Analysis

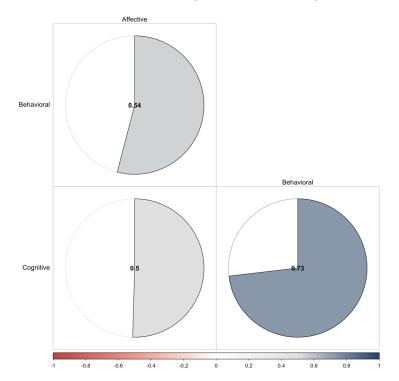
An exploratory factor analysis (EFA) was carried out to find underlying patterns and relationships, that is, to identify the structure of the dimensions of the attitude scale toward the practice of interculturality that explain the variability in the observed data. It is based on the fact that the correlations between the dimensions of the attitude scale towards the practice of interculturality are positive among themselves, ranging between 0.505 and 0.731, with a greater relationship between the cognitive and behavioral dimensions (See Table 6).

Dimensions	Affective	Cognitive	Behavioral
Affective	1	.505	.541
Cognitive	.505	1	.731
Behavioral	.541	.731	1

# Table 6.Correlations between the dimensions of the attitude scale toward the practice of interculturality

Correlations are significant at the 0.000 level (bilateral).

In addition, this relationship between the dimensions of the attitude scale toward the practice of interculturality is confirmed in Figure 2.



# Figure 2. Correlations between the dimensions of the attitude scale towards the practice of interculturality

Based on the above, the Kaiser - Meyer - Oklin test was carried out, which yielded a score of 0.818. For its part, the sphericity test offered results indicating that the analysis was pertinent (Chi-square=1242.718; gl=300; Sig.<0.000), the determinant of the correlation matrix was calculated, whose value was practically o (D=6.338E-9). The factorial structure found coincides absolutely with the one proposed theoretically, consisting of three factorial dimensions; the affective dimension which explains 52.55% of the variance, is composed of 5 items; the cognitive dimension which describes 64.47% of the variance, is made up of 7 items; and finally, the behavioral dimension represents 75.46% of the variance and is made up of 13 items.

#### 4.4 Reliability Analysis

Reliability is the stability of the observed scores, in the sense of providing a numerical value that indicates the degree of confidence that can be placed in said scores as estimators of the true scores of the subjects (Flores-López & Auzmendi, 2015). Likewise, it is the property of the scores of a questionnaire or a scale for a specific group of people belonging to a specific sample (Fan & Thompson, 2001). (See table 7)

Dimensions		Cronbach's	McDonald's	Guttman's
Affective	7	0.80	0.81	0.80
Cognitive	5	0.83	0.84	0.86
Behavioral	13	0.95	0.95	0.96
Global	25	0.93	0.93	0.95

Table 7. Reliability analysis of the attitude scale toward the practice of interculturality.

The results of the analysis of reliability show that the internal consistency for the 25 items reached a Cronbach's alpha coefficient of 0.93: McDonald's coefficient of 0.93 and Guttman's coefficient of 0.95. It is important to mention that the behavioral or attitudinal dimension has high reliability ( $\alpha$ =0.95;  $\omega$ =0.95;  $\lambda$ 2=0.96), concerning the cognitive dimension ( $\alpha$ =0.83;  $\omega$ =0.84;  $\lambda$ 2=0.86) and the affective dimension ( $\alpha$ =0.80;  $\omega$ =0.81;  $\lambda$ 2=0.80).

## V. Discussion and Conclusions

In this research, an instrument has been designed to measure attitudes toward the practice of interculturality, based on the fact that an attitude is the point of view or disposition of an individual toward a particular object (Gall *et al.*, 1996, p. 273), also, is a psychological tendency that is evaluated with a certain degree of favorable or unfavorable (Eagly and Chaiken, 1993, p. 1). Then, the particular object is the practice of interculturality, defined as the relationships and interactions that occur and are established between people of different cultures (Elboj-Saso *et al.*, 2017), based on the construction of trust with the intention of establishing horizontal

dialogues, recognizing the differences of others with the aim of creating fairer societies (Rosmann-Hooker, 2019). Based on the above, a review of the literature was carried out, a content validation (expert judgment); and a reliability analysis (discrimination index; exploratory factor analysis; and an internal consistency analysis).

Thus, it is concluded that the findings support the definition of an instrument with three-dimensional factors (affective, cognitive, and behavioral) consolidated in 25 items, coinciding with the definition of the dimensions by Llorent and Álamo (2016), which proposes factors associated with attitudes, emotions, behaviors, beliefs, and intentions, likewise, with the intercultural competence scale of Figuera *et al.* (2021) which raises dimensions linked to attitudes, identification and interest in a framework of intercultural competence, likewise, the proposed systems of beliefs and values on interculturality and its educational practice by Rodríguez-Izquierdo (2016); and the research developed by Ricardo-Barreto and Medina-Rivilla (2013) on attitudes and beliefs of intercultural competence that assess cultural awareness and values, cultural perspective, and culturally appropriate educational strategies.

Regarding the analysis of the discrimination index, it is concluded that most items discriminate very well because 80% obtained scores between 0.40 and 0.79. In addition, the results of the exploratory factor analysis explain that the correlations between the dimensions are statistically significant, ranging between 0.505 and 0.731, with a greater relationship between the cognitive and behavioral dimensions. Likewise, the results of the exploratory factor analysis test are excellent (*KMO=0.818; Chi-square=1242.718; gl=300; Sig.<0.000; D=6.338E-9*) and the factorial structure found coincides with the one proposed theoretically, made up of three factorial dimensions (affective, cognitive, and behavioral). In the case of high internal consistency ( $\alpha=0.93$ ;  $\omega=0.93$ ;  $\lambda 2=95$ ), these results coincide with the research by Llorent and Álamo (2016), who found high scores ( $\alpha=0.93$ ) in the construction of a scale of attitude towards cultural diversity.

It is concluded that having an attitude scale toward the practice of interculturality contributes to inquiring about the affective, cognitive, and behavioral processes which are manifested in the intercultural classroom, therefore, in students' interlearning. It is relevant to identify the affective, cognitive, and behavioral factors because they comprise a global gear against the design, planning and implementation of intercultural higher education, by teachers, as well as to develop the training processes to be generated in the student body (Flores-López & Auzmendi, 2018) who will continue to coexist and share interlearning and cultural actions throughout their lives. In short, it is recommended to move in advanced psychometric research with the measurement instrument to continue strengthening its factorial dimensions.

## VI. Reference list

- Aguado-Díaz, A. L., Alcedo Rodríguez, M. Á., & Arias Martínez, B. (2008). Cambio de actitudes hacia la discapacidad con escolares de Primaria. *Psicothema*, 20 (4), 697-704. <u>https://digibuo.uniovi.es</u>
- Albert, M. (2006). La investigación educativa. Claves Teóricas. Madrid: McGraw-Hill.
- Auzmendi, E. (1992). Las actitudes hacia la matemática-estadística en la enseñanzas medias y universitarias. Mensajero.
- Carrera-Fernández, M. V., Cid-Fernández, X. M., Almeida, A., González-Fernández, A., & Lameiras-Fernández, M. (2018). Attitudes toward cultural diversity in Spanish and Portuguese adolescents of secondary education: The influence of heteronormativity and moral disengagement in school bullying. *Revista de Psicodidáctica* (English ed.), 23(1), 17-25. <u>https://doi.org/10.1016/j.psicoe.2017.07.002</u>
- Choi, B., Granero, R., & Pak, A. (2010). Catálogo de sesgos o errores en cuestionarios sobre salud. *Revista Costarricense de Salud Pública*, 19(2), 106-118.
- Consejo Nacional de Universidades. (2022). *Marco estratégico de la Educación Superior* 2022-2030. Editorial CNU.
- Delgado, A. (2016). *Redacción científica: precisión, claridad y brevedad*. <u>https://doi.org/10.3916/escuela-de-autores-005</u>
- Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Harcourt brace Jovanovich college publishers.
- Elboj-Saso, C., Valero Errazu, D., Iñiguez-Berrozpe, T., & Gómez-Bahillo, C. (2017). La competencia intercultural en las organizaciones: una aproximación teórica. *Revista Internacional De Organizaciones*, (19), 75-92. <u>https://doi.org/10.17345/</u> <u>rio19.75-92</u>
- Fan, X., & Thompson, B. (2001). Confidence intervals for effect sizes: Confidence intervals about score reliability coefficients, please: An EPM guidelines editorial. Educational and Psychological Measurement, 61(4), 517-531.
- Figuera, J., Duette, C., & Aranda, T. (2021). Cuestionario para la Evaluación de Competencias Interculturales (CCI). *Revista de Educación Inclusiva*, 14(1), 108-118.

- Flores-López, W. O., & Auzmendi, E. (2015). Análisis de la estructura factorial de una escala de actitud hacia las matemáticas. *Aula De Encuentro*, 17(1). <u>https://revistaselectronicas.ujaen.es/index.php/ADE/article/view/2256</u>
- Flores-López, W. O., & Auzmendi, E. (2018). Actitudes hacia las matemáticas en la enseñanza universitaria y su relación con las variables género y etnia. Profesorado, *Revista De Currículum Y Formación Del Profesorado*, 22(3), 231–251. <u>https://doi.org/10.30827/profesorado.v22i3.8000</u>
- Gall, M. D., Borg, W. R., & Gall, J. P. (1996). *Educational research: An introduction*. Longman Publishing.
- Gil, J., Rodríguez, G., & García, E. (1995). *Estadística básica aplicada a las ciencias de la educación*. Sevilla: Kronos.
- Hernández, R., Fernández, C., & Baptista, M. (2014). *Metodología de la investigación*. McGraw-Hill.
- Llorent, V., & Álamo, M. (2016). Escala de Actitudes hacia la Diversidad Cultural (ADC) para los futuros docentes. *Opción*, 32(11), 832-841.
- Llovera-López, Y., Aragón Carretero, Y., & Cano Olivares, P. (2022). Adaptación y validación de un cuestionario para analizar ciberplagio en trabajos académicos universitarios: Ciberplagio en los trabajos académicos. *Revista Fuentes*, 24(1), 15–27. <u>https://doi.org/10.12795/revistafuentes.2022.16191</u>
- Merino-Mata, D., & Ruíz-Román, C. (2005). Actitudes de los profesores hacia la educación intercultural. *Aula Abierta*, 86, 185-204.
- Montero, I., & León, O. (2007). Guía para nombrar los estudios de investigación en Psicología. *International Journal of Clinical and Health Psychology*, 7(3), 847-862.
- Peñalva-Velez, A., & López-Goñi, J. J. (2014). Competencias ciudadanas en alumnado de magisterio: la competencia intercultural personal. *Revista Electrónica Interuniversitaria de Formación del Profesorado*, 17(2), 153. <u>https://doi.org/10.6018/</u> <u>reifop.17.2.196871</u>

Postic, M., & De Ketele, J. (1992). Observar situaciones educativas. Madrid: Narcea

Ricardo-Barreto, C., & Medina-Rivilla, A. (2013). Actitudes y creencias de la competencia intercultural en profesores virtuales. *Ingeniería y Desarrollo*, 31(2), 272-290.

- Rodríguez-Izquierdo, R. (2006). Escala de actitudes de los estudiantes de magisterio ante la diversidad cultural. *Revista Ciencias de la Educación*, 207, 383-404.
- Rodríguez-Izquierdo, R. (2016). Creencias acerca de la interculturalidad y las prácticas educativas interculturales de los estudiantes universitarios de educación social en el contexto español. *Perfiles educativos*, 38(152), 128-145.
- Rojas-Tejada, A., García-Fernández, M., & Navas-Luque, M. (2003). Test de sesgo endogrupal interétnico: estudios de fiabilidad y de evidencias de validez. *Psicothema*, 15(1), 101-108.
- Rossmann-Hooker, T. P. (2019). ¿Es posible la interculturalidad en contextos multiculturales o solo es un concepto de moda? ¿Cómo se vive desde la educación superior? *Revista Universitaria Del Caribe*, 23(2), 7–13. <u>https://doi.org/10.5377/</u> <u>ruc.v23i2.8923</u>
- Sabariego, M. (2004). El proceso de investigación. En R. Bisquerra, *Metodología de la investigación educativa* (127-163). La Muralla.
- Sáez, R. (2006). La educación intercultural. *Revista de educación*, 339(1), 859-881. <u>http://www.revistaeducacion.mec.es/re339/re339\_37.pdf</u>
- Solórzano-Salas, M. (2013). Escala actdiv para medir la actitud hacia la diversidad. *Actualidades Investigativas en Educación*, 13(1), 240-266.
- Soriano-Rodríguez, A. M. (2014). Diseño y validación de instrumentos de medición. *Diálogos*, 14, 19-40.
- Yus-Ramos, R. (1993). Las trasversales: conocimientos y actitudes. *Cuadernos Pedagógicos*, 217, 76-79.