

## Bilingual pre-service teachers' perceptions of their intercultural and plurilingual competences

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### **ABSTRACT**

The number of bilingual teacher preparation programs in Spain continues to increase, making it essential for research to address this evolving reality from multiple perspectives. Given that the success or failure of any educational innovation is closely tied to how it is understood and perceived, this study aims to analyse the usefulness of bilingual education from the perspective of one key group of stakeholders: bilingual pre-service teachers. Specifically, participants' levels of self-perceived intercultural and plurilingual competences were measured in relation to four variables: gender, involvement in a bilingual track in primary education, participation in international programs, and language proficiency. The relationship between intercultural competence and plurilingual competence was also examined. Data were collected through a questionnaire designed by the research team of the national project PID2021-127031OB-I00. The sample comprised 99 students from four public universities in Spain. Results of the Mann Whitney U tests indicated that participants' self-perceived levels of both competences seem to be linked with their participation in international programs and their language proficiency. Participation in bilingual programs in primary education proved to have a weak impact. No gender differences were detected. Pearson correlations revealed the positive correlation between the two dimensions examined. This study has gathered overall trends among bilingual pre-service teachers, which can have relevant implications for initial teacher education and language education in general.

**KEYWORDS:** bilingual teacher preparation programs; pre-service teachers' perceptions; intercultural competence; plurilingual competence.

## ***La percepción de futuros maestros bilingües sobre sus competencias intercultural y plurilingüe***

### **RESUMEN**

El número de programas de formación para profesores bilingües en España sigue aumentando, haciendo esencial que la investigación aborde esta realidad en evolución desde múltiples perspectivas. Dado que el éxito o fracaso de cualquier innovación educativa está estrechamente vinculado a cómo se entiende y percibe, este estudio tiene como objetivo analizar la utilidad de la educación bilingüe desde la perspectiva de un grupo de futuros profesores bilingües en formación. Específicamente, se midieron los niveles de competencias interculturales y plurilingües autopercebidas de los participantes en relación con cuatro variables: género, participación en un programa bilingüe en educación primaria, participación en programas internacionales y dominio del idioma. También se examinó la relación entre la competencia intercultural y la competencia plurilingüe. Los datos se recolectaron a través de un cuestionario diseñado por el equipo de investigación del proyecto nacional PID2021-127031OB-I00. La muestra comprendió 99 estudiantes de cuatro universidades públicas de España. Los resultados de las pruebas U de Mann Whitney indicaron que los niveles autopercebidos de ambas competencias parecen estar vinculados con la participación en programas internacionales y el dominio del idioma. La participación en programas bilingües en educación primaria demostró tener un impacto débil. No se detectaron diferencias de género. Las correlaciones de Pearson revelaron una correlación positiva entre las dos dimensiones examinadas. Este estudio ha recopilado tendencias generales entre los futuros profesores bilingües en formación, lo que puede tener implicaciones relevantes para la formación inicial del profesorado y la educación lingüística en general.

**PALABRAS CLAVE:** programas de formación bilingüe; percepciones del profesorado en formación; competencia intercultural; competencia plurilingüe.

### **Introduction**

Following the European Union recommendations to foster and reinforce the development of multilingualism and interculturality in different domains (European Commission, 1995, 2005, 2008a, 2008b), an increasing number of Spanish universities have incorporated undergraduate programs through the medium of English (Fernández-Costales, 2017; Fernández-Costales & González-Riaño, 2015; Madrid & Julius, 2020; Rubio-Alcalá et al., 2019). Within this framework, several universities introduced a bilingual track in their primary education degree programs. This development presented a direct challenge for researchers, who promptly acknowledged the need to evaluate the success of these programs from multiple perspectives (Barrios & López Gutiérrez, 2023; Delicado-Puerto et al., 2022; Cortina-Pérez & Rodríguez, 2022; Hernández-Nanclares & Jiménez-Muñoz, 2017; Jover et al.,

2016; Martí & Portolés, 2019; Romero & Zayas, 2017; Segura, 2023). One such perspective is teacher cognition. According to Borg (2003), teacher cognition includes “beliefs, knowledge, theories, attitudes, images, assumptions, metaphors, conceptions and perspectives about teaching, teachers, learning, students, subject matter, curricula, materials, instructional activities and self” (p. 82). Personality (Donaghue, 2003), schooling (Pajares, 1992) and past learning experiences (Shulman, 1987), for example, have been identified as factors determining teacher cognition.

Among the components of teacher cognition, this study will focus specifically on beliefs. Beliefs play a crucial role in shaping individuals' understanding of the world as they affect the perception and acceptance of new information. They provide a framework for interpreting events (Borg, 2001). As Dalton-Puffer and Smit (2013) contend, the success and implementation of all educational innovations are deeply connected to how they are understood and applied. Professionals in the field of education ought to actively seek to understand how their intended audiences interpret these initiatives and gauge their perceptions. Students' views on what it means to be interculturally competent and the qualities this entails, for instance, often differ from what a particular design initially established (Díaz & Moore, 2018, p. 92). Therefore, if beliefs are the lenses through which pre-service teachers view their training, it is essential for research to uncover these beliefs (Haukás, 2016).

However, research on pre-service teachers' perceptions is limited, particularly regarding studies that address both intercultural and plurilingual competences (henceforth IC and PC, respectively) together. In light of increasing global interconnectedness and the substantial surge in migration, the development of educators' skills in intercultural understanding and multilingual communication has become essential. This was already highlighted in documents of the Council of Europe (henceforth CoE) more than a decade ago (Beacco & Byram, 2007, 2016; Candelier et al., 2012). For these reasons, the current contribution investigates the perception bilingual pre-service teachers have of the usefulness of their bilingual education. More specifically, it measures their levels of self-perceived IC and PC. Further on, it explores which individual factors, such as gender, participation in a bilingual program (henceforth BP) in primary education, involvement in international programs and language proficiency (considering only B2 and above) may enhance those levels.

This study is part of a larger research project on bilingual education in Spain. It has been undertaken within the framework of the national project “Spanish students' perception of the expected usefulness of bilingual education” (FoBE - Future of Bilingual Education, reference no. PID2021-127031OB-I00), funded by the Spanish Ministry of Science and Innovation.

## ***Theoretical backdrop***

### **Intercultural competence**

The continuous advancement of globalisation requires the development of students' skills to effectively engage with diverse cultures. Intercultural competence is a broad concept that has received various interpretations among experts. However,

there is a consensus to define it as “the ability to communicate effectively and appropriately in intercultural situations based on one’s knowledge, skills, and attitudes” (Deardorff, 2006, p. 247). Additionally, the concept of IC represents a progressive journey that guides a person from a state of ethnocentrism—where one’s own culture is seen as the only valid one—to a state of ethnorelativism, where an individual acknowledges and incorporates numerous cultural perspectives into their worldview (Bennet, 1993). The elements of IC include an open attitude, critical cultural awareness towards self and others, knowledge and understanding of a culture, and skills to listen and observe (Byram, 1997, 2000; Deardorff & Arasaratnam-Smith, 2017). Nowadays, mastering the art of coexistence, communicating effectively with individuals from different backgrounds, cultivating mutual respect and eradicating prejudices are the cornerstone of professional success (Sá & Serpa, 2018). Although the acquisition of intercultural proficiency is increasingly acknowledged as a vital benchmark for university graduates (Deardorff, 2006; Díaz & Moore, 2018; González Piñeiro et al., 2010; He et al., 2017; Izquierdo, 2015; Lantz-Deaton, 2017; Matei, 2022), it remains uncertain whether Spanish universities are effectively producing graduates with intercultural competence (Izquierdo, 2022).

A large body of research has concentrated on identifying the factors that contribute to the development of this competence. One of the factors addressed is participation in international programs, but the outcomes present inconsistencies. He et al. (2017), for instance, employed a mixed method design in their study, which included the Intercultural Development Inventory (Hammer et al., 2003), to measure the IC of 12 in-service teachers from North Carolina who were attending a four-week course in China. The authors attributed the progress in the intercultural competence levels of some of the participants to the courses they received previous to their mobility experience and during the experience. Along this line, after her study with 3.047 Spanish university students who had participated in different international mobility programs, Izquierdo (2018) commented that what seems to have an impact on IC is the implementation of intervention programs that invite students to see differences and reflect on them. The participants in her study, who completed an adapted version of the Intercultural Development Inventory scale upon arrival from their mobility experience but did not undergo a training course, were able to identify cultural similarities, but not differences. A year later, Liu (2019) administered the Intercultural Sensitivity Scale (Chen & Starosta, 2000) to 67 students from different nationalities studying in a Chinese university and concluded that participants were “attentive in intercultural interactions [...] and respected cultural differences when communicating with people in the Chinese culture” (p. 129). No intervention program had been applied in this case either.

Gender has also been investigated as an influential factor, and findings again present inconsistencies. Morales’s (2017) study with 139 Korean high school students found no significant differences in intercultural sensitivity between male and female students. Likewise, Yurtseven and Altun’s (2015) research with 220 pre-service teachers in America did not detect any significant gender difference. In contrast, Solhaug and Kristensen (2020), who measured the IC of Danish and Norwegian

secondary school students on four scales, observed that women exhibit higher levels of IC in terms of perceived empathy, knowledge of diversity and positive attitude towards others.

A third factor considered as potentially influential on IC is language achievement (Holubnycha et al., 2021). In their study with 325 Turkish university students, Çiloğlan and Bardakçı (2019) found that the more proficient students obtained significantly higher scores in intercultural sensitivity, a critical component of intercultural communication (Tamam, 2010), than the less proficient students. In the same year, Sobkowiak (2019) examined the IC of 139 Polish university business students with the Cultural Intelligence Scale (Earley & Ang, 2003) and observed that higher language proficiency enables students to gain deeper insights into foreign cultures, become more aware of cultural differences, and reflect more thoughtfully on cultural issues.

### **Plurilingual competence**

Plurilingualism has evolved to encapsulate the intricate linguistic and cultural activities in which plurilingual individuals participate. It is the repertoire of interconnected languages individuals possess and “combine with general competences and various strategies to accomplish tasks” (CoE, 2018, p. 28). From an epistemological perspective, it has evolved in conjunction with and fed upon other sociolinguistic theories, including pluriliteracies (Coyle et al., 2018; Meyer et al., 2015), code-switching and translanguaging (García & Wei, 2015; Levine, 2011). The term plurilingualism is often used as a synonym for multilingualism to refer to people who speak several languages. In the context of the current study, each term represents a distinct concept. Multilingualism refers to the presence of multiple languages within a society (CoE, 2001, 2018). In contrast, plurilingualism highlights an individual’s adaptable and ever-changing language skills, emphasising the daily use of various languages and dialects for different interactions and tasks. The proficiency levels in these languages can differ, with one language being more dominant based on an individual’s experiences. This variation is not viewed as a deficiency but rather as a typical characteristic of plurilingual individuals. Unlike the traditional bi-/multilingualism approach, plurilingualism conceives languages as forming a unified, dynamic language repertoire (Cummins, 2021). According to the Common European Framework of Reference for Languages (CEFR) (CoE, 2018), plurilingual individuals can converse in one language while understanding another, switch between languages when appropriate, and act as mediators between people who do not share a common language.

As with IC, research has identified several factors that strengthen this competence. Engaging directly with individuals from diverse linguistic backgrounds and immersing oneself in multilingual environments have been shown to significantly improve PC (Galante & de la Cruz, 2024).

Gender differences have been detected in numerous studies. The results in the study by Wucherer and Reiterer (2016) with German university students observed that men outperformed women in aspects related to pronunciation, whereas women

were better at grammar. The reason for this may lie in women's tendency to use metacognitive learning strategies and their diligence and academic discipline (Weisberg et al., 2011). Additionally, women tend to capitalise on their mastery of a specific language and apply it to others in which they are also proficient. Along these lines, Dong et al. (2023) indicate that the functional brain structures of men and women exhibit specific tendencies for second language acquisition, which implies gender differences favouring women.

Finally, evidence suggests that plurilingual awareness depends on the number of languages spoken and the level of those languages (Sia & Dewaele, 2006; Zubrzycki, 2019). The study conducted by Otwinowska (2014) with 98 in-service and 135 pre-service teachers from Poland demonstrated that both the number of languages spoken and the level of the third and other languages spoken exert a strong influence on plurilingual awareness.

Plurilingual competence is especially relevant in the case of educators, who must first cultivate their own plurilingual awareness to effectively assist students leverage their prior learning experiences and existing linguistic knowledge (Otwinowska, 2014). In response to the growing complexity of Europe's sociolinguistic environment, language educators have recognised the need for teacher training to extend well beyond conventional methods of second language instruction and acquisition. For example, Bernaus et al. (2007), the proponents of the Council of Europe's LEA Project (Language Educator Awareness), recommended as early as 2007 the creation of new teacher training programs focused on enhancing teachers' plurilingual and intercultural awareness.

## **Current study**

As observed in the studies above, it is essential to comprehend the factors and experiences that either facilitate or hinder the development of both intercultural and plurilingual competences. Moreover, review of the current literature shows that studies conducted in the field from the point of view of bilingual pre-service teachers are scarce. This paper aims to provide additional insights into bilingual programs within Spain's higher education system, specifically those pertaining to the initial training of teachers. Improving these programs is bound to yield beneficial outcomes for bilingual education at the primary levels as graduates embark on their teaching careers across the country.

As stated by Díaz and Moore (2018), "much like students, instructors cross the classroom threshold with their own repertoire of intercultural capabilities stemming from their own personal and professional experiences" (p. 87). The influence of education on society cannot be disregarded. Education is shaped by the dynamics within schools, a space shared by all citizens at some point. We hold the view that transformations can only be successful if educators commit to explicit aims, such as fostering intercultural communication and plurilingualism. Thus, this study extends the body of literature on bilingual education and broadly contributes to the discourse on teacher professionalisation. The precise research questions are the following:

Research question 1 (RQ1): What is the level of self-perceived intercultural and plurilingual competences among bilingual pre-service teachers? Are there any differences between men and women?

Research question 2 (RQ2): Is there a statistically significant difference in the levels of self-perceived intercultural and plurilingual competence between participants who were in BP during primary education and those who were not?

Research question 3 (RQ3): Is there a statistically significant difference in the levels of self-perceived intercultural and plurilingual competence between participants who have participated in international programs and those who have not?

Research question 4 (RQ4): Is there a statistically significant difference in the levels of self-perceived intercultural and plurilingual competence between participants who hold a B2 or higher English proficiency certificate and those who do not?

Research question 5 (RQ5): What is the correlation between the two dimensions being studied?

## **Method**

### **Participants**

A total of N=99 pre-service primary teachers responded to the survey. Ten participants' responses were disregarded because some questions were left blank. Participants were all registered in the bilingual bachelor's degree in primary education in four public Spanish universities: Extremadura (13), Principality of Asturias (18), Andalusia (46), and Community of Madrid (18). In all bilingual tracks, at least 50% of the curricular content courses are in English. Of the total participants who completed the survey, 74.49% were female and 25.51% male, reflecting the usual gender demographics in this type of degree (Durán-Martínez et al., 2022). Their mean age was 21.12 (SD=3.55).

### **Instrument**

FoBE researchers designed a questionnaire to capture students' perceptions of the utility of their bilingual education. Of the five sections in this questionnaire, three will be used in the current study. The Personal Information section collects socio-demographic information about students. In this contribution, we focused our attention on aspects related to gender, participation in BP in primary education, participation in international programs, and language proficiency. The IC section assesses students' understanding and appreciation of cultural diversity and it is composed of six items. The PC section evaluates students' confidence in the foreign language they use in their bilingual degree and is composed of eight items. Responses are organised using a Likert scale ranging from 1 to 10, facilitating detailed insights into participants' perceptions and attitudes.

This self-report questionnaire was piloted by Espejo (in press) with 325 participants across three educational levels: secondary education, baccalaureate, and university, and its internal validity and reliability were confirmed. Espejo describes in

detail the construction of the instrument. In the present study, the Cronbach's Alpha values for the two subscales were above 0.9 (IC=0.94044; PC=0.98225), which indicates high reliability (Tavakol & Dennick, 2018). Furthermore, an exploratory factor analysis was performed to validate the two dimensions selected, and one item was excluded from the IC dimension because its statistical reliability was compromised. The Kaiser-Meyer-Olkin measure verified the sampling adequacy for the analysis (KMO=0.91). Bartlett's test of sphericity,  $\chi^2=1642.21638$ ,  $p<.0001$ , indicated that the correlations between items were sufficiently large for the exploratory factor analysis.

The figures in Table 1 show that the two factors are clearly identifiable constructs. Six items were loaded on the IC dimension, which explained 50.84% of the variance, with loadings ranging from 0.68 to 0.92 and eight items were loaded on the PC dimension, which explained 31.45% of the variance, with loadings ranging from 0.86 to 1.00.

**Table 1**

*Exploratory factor analysis*

I believe that my participation in a bilingual programme ...	Intercultural competence	Plurilingual competence
will offer me the possibility of feeling a citizen of the world.	0.83657	
will favour my understanding and acceptance of others.	0.92392	
will improve my ability to adapt to different cultural contexts.	0.90462	
will make me willing to live abroad.	0.68308	
will improve my knowledge of other cultures.	0.89079	
will improve my empathy (to put oneself in somebody else's shoes).	0.81926	
will improve my oral production (speaking and oral interaction).		0.91298
will improve my oral comprehension (listening)		0.97772
will improve my written production (writing and written interaction).		0.94266
will improve my written comprehension (reading).		1.00536
will improve my ability to help others understand a text (mediation).		0.86334
will improve my vocabulary in different languages.		0.92539
will improve my pronunciation in foreign languages.		0.92829
will improve my ability to use different text types in bilingual lessons.		0.90431
% of variance	50.84400	31.45852
cumulative %	50.84400	82.30253

## **Data collection procedure**

To pursue the study's objectives and address the research questions, we reached out to four Spanish universities, as described above. We contacted the coordinators and the teachers of bilingual courses and asked them to share the survey link with their students. Students from all the universities contacted but one filled in the questionnaire. Despite having samples from multiple universities, the actual number of participants in the study fell short of the initial plan. This discrepancy may be attributed to the fact that, in some cases, the questionnaire link was shared on virtual platforms with students rather than being presented during class time, which could have potentially increased participation. The research procedure adhered strictly to ethical codes of conduct. The preamble of the questionnaire informed participants about the study's purpose, confidentiality, and data protection. The ethical committee of the principal investigators' university issued the necessary documentation to authorise the research project.

## **Data analysis**

To analyse the results, descriptive statistics (means, medians, SD, percentages) were used. A one-sample Kolmogorov–Smirnov test revealed the distribution was not normal ( $p < 0.05$ ), so non-parametric tests were run to find potential significant differences between the subgroups of pre-service teachers involved in the study. The Welch's t-test was run to detect the differences between men and women for the two dimensions. Afterwards, a series of Mann-Whitney U tests were employed. The first sought to determine whether there were significant differences regarding self-perceived intercultural and plurilingual competences between participants who had been enrolled in the bilingual track in primary education and participants who had not; the second focused on the differences in both dimensions between students who had participated in international programs and those who had not; and the last aimed to find out whether there were significant differences regarding self-perceived intercultural and plurilingual competences between participants who hold a B2 or higher English proficiency certificate and those who do not. The relationship between the two dimensions and among the items was investigated through Pearson correlation.

## **Results**

To determine the general tendency of bilingual pre-service teachers' intercultural and plurilingual competences, the total score, mean, and standard deviation of both subscales were computed for all participants, as well as separately for males and females. Scores in the intercultural dimension ranged from 6.97753 (SD=2.82432) to 8.20225 (SD=2.32662). The two highest scores in this dimension were found in the items "[My participation in a bilingual program] will give me access to a variety of cultural products (e.g., books, films, TV series, music, videos, video games, etc.)" and

“[My participation in a bilingual program] will improve my knowledge in other cultures (mean=7.8764, SD=2.4579)”. In PC, scores ranged from 7.98913 (SD=2.15598) to 8.43547 (SD=2.280102). In this case, the two highest scores were detected in the items “[My participation in a bilingual program improves] my oral production” and “[My participation in a bilingual program improves] my pronunciation” (mean=8.40659, SD=2.28024). Very close to this item was “[My participation in a bilingual program improves] my vocabulary” (mean=8.36264, SD=2.23366).

Welch’s t-test indicated no significant differences between men and women in either the two subscales or the individual items as the p-values were consistently above 0.01. Gender was considered as a dichotomous variable since no participants chose the option “other”.

A series of Mann-Whitney U tests were performed. The first detected no statistically significant differences between participants who had been in the bilingual track during their primary education and those who had not. However, in each of the subscales, there was one item that showed a significant difference. For the IC subscale, the difference was in “[My participation in a bilingual program] will favour my understanding and acceptance of others” (U=643.00000, p=0.043); for the PC subscale, the difference was identified in “[I believe that my participation in a bilingual program improves my] oral comprehension (listening) (U=692.00000, p=0.00227).

Participants who had been involved in international programs at different stages of their education scored higher in the two dimensions than participants who had not (Table 2):

**Table 2**

*Differences and Effect Sizes for dimensions (Participation in International programs -IP)*

	Particip. in an IP	N	Mean	Median	U	p
IC	Yes	36	8.07407	8.5000	618.500	0.0100
	No	51	7.10784	7.5000		
PC	Yes	34	8.91912	9.1250	618.500	0.0375
	No	54	7.70370	8.1875		

r - Effect size (biserial correlation)

An effect size of 0.3 is considered medium (Cohen, 1988). This suggests that the difference between the two groups being compared is moderate in magnitude. In practical terms, this means that there is a noticeable and potentially significant difference between the two groups, although it is not as large as to be considered a strong effect. For IC, the two items with the most significant differences are “[I believe that my participation in a bilingual programme] will improve my knowledge of other cultures” (U=655.000, p=0.0105) and “[I believe that my participation in a bilingual programme] will give me access to a variety of cultural products (e.g., books, films, TV series, music, videos, video games, etc.)” (U=661.500, p=0.0128). For PC, the two items showing the most significant differences are “[I believe that my participation in a

bilingual programme improves] my oral production” (U=645.500, p=0.0009) and “[I believe that my participation in a bilingual programme improves] my oral comprehension (listening)” (U=669.500, p=0.0017).

As shown in Table 3, the last Mann-Whitney U test revealed that participants whose level of English had been certified had higher levels of self-perceived intercultural and plurilingual competences.

**Table 3**

*Differences and Effect Sizes for dimensions (Certified English Level > B2)*

	Certif. English level > B2	N	Mean	Median	U	p	Effect Size (r)
IC	Yes	34	8.18137	8.66667	661.000	0.0369	0.26637
	No	53	7.07547	7.66667			
PC	Yes	35	9.05000	9.37500	492.000	0.0002	0.46954
	No	53	7.59434	8.12500			

Within the IC subscale, the two most significant differences were identified in “[I believe that my participation in a bilingual programme] will improve my ability to adapt to different cultural contexts” (U=602.500, p=0.0043) and “[I believe that my participation in a bilingual programme] will favour my understanding and acceptance of others (U=671.500, p=0.0179). In the case of PC, the most significant differences were found in [I believe that my participation in a bilingual programme improves] my oral production (U=560.500, p=0.0001) and “[I believe that my participation in a bilingual programme improves] my oral comprehension” (U=595.000, p=0.0003).

The interrelationship between IC and PC was computed (p < 0.001, r=0.499954), and the correlation coefficients among items are presented in Table 4. In all cases, correlation coefficients are statistically significant (p < 0.005). There exist significant positive correlations across all items.

**Table 4**

*Spearman correlations across items IC and PC items*

	Oral prod.	List. Comp	Written Prod	Reading Comp.	Mediat.	Vocab.	Pronunc.
Citizen of the world	.37975	.24820	.39298	.36612	.32929	.30005	.35636
Unders. & accept. others	.45340	.32764	.41325	.37292	.36412	.36693	.39801
Adapt. Cultural context	.58718	.45340	.46898	.48908	.43507	.54180	.54471
Willing to live abroad	.55772	.41643	.48826	.49140	.50470	.56495	.57431
Know. other cultures	.61499	.43482	.46017	.5054	.51521	.58605	.54733
Access to cult. prod.	.64419	.56973	.54516	.53998	.58945	.62532	.56570
Empathy	.47093	.41655	.46237	.43088	.47033	.40526	.46069

As observed, the highest correlations are found between the perception that a BP will give access to more cultural products and the perception that the program will improve their oral production and vocabulary. In addition, very high correlations are found between the perception that a BP will improve knowledge of other cultures and, again the items related to oral production and vocabulary. Similarly, the Spearman correlations confirmed that the perception that the BP will help them adapt to a wider variety of contexts correlates significantly with pronunciation and vocabulary.

## **Discussion and Conclusions**

This study set out to investigate the usefulness of bilingual education from the point of view of bilingual prospective teachers. Significant results were obtained.

Regarding the first research question (RQ1), our findings show that the scores for IC ranged from 6.97753 (SD=2.82432) to 8.20225 (SD=2.32662), with only one score over 8: “[My participation in a bilingual program] will give me access to a variety of cultural products”. While the scores are not exactly low, it was anticipated that there would be more items with scores above 8. This result may be attributed to insufficient chances for the reflection and consideration of cultural variances. Appreciation for cultural differences does not just appear; institutions must implement programs to foster it (He et al., 2017; Knight & de Wit, 2018). In PC, the highest scores were detected in the two items related to speaking —oral production and pronunciation— followed by vocabulary. These results partly coincide with those reported by Barrios and López-Gutiérrez (2023), whose participants, also bilingual pre-service teachers from Spain, believed their participation in a BP had helped them to improve, above all, the skills of speaking and writing. Likewise, the participants in the study by Hernández-Nanclares and Jiménez-Muñoz (2017), Spanish students of economics and business, reported that the BP had made the greatest impact on pronunciation and the understanding of specialised texts.

No significant gender differences were found in any of the dimensions. These findings differ from those of Solhaug and Kristensen (2020) with upper secondary students and Izquierdo (2022) with university students, which showed that women scored significantly higher than men in perceived empathy and intercultural sensitivity. Similarly, most of previous studies showed that women tend to excel over men in areas related to language acquisition (Dong et al., 2023; Wucherer & Reiterer, 2016). One possible reason for our results could be the significant imbalance between the groups.

The impact of bilingual instruction at the primary education level proved to be scant (RQ2). Only the self-perceived levels of improvement in the understanding and acceptance of others and in oral comprehension were significantly higher for participants who had received a bilingual education at that education level. This implies that prior experience in a BP does not necessarily shape students’ perceptions, which contrasts with findings from previous literature indicating that greater exposure

to a foreign language would theoretically benefit both competences (Artieda et al., 2020; Muñoz, 2015). However, the quality of both exposure and instruction plays a major role in the success of the BP, and that falls out of the scope of this study.

As for the effect of international programs (RQ3), our results show that students who had participated in international programs perceived themselves as more interculturally and plurilingually competent than those participants who had not. These results are congruent with those in the study by Liu (2019) involving Chinese university students, whose levels of IC also increased after participating in a mobility program. The results partially align with those in Izquierdo (2018), whose participants, Spanish university students, improved their ability to see similarities between cultures but not differences. In this regard, Mittelmeier et al. (2023) note that it is essential to comprehend the impact of international programs on students, as their effect on educational results is frequently presumed and overlooked.

Participants with linguistic accreditation above B2 exhibited higher levels of self-perceived intercultural and plurilingual competences (RQ4). These findings are consistent with those of the studies by Sia and Dewaele (2006) and Zubrzycki (2019), each with participants of different profiles. It is true, however, that there might have been learners with a level higher than B2 and no certification, but that falls outside the scope of this study.

The concept of plurilingualism as defined by the CEFR extends beyond mere language proficiency; it includes the dynamic interaction between language and culture. From this standpoint, the individual is viewed as a social participant, possessing different levels of proficiency in various languages and diverse cultural experiences (Coste et al., 2009). The cross-cultural exposure of plurilinguals can enrich both their IC (Kharkhurin et al., 2023) and their repertoire of linguistic resources (Beacco et al., 2016). In our study, the plurilingual dimension did not include any item related to culture; however, the intercultural and the plurilingual dimensions were correlated (RQ5), with some items exhibiting very strong associations. For example, those prospective teachers who perceive that their participation in a BP will give them access to more cultural products also perceive an improvement in their vocabulary in different languages, which corroborates the idea that culture and language are strongly interconnected. This aligns with the findings of Eren (2024) in his study with pre-service and in-service teachers from Turkey, which confirmed a strong and interconnected relationship between language and cultural awareness. These findings underscore the intersection of language and culture, especially within educational settings. Galante (2022) also offered empirical support for the inseparability of language and culture.

To conclude, research has made significant progress in exploring bilingual university students' competences, but further research is required. As the focus of language education research shifts from monolingualism to bilingualism, it is necessary to gather data on plurilingual and intercultural trends. Both the intercultural and the plurilingual competences have been identified as key markers of teachers'

professional identity (Estaji & Rahimi, 2018; Hanesová, 2015; Rückl, 2021; Sierens et al., 2018) as they are the competences needed to work in intricate educational environments and tackle all forms of diversity and discrimination.

The results obtained in this study's analysis of prospective teachers' perceptions contribute to shaping a vision of bilingual teacher-training degree programs. These perceptions are determined, to a certain extent, by previous bilingual-related experiences. Two main ideas should be considered when dealing with perceptions. First, and as Martí and Portolés (2019, p. 20) pointed out, "student-teacher training is mediated by student teachers' beliefs"; and second, it is difficult to modify beliefs (Borg, 2011). Therefore, assuming that teachers with high levels of perceived competences in both areas are more likely to adopt intercultural and plurilingual pedagogies in their future classrooms (Sierens et al., 2018), it is hoped that the indicators provided in this study help authorities, teacher trainers and practitioners recognise the need for intervention programs that encourage the improvement of these competences. Reflection can help both pre-service and in-service teachers climb the ladder of their professional skills (Escobar, 2010). In this regard, and as put forward by Pilotti et al. (2015), it is also important to consider that the value learners place on their bilingual education might influence how they maintain or even enhance the benefits derived from it.

## **Limitations**

Despite the relevant insights provided by the present study, some limitations need to be highlighted. First, the study did not have an equivalent non-bilingual group, which would have helped to offer more conclusive results. Additionally, the data were collected from only four public universities in Spain. Thus, even though there were four autonomous communities involved, the findings may not generalise to teacher trainees in other institutions. The third limitation is related to the cross-sectional design employed. With no measure of the initial level of self-perceived intercultural and plurilingual competences, it is impossible to know if the observed differences are due to pre-existing differences or to the degree itself. However, within the framework of our project, additional participants will be engaged to offer a more expansive view and to try to better identify learners' perceptions at different stages of their bilingual education, which will provide a more precise picture of bilingualism in Spain.

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No potential conflict of interest was reported by the authors.

### ***Authors contribution***

Introduction, PAC and MEGP. Theoretical backdrop: PAC and MEGP. Method, PAC and RE. Results: PAC and RE. Discussion: PAC and RE. First draft writing: PAC. Writing, revision and edition: PAC and MEGP.

## ***References***

- Artieda, G., Roquet, H. & Florentina, N. C. (2020) The impact of age and exposure on EFL achievement in two learning contexts: Formal instruction and formal instruction + content and language integrated learning (CLIL). *International Journal of Bilingual Education and Bilingualism*, 23(4), 449–472. <https://doi.org/10.1080/13670050.2017.1373059>
- Barrios, E. & López-Gutiérrez, A. (2023). Language learning in a partially English-taught teacher education programme: language gains and student perceptions. *International Journal of Multilingualism*, 20(2), 504–521. <https://doi.org/10.1080/14790718.2021.1888956>
- Beacco, J. C. & Byram, M. (2007). From linguistic diversity to plurilingual education: Guide for the development of language education policies in Europe. Council of Europe. <https://www.coe.int/en/web/language-policy/from-linguistic-diversity-to-plurilingual-education-guide-for-the-development-of-language-education-policies-in-europe>
- Beacco, J. C., Byram, M., Cavalli, M., Coste, D., Cuenat, M. E., Goullier, F. & Panthier, J. (2016). Guide for the development and implementation of curricula for plurilingual and intercultural education. Council of Europe. <https://www.coe.int/en/web/language-policy/guide-for-the-development-and-implementation-of-curricula-for-plurilingual-and-intercultural-education>
- Bennett, J. M. (1993). Toward ethnorelativism: A developmental model of intercultural sensitivity. In R. M. Paige (Ed.), *Education for the intercultural experience* (pp. 21–71). Intercultural Press.
- Bernaus, M., Andrade, A. I., Kervran, M., Murkowska, A. & Trujillo Saez, F. (2007). Plurilingual and pluricultural awareness in language teacher education. Council of Europe Publishing. [http://archive.ecml.at/documents/B2\\_LEA\\_E\\_web.pdf](http://archive.ecml.at/documents/B2_LEA_E_web.pdf)
- Borg, M. (2001). Teachers' beliefs. *ELT Journal*, 55 (2), 186–188. <https://doi.org/10.1093/elt/55.2.186>
- Borg, S. (2003). Teacher cognition in language teaching: A review of research on what language teachers think, know, believe and do. *Language Teaching*, 36(2), 81–

109. <https://doi.org/10.1017/S02614448030019033>
- Borg, S. (2011). The impact of in-service teacher education on language teachers' beliefs. *System*, 39(3), 370–380. <https://doi.org/10.1016/j.system.2011.07.009>
- Byram, M. (1997). Teaching and assessing intercultural communicative competence. *Multilingual Matters*.
- Byram, M. (2000). Assessing intercultural competence in language teaching. *Sprogforum*, 18(6), 8–13.
- Candelier, M., Camilleri-Grima, A., Castellotti, V., De Pietro, J. F., Lörincz, I., Meissner, F. J., Noguerol, A. & Schröder-Sura, A. (2012). FREPA: A framework of reference for pluralistic approaches to languages and cultures. Competences and resources. Council of Europe Publishing.
- Chen, G. M. & Starosta, W. (2000). The development and validation of the intercultural sensitivity scale. *Human Communication*, 3(1), 2–14. <https://doi.org/10.1037/t61546-000>
- Çiloğlan, F. & Bardakçı, M. (2019). The relationship between intercultural sensitivity and English language achievement. *Journal of Language and Linguistic Studies*, 15(3), 1204–1214. <https://doi.org/10.17263/jlls.631563>
- Cohen, J. (1988). *Statistical power analysis for the behaviour sciences* (2nd edition). Lawrence Erlbaum Associates.
- Cortina-Pérez, B. & Rodríguez, A.M.P. (202) Analysing CLIL teacher competences in pre-service preschool education. A case study at the university of Granada, *European Journal of Teacher Education*, 45(5), 670–688. <https://doi.org/10.1080/02619768.2021.1890021>
- Coste, D., Moore, D. & Zarate, G. (2009). Plurilingual and pluricultural competence. Studies towards a common European framework of reference for language learning and teaching. Council of Europe Publishing. <https://rm.coe.int/168069d29b>
- Council of Europe. (2001). *Common European framework of reference for languages: Learning, teaching, assessment*. Council of Europe Publishing. <https://rm.coe.int/1680459f97>
- Council of Europe. (2008). *White paper on intercultural dialogue*. Council of Europe Publishing.
- Coyle, D., Halbach, A., Meyer, O. & Schuck, K. (2018). Knowledge ecology for conceptual growth: teachers as active agents in developing a pluriliteracies approach to teaching for learning (PTL). *International Journal of Bilingual Education and Bilingualism*, 21(3), 349–365. <https://doi.org/10.1080/13670050.2017.1387516>
- Cummins, J. (2021). Rethinking the education of multilingual learners: A critical analysis of theoretical concepts. *Multilingual Matters*.
- Dalton-Puffer, C. & Smit, U. (2013). Content and language integrated learning: A research agenda. *Language Teaching*, 46(4), 545–559.

- <https://doi.org/10.1017/S0261444813000256>
- Deardorff, D. K. (2006). Identification and assessment of intercultural competence as a student outcome of internationalization. *Journal of Studies in International Education*, 10(3), 241–266. <https://doi.org/10.1177/1028315306287002>
- Deardorff, D. K. & Arasaratnam-Smith, L. A. (2017). *Intercultural competence in international higher education*. Routledge.
- Delicado-Puerto, G., Alonso-Díaz, L. & Fielden Burns, L. V. (2022). Teaching students, creating teachers: focusing on future language teachers and their education for bilingual classrooms. *The Electronic Journal for English as a Second Language*, 25(4), 1–31.
- Díaz, A. R. & Moore, P. J. (2018). (Re)imagining a course in intercultural communication for the 21st century. *Intercultural Communication Education*, 1(3), 84–99. <https://doi.org/10.29140/ice.v1n3.87>
- Donaghue, H. (2003). An instrument to elicit teachers' beliefs and assumptions. *ELT Journal*, 57(4) 344–351. <https://doi.org/10.1093/elt/57.4.344>
- Dong, H., Liu, X. & Zhou, Z. (2023). Influential factors for gender differences in L2 learning. *Journal of Education, Humanities and Social Sciences*, 8, 947–955. <https://doi.org/10.54097/ehss.v8i.4385>
- Durán-Martínez, R., Beltrán-Llavador, F. & Martínez-Abad, F. (2022). Training priorities in primary education bilingual programmes in Spain. *European Journal of Teacher Education*, 45(3), 303–319. <https://doi.org/10.1080/02619768.2020.1827387>
- Earley, P. C. & Ang, S. (2003). *Cultural intelligence: Individual interactions across cultures*. Stanford University Press.
- Eren, O. (2024). Towards multilingual turn in language classes: plurilingual awareness as an indicator of intercultural communicative competence. *International Journal of Multilingualism*, 21(2), 783–801.
- Escobar C. (2010). Pre-service CLIL teacher-education in Catalonia: Expert and novice practitioners teaching and reflecting together. In D. Lasagabaster, & Y. Ruiz de Zarobe (Eds.), *CLIL in Spain: Implementation, results and teacher training* (pp. 188–218). Cambridge Scholars Publishing.
- Espejo, R. (in press). Design of a questionnaire to evaluate Spanish students' perception of the expected usefulness of bilingual education. En J. M. Antolí Martínez, S. Mengual-Andrés, A. López-Padrón, C. Lorenzo Álvarez, & V. Onrubia Martínez (Eds.), *Libro de Actas / Proceedings / Llibre d'actes*. 3rd International Congress: Education and Knowledge (pp. xx-xx). Ediciones Octaedro.
- Estaji, M. & Rahimi, A. (2018). Exploring teachers' perception of intercultural communicative competence and their practices for teaching culture in EFL classrooms. *International Journal of Society, Culture & Language*, 6(2), 1–18.
- European Commission. (1995). *White paper on education and training. Teaching and learning. Towards the learning society*. Brussels: Archive of European

- Integration. <https://op.europa.eu/en/publication-detail/-/publication/d0a8aa7a-5311-4eee-904c-8fa541108d8/language-en>
- European Commission. (2005). A new framework strategy for multilingualism. European Centre for the Development of Vocational Training.
- European Commission. (2008a). Multilingualism. An asset for Europe and a shared commitment. Publications Office of the European Union.
- European Commission. (2008b). Council resolution of 21 November 2008 on a European strategy for multilingualism. Official Journal of the European Union.
- Fernández-Costales, A. (2017). Assessing students' perceptions regarding English medium instruction in higher education. *Didáctica: Lengua y Literatura*, 29, 43–63. <https://doi.org/10.5209/DIDA.57129>
- Fernández-Costales, A. & González-Riaño, X. A. (2015): Teachers' satisfaction concerning the implementation of bilingual programmes in a Spanish university. *Porta Linguarum*, 23, 93–108.
- Galante, A. (2022). Plurilingual and pluricultural competence (PPC) scale: The inseparability of language and culture. *International Journal of Multilingualism*, 19(4), 477–498. <https://doi.org/10.1080/14790718.2020.1753747>
- Galante, A. & de la Cruz, J. W. N. (2024) Plurilingual and pluricultural as the new normal: an examination of language use and identity in the multilingual city of Montreal. *Journal of Multilingual and Multicultural Development*, 45(4), 868–883. <https://doi.org/10.1080/01434632.2021.1931244>
- García, O. & Wei, L. (2015). Translanguaging, bilingualism and bilingual education. In W. E. Wright, S. Boun, & O. García (Eds.), *The handbook of bilingual and multilingual education* (pp. 201–220). John Wiley & Sons.
- González Piñeiro, M., Guillén Díaz, C. & Vez, J. M. (2010). *Didáctica de las lenguas moderna. Competencia plurilingüe e intercultural. Síntesis.*
- Hammer, M. R., Bennett, M. J. & Wiseman, R. (2003). Measuring intercultural sensitivity: The intercultural development inventory. *International Journal of Intercultural Relations*, 27(4), 421–443. [http://dx.doi.org/10.1016/S0147-1767\(03\)00032-4](http://dx.doi.org/10.1016/S0147-1767(03)00032-4)
- Hanesová, D. (2015). Plurilingual and intercultural awareness of future teachers. *The New Educational Review*, 42(4), 79–90. <https://doi.org/10.15804/tner.2015.42.4.06>
- Haukás, Á. (2016). Teachers' beliefs about multilingualism and a multilingual pedagogical approach. *International Journal of Multilingualism*, 13(1), 1–18.
- He, Y., Lundgren, K. & Pynes, P. (2017). Impact of short-term study abroad program: Inservice teachers' development of intercultural competence and pedagogical beliefs. *Teaching and Teacher Education*, 66, 147–157. <https://doi.org/10.1016/j.tate.2017.04.012>
- Hernández-Nanclares, N. & Jiménez-Muñoz, A. (2017). English as a medium of instruction: Evidence for language and content targets in bilingual education in

- economics. *International Journal of Bilingual Education and Bilingualism*, 20(7), 883–896. <https://doi.org/10.1080/13670050.2015.1125847>
- Holubnycha, L., Kostikova, I., Soroka, N., Shchokina, T. & Golopych, I. (2021). Intercultural competence development at universities. *Postmodern Openings* 12(1), 200–214. <https://doi.org/10.18662/po/12.1Sup1/279>
- Izquierdo, R. M. R. (2015). Competencias genéricas en la enseñanza superior a través de los programas de internacionalización. Un estudio cualitativo. *Revista Complutense de Educación*, 26(1), 81–100. [http://dx.doi.org/10.5209/rev\\_RCED.2015.v26.n1.42598](http://dx.doi.org/10.5209/rev_RCED.2015.v26.n1.42598)
- Izquierdo, R. M. R. (2018). Intercultural sensitivity among university students: measurement of the construct and its relationship with international mobility programmes. *Cultura y Educación*, 30(1), 177–204. <http://dx.doi.org/10.1080/11356405.2018.1435095>
- Izquierdo, R. M. R. (2022). International experiences and the development of intercultural sensitivity among university students. *Educación XX1*, 25(1), 93–117. <https://doi.org/10.5944/educXX1.30143>
- Jover, G., Fleta, T. & González, R. (2016). La formación inicial de los maestros de educación primaria en el contexto de la enseñanza bilingüe en lengua Extranjera. *Bordón, Revista de Pedagogía*, 68(2), 121–135. <https://doi.org/10.13042/Bordon.2016.68208>
- Kharkhurin, A. V., Koncha, V. & Charkhabi, M. (2023). The effects of plurilingualism and pluriculturalism on divergent thinking: testing the moderating role of personality traits. *International Journal of Bilingual Education and Bilingualism*, 27(6), 772–792. <https://doi.org/10.1080/13670050.2023.2232521>
- Knight, J. & De Wit, H. (2018). Internationalization of higher education: past and future. *International Higher Education*, 95, 2–4. <https://doi.org/10.6017/he.2018.95.10715>
- Lantz-Deaton, C. (2017). Internationalization and the development of students' intercultural competence. *Teaching in Higher Education*, 22(5), 532–550. <https://doi.org/10.1080/13562517.2016.1273209>
- Levine, G. S. (2011). Code choice in the language classroom. *Multilingual Matters*.
- Liu, M. (2019). Predicting effects of demographic, linguistic and psychological variables on university international students' intercultural communication sensitivity. *Journal of Ethnic and Cultural Studies*, 6(3), 123–133. <http://dx.doi.org/10.29333/ejecs/277>
- Madrid, D. & Julius, J. (2020). Profiles of students in bilingual university degree programmes using English as a medium of instruction in Spain. *Profile: Issues in Teachers' Professional Development*, 22(2), 79–94. <http://dx.doi.org/10.15446/profile.v22n2.80735>
- Matei, F. L. (2022). Intercultural competence – a key competence for higher education.

- Journal of Education, Society & Multiculturalism, 3(2), 164–171. <https://doi.org/10.2478/jesm-2022-0024>
- Martí, O. & Portolés, L. (2019). Spokes in the wheels of CLIL for multilingualism or how monolingual ideologies limit teacher training. *English Language Teaching*, 12(2), 17–36. <http://dx.doi.org/10.5539/elt.v12n2p17>
- Meyer, O., Coyle, D., Halbach, A., Schuck, K. & Ting, T. (2015). A pluriliteracies approach to content and language integrated learning – mapping learner progressions in knowledge construction and meaning-making. *Language, Culture and Curriculum*, 28(1), 41–57. <http://dx.doi.org/10.1080/07908318.2014.1000924>
- Mittelmeier, J., Lomer, S., Al-Furqani, S. & Huang, D. (2023). Developing meaningful internationalisation that impacts students' outcomes in higher education: A scoping review of the literature 2011-2022. *Journal of Studies in International Education*, 0(0), 1–23. <https://doi.org/10.1177/10283153231222278>
- Morales, A. (2017). Intercultural sensitivity, gender, and nationality of third culture kids attending an international high school. *Journal of International Education Research*, 13(1), 35–44. <https://doi.org/10.19030/jier.v13i1.9969>
- Muñoz, C. (2015). Time and timing in CLIL: A comparative approach to language gains. In M. Juan-Garau, J. Salazar-Noguera (Eds), *Content-based language learning in multilingual educational environments*. Educational Linguistics. Springer. [https://doi.org/10.1007/978-3-319-11496-5\\_6](https://doi.org/10.1007/978-3-319-11496-5_6)
- Otwinowska, A. (2014). Does multilingualism influence plurilingual awareness of Polish teachers of English? *International Journal of Multilingualism*, 11(1), 97–119. <https://doi.org/10.1080/14790718.2013.820730>
- Pajares, M. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research*, 62(3), 307–332. <https://doi.org/10.3102/00346543062003307>
- Pilotti, M., Gutierrez, A., Klein, E. & Mahamame, S. (2015). Young adults' perceptions and use of bilingualism as a function of an early immersion program. *International Journal of Bilingual Education and Bilingualism*, 18(4), 383–394. <https://doi.org/10.1080/13670050.2014.904841>
- Romero, E. & Zayas, F. (2017). Challenges and opportunities of training teachers for plurilingual education. In J. Valcke & R. Wilkinson (Eds.), *Integrating content and language in higher education: Perspectives on professional practice* (pp. 205–225). Peter Lang.
- Rubio-Alcalá F. D., Arco-Tirado, J. L., Fernández-Martín, F. D., López-Lechuga, R., Barrios, E. & Pavón-Vázquez, V. (2019). A systematic review on evidences supporting quality indicators of bilingual, plurilingual and multilingual programs in higher education. *Educational Research Review*, 27, 191–204. <https://doi.org/10.1016/j.edurev.2019.03.003>
- Rüchl, M. (2021). Preparing student teachers of languages to promote plurilingual

- competence. *Language Education and Multilingualism –The Langscape Journal*, 4, 132–148. <https://doi.org/10.18452/23378>
- Sá, M. J. & Serpa, S. (2018). Transversal competences: Their importance and learning processes by higher education students. *Education Sciences*, 8(3), 126–137. <https://doi.org/10.3390/educsci8030126>
- Segura, M. (2023). CLIL in pre-primary education: the views of in-service and pre-service teachers. *Bellaterra Journal of Teaching & Learning Language & Literature*, 16(2), 1–34. <https://doi.org/10.5565/rev/jtl3.1230>
- Shulman, L. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57(1), 1–22. <https://doi.org/10.17763/haer.57.1.j463w79r56455411>
- Sia, J. & J.-M. Dewaele. (2006). Are you Bilingual? *BISAL* 1, 1–19.
- Sierens, S., Frijns, C., van Gorp, K., Sercu, L. & van Avermaet, P. (2018). The effects of raising language awareness in mainstream and language classrooms: A literature review (1995–2013). In C. Hélot, C. Frijns, K. van Gorp, & S. Sierens (Eds.), *Language awareness in multilingual classrooms in Europe: From theory to practice*, (pp. 21–86). De Gruyter. <https://doi.org/10.1515/9781501501326-002>
- Sobkowiak, P. (2019). On the factors influencing EFL students' intercultural competence. *Studia Anglica Posnaniensia*, 54(1), 133–156. <https://doi.org/10.2478/stap-2019-0007>
- Solhaug, T. & Kristensen, N. N. (2020). Gender and intercultural competence: analysis of intercultural competence among upper secondary school students in Denmark and Norway. *Educational Psychology*, 40(1), 120–140. <http://doi.org/10.1080/01443410.2019.1646410>
- Tamam, E. (2010). Examining Chen and Starosta's model of intercultural sensitivity in a multiracial collectivistic country. *Journal of Intercultural Communication Research*, 39(3), 173–183. <https://doi.org/10.1080/17475759.2010.534860>
- Tavakol, M. & Dennick, R. (2018). Making sense of Cronbach's alpha. *International Journal of Medical Education*, 9(1), 53–55. <https://doi.org/10.5116/ijme.4dfb.8dfd>
- Weisberg, Y. J., De Young, C. G. & Hirsh, J. B. (2011). Gender differences in personality across the ten aspects of the big five. *Frontiers in Psychology* 2, 1–11. <https://doi.org/10.3389/fpsyg.2011.00178>
- Wucherer, B. V. & Reiterer, S. M. (2016). Language is a girlie thing, isn't it? A psycholinguistic exploration of the L2 gender gap. *International Journal of Bilingual Education and Bilingualism*, 21(1), 118–134. <https://doi.org/10.1080/13670050.2016.1142499>
- Yurtseven, N. & Altun, S. (2015). Intercultural sensitivity in today's global classes: Pre-service teachers' perceptions. *Journal of Ethnic and Cultural Studies*, 2(1), 49–54. <https://doi.org/10.29333/ejecs/19>

Zubrzycki, K. (2019). Am I perfect enough to be a true bilingual? Monolingual bias in the lay perception and self-perception of bi- and multilinguals. *International Review of Applied Linguistics in Language Teaching* 57(4), 447–495. <https://doi.org/10.1515/iral-2016-0095>