

## ARTICLE

# Dual Second Language Learning for the Inclusion of Migrant Children in Rural Schools: The Case of Calanda (Teruel)

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## ABSTRACT

Rural areas in Spain receive constant flows of migrants due to the need for labor in the primary sector, especially from North Africa. Local schools have very specific educational needs since migrant children normally experience difficulties in the acquisition of the Spanish language which affects and conditions their social inclusion and continuity in the educational system. RaCoDIL project (Shared roots in linguistic diversity and inclusion) derives from the AGORA matrix project which aims to bring technological and methodological innovation for language teaching in rural areas. RaCoDIL proposed an intervention in the primary school of Calanda (Teruel, Spain) for the improvement of Spanish and French languages in migrant and local students based on linguistic and cultural interchange and collaboration. To this end, an interactive glossary based on the local natural environment was created in Spanish, French, and Arabic, which served as a base for the creation of collaborative linguistic activities fostering cultural interchange. The aims were the improvement of students' linguistic competence in their respective target languages, and the development of the Intercultural Communicative Competence (ICC). Students' progress was quantitatively analyzed by the distribution of pre- and post- tests on linguistic and ICC development, and results were compared in search for

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significant improvements on both competences considering demographic profiles from students. The proposal has been demonstrated to influence the development of children's positive attitudes towards learning, to dinamise the second language acquisition process, and to develop awareness, knowledge, and respect towards the foreign culture.

**Keywords:** Linguistic Inclusion; Migrant Children; Rural Schools; Language Acquisition; Intercultural Communicative Competence; Second Language Learning; Multilingual Education

## 1. Introduction

In recent decades, migration flows have increased significantly, leading to profound transformations in the demographic structure of various regions, particularly in rural areas. This phenomenon has resulted in growing linguistic and cultural diversity, presenting both challenges and opportunities for rural education systems. In the Spanish context, the issue known as “Empty Spain”—a term referring to rural areas affected by depopulation—has exacerbated these challenges. Population decline in these regions often leads to the closure of educational institutions, greater distances to access schooling, and persistent inequalities in educational opportunities compared to urban environments <sup>[1]</sup>.

In response to this situation, the integration of migrant students into rural communities has emerged as a strategy employed by many municipalities to revitalize these areas. However, this approach introduces an additional layer of complexity that may pose significant challenges. One of the most pressing issues is second language (L2) teaching and learning, as many migrant students must adapt to an educational environment that is not only linguistically unfamiliar but also culturally distinct from their prior experiences <sup>[2]</sup>.

### 1.1. Educational Difficulties and Challenges in Rural Areas

The current rural school system in Spain faces numerous challenges and must address its structural weaknesses to optimize student education. To tackle these issues effectively, measures must be implemented at both the institutional and community levels. One of the most pressing challenges concerns technology, where a significant digital divide persists. Despite advancements in connectivity, disparities in internet access and technological resources remain widespread across Spain. According to the España

Digital (Digital Spain) report <sup>[3]</sup>, high-speed internet coverage in rural areas is less than 80%, which exacerbates educational inequalities.

Another critical challenge, which is more directly related to the educational intervention discussed in this article, is the need to address cultural and linguistic diversity and its impact on learning outcomes. Multigrade classrooms, coupled with the linguistic and cultural diversity present in some autonomous communities, require specialized pedagogical approaches that are often not incorporated into initial teacher training <sup>[4]</sup>. This limitation reduces educators' capacity to meet students' individual needs, particularly in contexts of high socio-economic vulnerability, and frequently contributes to school dropout. Spain has one of the highest early school leaving rates in Europe, with rural areas being particularly affected. Factors such as limited employment prospects, disengagement from educational models that fail to reflect rural realities, and youth migration to urban centers further aggravate this issue <sup>[5]</sup>. In fact, data from the *Ministerio de Educación* <sup>[6]</sup>, indicate that the early school dropout rate among migrant students in Spain is 30%, compared to 13% among national students. Furthermore, a Save the Children report (2023) <sup>[7]</sup> reveals that 42% of migrant children in rural areas do not achieve minimum proficiency levels in mathematics and reading at the primary education level.

As previously noted, the presence of migrant students with diverse linguistic backgrounds requires teachers to manage multilingual and multicultural classrooms. In many cases, these students lack proficiency in the language of instruction, creating challenges not only in acquiring academic content but also in developing second-language skills <sup>[8]</sup>. Language thus becomes a barrier to broader learning, making proficiency in the language of instruction crucial for both academic success and social integration. Additionally, it is important to recognize that the integration of migrant children into the national education system depends on their family's arrival in Spain, which often

occurs mid-academic year. Under these circumstances, second-language instruction necessitates a flexible pedagogical approach that enables migrant students to learn at their own pace, supported by an adapted curriculum that accounts for their linguistic needs.

Portes and Rumbaut <sup>[9]</sup>, highlight that migrant children and adolescents frequently experience high levels of stress, anxiety, and adaptation difficulties in school due to language barriers, which hinder their integration and contribute to social exclusion. This exclusion can manifest both directly—through discrimination—and indirectly—through the failure to recognize their cultural and linguistic needs. Such exclusion not only affects students' emotional well-being but also negatively impacts their academic performance <sup>[10]</sup>.

In addition to this difficulty, the lack of specialised teacher training in second language teaching and inclusive pedagogies is a significant obstacle. Many teachers in rural areas do not receive training in foreign language teaching or in multicultural classroom management, which impedes effective education for migrant students <sup>[11]</sup>. Teacher training in language teaching methodologies and intercultural approaches is essential for improving educational quality and fostering inclusion. Beyond the deficiencies in teacher preparation, institutional shortcomings further exacerbate the problem, as there is insufficient structural support for migrant students, placing the full burden of their integration on teachers <sup>[12]</sup>.

These linguistic barriers, in addition to contributing to academic failure, hinder the adaptation of migrant students to their new environment and limit social interaction with local students. It is therefore essential to consider the interplay between language and culture, as social practices are constructed through them <sup>[13]</sup>.

## **1.2. Importance of Intercultural Communicative Competence (ICC) in Learning**

Unlike urban centers, rural schools in Spain are typically smaller and often feature multilevel classrooms where students of different ages and educational levels learn together. In this context, the arrival of students from diverse national backgrounds has introduced new classroom dynamics, necessitating the implementation of teaching strategies adapted to cultural and linguistic diversity <sup>[14]</sup>.

One of the most significant aspects of these environments is the interaction between native and migrant students. While the small size of rural schools and the close relationships between teachers, students, and families can facilitate social integration, cultural differences may also pose challenges to coexistence. Therefore, it is essential to develop strategies that promote the integration of migrant students while fostering and educating students about cultural identity. These efforts are especially relevant in rural settings, where the professional training of educators must account not only for academic instruction but also for the nurturing of sociocultural competencies that enable students to navigate increasingly diverse communities <sup>[15]</sup>.

Intercultural education is central to this process, as it extends beyond second-language acquisition to include respect for and appreciation of the diverse cultures present in the classroom. In this regard, the development of intercultural communicative competence is crucial for fostering inclusion, as it enables students not only to acquire language skills but also to understand and effectively navigate cultural differences in their daily interactions <sup>[16]</sup>. According to Nieto <sup>[17]</sup>, intercultural education is fundamental to the creation of inclusive and cohesive societies, as it fosters mutual understanding and respect among different cultural groups. Incorporating intercultural perspectives into the school curriculum can enhance migrant students' motivation while enriching the educational experience for all participants.

Despite the challenges associated with linguistic and cultural diversity, rural communities offer a unique opportunity to implement inclusive pedagogical approaches. Models such as project-based learning, the communicative approach, and intercultural pedagogy have proven particularly effective in rural educational contexts <sup>[18]</sup>. These approaches encourage interaction among students from different linguistic and cultural backgrounds, facilitating language acquisition through collaboration and knowledge exchange. Project-based learning, as will be discussed in later sections, enables students to use the language of instruction in authentic and meaningful contexts, allowing migrant learners to develop linguistic competence through practical application. Furthermore, this approach fosters the active participation of all students, regardless of their native language <sup>[19]</sup>.

To address the challenges associated with integrating migrant students—who often have varying levels of proficiency in the language of instruction—into the Spanish rural education system, the RaCoDIL project has been developed. The following section presents an overview of this initiative.

### 1.3. RaCoDIL Project in Calanda

The RaCoDIL project emerged as a microproject within the broader ÁGORA project, funded by the Ministry of Science and Innovation under the State Plan for Knowledge Generation (PID2021-128182OB), led by the National University of Distance Education (UNED). The overarching initiative, titled Technological and Methodological Innovation for Language Teaching and the Generation of Synergies in Rural Areas, began by collecting data through direct engagement with second-language teachers in rural areas, specifically in La Loma (Jaén), El Bierzo (León), and Bajo Aragón (Teruel). The objective was to identify the challenges and difficulties faced in second-language instruction and to develop targeted training strategies through the design of microprojects with distinct objectives.

One of the first locations where fieldwork commenced was Bajo Aragón, where CEIP Virgen del Pilar de Calanda, a primary school in the province of Teruel, actively participated in the project. The school highlighted significant challenges in language acquisition among its primary students, many of whom lacked proficiency in Spanish, resulting in considerable deficits in both learning and communication.

Prior to its involvement in RaCoDIL, the school had already initiated its own project, *Comuninclusión*, which was submitted to the Government of Aragón. This initiative analyzed statistical data and expressed concerns regarding the lack of integration among migrant students, emphasizing the need for innovative and active pedagogical approaches to enhance the educational process. In response, the RaCoDIL microproject (*Raíces Compartidas en la Diversidad e Inclusión Lingüística* – Shared Roots in Linguistic Diversity and Inclusion) was developed. Its primary aim was to design a linguistic and cultural intervention that would be a tool for improving the integration and inclusion of both migrant and local students.

To contextualize this intervention, it is essential to understand the socio-economic and demographic landscape of Calanda. The town has been significantly affected by depopulation, driven by youth migration to urban centers and a declining birth rate, leading to an aging population and placing essential services at risk<sup>[20]</sup>. Within this context, the arrival of immigrant families with children has become a key factor in mitigating population decline. This influx of young immigrants has profound demographic, social, and educational implications for the town, while also posing challenges related to social integration and cohesion.

Immigration to Calanda has largely been motivated by employment opportunities in the agricultural sector, particularly in seasonal work such as crop harvesting and rain-fed agriculture<sup>[21]</sup>. As a result, most immigrants in the area come from Latin America, Morocco, and Eastern Europe. Given this socio-economic reality, one of the core pedagogical strategies of the RaCoDIL project involves integrating language learning with themes relevant to the local rural and natural environment. The project places particular emphasis on teaching specific vocabulary related to agriculture and nature, as well as engaging students in defining key terms and exploring related cultural and environmental facts. This approach aims to connect linguistic development with students' immediate surroundings, fostering motivation for both in-class and experiential learning while ensuring that language acquisition is meaningful and contextually relevant.

### 1.4. Research Objectives and Questions

In this context, the present study, conducted in a multicultural and consequently multilingual environment, aimed primarily to assess whether the intervention had positive effects on both the linguistic and academic development of participating students. Additionally, it sought to determine whether collaborative activities among heterogeneous student groups contributed to the development of ICC, considering key factors such as knowledge, attitudes, skills, and cultural awareness<sup>[22]</sup>. Finally, the study examined the potential correlation between academic performance and ICC, as previous literature has identified significant relationships between these two variables. Accordingly, the research questions derived from these objec-

tives were as follows:

- To what extent did the educational intervention lead to an improvement in students' academic performance, and which groups benefited the most?
- What was the initial level of ICC among learners prior to the intervention? To what extent did students develop ICC?
- Was there a measurable correlation between academic performance and the development of ICC? Did this relationship vary across different groups?

## 2. Materials and Methods

### 2.1. Procedure


The proposed intervention aimed to enhance both the second-language proficiency and ICC of 5th- and 6th-grade students through collaborative activities involving heterogeneous groups from diverse backgrounds. Specifically, the intervention sought to improve Spanish language proficiency among students from North Africa and French language proficiency among students whose mother tongue was Spanish and who had opted for French as a second language within the school curriculum.

The sessions were centered around the natural environment of Calanda (Teruel), serving as a thematic framework for language acquisition. To support this approach, a specialized glossary of thirty terms related to local fauna and flora was developed in collaboration with academic

and professional experts, including faculty from the Universidad Politécnica de Madrid (Forestry and Agronomics Engineering Schools) and the regional forest ranger. The choice of the rural environment as the thematic foundation for the linguistic sessions was primarily contextual. While the core objective of the educational intervention was to promote second language acquisition, the specific content could have centered on a wide range of topics. However, given the rural setting in which the intervention was implemented, leveraging the local natural environment provided an opportunity to connect language learners' immediate surroundings. This approach not only enhanced vocabulary acquisition through contextually relevant content but also responded to a broader educational need: encouraging young learners' direct engagement with nature. Therefore, the glossary became a tool for both linguistic and environmental literacy, reinforcing the value of local knowledge and ecological awareness in rural communities.

The glossary was designed to facilitate learning by incorporating key terms in Spanish, Arabic (to support initial comprehension for students of North African origin), and French. Additionally, it included descriptive images with open licenses, informal definitions in both Spanish and French, and engaging cultural or scientific facts in both languages. These elements were carefully structured to progressively introduce students to more complex grammatical constructions. By way of illustration, **Table 1** shows the structure of the glossary (**Supplementary Materials**) taking the term *romero* as an example.

**Table 1.** Glossary structure for the term “Romero”.

Term (Spanish)	Translat. (Arabic)	Translat. (French)	Image	Definition (Spanish)	Definition (French)	Curious fact (Spanish)	Curious fact (French)
Romero	إكليل الجبل	Romarin		<i>El romero es un arbusto con flores de color azul o moradas aromáticas (que huelen bien)</i>	<i>Le romarin est un arbuste à fleurs aromatiques bleues ou violettes (qui sentent bon).</i>	<i>El aceite de romero es de los mejores antibióticos naturales</i>	<i>L'huile de romarin est l'un des meilleurs antibiotiques naturels.</i>

The glossary served as the foundation for the design of the intervention sessions, which were implemented during the second trimester of the 2023–2024 academic year. It is important to highlight that the successful execution of these activities was made possible through the collaboration of the 5th- and 6th-grade

teaching teams, who integrated the proposed instructional dynamics into their regular classes. This integration was necessary due to the lack of resources to conduct the sessions outside regular school hours or as part of a dedicated program exclusively focused on language-based inclusion.



The sessions focused on a selection of key terms and definitions related to the local natural environment, leveraging the proximity of these elements to the students' everyday surroundings. The instructional approach incorporated gamified activities in a hybrid format, with both grade levels working with the same set of terms. Notably, all sessions were structured to foster linguistic exchange through the formation of heterogeneous student groups, comprising learners with different target languages (Span-

ish and French). This strategy not only facilitated language acquisition but also promoted intercultural awareness by encouraging mutual knowledge, acceptance, and respect for diverse cultures.

Moreover, the activities enabled students with previously minimal levels of interaction to engage with one another regularly, both within and beyond the classroom setting. A detailed description of the sessions is presented in **Table 2**.

**Table 2.** RaCoDIL sessions description.

Session / Focus	Introduction	Development	Conclusion	Materials & Resources
<b>1:</b> oral input / output (Concept)	<ul style="list-style-type: none"> <li>• Presentation of RaCoDIL.</li> <li>• Formation of pairs (French and Spanish speakers).</li> <li>• Vocabulary related to the flora and fauna of Calanda.</li> </ul>	<ul style="list-style-type: none"> <li>• Pronunciation practice in pairs using word and image cards.</li> <li>• Turns to practice in French and Spanish.</li> </ul>	<ul style="list-style-type: none"> <li>• “Memory” game in groups of four, where each student can only pick cards in their language and must find the matching pair in the other language.</li> </ul>	<ul style="list-style-type: none"> <li>• Device with internet access (Forvo: <a href="https://es.forvo.com/">https://es.forvo.com/</a>).</li> <li>• Image cards.</li> </ul>
<b>2:</b> written input / output (Word)	<ul style="list-style-type: none"> <li>• Review of the vocabulary using flashcards.</li> <li>• Group pronunciation.</li> </ul>	<ul style="list-style-type: none"> <li>• Mime game in groups of four, where one pair acts out an action, and the other must guess and show the corresponding image.</li> </ul>	<ul style="list-style-type: none"> <li>• Individual worksheet to assess vocabulary learning, with the option to complete it on ‘Liveworksheets’ or by hand.</li> </ul>	<ul style="list-style-type: none"> <li>• Text and image flashcards.</li> <li>• Interactive worksheet: <a href="https://www.liveworksheets.com/w/fr/ciencias-naturales/7600334">https://www.liveworksheets.com/w/fr/ciencias-naturales/7600334</a> / <a href="https://www.liveworksheets.com/w/es/ciencias-naturales/7600378">https://www.liveworksheets.com/w/es/ciencias-naturales/7600378</a></li> </ul>
<b>3:</b> definitions	<ul style="list-style-type: none"> <li>• Guessing game about the characteristics of flora and fauna.</li> <li>• Explanation of the “What do I have on my head?” game in pairs (one Spanish speaker and one French speaker).</li> </ul>	<ul style="list-style-type: none"> <li>• Association of images with their correct definitions in both languages.</li> <li>• Team game where students must guess what image they have on their forehead based on clues from their teammates.</li> </ul>	<ul style="list-style-type: none"> <li>• Repetition of the interactive game to reinforce learning and review if the terms and definitions were remembered correctly.</li> </ul>	<ul style="list-style-type: none"> <li>• Image flashcards.</li> <li>• Interactive resources on Educaplay: 1) <a href="https://es.educaplay.com/recursos-educativos/18179244-advina_que_definicion_corresponde_a_cada_animal_o_planta.html">https://es.educaplay.com/recursos-educativos/18179244-advina_que_definicion_corresponde_a_cada_animal_o_planta.html</a> 2) <a href="https://es.educaplay.com/recursos-educativos/18217774-devinez_quelle_definition_correspond_a_quelle_plante_ou_a_quel_animal.html">https://es.educaplay.com/recursos-educativos/18217774-devinez_quelle_definition_correspond_a_quelle_plante_ou_a_quel_animal.html</a></li> </ul>
<b>4:</b> word contextualisation	<ul style="list-style-type: none"> <li>• Team competition to reinforce learned vocabulary. Each team writes short sentences in Spanish and French based on given images.</li> </ul>	<ul style="list-style-type: none"> <li>• Teams write sentences in French and Spanish without including the term, under a time limit. Peer correction is encouraged before submission.</li> </ul>	<ul style="list-style-type: none"> <li>• Group correction with teacher supervision and scoring based on correct sentences.</li> <li>• The team with the most valid sentences wins a prize.</li> </ul>	<ul style="list-style-type: none"> <li>• Printable worksheets.</li> </ul>
<b>5:</b> outdoors activity	<ul style="list-style-type: none"> <li>• Real approximation to the rural elements.</li> </ul>	<ul style="list-style-type: none"> <li>• Search and identification of natural elements.</li> </ul>	<ul style="list-style-type: none"> <li>• Review of glossary terms, definitions and fun facts from the glossary in the medium itself.</li> </ul>	<ul style="list-style-type: none"> <li>• Elements of nature</li> <li>• Cardboard figures of animals (see <b>Figure 1</b>).</li> </ul>



Figure 1. Sample of cardboard figures of animals.

## 2.2. Context and Participants

The intervention was conducted at the public primary school of Calanda, located in the province of Teruel, Spain, during the second trimester of the 2023–2024 academic year (February–April 2024). The sessions were implemented concurrently in the 5th- and 6th-grade classes throughout this period, except for the fifth session, which was postponed until May due to logistical and mobility constraints, as it involved outdoor activity. The intervention was delivered in a hybrid format, as outlined in **Table 2**, utilizing the school's available resources, including consumable materials and electronic devices for technology-mediated activities. To accommodate the linguistic diversity of the student body, instructional activities were conducted in both Spanish and French.

The 5th- and 6th-grade cohorts comprised a total of 77 students, distributed across two classrooms per grade level during the 2023–2024 academic year (41 students in 5th grade and 36 in 6th grade). Given the nature of the research, students' native and target languages were carefully considered. In the 5th grade, 23 students had Spanish as their mother tongue, of whom 18 were learning French as a second foreign language. Additionally, 18 students in this grade were native Arabic speakers, all of whom were learning Spanish as their target language. In the 6th grade, 11 students had Arabic as their mother tongue, while 25 were native Spanish speakers, of whom 16 were studying French as a second foreign language.

## 2.3. Research Methodology

### Data Collection and Analysis

The research followed a quasi-experimental approach. The first point of interest was to test whether the intervention had positive effects on student performance,

which was tailored according to the students' target language. For learners with Spanish as their target language, the assessment focused on general academic performance across all the subjects, given that Spanish serves as the primary medium of instruction and thus plays a transversal role in the broader curriculum. In contrast, for students with French as their target language, the evaluation was limited to their progress in French as a second language. This methodological distinction reflects the different curricular functions of each language and aimed to capture the specific ways in which second language learning might influence academic development depending on its role within educational context. For this purpose, a contrast of related means was performed, comparing the means of two measurements within the same group, between the grades obtained in the first trimester (September–December 2023) and the second one -in which the sessions were developed- through the t-student test. This test made it possible to calculate the significance of the means with a 95% confidence interval and to measure the effect sizes through the Cohen's *d* measure.

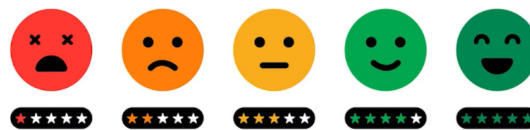
The mean differences were calculated considering various factors that defined the pairs of data. First, the contrast was made between the French grades of students with Spanish as their mother tongue who took this subject as a second language as an optional subject. In this group, results were obtained for both levels (5th and 6th) individually and jointly. On the other hand, the same action was carried out for students with Arabic as their mother tongue and Spanish as their target language. In this case, the mean scores took into account all subjects since an improvement in language proficiency in the school or instructional language is closely related to success in other academic areas<sup>[23]</sup>. Finally, contrasted means were calculated between the first and second trimester of the entire groups considering their target languages, i.e.: French group (5th and 6th) and

Spanish group (5th and 6th).

The second objective of the research was to determine whether the intervention, which promoted collaborative work among students from diverse linguistic and cultural backgrounds, facilitated the development of their Intercultural Communicative Competence (ICC). The exclusion of students experiencing difficulties in acquiring Spanish is a pervasive issue within the school environment, leading to the formation of segregated groups that rarely interact with local students or native Spanish speakers, such as those from Latin American backgrounds. In this context, the intervention designed activities for heterogeneous student groups, aiming to foster intercultural competencies through linguistic practice and social interaction, thereby encouraging collaboration and mutual understanding among participants.

To this end, the students' ICC was evaluated both

before and after the intervention (pre- and post-test) using a validated instrument <sup>[24]</sup>, which was adapted to ensure its suitability for children the instrument was administered in an online format. It operationalized the conceptual dimensions of ICC as defined by Byram <sup>[22]</sup>, specifically: attitudes, skills, knowledge, and awareness. Each dimension was assessed through five items, resulting in a total of 20 items. These items were measured using a five-point Likert scale, where 1 = "completely disagree" and 5 = "completely agree". The reliability of the questionnaire was confirmed using Cronbach's Alpha ( $\alpha = 0.820$ ) <sup>[25]</sup>. To enhance comprehension among the participants, the scale values were represented using descriptive images or emojis corresponding to each value (see **Figure 2**). During the distribution of the instrument, teachers were present to provide assistance and support to the students.



**Figure 2.** Likert scale adaptation of the questionnaire.

Initially, a descriptive analysis of the students' ICC was conducted prior to the implementation of the intervention sessions. This initial measurement served as the baseline for the research. Similar to the comparison of means, an overall evaluation was performed for all students participating in the intervention, as well as for subgroups categorized by target language. Following the intervention, the questionnaire was administered again to assess the development of the students' ICC, with the same groups being evaluated. To ensure the validity of the analysis, the

distribution of the data for continuous variables <sup>[26]</sup> was examined using the Shapiro-Wilk test, which is suitable for small sample sizes. The results indicated that the *p*-values for the variables, both for individual categories in the pre- and post-test and for the questionnaire as a whole, were greater than 0.05. Consequently, the hypothesis of normality was not rejected, confirming that the sample followed a normal distribution (**Table 3**). This finding permitted the use of parametric tests, specifically the paired samples *t*-test, for further analysis.

**Table 3.** Shapiro-Wilk test for Intercultural Communicative Competence (-pre, -post).

	Statistic	df	Sig.
Pre Test ICC	0.840	7	<b>0.100</b>
Post Test ICC	0.936	7	<b>0.602</b>

Additionally, the study aimed to explore potential correlations between academic performance and development of ICC. This consideration was based on the premise that students with higher levels of intercultural competence possess enhanced abilities to navigate complex situations, solve problems, and collaborate effectively in team

settings, all of which may contribute to better academic outcomes <sup>[27,28]</sup>. To facilitate the association of these two variables—academic performance and ICC—at the individual level, students were asked to identify themselves in the questionnaire by providing their class and roll number. This approach ensured that the responses could be linked



to individual participants while maintaining the anonymity of their data.

This study also incorporated feedback from the teachers who facilitated the intervention, gathered during periodic follow-up meetings with the RaCoDIL research team. These insights were essential for the contextualized interpretation of certain findings.

### 3. Results

The results of the mean comparison analysis are presented in **Table 4**. Negative mean values indicate that the averages for the second trimester were higher than those recorded in the first trimester. In this regard, it can be observed that, except for the 5th-grade group with French as the target language, all groups demonstrated an improvement in their grades during the second trimester following the implementation of the intervention. While a descriptive improvement is evident across nearly all groups, statistically significant differences ( $p < 0.05$ ) were specifically identified in the 5th-grade group, both for the class as a whole and for the subgroup of students with Spanish as the target language. Notably, the high standard deviation observed in the paired-samples analysis for the 6th-grade group suggests considerable variability in student performance. This dispersion may indicate that while some students experienced significant progress, others did not exhibit the same level of improvement<sup>[29]</sup>.

Additionally, the effect size of the differences be-

tween the first- and second-trimester grades was analyzed. In this analysis, an effect size of  $d = 0.2$  corresponds to a small effect,  $d = 0.5$  to a moderate effect, and  $d = 0.8$  or higher to a large effect<sup>[30]</sup>. The effect sizes were found to be substantial in nearly all cases, except for the overall 5th-grade group, where the effect size was moderate ( $d = 0.436$ ) (see **Table 5**). The most pronounced effects were observed in the 5th-grade groups, particularly in the subgroup with Spanish as the target language, where the effect sizes further supported the existence of significant differences between the two measurement points (**Table 4**). In contrast, while the 6th-grade group exhibited large effect sizes, their confidence intervals included zero (spanning both positive and negative values). This suggests insufficient evidence to conclude that the differences were statistically significant, aligning with the findings discussed earlier.

When calculating the overall effect size between the first and second trimesters for the groups with French and Spanish as target languages—combining both grade levels—substantial differences were observed ( $d = 0.8$ ). However, the confidence intervals encompassed both negative and positive values, indicating that, although statistically significant differences cannot be conclusively established, the practical implications of these differences remain noteworthy. This finding is particularly relevant in this context, as the magnitude of the intervention's impact suggests that similar initiatives could be beneficially implemented in other educational settings<sup>[31]</sup>.

**Table 4.** Paired sample test (French & Spanish as the Target Language).

	Paired Differences			Significance	
	Mean	Std. Deviation	Std. Error Mean	One-Sided $p$	Two-Sided $p$
5 <sup>o</sup>	<b>-0.151</b>	0.436	0.0681	0.016	<b>0.032</b>
French 5 <sup>o</sup>	0.472	0.696	0.1640	0.005	0.010
Spanish 5 <sup>o</sup>	<b>-0.523</b>	0.931	0.2258	0.017	<b>0.034</b>
6 <sup>o</sup>	<b>-0.291</b>	1.406	0.2344	0.111	0.222
French 6 <sup>o</sup>	<b>-0.875</b>	2.209	0.5524	0.067	0.134
Spanish 6 <sup>o</sup>	<b>-0.445</b>	1.785	0.5382	0.214	0.427
French	<b>-0.437</b>	2.379	0.5949	0.237	0.473
Spanish	<b>-0.818</b>	1.858	0.5603	0.087	0.175

**Table 5.** Effect size (Cohen's d) (French & Spanish as the Target Language).

		Standardizer <sup>a</sup>	Point Estimate	95% Confidence Interval	
				Lower	Upper
5°	Cohen's d	<b>0.436</b>	-0.346	<b>-0.660</b>	<b>-0.029</b>
French 5°	Cohen's d	0.696	0.678	0.156	1.185
Spanish 5°	Cohen's d	<b>0.931</b>	-0.562	<b>-1.068</b>	<b>-0.042</b>
6°	Cohen's d	<b>1.406</b>	-0.207	-0.536	0.124
French 6°	Cohen's d	<b>2.209</b>	-0.396	-0.900	0.120
Spanish 6°	Cohen's d	<b>1.785</b>	-0.250	-0.844	0.357
French	Cohen's d	<b>2.379</b>	-0.184	-0.675	0.313
Spanish	Cohen's d	<b>1.858</b>	-0.440	-1.051	0.190

As for ICC, we first calculated the mean scores for the overall questionnaire as well as for each individual dimension. All dimensions exceeded 75% of the maximum possible score (mean = 80.65%), indicating that students had already developed this competence to a highly positive level at baseline. Among the dimensions, 'attitudes' scored the highest (82.28%), followed by 'skills' (80.04%), 'awareness' (79.04%), and 'knowledge' (77.92%).

A comparison between initial and final perceptions of this competence reveals an increase in ICC in the post-test measurement, as reflected in the negative mean values

(Table 6). When examining the individual dimensions, this increase is particularly evident in 'attitudes,' 'awareness,' and 'skills.' However, no change was observed in the 'knowledge' dimension. Descriptively, the differences between the pre- and post-test measurements are notable, although no statistically significant values were obtained ( $p > 0.05$ ). This lack of statistical significance may be attributed to the high initial levels of this competence, which left little room for further measurable improvement. Nevertheless, the descriptive data indicates a positive progression in ICC.

**Table 6.** Paired samples ICC (-pre-& -post).

Dimension	Mean	Std. Deviation	Confidence Interval Diff (95%) - Lower	Confidence Interval Diff (95%) (Upper)	Sig.
Pre/Post ICC	<b>-1.571</b>	7.457	-8.468	5.325	0.597
Pre/Post Knowledge	0.000	1.915	-1.771	1.771	1.000
Pre/Post Attitude	<b>-0.714</b>	3.946	-4.364	2.935	0.649
Pre/Post Awareness	<b>-0.571</b>	2.225	-2.630	1.487	0.522
Pre/Post Skills	<b>-0.286</b>	3.147	-3.196	2.625	0.818

Building on the initial perceptions of ICC, we analyzed whether differences existed between the groups with Spanish and French as their target languages. To compare these independent groups, Levene's Test for equality of variances was applied, determining significance values based on the assumption of equal variance for each questionnaire item. The results indicate that initial differences

between the groups were not statistically significant for almost all items, except for the one related to curiosity about people from other cultures (attitudes;  $p = 0.054$ ). In this case, the group with French as the target language showed significant differences compared to the group with Spanish as the target language.

The comparison of ICC means before and after

the intervention (Table 7) revealed that the students who demonstrated the most notable descriptive improvement were those with Spanish as their mother tongue and French as their target language. This improvement was observed across all categories studied. Conversely, for students with Arabic as their mother tongue, an increase in ICC was only found in the ‘knowledge’ dimension. However, in none

of the cases the pre- and post-intervention differences between the groups were statistically significant. These findings align with the previous comparison, which considered the total student population, reinforce the trend that, while descriptive improvements are evident, they do not reach statistical significance.

**Table 7.** French & Spanish as a target language paired sample (-pre-& -post).

Paired Samples	Mean	Std. Deviation	Sig.
Pre/Post French	-3.200	5.357	0.253
Pre/Post Spanish	3.500	10.606	0.722
Pre/Post Skills French	-0.800	1.483	0.294
Pre/Post Awareness French	-0.800	4.919	0.735
Pre/Post Knowledge French	-0.600	1.140	0.305
Pre/Post Attitudes French	-1.000	3.536	0.561
Pre/Post Skills Spanish	-1.500	0.707	0.205
Pre/Post Awareness Spanish	2.500	4.950	0.605
Pre/Post Knowledge Spanish	0.500	2.121	0.795
Pre/Post Attitudes Spanish	2.000	2.828	0.500

The final analysis conducted involved correlation tests between the key variables of interest: academic performance and ICC. To accurately associate these variables with individual students, data tables were created, including each student’s grades and ICC responses, categorized by target language (Spanish/French). Additionally, correlation indices were calculated without grouping the students. Given the characteristics of the sample, the non-parametric Spearman’s Rho test was applied (see Table 8).

Overall, a weak positive correlation was found be-

tween academic performance and ICC, but it was not statistically significant ( $p = 0.225$ ). However, when analyzing the data by group, a significant correlation ( $p < 0.05$ ) was observed among students with French as a second language. This suggests that higher ICC levels were associated with better academic performance in this group. Conversely, for students with Spanish as their target language, an inverse relationship was found, meaning that as ICC improved, grades tended to decrease. However, due to the small sample size, this trend is not considered relevant.

**Table 8.** Spearman’s Rho test for bivariate variables (ICC and academic performance).

Group	Correlation Index( $\rho$ )	Significance ( $p$ -value)
All	0.225	0.148
French (Target)	0.451	0.018
Spanish (Target)	-0.060	0.826

## 4. Discussion

The RaCoDIL project aimed to investigate the linguistic inclusion of immigrant children in rural schools,

focusing on Calanda (Teruel). Its main objectives were: (1) to assess the intervention’s effects on linguistic and academic performance, (2) to determine if ICC was developed through collaborative activities among heterogeneous

groups based on origin, and (3) to examine the correlation between academic performance and ICC. The research questions were designed to measure the extent of academic improvement, the initial levels and development of ICC, and any correlation between these variables.

One of the most notable findings was the overall improvement in student grades following the intervention during the second trimester of the 2023–2024 academic year, which is consistent with related research that posits the development of executive actions as a moderating factor between socio-economic disadvantage and academic achievement <sup>[32]</sup>. This was particularly significant for students with Spanish as their target language, an important step toward their inclusion, that Proficiency in the national language is a key predictor of social inclusion <sup>[33,34]</sup>, for migrant children, even more than personal or family characteristics <sup>[35]</sup>. Additionally, both the results and teacher observations suggest that migrant children experienced socio-emotional well-being during the intervention, despite potential migration-related challenges such as academic attainment, language barriers, social isolation, and early school leaving <sup>[36]</sup>. This aligns with Hamilton's <sup>[37]</sup> assertion that well-being is crucial for effective learning environments.

The results also indicate that the inclusive, hybrid, and game-based activities contributed to student learning and language acquisition, consistent with similar interventions <sup>[38,39]</sup>. This supports the idea that inclusive pedagogies—incorporating migrant students' backgrounds, experiences, knowledge, and mother tongue—enhance student outcomes. However, not all groups showed significant improvements; for instance, the 5th-grade group with French as the target language saw no progress, while the 6th-grade group displayed greater variability in results. This highlights the complexity of learning in diverse environments, where factors such as prior skills, motivation, and pedagogical support influence outcomes differently <sup>[40]</sup>.

Regarding ICC, initial results indicated that students already had a relatively high level of competence at the start of the study. This reflects positively on the Calanda school's efforts to foster an inclusive environment that values cultural diversity. Higher ICC levels contribute to positive peer relationships and enhanced learning environments <sup>[41]</sup>. After the intervention, the paired pre- and

post-test questionnaire results showed positive, though not statistically significant, changes in ICC—particularly for students learning French as a second language. This aligns with findings from similar programs <sup>[42]</sup> where ICC development is not the sole focus. The intervention's dual focus may have limited the extent to which intercultural aspects were explicitly addressed. Unlike specialized ICC programs, this study did not incorporate strategies such as leveraging local and international students' experiences or explicitly teaching cultural customs as other studies where the cultural customs were taught before trying to teach the local language <sup>[43]</sup>.

The most significant ICC development occurred among Spanish-speaking students learning French. This underscores the intervention's impact on fostering an appreciation for diverse cultures. In migrant inclusion efforts, it is crucial not only to familiarize migrant students with the local culture but also to encourage local students to embrace cultural diversity. This finding aligns with existing literature <sup>[44]</sup> stating that mutual awareness enhances social integration, promoting a more respectful and enriched co-existence. The implications suggesting that ICC extends beyond cultural knowledge—it encompasses openness, empathy, and conflict resolution skills are in line with previous findings as well <sup>[45]</sup>. Thus, the intervention contributed to shaping more inclusive individuals equipped for modern societal challenges.

For students with Spanish as their target language, ICC did not show similar improvements, likely due to the intervention's primary focus on linguistic competence. While the activities fostered interaction among diverse student groups, intercultural learning was approached implicitly. The linguistic demands placed on migrant students were greater, making it understandable that Spanish-speaking students could engage in intercultural exchange more freely. In contrast, the migrant students' primary focus was on mastering the language necessary for their academic and social inclusion, as Belmonte et al. indicated in their study with unaccompanied minors. They feel less included than locals because of their lack of language proficiency. This leads to frustration, isolation and a negative perception of society that is trying to include them <sup>[46]</sup>.

The third research question addressed the possible correlation between academic performance and CCI. A sig-

nificant positive correlation was found between ICC and academic performance among students learning French as a second language. This suggests that higher ICC levels may contribute to better academic outcomes in this group. Prior research supports this connection, highlighting that ICC enhances communication, classroom interaction, and overall learning <sup>[27,28]</sup>. Spanish-speaking students, with their mother tongue as the language of instruction, were better positioned to benefit from ICC in their academic performance.

For students with Spanish as their target language, the correlation was not observed. Their academic improvement stemmed primarily from linguistic development rather than ICC. Moreover, the negative trend in ICC among this group may be explained by the complexity of factors influencing the relationship between academic performance and intercultural competence, including family support and access to educational resources <sup>[47]</sup>.

This highlights the need for a holistic approach to immigrant student inclusion. Language acquisition is essential, but social, emotional, and cultural integration must also be prioritized. Effective integration requires educational plans that consider the social environment in which learning occurs. As Marcilla states <sup>[48]</sup>, “Intercultural competence is taught and learned to be put into practice throughout life. The first competence consists in understanding the ‘other’ who comes from another culture”. The RaCoDIL intervention, by addressing both linguistic and intercultural competence, represents a step in this direction.

Finally, it is important to recognize the limitations of this study. The intervention was implemented in a non-optimal context, as the school lacked the necessary human and material resources. Sessions were only possible due to the teaching staff’s willingness to allocate class time. Additionally, the research team faced challenges in designing context-specific sessions without direct involvement in daily school operations. One example was the difficulty in convincing North African families to participate, as they initially misunderstood the intervention’s objectives. These challenges highlight the gap between theoretical research and practical application.

Regarding research design, the quasi-experimental approach does not allow for definitive causal conclusions.

Future studies should incorporate additional variables to better understand factors influencing student performance. Additionally, the small sample size limits the generalizability of findings. However, the effect size of the academic performance results (Cohen’s *d*) suggests that the intervention is replicable in similar educational contexts <sup>[34]</sup>. This metric provides a valuable reference for educational decision-makers considering similar initiatives.

Lastly, ensuring data anonymity led to minor inconsistencies between questionnaire responses and grade records. In some cases, mismatched data had to be excluded, reducing the sample size and potentially influencing the analyses. Despite these limitations, the findings suggest that linguistic-cultural interventions like RaCoDIL can positively impact student learning and inclusion, warranting further exploration in similar educational settings.

## 5. Conclusions

The findings of this research provide valuable insights into the impact of linguistic and cultural interventions in rural schools. The analysis revealed a general improvement in academic performance and the development of ICC, though with variations among different student groups. These nuances highlight key considerations for future interventions aimed at addressing the linguistic needs of both local and immigrant students in rural educational settings. The results suggest that implementing educational strategies focused on linguistic and intercultural competence is feasible, particularly in multicultural and bilingual contexts. Pedagogical approaches that emphasize intercultural collaboration and teamwork can be effective in enhancing both academic achievement and ICC development.

A key factor in the success of the intervention was the action-oriented teaching approach, both inside and outside the classroom. Furthermore, it has been proved that activities that promote social interaction not only encourage students to approach different cultures but also enhance empathy and relationships among peers from diverse backgrounds. This, in turn, contributes to improving social and academic integration. Hybrid and game-based linguistic activities further enriched the learning experience, making it more dynamic and engaging. Additionally,



the development of ICC has been linked to fostering positive attitudes toward learning, increasing students' cultural sensitivity, and ultimately facilitating the social inclusion of immigrant peers.

Despite the challenges of implementing this research in a less-than-ideal environment, the positive outcomes suggest the potential for such initiatives to be expanded, provided that adequate resources, specialized training, and institutional support are in place. Notably, as a direct result of this study and the commitment of the Calanda school, the institution secured a part-time Spanish teaching position during the research period. This development is a crucial step in addressing language acquisition, a key predictor of effective inclusion for migrant students.

However, the path to genuine and sustainable inclusion of migrant children in rural areas remains complex. The demographic realities of these settings call for continuous investment and support from local public administrations to ensure that student integration does not rely solely on the goodwill of individual educators. Addressing both immediate and long-term challenges is essential to guarantee equal opportunities for all students, reinforcing the need for structured policies that support the evolving needs of rural schools.

## Supplementary Materials

The supporting information can be downloaded at <https://journals.bilpubgroup.com/files/FLS-9264-Supplementary-Materials.pdf>.

## Author Contributions

Conceptualization, P.D.A., M.L.P.Y. and M.S.G.; methodology, P.D.A.; introduction, M.L.P.Y.; validation, P.D.A., M.S.G. and M.L.P.Y.; formal analysis, P.D.A.; investigation, P.D.A.; resources, P.D.A., M.L.P.Y. and M.S.G.; data curation, P.D.A.; writing—original draft preparation, M.S.G.; writing—review and editing, P.D.A., M.L.P.Y. and M.S.G.; visualization, P.D.A., M.S.G. and M.L.P.Y.; supervision, P.D.A., M.S.G. and M.L.P.Y.; project administration, M.S.G. and P.D.A. All authors have read and agreed to the published version of the manuscript.

Authorship must be limited to those who have contributed substantially to the work reported.

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## Institutional Review Board Statement

Not applicable.

## Informed Consent Statement

Informed consent was obtained from all subjects involved in the study.

## Data Availability Statement

The dataset for this study is available in the Zenodo repository at <https://doi.org/10.5281/zenodo.15094792>.

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## Conflicts of Interest

The authors declare no conflict of interest.

## References

- [1] De Elena Escaladas, V., Blasco de Llano, M., Carrasco García, L., et al., 2021. Impact of the depopulation of “empty Spain” on the growth of the Community of Madrid. Universidad Rey Juan Carlos. Available from: <http://hdl.handle.net/10115/18268> (cited 26 April 2025). (in Spanish)
- [2] Di Napoli, C., Ricciardi, D., Sica, L.S., 2023. Multicultural perspectives of L2 learning. *Language Learning Journal*. 51(1), 54–69.
- [3] García Monteagudo, D., Larchen Costuchen, A., 2024. Results of action research in a teacher training project in rural education. *Revista Interuniversitaria de Formación del Profesorado*. 38(2). DOI: <https://doi.org/10.47553/rifop.v99i38.2.98481> (in Spanish)
- [4] Gobierno de España, 2020. Digital Spain 2025. Ministerio de Asuntos Económicos y Transformación Digital. Available from: <https://avance.digital.gob.es/programas-avance-digital/Paginas/espana-digital-2025.aspx> (cited 26 April 2025). (in Spanish)
- [5] Santamaría Luna, R., 2015. Early school leaving in rural areas of Europe and Spain. *Avances en supervisión educativa*. (24). DOI: <https://doi.org/10.23824/ase.v0i24.16> (in Spanish)
- [6] Ministerio de Educación Formación Profesional y Deportes, 2023. 2023 Report on the State of the Education System. 2021-2022 Academic Year. Available from: <https://www.educacionfpydeportes.gob.es/mc/cee/publicaciones/informes-del-sistema-educativo/informe-2023.html> (cited 26 April 2025). (in Spanish)
- [7] Save the Children, 2023. Memory 2023. Available from: <https://www.savethechildren.es/sites/default/files/2024-07/Memoria2023.pdf> (cited 26 April 2025). (in Spanish)
- [8] Cummins, J., 2000. *Language, Power and Pedagogy: Bilingual Children in the Crossfire*. Multilingual Matters: Bristol, UK.
- [9] Portes, A., Rumbaut, R.G., 2001. *Legacies: The Story of the Immigrant Second Generation*. University of California Press: Oakland, CA, USA.
- [10] Vargas, Y.C., Alfonso, S.L.R., 2021. School in Rural Areas: A Look at Inclusion in Education. *Educación y Ciencia*. (25). DOI: <https://doi.org/10.19053/0120-7105.eyc.2021.25.e12313> (in Spanish)
- [11] Chávez, A.R., Villalobos Martínez, A., Fuentes Hernández, L., 2019. Promoting inclusive schools in rural migration contexts. Analysis from a territorial development perspective. *Estudios pedagógicos (Valdivia)*. 45(3), 279–295. DOI: <https://doi.org/10.4067/S0718-07052019000300279> (in Spanish)
- [12] Tovar-Correal, M., González, R.B., 2022. Linguistic diversity in the multicultural classroom: critical issues in border schools. *Interciencia*. 47(11), 513–519. Available from: [https://www.interciencia.net/wp-content/uploads/2022/12/05\\_6941\\_Com\\_Bustos\\_v47n11\\_7.pdf](https://www.interciencia.net/wp-content/uploads/2022/12/05_6941_Com_Bustos_v47n11_7.pdf) (cited 26 April 2025). (in Spanish)
- [13] Sumonte, V., Sanhueza, S., Friz, M., et al., 2018. Linguistic immersion of Haitian communities in Chile. Contributions to the development of an intercultural communication model. *Papeles de Trabajo*. 35, 68–79. DOI: <https://doi.org/10.35305/revista.v0i35.21> (in Spanish)
- [14] Mendoza-Ponce, F.W., 2024. The Quality of Education in Rural Areas: A Systematic Review 2017-2023. *Episteme Koinonía. Revista Electrónica de Ciencias de la Educación, Humanidades, Artes y Bellas Artes*. 7, 150–167. DOI: <https://doi.org/10.35381/e.k.v7i1.3727> (in Spanish)
- [15] Piddubna, N., Pavlova, I., Ievliev, O., et al., 2022. Pedagogical features of the development of sociocultural competence in the process of Rural Education. *Revista Brasileira de Educação do Campo*. 1–14. DOI: <https://doi.org/10.20873/uft.rbec.e13892>
- [16] Cubo Antón, S., 2024. Integration of immigrant families in the educational field in rural areas. Available from: <https://uvadoc.uva.es/handle/10324/71856> (cited 26 April 2025). (in Spanish)
- [17] Nieto, S., 2010. *The Light in Their Eyes: Creating Multicultural Learning Communities*. Teachers College Press: New York, NY, USA.
- [18] Kemaloglu-Er, E., Sahin, M.T., 2022. Project-Based Learning in English Language Teaching at a Rural School: A Case Study from Turkey. *Novitas-ROYAL (Research on Youth and Language)*. 16(1), 34–55.
- [19] Carrasco Perea, E., De Carlo, M., 2019. How to implement and evaluate multilingual education? The example of Intercomprehension. *Lenguaje y Textos*. (50), 75–85. DOI: <https://doi.org/10.4995/lyt.2019.12004> (in Spanish)
- [20] Castel, A.F.G., Sanz, F.J.P., Salvador, L.E., et al., 2024. Analysis of the Social Economy in the Province of Teruel. *Asociación de Economía Social de Aragón: Aragón, Spain*. (in Spanish)
- [21] Gobierno de Aragón, 2022. Municipal territorial records. IAEST Local Statistics. Data for the Municipality of Calanda. Gobierno de Aragón: Aragón, Spain. (in Spanish)
- [22] Byram, M., 1997. Teaching and assessing intercultural communicative competence. *Multilingual Matters*: Bristol, UK.
- [23] August, D., Shanahan, T., 2017. *Developing literacy*

- in second-language learners: Report of the National Literacy Panel on Language-Minority Children and Youth. Routledge: London, UK.
- [24] Duisembekova, Z., 2021. Beliefs about Intercultural Communicative Competence: The Development and Validation of a New Instrument. *International Journal of Instruction*. 14(2), 103–116. Available from: <https://www.e-iji.net/volumes/365-april-2021,-volume-14,-number-2> (cited 26 April 2025).
- [25] Field, A., 2024. *Discovering statistics using IBM SPSS statistics*. Sage publications Limited: London, UK.
- [26] Norman, G., 2010. Likert scales, levels of measurement and the “laws” of statistics. *Advances in health sciences education*. 15, 625–632. DOI: <https://doi.org/10.1007/s10459-010-9222-y>
- [27] Fantini, A.E., 2009. Assessing intercultural competence: Issues and tools. In: Deardorff, D.K. (ed.). *The SAGE handbook of intercultural competence*. SAGE Publications: London, UK. pp. 456–476. Available from: [https://www.ucg.ac.me/skladiste/blog\\_7764/objava\\_67219/fajlovi/Interkulturalna%20kompetencija.pdf](https://www.ucg.ac.me/skladiste/blog_7764/objava_67219/fajlovi/Interkulturalna%20kompetencija.pdf) (cited 26 April 2025).
- [28] Hammer, M.R., 2011. Additional cross-cultural validity testing of the Intercultural Development Inventory. *International journal of intercultural relations*. 35(4), 474–487. DOI: <https://doi.org/10.1016/j.ijintrel.2011.02.014>
- [29] Mackey, A., Gass, S.M., 2015. *Second language research: Methodology and design*. Routledge: London, UK.
- [30] Kraft, M.A., 2020. Interpreting effect sizes of education interventions. *Educational researcher*. 49(4), 241–253. DOI: <https://doi.org/10.3102/0013189X20912798>
- [31] Cohen, J., 2013. *Statistical power analysis for the behavioral sciences*. Routledge: London, UK.
- [32] Federico, F., Orsolini, M., 2022. Child migration and school achievement. *Neurology in Migrants and Refugees*. 67–79.
- [33] Yates, L., 2011. Interaction, language learning and social inclusion in early settlement. *International Journal of Bilingual Education and Bilingualism*. 14(4), 457–471.
- [34] Piller, I., Takahashi, K., 2011. Linguistic diversity and social inclusion. *International Journal of Bilingual Education and Bilingualism*. 14(4), 371–381.
- [35] Cavicchiolo, E., Manganelli, S., Bianchi, D., et al., 2020. Social inclusion of immigrant children at school: The impact of group, family and individual characteristics, and the role of proficiency in the national language. *International Journal of Inclusive Education*. 27(2), 146–166. DOI: <https://doi.org/10.1080/13603116.2020.1831628>
- [36] Janta, B., Harte, E., 2016. Education of migrant children. Education policy responses for the inclusion of migrant children in Europe. Available from: [https://www.rand.org/pubs/research\\_reports/RR1655.html](https://www.rand.org/pubs/research_reports/RR1655.html) (cited 26 April 2025).
- [37] Hamilton, P.L., 2013. It’s not all about academic achievement: Supporting the social and emotional needs of migrant worker children. *Pastoral Care in Education*. 31(2), 173–190. DOI: <https://doi.org/10.1080/02643944.2012.747555>
- [38] Troia, G.A., 2004. Migrant Students with Limited English Proficiency: Can Fast ForWord Language™ Make a Difference in Their Language Skills and Academic Achievement? *Remedial and Special Education*. 25(6), 353–366. DOI: <https://doi.org/10.1177/07419325040250060301>
- [39] Stolk, Y., Kaplan, I., Szwarc, J., 2023. Majority language acquisition by children of refugee background: a review. *International Journal of Inclusive Education*. 1–24. DOI: <https://doi.org/10.1080/13603116.2023.2210593>
- [40] Urdan, T., Schoenfelder, E., 2006. Classroom effects on student motivation: Goal structures, social relationships, and competence beliefs. *Journal of school psychology*. 44(5), 331–349.
- [41] Zhu, H., Jiang, Y., Watson, J., 2011. Children’s perceptions of the impact of participation in an intercultural educational programme. *Language and Intercultural Communication*. 11(2), 142–160. DOI: <https://doi.org/10.1080/14708477.2011.556740>
- [42] Dziedziewicz, D., Gajda, A., Karwowski, M., 2014. Developing children’s intercultural competence and creativity. *Thinking skills and creativity*. 13, 32–42. DOI: <https://doi.org/10.1016/j.tsc.2014.02.006>
- [43] Eisenclas, S., Trevaskes, S., 2007. Developing intercultural communication skills through intergroup interaction. *Intercultural Education*. 18(5), 413–425. DOI: <https://doi.org/10.1080/14675980701685271>
- [44] Carro, N., Kuperman, M., D’adamo, P., et al., 2022. Social relationships in children: favourable influence of activities promoting self-awareness and empathic interaction. *Journal of Complex Networks*. 10(1), cnab049.
- [45] Fantini, A.E., 2020. Reconceptualizing intercultural communicative competence: A multinational perspective. *Research in Comparative and International Education*. 15(1), 52–61.
- [46] Belmonte, J.L., López Meneses, E., Vázquez Cano,

- E., et al., 2019. Moving towards intercultural inclusion: perceptions of unaccompanied foreign minors in Spanish educational centers. *Revista de Educación Inclusiva*. 12(1), 331–350. (in Spanish)
- [47] Kohli Bagwe, T., Haskollar, E., 2020. Variables impacting intercultural competence: A systematic literature review. *Journal of Intercultural Communication Research*. 49(4), 346–371.
- [48] Marcilla, M.H., 2022. Guide to the linguistic inclusion of migrants (Vol. 30). Ediciones Universidad de Salamanca: Salamanca, Spain. DOI: <https://doi.org/10.14201/OLP0030> (in Spanish)