



Pathways to Integration and Language Acquisition: A Comparative Analysis of Refugee Children's Social Integration and Foreign Language Difficulty in Lebanon and Australia

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Abstract

This paper investigates the relationship between refugee children's social integration and foreign language difficulty. It also examines how different legal settlements and their accompanying education paradigms impact refugee students' integration and language difficulties in Lebanon and Australia, where short- and long-term legal settlements are provided. The study is based on a longitudinal survey data collected between the academic years 2018 and 2021, with 1565 observations. Our findings reveal that refugees who felt more welcome in the host country were less likely to have high language difficulties. Conversely, refugees who faced high language difficulties were less likely to feel welcome in the host country. Despite the aforementioned, refugees in Lebanon felt less welcomed in their host country, even though they faced lower language difficulties. Therefore, our study reveals that the successful integration of refugee students in the host country requires comprehensive efforts at various levels. This comprehensive approach includes creating inclusive educational environments and equitable policies that promote a sense of belonging while also addressing language comprehension challenges among refugee students.

Keywords Refugee children · Language difficulty · Social integration · Education in emergency

Introduction

Over the past twenty years, the field of refugee education has witnessed an expansion and has become predominantly present in the United Nations High Commissioner for Refugees (UNHCR) response plans. After Syria's civil war, which erupted

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in 2011, research on refugee education flourished mainly in the global South (world's developing countries), where refugee education is provided under the emergency umbrella, with less research examining refugee education in longer-term settings or resettlement contexts. While both education paradigms have been accompanied by growing research, there is a scarcity of comparative research that examines the practices and outcomes of these two education paradigms and how they shape refugee children's present and future within the host country (Shuayb et al., 2023a). The scarcity of comparative studies stems from the challenge of collecting and comparing data on refugees across countries due to inconsistencies in concepts, definitions, and data collection methods at the national and international levels (European Union, 2018; United Nations, 2018). According to data from UNHCR (2019), 35% of refugee children do not participate in primary education programs, and approximately 75% of adolescents do not engage in secondary education. Furthermore, only 3% of refugees are enrolled in higher education programs globally, compared to 37% of non-refugee students. As crises become protracted, there has been an increasing need to adapt refugee response plans beyond the immediate humanitarian support and address policies related to integrating those who are likely to stay in the host country (Brun & Shuayb, 2020). However, achieving such integration requires policies that stretch beyond providing short-term relief to newcomers and developing educational policies that would respond to their medium and long-term integration goals (Pastoor, 2016). Education is only considered the starting point for refugees to begin their journey of social integration, offering them the initial opportunity to connect with, understand, and eventually become active participants in the host community's social, cultural, and economic life. However, it is important to recognize that the absence of opportunities for economic, social, cultural, and political integration can render the efforts of education meaningless. In order to achieve meaningful integration, comprehensive measures are necessary to address these various aspects and levels of integration alongside education.

According to the Comparative Integration Theory, social integration and the sense of belonging to a host country's community are closely tied to the prevailing integration context within that host country (Crul & Jens, 2010). Therefore, the theory suggests that we redirect our attention from examining why individuals struggle to socially integrate to investigating the lack of inclusivity within institutions. Instead of solely placing the responsibility on individuals, it is essential to analyze and address the structural barriers within institutions that hinder inclusive integration (Crul & Jens, 2010). Moreover, Crul and Jens (2010) suggest that integration practices are predetermined by specific institutional contexts, including factors such as legal status, citizenship access, and policies that influence the pathways to inclusion in education and employment. Therefore, the Comparative Integration Theory establishes a strong foundation for comparing both paradigms, the humanitarian-led model which is often referred to as education in emergency (EiE) and the long-term model of refugee education, which are greatly influenced by institutional contexts driven by the type of legal settlement provided to refugees.

In addition, the integration of refugee children can be greatly influenced by their foreign language proficiency, which can either facilitate or hinder their integration process. Language skills play a critical role not only in academic success but also

in fostering a sense of belonging for students with refugee backgrounds within the school environment (Cerna, 2019). Having proficient language abilities is essential for these students to feel a sense of inclusion and connection at school. Hence, the importance of foreign language proficiency lies not only in its direct effect on social integration but also in its crucial impact on children's academic achievement and school success, which is the starting point to long-term integration.

Additionally, various research studies emphasize the importance of language acquisition for refugee integration (Due & Riggs, 2009; Riggs & Due, 2011; Taylor, 2008; Woods, 2009) as well as highlight the negative impact of inadequate language acquisition on social integration (Elmeroth, 2011; Grønseth, 2001, 2006; Karabacak, 2020). However, some studies approach this connection from a different perspective. They examine how social integration plays a crucial role in refugees learning and achieving fluency in the language of their host country (Keyes & Kane, 2004; Szuber, 2007).

Therefore, this paper examines the relationship between refugee children's social integration and foreign language difficulty as well as the effect of different legal settlements on children's social integration and language difficulties. To this end, we selected Lebanon and Australia, because they offer different legal settlements—short-term and long-term, respectively. This selection allows us to examine how different legal settlements and their accompanying education paradigms impact refugee students' integration and language difficulties. In this study, foreign language difficulties refer to the challenges that refugees face in understanding the language of instruction within educational settings (Alhallak, 2019; Dzhambulova et al., 2024), where the instruction language is not their native language. In Australia, the language of instruction coincides with the host country's primary language, English, which is foreign to the refugee students. Conversely, in Lebanon, the languages of instruction for subjects such as mathematics and science are English or French, which, while also being foreign to the refugee students, differ from the host country's primary language, Arabic. Moreover, the term integration or social integration refers to the process through which refugees establish meaningful connections within their host communities, gain access to social networks, and participate in social activities that foster a sense of belonging and mutual respect (Shaw & Wachter, 2022; Strang & Ager, 2010).

Beyond the methodological contribution of this paper, which utilizes a comparative and longitudinal approach spanning across both the Global South and the Global North (world's developed countries), our framework takes a holistic approach by simultaneously examining the micro, meso, and macro factors that impact the social integration of refugee children as well as their foreign language difficulties, which have been examined in previous research studies (Hammoud et al., 2022; Przytuła & Matusz, 2020; Skerrett, 2016). We consider the individual-level factors (micro), such as personal characteristics, household characteristics, and experiences, as well as the meso-level factors, which focus on school-level practices and provisions. Additionally, we explore the macro-level factors, including broader societal structures, policies, and cultural contexts that influence refugee children's integration process and language difficulties. By considering these multiple levels of analysis, we aim to provide a comprehensive understanding of the complex dynamics at play

in the integration experiences of refugee children and their foreign language difficulties. Our holistic approach was mainly inspired by Bronfenbrenner's Ecological Theory (1976), which suggests that children are embedded within their environment at various levels or ecosystems that interact and influence all aspects of their lives. These ecosystems encompass the child's immediate home environment which in this study is represented by the micro-level factors, extend to the school environment which we encompass by the meso-level factors, and ultimately encompass the broader societal and cultural context which we address through macro-level factors. According to Bronfenbrenner, these interconnected ecosystems play a vital role in shaping the experiences and development of children.

Education Paradigms

The humanitarian-led model, or EiE, is typically seen as a short-term approach as it is associated with emergency contexts. Under this model, refugees are expected to eventually return to their home countries after a certain duration as indicated by the Inter-Agency Network for Education in Emergencies (INEE, 2004). Education is a long-term structured process that shapes children's futures, while EiE is short-term oriented. Therefore, a contradiction exists between the objectives of education and humanitarian aid (Brun & Shuayb, 2020). Within the EiE framework, education is often limited to basic literacy since refugees' opportunities to continue their learning are largely constrained by factors such as legal barriers (Brun & Shuayb, 2020; Hammoud et al., 2022). Moreover, the educational policies for refugees in temporary settlements are usually more focused on short-term technical discussions regarding access to education and the choice of curriculum used. These are indeed crucial matters, but they overlook the long-term effects of education and their precarious future (Brun & Shuayb, 2023). Therefore, less than 10% of Syrian youths in Lebanon between the ages of 18 and 24 reach post-secondary education (El Ghali & Alameddine, 2019). Additionally, in many countries that offer temporary settlements, regulations limit the kind of jobs refugees can undertake, compelling them to find work in the informal labor market and accept less favorable employment conditions (Shuayb et al., 2021).

On the other hand, education for refugees under long-term resettlement involves a structured developmental approach aimed at their social and economic integration (Dryden-Peterson, 2016). The focus is not just on immediate needs but also on long-term academic and employment goals (Kanno & Varghese, 2010). Refugees are typically incorporated into the mainstream education system of the host country, thus ensuring their access to a more comprehensive and long-term educational trajectory (Dryden-Peterson, 2011). Such inclusion enables them to acquire the necessary skills and qualifications for better opportunities in the job market (Betts & Collier, 2017). However, it is important to acknowledge that the long-term resettlement approach may also present challenges. These challenges may include cultural and language barriers, systemic biases, or limited access to resources (Earnest et al., 2010). Despite these challenges, long-term resettlement education policies seem to offer refugee students a pathway toward a secure future (Dryden-Peterson, 2016).

The examination of refugee children's social integration and foreign language difficulty within the contrasting educational paradigms of the humanitarian-led model (EiE) and long-term resettlement presents a critical lens through which we plan to evaluate these approaches in the context of Lebanon and Australia. While the EiE model prioritizes immediate needs and basic literacy, it may not adequately equip refugee children for social integration and overcoming language barriers, especially under Lebanon's short-term legal settlements. On the other hand, Australia's long-term resettlement approach appears to facilitate children's social integration and language acquisition by integrating refugees into its mainstream education system which potentially enhances both social integration and language learning in the long run. The following section will provide an elaborate overview of each country's educational approaches and legal frameworks to highlight the contrasting methods of addressing the educational needs of Syrian refugees within their respective legal and social contexts.

Country Overview

We specifically selected Lebanon and Australia for this study because they provided refugees with different types of legal settlements and have distinct institutional arrangements for integrating refugee children into education and society. This selection allows us to examine and understand the influence of different legal settlements on refugee children's social integration and language difficulties.

Lebanon hosts over 1.5 million refugees, the highest number per capita globally (VASYR 2019), but has not signed the 1951 Geneva Convention or its 1967 Protocol (UNHCR, 2010). The Lebanese government continuously calls for international aid to repatriate refugees despite offers made to provide refugees with humanitarian support to improve their employability and education access (LCRP, 2015). Syrian refugees, however, lack pathways to permanent residency or citizenship. In 2014, the Lebanese government and UN agencies developed the Reaching All Children with Education (RACE) strategy, focusing more on enrollment than educational quality. RACE I, a temporary solution, faced challenges with outdated curriculums and language barriers in teaching, segregating refugee students into afternoon shifts. RACE II in 2016 sought to enhance the quality of education and update curriculums but ended up primarily serving Lebanese nationals. Despite these efforts, 40% of refugee children of school age in Lebanon never had the opportunity to receive any education (VASYR, 2022). In 2018, Australia granted residency to 12,706 Syrian refugees and ensured that all school-aged children were enrolled in government schools, adhering to state-managed education policies as per the Australian Education Act 2013. Education is compulsory for children aged 6 to 16, covering up to grade 12. Despite a national curriculum that emphasizes multicultural education and inclusivity, there is no overarching federal policy tailored specifically for refugees. States are responsible for refugee education policies, with programs like Victoria's RESP enhancing educational outcomes through a whole-school approach involving families and support services. Additionally, most Australian states and territories, including private and catholic schools, support refugees with the New Arrivals

Program which provides English language training for better curriculum access. Though specific enrollment data for Syrian refugees is scarce, they, like other permanent residents, have access to free public education and intensive language support, particularly crucial during the early years of resettlement. The curriculum and various programs aim to integrate refugee children by addressing their educational needs within a supportive multicultural framework, preparing them for successful academic and social integration in Australia (Collins et al., 2018; Maadad, 2018).

The objective of the country brief above is to illustrate how the educational model adopted by each country directly results from the legal status the host country provides to its refugees. Consequently, this study examines the effect of different legal settlements on children's social integration and language difficulties as well as the relationship between refugee children's social integration and foreign language difficulty, and in doing so, we aim to answer the following research questions:

1. How do different legal settlements and their corresponding education paradigms shape refugee children's social integration and language difficulties?
2. How does foreign language of instruction shape refugee children's social integration?
3. How does social integration shape refugee children's foreign language difficulties?

Data and Methodology

This study employed a quantitative research method based on longitudinal survey data. We formulated two models, the first being a probit model that assesses refugee children's integration within host communities and the second an ordered probit model which examines refugee children's difficulties in understanding the language of instruction within educational settings.

The panel data used in this study is based on a survey conducted as part of a study titled "Towards an Inclusive Education for Refugees: A Comparative Longitudinal Study" and funded by The Spencer Foundation. The survey was first introduced to middle school refugee students residing in Lebanon and Australia during the academic year 2018/2019. The same participants were surveyed again in the academic years 2019/2020 and 2020/2021. In year one, the survey was administered face-to-face, while in the second and third years, we resorted to online data collection due to the COVID-19 lockdown. The study specifically selected middle school refugee students to track their educational trajectories from middle school to secondary and post-secondary education over five years.

In Lebanon, we surveyed public school students enrolled in morning and afternoon shifts. In year 1, 247 refugee students from all eight districts and areas that are known to host the highest number of refugees participated in the survey. The study covered all eight governorates to reduce the sampling bias that could have resulted from the adoption of convenience sampling. The number of participants decreased to 167 and 134 in years 2 and 3, respectively. Therefore, our sample of refugees in Lebanon includes not only those who were privileged to access formal education but also those who were privileged enough to remain in school throughout the study.

Similarly, in Australia, in the first year, we targeted 341 refugee students enrolled in state, catholic, and independent schools located in nine different districts where most new refugee families resettled. The same 341 students participated in the second year, while only 335 students were surveyed in the third year, bringing the total number of observations size for both countries to 1565.

The survey administered in all three years included over 200 variables that cover micro (individual, household, parental characteristics), meso (school practices), and macro level (policies) factors that influence refugee children's schooling and living experiences. Following the data collection phase, the data was cleaned and analyzed using STATA version 16.1 (StataCorp LLC, College Station, TX, USA), which is commonly used as a statistical analysis tool. All researchers participating in this research obtained a certificate from the Collaborative Institutional Training Initiative (The CITI Program, 2018), a research ethics and compliance training program. Furthermore, since our participants were below 18, their legal guardian consent was sought first, and the names of all participants were anonymized to protect their identity. Finally, the researcher conducting the surveys would always ensure that a survey was carried out in private conditions, ensuring the safety of both the participant and the researcher.

The most recent Lebanese census dates back to 1932, and our access to public schools in Lebanon was limited to a list provided by the Ministry of Education and Higher Education (MEHE). Therefore, we used convenience sampling due to the lack of information and limited access to our target population. However, to reduce our sampling bias, we covered districts/states that host the highest refugee populations in urban and rural areas.

Variables

Two empirical models were used to answer the above research questions. The first empirical model included the dependent variable “feeling welcome” which was based on the following survey question:

1. Do you feel welcome in your current country of residence?

Hence, the first dependent variable was a dummy variable taking the value of one if the respondent was feeling welcome in the current country of residence and zero otherwise. This variable was used as a proxy for social integration since refugees who feel welcome in the host country have a higher tendency to be attached to their new country of residence and are more willing to follow social norms and engage in social life (Laurensyeva & Venturini, 2017). Some studies (Hammoud et al., 2022; Constant et al., 2023) also relied on self-identification proxy variables to capture the general idea of social integration. The second empirical model included the dependent variable “language comprehension difficulty,” which was a categorical dependent variable based on an equally weighted index we constructed by relying on the following three survey Likert scale questions:

1. Do you face difficulties understanding the language of instruction in foreign language classes (English, French)?
2. Do you face difficulties understanding the language of instruction in mathematics classes?
3. Do you face difficulties understanding the language of instruction in science classes (physics, chemistry, biology)?

The questions above were applicable to both contexts since mathematics and science subjects are taught in foreign languages in both countries; English is used in Australia while in Lebanon, these subjects are taught in English or French. The equation used for constructing the index is not unique. Preston and Colman (2000) used the same equation to rescale self-reported rankings into scores. The index is turned into a categorical dependent variable taking the value of (1) for low language comprehension difficulty, (2) for moderate language comprehension difficulty, and (3) for high language comprehension difficulty.

The two empirical models included four distinct groups of explanatory variables. The selected explanatory variables were aligned with Bronfenbrenner's Ecological Theory by incorporating individual and household factors at the micro-level, school factors at the meso-level, and country-specific influences at the macro-level. The first group on individual and household factors included a dummy variable for *gender* with a mean of 0.480, indicating that 48% of our respondents were males (Table 1). *Struggle to pay bills* was a categorical variable used as an indicator of the family's financial struggle. Our summary statistics revealed that 40% of children indicated that their families always struggled to pay their bills. In addition, we included a dummy variable for the *type of dwelling* with a mean of 0.732, indicating that 73% of our responses indicated living in a private apartment/house. Furthermore, *neighborhoods mostly displaced* was a categorical variable showing that 36% of our responses indicated residing in a neighborhood with mostly displaced people. Furthermore, *feeling welcome* was a dummy variable revealing that 79% of our responses indicated feeling welcome. In addition, *years in host country* was a continuous variable with a mean of 3.34, indicating that the average number of years spent by our respondents in their host country was 3.7 years.

The second group of explanatory variables on parental factors included two dummy variables for parents' education, indicating that 21% of our participants reported that their fathers have a post-secondary education, while only 13% reported that their mothers have a post-secondary education. Similarly, two dummy variables for parents' employment were included, indicating that 74% of our participants reported that their fathers were employed, while only 25% reported that their mothers were employed.

The third group of explanatory variables on school factors included the categorical variable *friendly teachers*, revealing that only 3.5% of our responses indicated that teachers were never friendly. Furthermore, *language comprehension difficulty* is a categorical variable revealing that 39% of our responses indicate facing high language comprehension difficulty. *Lebanon afternoon shift* and *Lebanon morning shift* were two dummy variables indicating that 28% of our responses were from students enrolled in Lebanon's segregated afternoon shift

Table 1 Summary statistics of variables

	Number of observations	Mean	Standard deviation
Individual and household factors			
Gender	1541	0.480	0.500
Struggle to pay bills: sometimes	1528	0.337	0.473
Struggle to pay bills: always	1528	0.399	0.490
Type of dwelling: private house/apartment	1565	0.732	0.443
Neighbors mostly displaced people: somewhat true	1520	0.253	0.435
Neighbors mostly displaced people: true	1520	0.363	0.481
Home country area of residence: city	1531	0.634	0.482
Feeling welcome	1491	0.791	0.407
Parental factors			
Father's education: post-secondary	1541	0.210	0.407
Mother's education: post-secondary	1540	0.125	0.330
Father's employment status: employed	1306	0.738	0.440
Mother's employment status: employed	1473	0.248	0.432
School factors			
Friendly teachers: sometimes	1520	0.195	0.396
Friendly teachers: never	1520	0.035	0.184
Language comprehension difficulty: moderate	1518	0.395	0.489
Language comprehension difficulty: high	1518	0.393	0.488
Lebanon afternoon shift	1565	0.281	0.449
Lebanon morning shift	1565	0.070	0.255
Country of residence			
Lebanon	1565	0.350	0.477

while only 7% of responses were from students enrolled in Lebanon's integrated morning shift. Finally, we included a country dummy for *Lebanon*, indicating that 35% of our responses were from Lebanon while the remaining 65% were from Australia, which were taken as a reference group.

Limitations

One of the main limitations of this study is the use of convenience sampling, which limits our ability to generalize our findings to our target population. Our choice for convenience sampling was driven by the fact that the last census in Lebanon dates back to 1932, and MEHE limited our access to public schools in Lebanon to a short list of schools that they selected. However, this did not prevent us from reducing our sampling bias by targeting districts/states that host the highest refugee populations in urban and rural areas.

Empirical Model

The two empirical models below were used to answer our three research questions. Both models were used to answer our first research question on the impact of different legal settlements on refugee children's social integration and language difficulties. Moreover, model one targeted our second research question, which examined how the foreign language of instruction shaped refugee children's social integration. Finally, model two targeted our third research question, examining how social integration shaped refugee children's foreign language comprehension difficulty.

Model one's dependent variable, "feeling welcome" was a dummy variable; therefore, we ran the below regression using a probit model.¹

$$\Pr(FW_{it} = 1) = \Phi(\beta_0 + \beta_1 IH_{it} + \beta_2 PF_{it} + \beta_3 SF_{it} + \beta_4 R_{it} + u_{it}) \quad (1)$$

We used the following probit observation rule:

$$FW = \begin{cases} 1 & \text{if the student is feeling welcome} \\ 0 & \text{if the student is not feeling welcome} \end{cases}$$

where FW_{it} is the response of our survey question: "Do you feel welcome in your current country of residence?" for individual i at time period t .

On the other hand, model two's dependent variable, "language comprehension difficulty" was a categorical variable; therefore, we ran the below regression using an ordered probit model.²

$$\Pr(LCD_{it} = 1, 2, 3) = \Phi(\beta_0 + \beta_1 IH_{it} + \beta_2 PF_{it} + \beta_3 SF_{it} + \beta_4 R_{it} + u_{it}) \quad (2)$$

We used the following probit observation rule:

$$LCD = \begin{cases} 1 & \text{if the student has low language comprehension difficulty} \\ 2 & \text{if the student has moderate language comprehension difficulty} \\ 3 & \text{if the student has high language comprehension difficulty} \end{cases}$$

where LCD_{it} represents the language comprehension difficulty for individual i at time period t . IH_{it} is the vector of variables representing individual and household factors for individual i at time period t . PF_{it} is the vector of variables representing parental factors for individual i at time period t . SF_{it} is a vector of variables representing school factors for individual i at time period t , and R_{it} is a vector representing the student's country of residence. Φ depicts the cumulative standard normal

¹ Probit model is a type of regression where the dependent variable can take only two values (Greene & Hensher, 2010).

² Ordered probit is a type of regression where the dependent variable is a categorical ordered variable i.e. can take more than two outcomes (Greene and Hensher, 2010).

distribution function. Finally, β_0 , β_1 , β_2 , β_3 , and β_4 are vectors of individual parameters to be estimated.

Models one and two are presented in Tables 2 and 3, respectively. We ran different specifications of the above models to observe how the significance of our micro-level factors changed as we controlled for meso-level factors. Similarly, these specifications allowed us to observe how the significance of variables changed after controlling for type of schooling and country of residence.

Empirical Findings

Given that this study was grounded in Bronfenbrenner's Ecological Theory, we presented our findings in alignment with the theory's three main levels. We began with the micro level in the first subsection and subsequently addressed the meso and macro levels in the following subsections.

Micro Determinants of Refugee Students' Social Integration and Language Difficulty

Our findings revealed that refugees who were segregated in neighborhoods with mostly refugees were less likely to feel welcome compared to refugees who shared their neighborhoods with nationals, at a 1% significance level. This reflects the importance of neighborhood integration for social integration, which is also consistent with other studies revealing that living and interacting with nationals facilitates refugees' cultural familiarization, and social integration (FRA, 2019). Furthermore, years of residence in the host country were also found to be a significant determinant of refugee children's social integration, where the longer refugee children resided in the host country, the more likely they were to feel welcome, at a 5% significance level. Serrano et al. (2012) and Miglietta and Tartaglia (2009) also argued that a longer stay in the host country lead to greater gains in foreign language skills and therefore higher integration levels among refugees. The financial struggle and economic hardship faced by Syrian refugees acted as a significant barrier to their access to education (HRW, 2015), which was the primary site of social inclusion (Block et al., 2014). While our current results showed no statistical significance of socioeconomic factors such as financial struggle and type of dwelling, our previous study (conducted in year 1) on social integration (Hammoud et al., 2022) had revealed significant outcomes. However, the previously conducted study was based on a cross-sectional dataset. Therefore, the lack of significance for those factors in our current study could indicate that after spending several years in the host country, those factors become weaker determinants of social integration.

Parental factors were also found to be crucial determinants of social integration, mainly parental employment, where refugees who reported that their father and mother were employed were more likely to feel welcome in their country of residence, at a 1% and 5% significance level, respectively. This is consistent with our *a priori* expectations since children coming from a working-class are more likely

Table 2 Determinants of feeling welcome (probit model)

	(1)	(2)	(3)	(4)
Individual and household factors	Coef	Coef	Coef	Coef
Gender	0.081 (0.240)	0.119 (0.240)	0.027 (0.244)	0.035 (0.245)
Struggle to pay bills: sometimes	0.040 (0.239)	0.208 (0.246)	0.265 (0.249)	0.275 (0.249)
Struggle to pay bills: always	−0.560** (0.234)	−0.464** (0.236)	−0.230 (0.245)	−0.234 (0.245)
Type of dwelling: private house/apartment	0.106 (0.213)	−0.027 (0.221)	0.114 (0.225)	0.103 (0.226)
Neighbors mostly displaced people: somewhat true	0.133 (0.234)	0.084 (0.238)	0.062 (0.240)	0.046 (0.240)
Neighbors mostly displaced people: true	−0.730*** (0.203)	−0.699*** (0.204)	−0.622*** (0.207)	−0.637*** (0.207)
Years in host country	−0.015 (0.042)	−0.003 (0.043)	0.178** (0.083)	0.201** (0.082)
Parental factors				
Father's education: post-secondary	0.667* (0.350)	0.554 (0.347)	0.341 (0.353)	0.325 (0.353)
Mother's education: post-secondary	0.294 (0.423)	0.297 (0.420)	0.388 (0.429)	0.403 (0.429)
Father's employment status: employed	0.543** (0.223)	0.545** (0.227)	0.696*** (0.234)	0.703*** (0.235)
Mother's employment status: employed	0.719*** (0.234)	0.750*** (0.242)	0.581** (0.247)	0.586** (0.248)
School factors				
Friendly teachers: sometimes		−0.350 (0.219)	−0.361 (0.219)	−0.358 (0.220)
Friendly teachers: never		−0.876** (0.415)	−0.716* (0.419)	−0.736* (0.418)
Language comprehension difficulty: moderate		−0.568** (0.263)	−0.565** (0.265)	−0.558** (0.264)
Language comprehension difficulty: high		−0.633** (0.275)	−0.692** (0.279)	−0.676** (0.278)
Lebanon afternoon shift			−1.723*** (0.516)	
Lebanon morning shift			−1.182* (0.694)	
Country of residence				
Lebanon				−1.738*** (0.521)
Observations	1,148	1,129	1,129	1,129

Standard errors in parentheses. Statistical significance *** $p < 0.01$.; ** $p < 0.05$; * $p < 0.1$

Table 3 Determinants of language comprehension difficulty (ordered probit model)

	(1)	(2)	(3)	(4)
Individual and household factors				
Gender	−0.059 (0.089)	−0.051 (0.089)	−0.072 (0.089)	−0.074 (0.089)
Struggle to pay bills: sometimes	0.469*** (0.098)	0.481*** (0.099)	0.511*** (0.099)	0.510*** (0.099)
Struggle to pay bills: always	0.430*** (0.098)	0.432*** (0.098)	0.516*** (0.103)	0.518*** (0.103)
Type of dwelling: private house/apartment	−0.513*** (0.093)	−0.515*** (0.094)	−0.474*** (0.095)	−0.474*** (0.095)
Neighbors mostly displaced people: somewhat true	−0.257*** (0.094)	−0.267*** (0.094)	−0.289*** (0.094)	−0.288*** (0.094)
Neighbors mostly displaced people: true	0.140 (0.089)	0.136 (0.089)	0.147 (0.090)	0.151* (0.089)
Years in host country	−0.074*** (0.015)	−0.073*** (0.015)	−0.030 (0.021)	−0.032 (0.020)
Feeling welcome	−0.263*** (0.099)	−0.248** (0.100)	−0.272*** (0.100)	−0.273*** (0.100)
Parental factors				
Father's education: post-secondary	−0.153 (0.125)	−0.154 (0.125)	−0.211* (0.126)	−0.211* (0.126)
Mother's education: post-secondary	−0.044 (0.157)	−0.054 (0.157)	−0.054 (0.156)	−0.054 (0.156)
School factors				
Friendly teachers: sometimes		0.106 (0.094)	0.097 (0.094)	0.098 (0.094)
Friendly teachers: never		0.174 (0.198)	0.203 (0.198)	0.205 (0.198)
Lebanon afternoon shift			−0.406*** (0.146)	
Lebanon morning shift			−0.494** (0.217)	
Country of residence				
Lebanon				−0.414*** (0.145)
Observations	1,388	1,382	1,382	1,382

Standard errors in parentheses. Statistical significance *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

to socially integrate as they tend to participate in their parents' social interactions (Vinck & Lancker, 2020). It is worth mentioning that in year 1's study (Hammoud et al., 2022), mothers' employment status was not a significant determinant of

social integration. However, we attribute the change in its significance mainly to the increase in the percentage of working mothers over the years rather than the impact of time on this variable.

Moving to the micro-level determinants of language comprehension difficulty, our results revealed that refugee children who reported always struggling to pay their bills were more likely to face language comprehension difficulty at a 1% significance level. On the other hand, refugees residing in a private house or an apartment were less likely to face language comprehension difficulty compared to refugees living in a shared house or an apartment, at a 1% significance level. Neighborhood segregation was also found to be a significant determinant of language comprehension difficulty, where refugee children who reported living in neighborhoods with mostly displaced people were more likely to face language comprehension difficulty than refugees residing among local communities, at a 10% significance level. This reflects the importance of neighborhood integration for language acquisition, which was also consistent with other studies revealing that living and interacting with nationals facilitated refugees' language acquisition (FRA, 2019). Moreover, refugees who reported that their fathers had obtained a post-secondary education were less likely to face high language comprehension, at a 10% significance level.

Finally, refugees who reported feeling welcome in the host country were less likely to face high language comprehension difficulty compared to refugees who reported not feeling welcome, at a 1% significance level. This finding aligns with previous research findings that examined how social integration played a crucial role in refugees learning and achieving fluency in the language of their host country (Keyes & Kane, 2004; Szuber, 2007). Therefore, this finding answers one of our main research questions on the impact of social integration on language difficulty. Since we considered language difficulty a meso-level factor, the relationship between language difficulty and social integration will be more fully examined after we reveal the impact of language difficulty on social integration in the following section, where we probe into the meso-level determinants of social integration and language difficulty.

Meso Determinants of Refugee Students' Social Integration and Language Difficulty

The integration of refugee children can be greatly influenced by their foreign language proficiency, which can either facilitate or hinder their integration process. Language skills play a critical role not only in academic success but also in fostering a sense of belonging for students with refugee backgrounds within the school environment (Cerna, 2019). In addition, various research studies emphasize the importance of language acquisition for refugee integration (Due & Riggs, 2009; Riggs & Due, 2011; Taylor, 2008; Woods, 2009) as well as highlight the negative impact of inadequate language acquisition on social integration (Elmeroth, 2011; Grønseth, 2001, 2006; Karabacak, 2020). At the meso-level, our results revealed that refugees who reported facing high language comprehension difficulty were less likely to feel welcome in the host country compared to refugees who reported facing low

language comprehension difficulty, at a 5% significance level. Therefore, this outcome demonstrated the full picture of the relationship between social integration and language difficulty. So far, we found that refugees who felt welcome were less likely to face language comprehension difficulty, and refugees who faced higher language comprehension difficulty were less likely to feel welcome.

In addition, refugees who reported that their teachers were never friendly were less likely to feel welcome compared to those who reported that their teachers were always friendly, at a 5% significance level. This was in line with previous research findings since schoolteachers and staff support at the school level was essential for providing a peaceful and friendly school environment that strengthens inclusive school and social integration (Pugh et al., 2012). Moreover, our results indicated that refugee children in both Lebanon's segregated afternoon shift and afternoon shifts were less likely to feel welcome compared to refugees in Australia. However, the former had a stronger magnitude and significance than the latter. This showed the importance of school integration as a determinant for social integration, which was highlighted by year 1's study (Hammoud et al., 2022) and still holds true over time, as revealed in our current study.

Moving to the meso-level determinants of language comprehension difficulty, our results showed that refugee children enrolled in both Lebanon's segregated afternoon shift and afternoon shifts were less likely to face language comprehension difficulty compared to refugees in Australia. However, the former had a stronger magnitude and significance than the latter. This finding highlighted the importance of the special education provision that helped students overcome the language barrier in segregated shifts, knowing that the implementation of such provisions is mostly feasible in segregated shifts. However, while school segregation policies allow for the implementation of special provisions that might help students overcome the language barrier in the short term (Shuayb et al., 2022), they cannot be seen as a sustainable approach for long-term social and economic integration goals. For instance, according to Shuayb et al. (2023b), children enrolled in Lebanon's afternoon shift faced increasing hostility from nationals due to their educational and social segregation (Shuayb et al., 2022). We also found that the relationship between students and teachers was not a significant determinant of refugee children's language comprehension difficulty, despite being significant in year 1's study (Hammoud et al., 2022). Thus, this finding demonstrated that the significant impact of this relationship might only be limited to the early years of schooling.

Macro Determinants of Refugee Students' Social Integration and Language Difficulty

At the macro level, our results revealed that students in Lebanon were less likely to feel welcome compared to refugee students in Australia. Also, refugee students in Lebanon were less likely to face high language comprehension difficulty compared to refugee students in Australia. Therefore, despite observing a negative association between social integration and language difficulty at the meso-level, refugees in Lebanon still reported lower integration levels, even though they faced lower language

comprehension difficulties. Therefore, social integration is not only determined by meso-level factors such as type of schooling and language difficulties, and we cannot overlook other important micro and meso factors which are greatly shaped by macro-level policies and which have been previously highlighted by numerous studies (Cerna, 2019; Block et al., 2014; Shuayb et al., 2022; Shuayb et al., 2023b; Hutcheson & Jeffers, 2012; Keddie, 2010). In the remaining parts of this section, we will examine the importance of macro-level policies in shaping some of the micro- and meso-level factors that were found significant in our regression findings. This examination will further highlight key differences between policies implemented under the emergency and long-term models and address our first research question by showing how different legal settlements and their corresponding education paradigms shape refugee children's social integration and language difficulties.

Parents' employment, which was found to be a significant determinant of social integration, is greatly dictated by work restrictions and residency conditions, both are less restricted in Australia. On the other hand, refugees in Lebanon face tight restrictions on residency and work permits, which prevent them from legally joining the labor market, to shorten their residency period in the country (Kikano et al., 2021).

Moreover, neighborhood segregation is another factor that was found to be a significant determinant of social integration and language difficulty. Some studies (Shuayb et al., 2023b; Brun & Shuayb, 2020) have reported negative attitudes towards refugees in Lebanon within neighborhoods and society which blame refugees for the ongoing financial and social crisis. At the same time, Shuayb et al. (2023b) showed that refugees in Lebanon face higher hostility and discrimination levels from their neighbors compared to refugees in Australia. In addition, macro-level policies implemented by the Lebanese government in the form of school segregation and the continuous calls for repatriation further intensify public rejection of their presence. Moreover, according to a UNHCR (2020) report, a total of 328 municipalities imposed curfews on Syrian refugees, with many still being enforced to this day. These curfews led to further mobility restrictions and increased the isolation of refugees within their host communities.

Finally, while school segregation policies allow for the implementation of special provisions that might help students overcome the language barrier in the short term (Shuayb et al., 2022), they cannot be seen as a sustainable approach for long-term social and economic integration goals. For instance, according to Shuayb et al. (2023b), children enrolled in Lebanon's afternoon shift faced increasing hostility from nationals due to their educational and social segregation and were less likely to feel welcomed in Lebanon compared to students enrolled in the morning shift (Shuayb et al., 2022). On the other end, hostility rates against refugees in Australia continue to decrease due to policies promoting educational, economic, and social integration (Shuayb et al., 2023b). Moreover, segregating refugees puts them at the risk of isolation during new emerging crises, especially in a weak host state that can barely provide for its nationals. This is evident in Lebanon's case, where during COVID-19, children in the afternoon shift had no access to online learning, further intensifying their learning inequalities (Hammoud & Shuayb, 2021).

Based on the results of our study, it is evident that successful social integration of refugee students in the host country requires comprehensive efforts across multiple levels. It necessitates the creation of inclusive educational environments, inclusive policies, and community-level efforts to foster a sense of belonging while also focusing on reducing language comprehension difficulties among refugee students. Therefore, our findings are consistent with both the Comparative Integration Theory and Bronfenbrenner's Ecosystem Theory. They enrich the former by demonstrating how social integration and the sense of belonging to a host country's community are closely tied to the prevailing integration context, which, according to our results, vary greatly between EiE and the long-term model of refugee education. Similarly, they complement the latter by revealing how micro, meso, and macro-level factors—the personal, institutional, and broader social influences intersect—shaping refugee children's social integration and language difficulties.

Conclusions

This paper examines the relationship between refugee children's social integration and foreign language difficulty and the effect of different legal settlements and their accompanying education paradigms on refugee children's social integration and language difficulties in Lebanon and Australia, which provide refugees with short-term and long-term legal settlements. This study is based on a longitudinal survey of students carried out from 2018 to 2021, involving a total of 1565 observations.

Our comprehensive analysis of micro, meso, and macro-level factors revealed significant insights regarding refugee children's social integration and language comprehension difficulties. At the micro level, factors such as parental employment and years of residence in the host country play a significant role in shaping children's social integration. As for foreign language difficulty, factors such as neighborhood segregation and financial struggle were found to be significant. In addition, our study further emphasized the interplay between social integration and language comprehension difficulty and highlighted their reciprocal influence. Refugees who experienced greater acceptance in their host country were less likely to encounter high language difficulties, and those who struggled significantly with language were less likely to feel integrated into their host country.

At the meso level, our analysis revealed critical insights about the impact of school practices and class experiences on refugee students' schooling experiences. Notably, refugees enrolled in segregated shifts in Lebanon felt less integrated than those in Australia. It also appeared that certain factors, such as student-teacher relationships, had diminishing significance over time, despite being significant in the early years of resettlement (Hammoud & Shuayb, 2021).

Our findings also underline some of the key factors greatly shaped by the legal settlement. Factors such as parents' employment status, neighborhood segregation, and school segregation are by-products of macro-level policies. Likewise, neighborhood segregation and attitudes toward refugees have been driven by macro-level policies of exclusion and their respective societal responses. Thus, the results highlight the complex interplay of these factors, emphasizing the need for holistic and

context-specific policies that prioritize long-term social and economic integration goals for refugee students.

This study contributes to existing literature by employing a comparative and longitudinal approach across the Global South and North. The holistic framework used in this study examined the interplay of micro, meso, and macro factors impacting the social integration and foreign language difficulties of refugee children, which provided a comprehensive understanding of the complex dynamics at play in the integration experiences of refugee children and their foreign language difficulties.

The findings of this study highlight the necessity for future research to further explore the distinct yet interconnected factors influencing the experiences of refugee students. It also highlights the need to develop multi-level policies and approaches to support refugee children's long-term resettlement and integration goals.

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Data Availability The data used in this article is available upon request at info@lebanesestudies.com.

Declarations

Conflict of Interest The author declares no competing interests.

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