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# A Comparative Longitudinal Study of Refugee Children's Schooling in Lebanon, Turkey, and Australia

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# Executive Summary

This report compares refugee children's schooling programmes in Lebanon, Turkey, and Australia, offering short-term, medium-term, and long-term legal settlements. We are interested in exploring how policies implemented in emergency settings versus those applied in long-term or permanent settlements influence education provisions and interventions, which consequently shape refugee children's schooling experiences, outcomes, and the possibility of integrating refugees into mainstream education. The longitudinal data analyzed in this study is limited to the data we collected during the academic years 2018-2019 (wave 1) and 2019-2020 (wave 2). The analysis includes 1,298 and 919 student surveys collected during the academic years 2018-2019 and 2019-2020, respectively. In addition, we analyzed qualitative interviews and focus groups conducted with parents (30 interviews and 32 focus groups), teachers (60 interviews and 12 focus groups), and principals (24 interviews) during the academic year 2018-2019.

This report reveals that students residing in Lebanon (emergency/short paradigm) and Turkey (medium-term paradigm) have better schooling performance experiences and face less language difficulties than students residing in Australia (long-term paradigm). These results were observed in both the segregated learning and schooling systems present in Lebanon and Turkey. We have also observed that although refugee students' schooling outcomes are the worst under the long-term model, particularly in wave 1 (2018-2019), their outcomes have greatly improved over time, indicating that the long-term paradigm might yield better outcomes in the long run. Furthermore, our results revealed that although school segregation produces better schooling outcomes in the short run, it often leaves refugee children socially excluded and not feeling welcomed in the host country. Below we provide an overview of the key findings.

### Schooling Performance

The study reveals that refugee children enrolled in segregated schools have the highest schooling performance for both academic years, with refugee children in Turkish Temporary Education Centers (TECs) significantly outperforming their peers enrolled in other school types. Students' performance was the lowest in integrated schools in Turkey and Australia, where they are taught in a language different from their native one. Although refugee children in Australia have the lowest schooling performance among all school groups, their schooling performance has significantly improved from wave one to wave two of the study, indicating that school integration might be paying off in the long run. Our qualitative data show that special education provisions in segregated schools are conducive for refugee students' learning, whereby students are more comfortable learning using their native language or by teachers who speak their native language and belong to the same community. On the other hand, students in segregated schools found difficulty expressing learning challenges when only a foreign language was used in class.

### Schooling Experience

Results on refugee children's schooling experience and schooling performance are very much alike for both academic years. Refugee children enrolled in segregated learning spaces and schools have the most satisfying schooling experience compared to refugee children enrolled in Turkish and Australian integrated schools. However, in Lebanon, we did

not observe any significant difference in refugee children's schooling experience between the Lebanese morning shift (integrated system) and afternoon shift (segregated system). Over time, we also observed some improvement in the schooling experience of refugee children in Lebanon. However, a more significant improvement in the schooling experience of refugee children enrolled in Australia. Furthermore, our qualitative data revealed that refugee students' positive experience was determined by their ability to interact in class and understand their teachers' language of instruction. This was mainly true in Lebanon's and Turkey's segregated school systems, where the in-class language was the same as their native language.

### Language Comprehension Difficulty

Language comprehension difficulty was lower in Lebanon and Turkey's segregated schools than integrated schools in all three countries. According to our qualitative analysis, this could be due to the alternative teaching methods and the use of refugees' native language to explain concepts that are difficult to understand in a foreign language and the teaching methods that are only feasible in segregated schools. We also found that refugees with the lowest language comprehension difficulty have the highest schooling performance and satisfying experience. On the other hand, refugee children facing high language comprehension difficulties also have low schooling performance and unsatisfying experiences. Furthermore, our quantitative data also revealed that language comprehension difficulty had not changed much between waves one and two for refugee students in Lebanon and Australia.

### Social Integration

Refugee children integrated into mainstream schooling feel more welcome in their current country of residence than refugee children enrolled in segregated schools. Besides, we found that segregated students in Lebanon's afternoon shift have the lowest social integration levels compared to other school types. The impact of school type on social integration was more prominent in the case of Lebanon, where we observe a significant difference between the level of integration of refugee students enrolled in the morning shift compared to the afternoon shift. In contrast, the impact of school type was not as significant in the case of Turkey, where we observe very little difference in social integration levels between TECs and public schools. Moreover, social integration has improved between waves one and two in Lebanon and Australia. Our qualitative data revealed that school integration was crucial for social integration. School integration promotes positive relationships between refugee and national students, which helps refugee children feel integrated within their host community. Similarly, our analysis revealed that although school integration poses language-related difficulties for integration, language acquisition was facilitated by the interaction between nationals and refugees.

While the impact of the legal status and opportunities available for refugees post-schooling might be too early to realise at this stage of the study for our surveyed sample, by looking at the enrollment and retention rates, it appears that the emergency paradigm adopted in Lebanon yields the lowest results as the vast majority of children either never enroll in education or drop out before grade 9. Although, in the long run, the emergency model appears to perform worse than the medium- and long-term paradigms, children in the former model, reported better schooling experiences compared to their peers in the latter. Our findings highlight the importance of a gradual transition to the mainstreaming of newly arrived refugees. Language of instructions appeared to play a key role in shaping

the schooling experiences of refugees. Besides, refugees taught by a teacher whose language and background are relatable to the students make the schooling experience and learning much smoother and more accessible. This gradual transition witnessed in Turkey seems to help sustain school retention and prepare refugee students to be enrolled in mainstream schools alongside their Turkish peers. While sudden integration into a language of instruction completely different from the refugees' native language promotes a major challenge for refugees, the language barrier lessened gradually. However, the long-term impact of this transition will be further realized in wave 3. Despite the advantage of classroom segregation for refugees in terms of the language of instructions, it had a negative impact on the societal integration of refugee children who were less likely to be exposed and integrated into the host community. Our results highlight the need to further interrogate the viability of the growing shift to integrate refugees in the mainstream education provisions of the host country without further interrogating the impact of the legal rights granted to refugees post-schooling and how this shapes their future prospects and investment in schooling. The long-term impact of different paradigms needs further interrogation and research evidence.

# Introduction

Interest and research on the education of refugee children proliferated considerably over the past decade, partially due to the immaculate scale of the Syrian refugee crisis. Education has increasingly become part of humanitarian response, evident in the increasing role of UNHCR and other UN agencies in supporting the education of refugee children (UNHCR 2019). While this is undoubtedly a positive development, the education attainment of refugee children continues to be relatively low. According to UNHCR, 32% of refugee children were not attending primary school programs, and at least 66% of adolescents were not attending secondary school (UNHCR, 2021).

The humanitarian approach has heavily dominated the discourse, policies, strategies, and education provisions for refugee children, particularly in the global south. This is most evident in the Education in Emergency framework, which is embedded in the humanitarian paradigm (INEE 2010). However, the tensions between education and humanitarianism are often unexamined. In many ways, education and humanitarianism are almost two oxymoron concepts. Humanitarianism is concerned with saving lives and providing basic needs. Its temporary and short-term vision focuses on the present rather than the future.

On the other hand, education is a long-term planned process concerned with preparing children for the future (Brun and Shuayb, 2020). In non-displacement settings, national education policies are occupied with the long-term vision and purpose of education, be it the job market, nation-building, or the self-actualization of the individuals. On the other hand, humanitarian education is not concerned with the long-term vision or mission. The tensions between education and humanitarianism and their differing aims often surface in discussions around the language of teaching, the accreditation and certification of learning, who should offer this education, the role of the hosting state versus humanitarian agencies.

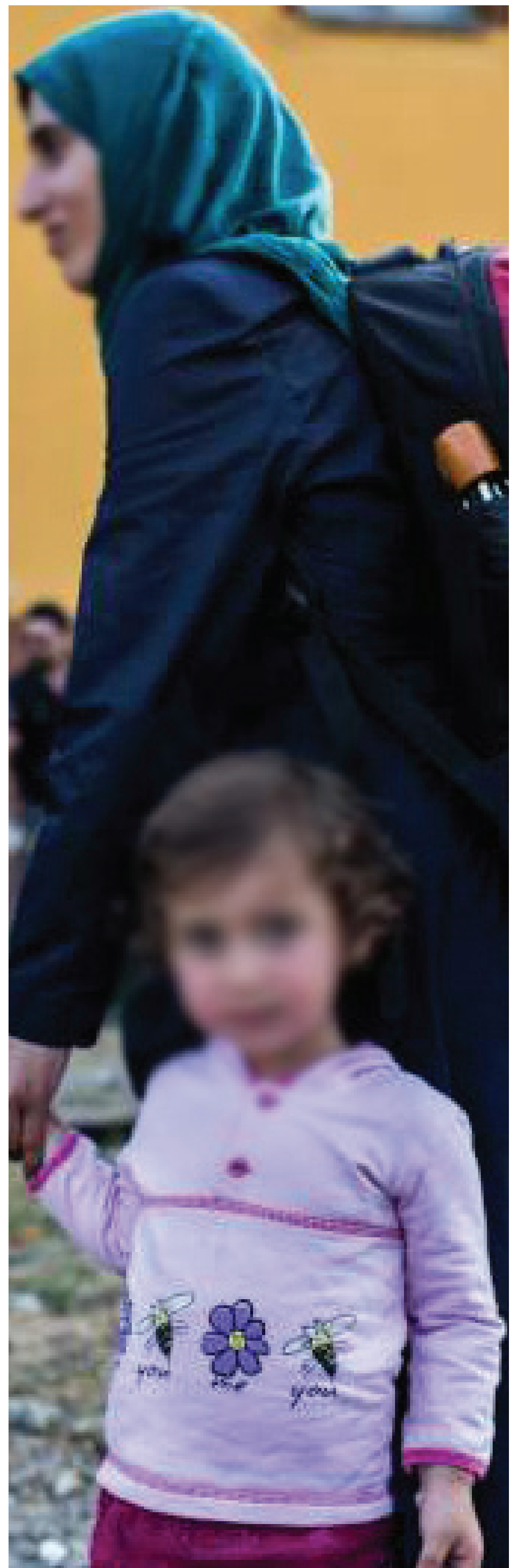
On the other hand, provisions implemented in countries of final destination where refugees are offered longer-term or permanent settlements are part of a longer time frame that aims to prepare children for the future. What is evident in the literature on refugee education is the complete dichotomy between the research in these two settings (Shuayb and Crul, 2020). The global north-south division seems to extend to the research, thinking, theorization, and understanding of refugees' schooling and learning experiences under the short-term, medium-term, and long-term models. While research on the education of refugee children proliferated in the last eight years, comparative research is beginning to emerge (Shuayb and Crul, 2020). However, there is still a paucity of comparative research that simultaneously examines policies and practices in countries in the global north and south. We often see the literature on refugee education from the global south that focusing on the education part of humanitarian responses or on how refugee children are accommodated in schools, while in the global north it is seen as part of a long-term settlement. Nevertheless, both contexts offer very different education modalities that are often strongly related to type of legal settlement and response.

An overview of the education provision of refugee children in both global north and south yield two different modalities; the first is so-called "Education in Emergency," where education is part of a larger humanitarian response in host countries in the global south. Therefore, refugees are offered a temporary settlement either in camps or gatherings and, in most cases, struggle socioeconomically. The second approach is present mainly in developed countries where refugees are resettled either permanently or for a specified amount of time by the state itself, often depending on the conflict in the country of origin. Hence the policies and practices are not implemented by humanitarian agencies and aim at

integrating refugee children into mainstream education. These different approaches to the education of refugee children can help us unpack the conditions and factors that might affect their enrollment and attainment and further understand the impact of legal settlement on education outcomes.

This study examines how the schooling of refugee children differs between the Education in Emergency and long-term education paradigms. Specifically, we unpack differences in the schooling of refugee children under temporary asylum versus permanent resettlement. We target Arabic-speaking refugee children who fled the Middle East and North Africa and enrolled in formal education for three to four years in Lebanon, Turkey, or Australia. The study investigates the various existing education provisions (including curriculum policies, the language of instruction, class practices, school environment, and relationships). We gathered quantitative and qualitative data to compare the schooling performance, experiences, language comprehension difficulty, and social integration of refugee students between the selected destination countries, offering short-term, medium-term, and long-term settlements. Our quantitative data analysis are based on 1,298 refugee student surveys from wave one and 919 refugee student survey from wave two. The data was used to construct indices for schooling performance, schooling experience, and language comprehension difficulty. On the other hand, our qualitative data are based on 114 face-to-face interviews and 44 focus group discussions with parents, teachers, and school principals. Interviews were coded, and then the coded data were analyzed using thematic analysis.

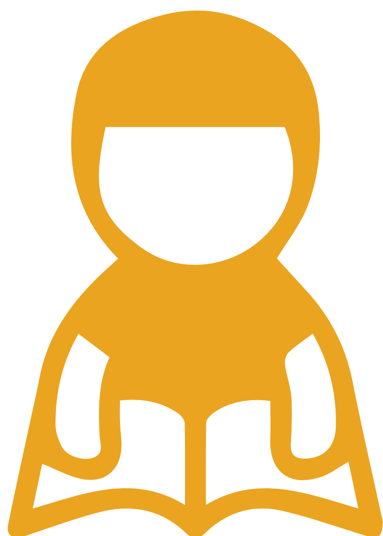
This report consists of four chapters. It commences with an overview and comparison of the education provisions and policies for the schooling of refugee children in the three selected studies. In chapter two, we explain our research methodology, including the instruments used, the sampling frame, data analysis, and limitations of the study. The findings of the results are presented in chapter three, followed by the conclusion in chapter four.



# Chapter One

## A Comparative Country Overview of Education Policies and Provisions for Refugee Children

This chapter provides a brief comparative overview of the provisions and practices implemented by our selected countries. Specifically, we show how policies that shape refugee children's schooling and integration differ based on the types of legal settlements offered by the host country.



### Education response for Syrian refugee children in Lebanon

Lebanon currently hosts around 1.3 million Syrians, about a quarter of the Lebanese population (6.826 million in 2020) (World Bank, 2020). Nevertheless, Lebanon is not a signatory of the 1951 Convention Relating to the Status of Refugees nor its 1967 Protocol. Hence, it does not consider itself an asylum country nor a final destination for refugees (LCRP, 2015). The Government of Lebanon generally advocates the repatriation and "safe and dignified return" of Syrian refugees as soon as possible. However, following the Syrian crisis, efforts were made toward providing humanitarian aid and basic support, increasing the employability of refugees, and granting them access to education that is certified in Lebanon and other countries (LCRP 2015).

At the beginning of the Syrian crisis, the UN, in collaboration with NGOs, developed the Regional Response Plan (RRP) to organize the education of Syrian refugees in Lebanon. In 2014, the Lebanese government and MEHE took the lead in introducing the Reaching All Children in Education (RACE I) initiative (MEHE, 2014). Hence, starting 2015, all the work of NGOs was discontinued, only to be taken over by the government. RACE I aimed to ensure equitable access to educational opportunities; improve the quality of learning and teaching; and strengthen national policies, educational system, and monitoring and evaluation (MEHE 2014, 2016). The program aspired to reach 200,000 refugee children in formal education. However, to absorb the total number of school-aged refugee children, MEHE needed to at least triple its capacity, which was not possible. Inspired by the increased rate of enrolment of Lebanese children into public schools compared to pre-crisis levels and the acquisition of more than 42% of compulsory school-age refugee children of education, RACE II was developed (MEHE, 2016). RACE II, a five-year-long sequel to RACE I, envisaged a more strategic approach with a greater affinity to the notions of and references to 'development' and 'stabilization' (MEHE, 2016). However, references to secondary and higher education across the two strategies, RACE I and II, were very few, reflecting a lack of vision of the future of refugees.

*Table 1. Number of enrolled Syrians in morning and afternoon shifts 2011 - 2019*

| Number of enrolled students | Morning shift | Afternoon shift | Total |
|---|---|---|---|
| 2011-2012 | 3,000 | - | |
| 2012-2013 | 29.300 | - | 29.300 |
| 2013-2014 | 58,360 | 29,902 | 88,000 |
| 2014-2015 | 44,490 | 59,024 | 101,514 |
| 2015-2016 | 63,914 | 85,804 | 149,718 |
| 2016-2017[1] | 67,198 | 124,140 | 191,338 |
| 2017-2018[2] | 59,149 | 154,209 | 213,358 |
| 2018-2019[3] | 52,775 | 153,286 | 206,061 |

One of the most prominent decisions was the separation of Syrians from their Lebanese peers in public schools into afternoon shifts. According to MEHE, segregation was necessary due to the high number of students and the language barrier; Syrian students often struggle with lessons taught in English and French in Lebanon (notably mathematics and sciences). In the second shift, Syrian students were taught using the Lebanese national curriculum by contractual teachers (some of whom were inexperienced or underqualified), which threatened the quality of education (LCRP, 2018). Furthermore, second-shift schools only open when there is a minimum of 20 students in the classroom, which is a condition that renders the continuity of this program questionable, mainly because with higher grade levels, dropout rates are high among Syrian refugees (Carlier, 2018).

Numerous barriers prevent Syrian students in the second shift from accessing quality education. These barriers include poverty which increases the opportunity cost of attending school and forces children into the informal work market. In addition, lack of space in public schools, difficulties in transitioning to the Lebanese curriculum and the different languages of instruction used, and bureaucratic barriers that greatly complicate enrollment and registration processes are among the main challenges refugee students face in Lebanon. According to the latest UNHCR figures, over half of the school-aged Syrian children in Lebanon are out of school (UNHCR, 2021). Furthermore, 45% to 55% of Syrian children are currently out of school, with 30,000 students identified as dropouts during the academic year 2019-2020. Besides, a recent study conducted by the Centre for Lebanese Studies reveals that 43% of refugee students enrolled in public school's afternoon shift dropped out (Hammoud and Shuayb, 2021).

*RACE II (2017). Note that another report from the same source dating July 2018 states that enrollment rate in afternoon shift in 2016/2017 was only 124 000 (Race II 2018).*
*RACE II (2018)*
*RACE II (2019)*

## Education response for Syrian refugee children in Turkey

Turkey is a party to the 1951 Refugee Convention and 1967 Protocol. However, it maintains the geographical limitation to the 1951 Convention, thus retaining resettlement to a third country as the most preferred long-term solution for refugees arriving due to events outside of Europe (UNHCR, 2019). Turkey hosts over 3.5 million registered Syrian refugees (UNHCR, 2021). In 2013, the Turkish government endorsed Turkey's first asylum law, the Law on Foreigners and International Protection, later enforced in 2014. The Law established the basis of Turkey's asylum system and designated the Directorate General of Migration Management (DGMM) as the primary unit responsible for policymaking and proceedings for all foreigners in Turkey. In the same year, Turkey also adopted the Temporary Protection Regulation, which determines the rights, obligations, and procedures for those granted temporary protection in Turkey (UNHCR, 2019). The educational system had to absorb over 1 million new students on top of the 13.5 million students already attending schools. Currently, over 630,000 Syrian children are enrolled in education in Turkey (UNICEF, 2019). Hence, we can say the education response paradigm in Turkey is gradually shifting from an emergency one that is of longer-term nature.

In reference to the education policies, a "regulation for foreign students" was issued in 2010 before the first Syrian refugees arrived in Turkey. The government regulation provided some general rights for foreigners regarding registration and support for schooling. For example, what are known as Temporary Education Centers (TEC) became prevalent among Syrians. Also, the Ministry of Education (MoE) warranted private entrepreneurs to open schools and even allocated some schools to give education to refugee children after local students were finished for the day. Apart from local public schools, Turkey's local government authorities allowed people to conduct learning and schooling activities in private places (rented) or municipal properties. Government regulations in 2014 ordered local agencies of the MoE to take administrative control of all TECs and governorships in consultation with the MoE. Turkish principals and teachers were appointed to the schools, and each school was administered by one Syrian and Turkish director. The local MoE employed Syrian teachers who worked voluntarily and, in some cases, paid jobs. Another regulation in 2014 indicated switching education policies from temporary to facilitate refugee children's integration into the country's education system. Therefore, in 2016, the Turkish government announced closing all TECs and integrating all refugee children into mainstream education over five years.

Around half of the Syrian refugee children were enrolled in TECs, while half attended public schools. Although TECs segregated refugee students educationally, it allowed for special education provisions. For instance, students were taught by Syrian teachers who share the same language and culture. Furthermore, segregation made it possible for TECs to use an almost identical curriculum to that used in their home country. Knowing that refugee children will eventually be integrated into mainstream education, TECs provided refugee students with some hours of Turkish language training that will later facilitate their transition to public schools. Similarly, Turkish public schools provided refugee students with counseling services that would assist students in overcoming educational challenges.

## Education response for Syrian refugee children in Australia

Australia is a party to the 1951 Refugee Convention and the 1967 Protocol (UNHCR, 2019) and has offered resettlement for 12,000 refugees (UNHCR, 2018). Syrian refugees can acquire a permanent residency in Australia by applying through the Offshore Refugee and Humanitarian Settlement Scheme (Department of Home Affairs, 2020). As part of its development plans and long-term vision for refugees, the Department of Social Services

(DSS) oversees the development of policies and services that help refugees during their resettlement process. Furthermore, the Humanitarian Settlement Program (HSP) and DSS work closely to ensure that refugees are provided with all settlement services that facilitate their social interaction and transition to a self-reliant life.

In Australia, each state implements its education policies and provisions. According to the Australian Education Act, 2013, schooling is compulsory for children aged 6-16 years, from primary to secondary school. Public schools - also referred to as government schools - are tuition-free, although there are sometimes costs associated with excursions, sporting events, and other in-school activities. School-aged children who are part of the resettlement program are enrolled in government schools. On the other hand, students enrolled in independent and Catholic schools (non-government schools) face tuition fees. Although there is no overarching government policy for students from refugee and asylum-seeking backgrounds in Australia, a national curriculum that offers multicultural education is implemented in Australia, recognizing a culturally diverse population. Therefore, it is up to the education departments of each state to set policies and decide on programs and activities for refugee education. Thus, in the absence of uniform education policies, each state can develop its own support program, such as the "New Arrivals Program," which supports refugee students in learning the national curriculum and English language and facilitates their integration into mainstream education.

Table 2 summarizes the short-term, medium-term, and long-term approaches, followed by a more detailed overview for each country. The following table shows that pathways for residency in Australia and Turkey are more compatible with a long-term development approach to education. Inversely, Lebanon does not offer such opportunities and falls under a temporary approach.

*Table 2. Comparison between countries - from policies to provisions*

| | Lebanon | Turkey | Australia |
|---|---|---|---|
| **Refugee response** | Emergency-based, involving UN agencies, national NGOs, and neighbouring countries | Medium to Long term program-based response initiated and led by the government | Long term program-based response initiated and led by the government |
| **Residency permits** | Visa for six months, 200 USD Available pathway for permanent residency | Available pathway for permanent residency and naturalization | Three years – permanent, 0 – 35 AUD (24.46 USD) Available pathway for permanent residency |
| **Work restrictions** | Yes | Sometimes | No |
| **Services & assistance (including education)** | Rely on international aid; insufficient assistance | Currently shifting towards a model provided by the government and aid | Provided by government |
| **Language support & remedial classes** | Ad-hoc interventions provided by NGOs | Under PICTES project | Institutionalized |
| **Language of instruction** | Arabic and English or French | Turkish (Arabic in TECs) | English |
| **Education policy** | Integration in public educational system but in segregated learning space. High numbers of contractual teachers recruited with weaker entry requirements, overcrowded classes, and risks of discontinuity | Shifting towards an integration model | Integration model |
| **Approach** | Short term | Towards long term | Long term |

Eleven years have passed since the introduction and implementation of these provisions. In this study, we examine their impact on refugee children's schooling experiences, outcomes, and integration. In the following chapter, we present the research methodology.

*[4] In Table 1, our definintion for integration is limited to the physical integration in the learning space. However, we are aware that integration in the school culture and system is a more complex process which we discuss at different stages of this report.*

# Chapter Two
## Methodology

In order to investigate the impact of different legal settlements and different education paradigms on refugee students' schooling outcomes, we selected three countries - Lebanon, Turkey, Australia - encompassing the emergency and longer-term education provisions. The study examined refugee children enrolled in formal education in middle school (years 7 and 8) to examine their educational development and progression over five years (2018-2022). We decided to focus on this school level due to enrolment rates in Lebanon and Turkey in the post-middle schooling being relatively low. Further, starting at this level allows us to witness the transitional period from school to work or university in five years. The longitudinal data analyzed in this study is limited to the data we collected during the academic years 2018-2019 and 2019-2020 only. We aim to update this work after conducting the remaining longitudinal data collection waves in the coming years.

The study follows a mixed-method research design based on qualitative and quantitative components. Our quantitative survey includes several closed-ended questions about refugee children's living conditions, household characteristics, socioeconomic status, and schooling experiences and outcomes. Furthermore, our interview questionnaire includes several questions that provide an in-depth understanding of refugee children's living and schooling experiences in the host country. Mixed methods is a valuable approach because it offers different perspectives on the policy environment and refugee students' education outcomes. In wave one (2018-2019), we administered a face-to-face student survey and conducted interviews with teachers and school principals in a face-to-face approach. However, we resorted to online data collection in the second wave (2019-2020) due to the COVID-19 lockdown. Student surveys were administered over Kobo and followed by phone call follow-ups. Similarly, interviews with parents, teachers, and principals were conducted over the phone.

Our qualitative data are based on 114 face-to-face interviews and 44 focus group discussions with parents, teachers, and school principals in Lebanon, Australia, and Turkey. School visits took place in 2018-2019, where interviews were recorded after seeking the interviewees' permission. Then all audios were translated to English and coded using NVivo.

### Research Sample

In wave one, we surveyed 1,298 refugee students, while in wave two, we were only able to reach 919 of our sampled refugee students, as presented in the table below. In Lebanon, we surveyed 247 refugee students distributed across all eight districts in the first wave. In the second wave, we could only reach 167 of our respondents. In Turkey, we surveyed 710 refugee students in the first wave in only two districts (Gaziantep and Istanbul) known to host the highest number of Syrian refugees. In the second wave, we could not conduct the survey with the same students in Turkey; instead, we conducted repeated cross-sectional data with 411 refugee students. Henceforth, the dataset analysed for Turkey in this study is a repeated cross-section, but we aim to

follow the same students of wave two in future waves of data collection. The same students were located and surveyed in Australia, keeping our panel data of 341 refugee students intact. We targeted four main states - New South Wales, Queensland, South Australia, and Victoria.

*Table 3. Student Survey and Interview Sample Size*

| Academy Year | Country / Sample | Lebanon | Turkey | Australia | Total |
|---|---|---|---|---|---|
| 2018-2019 | **Student Survey** | 24/7 | 710 | 341 | 1,298 |
| | **Parent Interview** | 27 (Focus groups) | 5 (Focus groups) | 30 | 63 |
| | **Teacher Interview** | 46 | 12 (Focus groups) | 14 | 67 |
| | **Principal Interview** | 15 (1 supervisor) | 3 | 6 | 24 |
| 2019-2020 | **Student Survey** | 167 | 411 | 341 | 919 |

The breakdown of our student sample below reveals that the majority of the Arab-speaking refugees (ASR) in all three countries were Syrian. The table below reveals the percentages of Syrian and non-Syrian students in our sample in Lebanon, Australia, and Turkey.

*Table 4. Breakdown of Syrian and non-Syrian Arab-speaking refugees (%)*

| Country | Syria ASR (%) | Other non-Syria ASR (%) |
|---|---|---|
| **Lebanon** | 99.8 | 0.2 |
| **Australia** | 78 | 22 |
| **Turkey** | 94 | 6 |

The table below shows the gender breakdown of our survey sample by country. A relatively equal percentage of males and females were surveyed in Turkey and Australia for both data collection waves. However, around 60% of the surveys were conducted with females in Lebanon, while 40% were conducted with males.

*Table 5. Breakdown by Gender*

| | 2018-2019 | | 2019-2020 | |
|---|---|---|---|---|
| **Country** | **Females** | **Males** | **Females** | **Males** |
| **Lebanon** | 60% | 40% | 60% | 40% |
| **Australia** | 56% | 44% | 46% | 54% |
| **Turkey** | 48% | 52% | 48% | 52% |

The table below shows the breakdown of our surveyed sample by type of school for each country. We mainly targeted the afternoon shifts in Lebanese public schools in Lebanon as most refugee children attend these shifts. The first wave of data collection in Turkey targeted both temporary education centers (TECs) and Turkish public schools, as these were the two primary providers for refugee education. However, by the time we conducted the second wave, most TECs were closed by the Turkish governments, which turned our focus to Turkish public schools as they became the primary provider for refugee education. Therefore, our sample of refugee students enrolled in TECs only constitutes 4% of our sample for the academic year 2019-2020. Most of our sampled students were enrolled in government schools in Australia, while the remaining were distributed between religious and independent schools.

*Table 6. Breakdown by School Type*

| Country | Type of School | 2018-2019 | 2019-2020 |
|---|---|---|---|
| Lebanon | Morning Shift in Public Schools | 18% | 22% |
| | Afternoon Shift in Public Schools | 82% | 78% |
| Turkey | Public Schools | 51% | 96% |
| | Temporary Education Centers (TECs) | 49% | 4% |
| Australia | Public Schools | 64% | 64% |
| | Roman Catholic Schools | 7% | 7% |
| | Independent Schools | 30% | 30% |

## Data Analysis

Our quantitative data were cleaned and analyzed using Stata. Throughout the study, we constructed three indices that would help us capture specific schooling outcomes and experiences of refugee students. Specifically, we constructed an index for schooling performance, schooling experience, and language comprehension difficulty. For more information on the methodology used to construct these indices refer to Annex One. After constructing the indices, we calculate their means and cross-tabulate them with the type of schooling offered in each country. This allows us to observe differences in schooling outcomes and experiences between countries and between schools that offer different schooling systems (integrated vs. segregated). Furthermore, we conduct post hoc ANOVA tests using the Games-Howell[5] method to check for significant differences between the means of our chosen groups, the results of these tests are presented in Annex two.

As for the qualitative data, following the translation and transcription of interviews the data was coded using Nvivo. The coded data were then analyzed using thematic analysis.

## Limitations

Due to several limitations, convenience sampling was used for this study. In Lebanon, this approach was necessary because of a lack of information regarding the target populations, given that the latest official Lebanese census dates back to 1932. Convenience sampling was also necessary because access to schools was determined by the Lebanese MEHE, which provided us with a list of public schools that included a large number of Syrian students. To reduce sampling bias, we collected data from all eight governorates and from urban and rural areas as well as for males and females. Convenience sampling does not allow us to make generalizations about our target populations. As such, the quantitative results reported here are indicative of the phenomenon of interest and, in conjunction with our rich qualitative data, offer valuable insights into the policy environment and educational outcomes of refugee students. It was also difficult to obtain rich qualitative data from Turkey and Australia, mainly because of the difficulty of obtaining information from school staff and recruiting native Arab-speaking researchers in each of the two countries.

*[5]Our sample group sizes between countries and school types are unequal; therefore, we use the Games-Howell method, one of the most robust methods when group sizes are unequal and for data with heterogeneous variances (Dunnet, 1980).*

Besides, logistical challenges in Turkey prevented us from surveying the same students in the second data collection wave. Therefore, the data analyzed for Turkey in this report is a repeated cross-section instead of the panel data collected in Lebanon and Australia. We aim to follow the same students of wave two in future waves of data collection.

Finally, our second wave of data collection was collected in light of the COVID-19 pandemic. Therefore, it was challenging to travel and conduct face-to-face surveys and interviews. As a result, data collection was limited to online surveys with students and phone interviews with parents, teachers, and school principals. This limited our ability to meet the students, visit the school and observe the school environment.

## Research Ethics

This study was approved by the Institutional Review Board of the Lebanese American University. Further, all researchers have a certificate from the Collaborative Institutional Training Initiative, a research ethics and compliance training program. For participants below the age of 18, their legal guardian consent was sought first. The names of participants were anonymized while analyzing the data. Finally, the researchers would always ensure that the survey was carried out in conditions that allow privacy while at the same time ensuring the safety of both the participant and the researcher.

# Chapter Three

## Research Findings

To investigate how refugee students' schooling outcomes and integration levels differ between education in emergency and long-term education paradigms, we analyzed quantitative (survey) and qualitative (interviews) data collected from Lebanon, Turkey, and Australia during the academic years 2018-2019 and 2019-2020. We first compared refugee students' educational outcomes with respect to their schooling performance, experience, and language comprehension difficulty. Then, we looked at how refugee students' social integration differs between our selected countries.

The following analysis is conducted by the type of schooling offered to refugee children within each country. Our breakdown criteria are based on whether refugees are enrolled in segregated or integrated school systems. For instance, Lebanon is broken down into morning shift schooling (integrated schooling) and afternoon shift (segregated schooling). Similarly, Turkey is broken down into Turkish public schools (integrated schooling) and TECs (segregated schooling). On the other hand, all refugee children in Australia are enrolled in integrated schools; therefore, all sampled students in Australia are put together into one group. The following quantitative analysis is based on the results presented in Tables 5, 6, 7, and 8, followed by our qualitative analysis in each section below.

### Schooling Performance

In this section, we compare the schooling performance of refugee children between schooling systems within our three countries. The quantitative analysis is based on the schooling performance index we constructed throughout the study. The schooling performance index was constructed based on three questions. The first evaluates students' performance in foreign language subjects; the second evaluates students' performance in Math; and the third evaluates students' performance in science subjects.

Our quantitative findings revealed that refugee children enrolled in segregated schools (Turkish TECs and Lebanese afternoon shift) have the highest schooling performance for both academic years, with refugee children in TECs significantly outperforming students enrolled in all school types. On the other hand, students' performance was the lowest in integrated schools in Turkey and Australia. This could be attributed to the special education provisions that refugee students only receive in segregated schooling systems. For instance, in Turkish TECs, refugee students learn from Syrian teachers who speak their native language using the Syrian curriculum. Similarly, in the case of Lebanon, although Syrian refugees attending both morning and afternoon shifts face difficulties related to the rigid Lebanese curriculum and foreign language used in math and science subjects, they are taught by teachers who speak their native language and use their native language to communicate in class. Having teachers who speak their native language facilitates refugee children's ability to communicate their educational challenges, enhancing their schooling performance (UNESCO & UNICEF, 2020). This could also indicate why refugee children integrated into Turkish public schools and Australian schools have the lowest schooling performance. Although refugee children in Australia have the lowest schooling performance among all school groups, their

schooling performance has improved from year one to year two, thus indicating that school integration might be paying off in the long run. The following qualitative data will offer more insight into the importance of special education provisions in segregated schools and the language-related challenges faced in integrated schooling systems.

*Table 7. Schooling Performance Index Means*

| | 2018-2019 | 2019-2020 | |
|---|---|---|---|
| Turkish TECs | 7.7 | 7.7 | **High Schooling Performance** |
| Lebanese Afternoon Shift | 6.4 | 7.2 | |
| Lebanese Morning Shift | 6.3 | 6.1 | |
| Turkish Public Schools | 6.1 | 6.6 | |
| Australian Schools | 5.9 | 6.4 | **Low Schooling Performance** |
| **Total Score** | 10.0 | 10.0 | |

Our qualitative data further supports the quantitative findings. Education provisions and language barriers play a crucial role in determining students' performance and progress. For example, in TECs, Syrian students learn school subjects in their native language from Syrian teachers. Therefore, some participants reported that they feel comfortable within their class climate and perform well at school to the extent that they may achieve better results in their Turkish language classes than refugees in Turkish public schools.

*"I was working at Temporary Education Center. I compare the children there [TECs] and the ones here [Turkish public Schools]. The children there are more successful in Turkish language classes."*
*(Teacher, Turkey)*

On the contrary, refugee students in Turkish and Australian public schools face challenges in Turkish and English language classes, respectively. Similarly, others reported facing difficulty in math and sciences classes due to the language barrier. This affects students' performance, especially in Australia, where there is no third party to assist students in overcoming language difficulties, in contrast to what was reported by some participants in Turkey about the importance of having a translator who speaks both Turkish and Arabic.

*"English language is the main challenge for refugee students"*
*(Teacher, Australia)*

Despite this, some participants shared that student performance has improved across the years and are expected to reach grade 12 and that students' academic improvement is attributed to language support programs. This supports the previously presented quantitative finding that reveals a slight improvement in students' performance in Australian and Turkish public schools.

According to almost all interviewed participants, the importance of time was also evident in Lebanon, where children's performance improved over time, specifically those in the morning shift. Despite the difficulty in comprehending foreign languages (English and French), teachers' educational methods, including translation and using Arabic for teaching some subjects, are helping refugee students in Lebanon overcome learning difficulties.

*"Syrian students who spent over 4-5 years in public schools benefitted a lot and excelled in grade 9"*
*(Principal, Lebanon)*

Hence, our quantitative and qualitative data show that special education provisions in segregated schools and the language barrier in integrated schools shape refugee students' performance. However, as we will see in the next section, time is an important factor that echoes the benefits of school integration in relation to refugee students' performance and their schooling experience.

### Schooling Experience

In this section, we compare the schooling experience of refugee children between schooling systems within our three countries. The quantitative analysis is based on the schooling experience index we constructed throughout the study. The schooling experience index was constructed based on three questions. The first evaluates students' preference to coming to school; the second evaluates students' difficulty in in focusing on teacher's explanation; and the third evaluates students' struggle in communicating with their teacher.

Results on refugee children's schooling experience and schooling performance are very much alike. Table 6 also shows that refugee children enrolled in segregated schools (Turkish TECs and Lebanese afternoon shift) have the most satisfying schooling experience compared to refugee children enrolled in Turkish and Australian integrated schools for both academic years. Furthermore, our results indicate that refugee children enrolled in the Lebanese morning shift (integrated system) and afternoon shift (segregated system) have the same experience level for both academic years. Although these two shifts offer different integration approaches, they both use Arabic (native language) as their spoken in-class language. Therefore, we realise that the spoken in-class language might be a greater determinant for schooling experience than special education provisions provided in segregated systems. We also realise some improvement in the schooling experience of refugee children in Lebanon and a more significant improvement in the schooling experience of refugee children enrolled in Australia. However, since Turkey's sample is a repeated cross-section, we cannot verify whether year one's sample had any changes in their schooling experience. The following qualitative data will offer a more in-depth understanding of how in-class language shapes refugee children's schooling experience and why time is a factor that should not be overlooked when looking into the experiences of refugee students.

*Table 8. Schooling Experience Index Means*

| | 2018-2019 | 2019-2020 | |
|---|---|---|---|
| Turkish TECs | 7.4 | 7.9 | **Satisfying Schooling Experience** |
| Lebanese Afternoon Shift | 7.2 | 7.5 | |
| Lebanese Morning Shift | 7.2 | 7.5 | |
| Turkish Public Schools | 6.2 | 6.2 | |
| Australian Schools | 5.3 | 6.2 | **Unsatisfying Schooling Experience** |
| **Total Score** | 10.0 | 10.0 | |

Our qualitative data converges with the above quantitative results regarding the importance of in-class language. Refugee students' positive experience was determined by their ability to interact in class and understand their teachers' language of instruction. This was mainly realised when the in-class language was the same as their native language, such as Lebanon and Turkey's TECs. In contrast, refugee students have trouble using foreign languages such as English and Turkish in Australian and Turkish public schools, respectively. For instance, our qualitative data show that communication between Turkish teachers and refugee students was often facilitated by the interference of a third party who knows both Turkish and Arabic. This shows that segregation can be an effective option in the short term for facilitating foreign language acquisition and preparing refugees for integration into mainstream education.

However, it should be noted that school integration in Australia, Turkey, and Lebanon had a positive impact on the relationship between national and refugee students in the long run. Time was also reported as a critical factor for enhancing students' relationships, as many interviewees reported observing less discriminatory and violent acts between refugee and national students over time. Also, teachers play a key role in developing positive relationships between students by targeting acts of bullying and discrimination. Hence, in-class language and time are among the most prominent factors that shape refugee students' schooling experience. The following section will show that language comprehension difficulty is shaped by the same factors that determine schooling performance and experience.

### Language Comprehension Difficulty

In this section, we compare the language comprehension difficulty of refugee children between schooling systems within our three countries. The quantitative analysis is based on the language comprehension difficulty index we constructed throughout the study. The language comprehension difficulty index was constructed based on three questions. The first evaluates students' language comprehension difficulty in foreign language subjects; the second evaluates students' language comprehension difficulty in Math, and the third evaluates students' language comprehension difficulty in science subjects.

Our findings on language comprehension difficulty are, to a great extent, a reflection of our previous findings on schooling performance and experience. We found that refugees facing the lowest language comprehension difficulty also have the highest schooling performance and satisfying experience. On the other hand, refugee children facing high language comprehension difficulties also have low schooling performance and unsatisfying experiences. This shows the importance of language in shaping refugee students' schooling performance and experiences. We also realise that language comprehension difficulty was lower in Lebanon and Turkey's segregated schools compared to integrated schools in all three countries. Again, this could be explained by the special education provisions that refugee children receive in segregated schooling systems and the ease of communication that results from using their native language as the primary language for communicating with classmates and teachers. Although our language comprehension difficulty index targets language of instruction and not the spoken in-class language, students who can communicate and express their learning difficulties in their native language might have an advantage in understanding lessons taught in a foreign language over students who cannot express themselves in their native language.

Our data also revealed that language comprehension difficulty had not changed much between years one and two for refugee students in Lebanon and Australia. This could be either due to a lack of effective language support programs or the time gap (1 year) between our data collection waves was not long enough to capture significant changes in foreign language skills. As for Turkey, our repeated cross-section data prevent us from confirming any changes in refugee children's language difficulty.

*Table 9. Language Comprehension Difficulty Index Means*

| | 2018-2019 | 2019-2020 | |
|---|---|---|---|
| Turkish TECs | 3.6 | 3.3 | **Low Language Difficulty** |
| Lebanese Afternoon Shift | 4.2 | 4.1 | |
| Turkish Public Schools | 4.7 | 4.2 | |
| Lebanese Morning Shift | 4.9 | 4.9 | |
| Australian Schools | 5.7 | 5.7 | **High Language Difficulty** |
| **Total Score** | 10.0 | 10.0 | |

In line with the quantitative results, our qualitative data revealed that refugees in segregated schools (Turkish TECs and Lebanese afternoon shift) face fewer language comprehension difficulties than in integrated schools. Interviews with teachers in Turkey revealed that the use of refugees' native language in TECs assists students in overcoming learning difficulties. On the other hand, refugees in Turkish public schools continue to struggle with learning difficulties caused by the language barrier.

*"In our classes, they have been having real difficulties in learning Turkish and social studies"*
*(Teacher, Turkey)*

In Lebanon, interviews with teachers in the afternoon shift revealed that using Arabic to explain concepts and exam questions lessens the difficulty of understanding subjects taught in foreign languages. Nevertheless, interviewed teachers insist that refugees need additional language support to overcome language-related barriers.

*"They struggle with languages; as you know, they studied everything in Arabic back in Syria, they are used to learning math, physics, chemistry, and biology in Arabic. They have to take them in English here"*
*(Principal, Lebanon)*

Other teachers in Lebanon mentioned adjusting the language of instruction to deliver maths and science lessons to help Syrian students overcome the language barrier. While others reported targeting students' needs through implementing modern teaching methods to ensure their success.

*"Some of my [Syrian] students have been studying in Lebanon for five years now but still have difficulty understanding French. If I do not explain the exam questions, more than half of them will fail because they do not understand the language"*
*(Teacher, Lebanon)*

In Australia, our interviews revealed that students struggle in expressing their learning challenges as a result of only using English in class. Thus, they found it challenging to communicate with their teachers about difficulties they encounter in their subjects. Therefore, in the short run, segregating refugee students might be a better option to avoid language barriers, especially when segregation is accompanied by special provisions such as using their native language when concepts are not understood in a foreign one. So far, the previous three sections have revealed that students residing in Lebanon (short-term paradigm) and Turkey (medium-term paradigm) have better schooling performance, experience and face lower language difficulties than students residing in Australia (long-term paradigm). These results are primarily true in the segregated schooling systems present within Lebanon and Turkey since school segregation facilitates the implementation of special education provisions related to language and curriculum. Thus school segregation seems to better respond to refugee children's needs in the short-run (Eryaman & Evran, 2019). We have also seen that although refugee students' schooling outcomes are the worse under the long-term model, their outcomes have greatly improved over time, hence indicating that the long-term paradigm might be paying off in the long run. The previous sections have also revealed that in-class language and language of instruction might be crucial factors shaping refugee children's schooling outcomes. In the following section, we will compare refugee children's social integration levels between different education paradigms by looking at how levels of social integration vary between different schooling systems within each country.

### Social Integration

In this section, we compare the social integration of refugee children between schooling systems within our three countries. The quantitative analysis is based on a survey question that assesses whether the student is or is not feeling welcome in their current country of residence.

Comparing social integration between different school types (integrated vs. segregated) allows us to observe better how each education paradigm shapes refugee children's social integration across the three countries. Especially that school integration is a crucial determinant for social integration (Keddie, 2010). For instance, our findings indicate that refugee children integrated into mainstream schooling feel more welcome in their current country of residence. On the other hand, we found that segregated students in Lebanon's afternoon shift have the lowest social integration levels compared to other school types. The impact of school type on social integration was more prominent in the case of Lebanon, where we observe a significant difference between the level of integration of refugee students enrolled in the morning shift compared to the afternoon shift.

In contrast, the impact of school type was not as significant in the case of Turkey, where we observe very little difference in social integration levels between TECs and public schools. Although refugee children in TECs are segregated, they are taught by Syrian teachers who share their culture and speak their native language, ensuring a welcoming schooling environment. In addition, refugee children in TECs receive Turkish language support that prepares them for enrolling in mainstream education. Furthermore, our data revealed that social integration has improved between year one and year two in Lebanon and Australia. At the same time, we can not verify similar changes in Turkey due to Turkey's dataset's nature (repeated cross-section). The following qualitative analysis will offer a more in-depth understanding of the impact of legal settlement and the type of education paradigm on refugee children's social integration.

*Table 10. Percentage of Refugee Who Feel Welcome in Country of Residence*

| | 2018-2019 | 2019-2020 | |
|---|---|---|---|
| Lebanese Morning Shift | 84% | 86% | **Feeling Welcome** |
| Turkish Public Schools | 84% | 72% | |
| Turkish TECs | 82% | 94% | |
| Australian Schools | 79% | 83% | |
| Lebanese Afternoon Shift | 64% | 69% | |
| **Total Score** | 10.0 | 10.0 | |

Our quantitative and qualitative data show that school integration is necessary for refugees' social integration in the long term. For example, several participants reported that school integration promoted positive relationships between refugee and national students, especially after several years of their residence. This helped many refugees feel integrated within their host community, mainly in the case of Australia. Although school integration poses language-related difficulties for integration, many participants shared that the interaction between nationals and refugees facilitates refugee students' language acquisition, especially when integration was accompanied by language support programs such as those provided in Australia and Turkey.

In addition, our qualitative findings suggest that the short-term settlement approach in Lebanon pushes for refugees' repatriation and thus implements policies that prohibit refugees' social integration. For example, our data show that the absence of clear paths to residency, limited access to job markets, and lack of inclusive educational policies prohibit refugees' social and educational integration.

*" The government here is also making things harder on Syrians in order to motivate them to go back "*
*(Syrian parent, Lebanon)*

However, our data show that such policies were to a lesser extent realised in Turkey under the medium-term settlement and non-existing under Australia's long-term settlement, where refugees are provided clear paths for residency. Hence, integrating refugees in mainstream education and facilitating their stay in host countries enhances their sense of belonging; this was mainly realised in the case of Australia.

# Chapter Four

## Conclusion

This study examines how schooling and integration of refugee children differ between education in emergency and long-term education paradigms. Specifically, we unpack differences in schooling and integration outcomes of refugee children under temporary asylum versus permanent resettlement. We target Arabic-speaking refugee children who fled the Middle East and North Africa and enrolled in formal education for three to four years in Lebanon, Turkey, or Australia. The study investigates the various existing paradigms of education provisions. It uses quantitative and qualitative data to compare the schooling performance, experiences, language comprehension difficulty, and social integration of refugee students between the selected destination countries, offering short-term, medium-term, and long-term settlement.

Our findings revealed that students residing in Lebanon (short-term paradigm) and Turkey (medium-term paradigm) have better schooling performance, experience, and face lower language difficulties than students residing in Australia (long-term paradigm). These results are primarily true in the segregated schooling systems present within Lebanon and Turkey, where school segregation facilitates the implementation of special education provisions related to language and curriculum. The preceding results are consistent with previous studies showing that school segregation seems to better respond to refugee children's needs in the short-run (Eryaman & Evran, 2019). Our results also revealed that although refugee students' schooling outcomes are the worse under the long-term model where the language of instructions was different to the refugees' native language, their outcomes have greatly improved over time, indicating that the long-term paradigm might be paying off in the long run. Furthermore, our qualitative findings stress the importance of in-class language and language of instruction for shaping refugee children's schooling outcomes. Students learning using their native language and students who can communicate their learning difficulties using their native language had higher schooling performance, better schooling experience, and less language comprehension difficulty, thus overcoming the language barrier, mainly present in integrated schools. On the other hand, school integration improved refugee children's social integration by promoting refugee interaction with nationals over time and facilitating refugee children's foreign language acquisition.

This study highlights the importance of gradually transitioning refugee children into mainstream education. Newly arrived refugees who were first taught by teachers whose language and background are relatable to the refugee students faced lower learning challenges and a smoother transition. On the other hand, the sudden integration of refugee children into a language of instruction completely different from the refugees' native language promotes a major challenge for refugees. In addition, although refugee children in the emergency model reported better schooling experiences, the model's results were the worst in terms of enrolment and retention rates. Our findings stress the need to further interrogate the growing shift to integrate refugees into mainstream education and the impact of the long-term impact of both educational paradigms. We aim to revisit this topic and update our findings following the completion of the remaining longitudinal data collection waves.

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# Annex One

**1- Schooling performance**: This index evaluates students' schooling performance for refugee students based on 3 self-assessment questions. This index is based on a score that ranges from 0 to 10, where 0 indicates low schooling performance and 10 indicates high schooling performance. Below are the 3 question items that were used:

*a- How did you do in your midterm or last school report in foreign language (English, French, Turkish)?*
*b- How did you do in your midterm or last school report in math?*
*c- How did you do in your midterm or last school report in sciences (physics, chemistry, biology)?*

**2- Schooling experience:** This index evaluates students' current schooling experiences for refugee students based on 3 questions. It is based on a score that ranges from 0 to 10, where 0 indicates an unsatisfying schooling experience and 10 indicates a satisfying schooling experience. Below are the 3 question items that were used:

*a- I like coming to school*
*b- I have difficulty focusing on teacher's explanations*
*c- I struggle in communicating with my school teacher*

**3- Language Comprehension Difficulty:** This index evaluates students' language comprehension difficulty for refugee students based on 3 questions. This index is based on a score that ranges from 0 to 10, where 0 indicates low language difficulty and 10 indicates high language difficulty. Below are the 3 question items that were used:

*a- Do you face difficulties understanding the language of instruction in Language (English or French, Turkish)?*
*b- Do you face difficulties understanding the language of instruction in Math?*
*c- Do you face difficulties understanding the language of instruction in Sciences (physics, chemistry, biology)?*

Following the choice of questions for each respective index, we rank each response of the previously listed questions from the most to the least favorable outcome. Then, the rank of each response is used to calculate the indicator score for each individual based on the following equation :

$$\boldsymbol{S_{ix}} = \left(\frac{\boldsymbol{R_{ix}} - \mathbf{1}}{\boldsymbol{T_x} - \mathbf{1}}\right) \times \boldsymbol{W_x}$$

Where $\mathbf{S}_{ix}$ is the score of individual i for indicator **x**, $\mathbf{R}_{ix}$ is the response rank of individual i for indicator **x**, $\mathbf{T}_x$ is the total number of ranks provided for indicator x, and $\mathbf{W}_x$ is the weight of each indicator.

[6] *The equation used for conversion is not unique. Preston and Colman (2000) used this equation to rescale self-reported rankings into scores. Similarly, Chakrabartty (2021), transformed self-reported ordinal item-scores to continues scores followed by a normalization procedure.*

The index weight is distributed equally among the chosen indictors (questions); therefore, each indicator contributes to up to 1/n of the total index score such that:

$$\sum_{x=1}^{n} W_x = 1$$

After determining each indicator's score for each individual, we can sum the indicators' scores to derive the index score for individual **i** according to the following equation:

$$IS_i = \sum_{x=1}^{n} S_{ix}$$

Where $IS_i$ is the index score for individual **i** and $S_{ix}$ is the score of indicator **x** for individual **i**.

After determining the index score for each individual, the index is normalized to bring its entire probability distributions into alignment between 0 and 10 (Han et al., 2011) using the equation below:

$$X' = \frac{X - X_{min}}{X_{max} - X_{min}}$$

# Annex Two

*Table 11. Multiple Comparisons for Schooling Performance Index (Games-Howell)*

| Type of School | Type of School | Mean Difference (2018-2019) | Mean Difference (2019-2020) |
|---|---|---|---|
| **Turkish Public Schools** | Turkish TECs | -1.58*** | -0.79 |
| | Lebanese Morning Shift | -0.28 | -1.21*** |
| | Lebanese Afternoon Shift | -0.18 | -0.4* |
| | Australian Schools | 0.19 | -0.07*** |
| **Turkish TECs** | Turkish Public Schools | 1.58*** | 0.79 |
| | Lebanese Morning Shift | 1.29*** | -0.41 |
| | Lebanese Afternoon Shift | 1.39*** | 0.38 |
| | Australian Schools | 1.77*** | -0.27 |
| **Lebanese Morning Shift** | Turkish Public Schools | 0.28 | 1.21*** |
| | Turkish TECs | -1.29*** | 0.41 |
| | Lebanese Afternoon Shift | 0.1 | 0.8* |
| | Australian Schools | 0.48 | 0.13 |
| **Lebanese Afternoon Shift** | Turkish Public Schools | 0.18 | 0.4* |
| | Turkish TECs | -1.39*** | -0.38 |
| | Lebanese Morning Shift | -0.1 | -0.8* |
| | Australian Schools | 0.37 | -0.66*** |
| **Australian Schools** | Turkish Public Schools | -.019 | 1.07*** |
| | Turkish TECs | -1.77*** | 0.27 |
| | Lebanese Morning Shift | -0.48 | -0.13 |
| | Lebanese Afternoon Shift | -0.37 | 0.66*** |

***** For the mean difference is significant at the 0.01 level | ** For 0.05 level | * For 0.1 level**

*Table 12. Multiple Comparisons for Schooling Experience Index (Games-Howell)*

| Type of School | Type of School | Mean Difference (2018-2019) | Mean Difference (2019-2020) |
|---|---|---|---|
| **Turkish Public Schools** | Turkish TECs | -1.22*** | -1.71** |
| | Lebanese Morning Shift | -1.00** | -1.36*** |
| | Lebanese Afternoon Shift | -1.03*** | -1.32*** |
| | Australian Schools | 0.84*** | -0.01 |
| **Turkish TECs** | Turkish Public Schools | 1.22*** | 1.71 |
| | Lebanese Morning Shift | 0.22 | 0.34 |
| | Lebanese Afternoon Shift | 0.19 | 0.39 |
| | Australian Schools | 2.06*** | 1.69** |
| **Lebanese Morning Shift** | Turkish Public Schools | 1.00** | 1.36*** |
| | Turkish TECs | -0.22 | -034 |
| | Lebanese Afternoon Shift | -0.03 | 0.04 |
| | Australian Schools | 1.84*** | 1.35*** |
| **Lebanese Afternoon Shift** | Turkish Public Schools | 1.03*** | 1.32*** |
| | Turkish TECs | -0.19 | -0.39 |
| | Lebanese Morning Shift | 0.03 | -0.04 |
| | Australian Schools | 1.87*** | 1.3*** |
| **Australian Schools** | Turkish Public Schools | -0.84*** | 0.01 |
| | Turkish TECs | -2.06*** | -1.69** |
| | Lebanese Morning Shift | -1.84*** | -1.35*** |
| | Lebanese Afternoon Shift | -1.87*** | -1.3*** |

***** For the mean difference is significant at the 0.01 level | ** For 0.05 level | * For 0.1 level**

*Table 13. Multiple Comparisons for Language Difficulty Index (Games-Howell)*

| Type of School | Type of School | Mean Difference (2018-2019) | Mean Difference (2019-2020) |
|---|---|---|---|
| **Turkish Public Schools** | Turkish TECs | 1.17*** | 0.95 |
| | Lebanese Morning Shift | 0.57 | 0.13 |
| | Lebanese Afternoon Shift | -0.19 | -0.71** |
| | Australian Schools | -0.99*** | -1.45*** |
| **Turkish TECs** | Turkish Public Schools | -1.17*** | -0.95 |
| | Lebanese Morning Shift | -0.6 | -0.81 |
| | Lebanese Afternoon Shift | -1.37*** | -1.66 |
| | Australian Schools | -2.17*** | -2.41** |
| **Lebanese Morning Shift** | Turkish Public Schools | -0.57 | -0.13 |
| | Turkish TECs | 0.6 | 0.81 |
| | Lebanese Afternoon Shift | -0.76 | -0.85 |
| | Australian Schools | -1.57*** | -1.59*** |
| **Lebanese Afternoon Shift** | Turkish Public Schools | 0.19 | 0.71** |
| | Turkish TECs | 1.37*** | 1.66 |
| | Lebanese Morning Shift | 0.76 | 0.85 |
| | Australian Schools | -0.80*** | -0.74 |
| **Australian Schools** | Turkish Public Schools | 0.99*** | 1.45*** |
| | Turkish TECs | 2.17*** | 2.41** |
| | Lebanese Morning Shift | 1.57*** | 1.59*** |
| | Lebanese Afternoon Shift | 0.8*** | 0.74** |

***** For the mean difference is significant at the 0.01 level | ** For 0.05 level | * For 0.1 level**