PRELIMINARY REPORT

DELIVERABLE No 8

RaRE

UNDERSTANDING RISK AND RESILIENCE IN THE EDUCATIONAL PERFORMANCE OF REFUGEE CHILDREN AND YOUTH

2024

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1. Introduction

Students with a refugee background face a complexity of challenges, or risk factors, in their academic journeys, such as limited access to education, interrupted or no formal schooling, language barriers, deficits in teacher training, diverse curricula and teaching methodologies, scarce resources, discrimination, and high dropout rates (Aleghfeli & Hunt, 2022; Cook & Kim, 2023; Dryden-Peterson et al., 2019). However, as research on resilience has shown, they may develop posititively and adapt to the new enivronments, despite significant adversity, threats, and trauma (Luthar, 2006; Masten, 2018, Motti-Stefanidi et al., 2012,Panter-Brick 2014).

Their adjustment in post-migration contexts is shaped at different levels nested within each other: a) the global level, b) the political and social contexts of reception (e.g., host society attitudes, negative media narratives of migration, asylum policies), c) the microsystems (neighborhood, school), and d) the individual level, which refers to children's own experiences and personal attributes (Suarez-Orozco et al., 2018). Internationally, there is a lack of empirical studies focusing specifically on the educational performance of refugees (Tumen et al., 2022). In Greece, research on school-level effects on children's psychological well-being remains limited (Anagnostopoulos et al., 2016; Trouki, 2012). Moreover, prior to 2015, cross-sectional studies of immigrant youth showed that immigrant status and socio-economic adversity are risk factors for students' educational performance (Motti-Stefanidi 2015).

The aim of the RaRE study is to investigate the interplay of risk and protective factors shaping the educational performance, psychosocial adjustment, and educational outcomes of school-aged accompanied and unaccompanied students with a refugee background attending formal education in Greece. It is nested at four levels—individual, family, community, and society—by adopting the multilevel integrative risk and resilience framework (Bronfenbrenner, 1977; Panter-Brick et al., 2018; Suarez-Orozco et al., 2018; Ungar & Theron, 2020).

The aim of the current report is to present the findings of the pilot phase of the study.

2. Study design and population

The research aims to fill a significant gap in evidence-based studies regarding school attendance, educational outcomes, and psychosocial adaptation among refugee children attending formal education in Greece. It seeks to investigate the risk and protective factors, affecting the academic

performance of both accompanied and unaccompanied refugee children who arrived in Greece after the 2015 European refugee crisis.

A mixed-methods approach was employed, combining surveys and focus group discussions. The sample comprised students with a refugee background, aged 12-18 years, attending formal education classes from the 6th grade of primary education to upper secondary education (Lyceum/EPAL[1]). These students belonged to five ethnic groups: Syrian, Iraqi, Afghan, Somali, and Ukrainian. The sample was selected through a multistage sampling ((Stathopoulou et.al 2024).

Data from the pilot study were analyzed using descriptive statistics. Data from focus group discussions were analysed using thematic analysis.

3. Data Collection Methods

Quantitative data were collected with the use of survey questionnaires administered to a) students with a refugee background b) the parents of these children or legal guardians in the case of unaccompanied minors, and c) their teachers. Qualitative data were collected through focus groups discussions.

3.1 Quantitative data

3.1.1 Survey instruments

The study employed two psychometric tools: a) the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997) and b) the Child and Youth Resilience Measure - Revised (CYRM-R; Jefferies et al., 2018). The Strengths and Difficulties Questionnaire (SDQ) was initially developed by Goodman (1997). It is a brief questionnaire used for the psychological assessment of children and adolescents aged 11-17 years. It consists of 25 questions addressing corresponding psychological variables, both positive and negative. The 25 items of the tool are scored from 0 (= "not true") to 2 (= "certainly true") and are grouped into 4 scales of psychological symptoms: a) Emotional symptoms (5 items), b) Conduct problems (5 items), c) Hyperactivity/inattention (5 items), d) Peer relationship problems (5 items); and one scale of Prosocial behavior (5 items). The extended version also includes an impact supplement that asks if the respondent thinks the young person has a problem, and if so,

[1] EPAL: Vocational upper secondary education

enquires further about chronicity, distress, social impairment and burden for others (Goodman, 1999). Closely similar versions are completed by parents, teachers and young people.

The same 25 questions and the impact supplement were included in the questionnaires completed by the parents and teachers of the children participating in the research (Goodman, 1997), to achieve the triangulation of research findings.

The Strengths and Difficulties Questionnaire has been extensively used in similar research, such as the study on the mental health assessment of young people in England, recently conducted by the NHS in 2022. Additionally, it has been used for assessing the psychological adjustment of adolescent students in Greece by Motti-Stefanidi and her collaborators (Motti-Stefanidi et al., 2022). In this study, the measurements proved to be sufficiently reliable for both Greek students and migrants from Albania, who comprised the study sample (Cronbach's alpha=0.65-0.78).

The Child Youth Resilience Measure (CYRM) is a scale for measuring mental resilience in children and adolescents. In the present research, the latest version, the Child Youth Resilience Measure - Revised (CYRM-R) consisting of 17 items, was used (Jefferies et al., 2018). Responses are given on a five-point Likert scale, ranging from "Not at all" to "A lot." The CYRM scale yields a score for each child/adolescent, corresponding to individual, relational, and contextual dimensions of resilience. To make the 5-point Likert scale more comprehensible to the young participants, a simple image of a row of five glasses that were progressively full of water was added (Resilience Research Center & Dalhousie University, 2022). This modification of displaying the Likert scale has been successfully used in research on resilience in refugee hosted countries such as Jordan (see Panter-Brick et al., 2018).

The validity and reliability of the scale have been well documented, and it has been widely used in similar research examining the mental resilience of refugee populations (Liebenberg et al., 2013; Panter-Brick et al., 2018). It is considered an ideal measure for assessing the resilience of such populations and is specifically designed for conducting research on samples of adolescents from diverse cultural backgrounds facing adversities (Miller-Graff & Cummings, 2017). In fact, Panter-Brick and her colleagues (Panter-Brick et al., 2018) recommended the joint use of the CYRM and the SDQ, which complement each other.

Additionally, the questionnaires included socio-demographic questions, sections on family functioning[2] (psycho-emotional support and dysfunction), neighborhood[3] (sense of safety), school environment[4] (perceived academic performance, sense of belonging, bullying) and discrimination[5]. Using a triangulation approach, the study combines self-administered questionnaires from students, parents/legal guardians, and teachers to assess children's well-being and resilience.

3.1.2 Fieldwork

The collection mode was CAWI (Computer Assisted Web Interviewing), with students self-completing the questionnaire on tablets in the presence of interviewers inside the schools. The teachers and guardians in the case of unaccompanied minors (UAM), were given the option to answer the questionnaire at a different point of time. The fieldwork team consisted of one field operator[6] and five experienced interviewers. Fieldwork in each school was conducted after permission was granted by each school principal, according to the legal provisions pertaining to conducting research inside school units.[7] Only the students with a signed parental consent, in the case of accompanied ones, or written permission issued by the Prosecutor's Office for Minors in the respective fieldwork areas, for the unaccompanied students, were allowed to take part in the survey.

The pilot study was conducted from 20 December 2023 until 31 January 2024. The preliminary findings were discussed with the Advisory Board.

3.1.3 Analysis

Data analysis for survey results was conducted in R, while R and Tableau were used for visualization.

[2] Adapted from NHS Survey: Mental Health of Children and Young People in England, 2022. Wave 3 follow up to the 2017 survey. Section on Family functioning, Neighborhood and Loneliness.

[3] Adapted from NHS Survey (same as above)

[4] Adapted from PISA 2018 main survey

[5] Adapted from the REHEAL questionnaire. For the REHEAL study, see See Stathopoulou, T., Avrami, L., Kostaki, A., Cavounidis, J., & Eikemo, T. A. (2019). Safety, Health and Trauma among Newly Arrived Refugees in Greece. *Journal of Refugee Studies*, *32* (Special_Issue_1), i22–i35. https://doi.org/10.1093/jrs/fez034

[6] Christos Staikos was responsible for fieldwork.

[7] Each school unit has the right to deny access to school even if permission to conduct research inside the school is granted by the Ministry of Education.

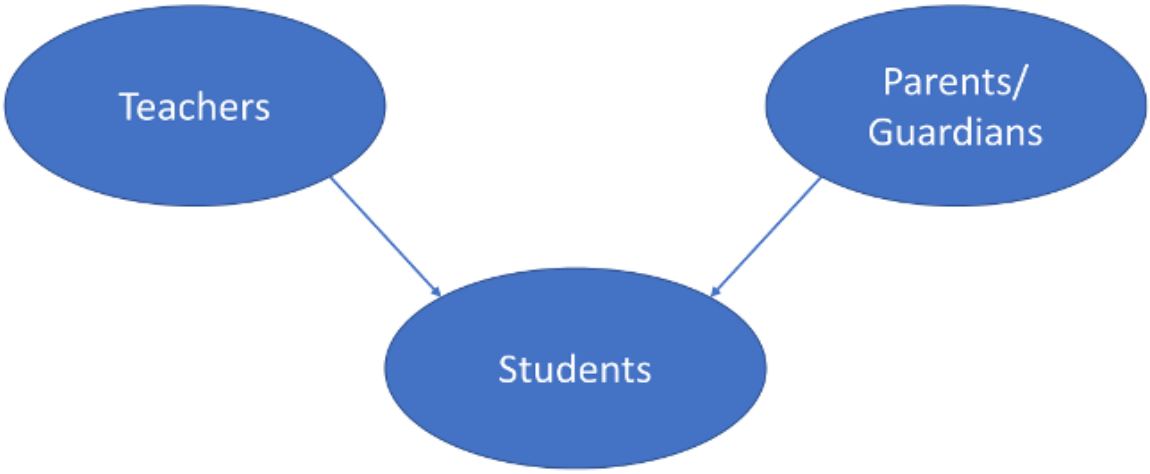
3.1.3.1 Managing missing values

Another issue arising due to the nature of the data is missing values, which can occur at two levels. Firstly, they may appear in the answers given by the different groups of respondents participating in the study. In such cases, if there is evidence that the value is missing completely at random (MCAR), mean imputation is applied. The second type of missing value is more challenging to manage and primarily concerns covariates, especially those of parents. Essentially, to have a complete case for a student and be able to triangulate the data, we need to have the answers of their teacher and their parent or legal guardian. Therefore, the probability of missing values for covariates is increased, particularly concerning parents. However, the parental written consent obtained for their child's participation in the research indicates that a missing value from them may arise inherently due to a third factor (e.g., due to the parent's inability to read) rather than due to refusal. This case, where a missing value in a variable does not arise completely at random and is not due to the variable under study itself (e.g., parents' refusal due to negative attitudes towards research) but arises from a third factor that affects the variable with the missing value (such as illiteracy in the parents' countries of origin), is characterized as missing at random (MAR). For further details on the types of missing values, see Seaman et al. (2013).

3.1.3.2 Statistical modeling

The above necessitates the application of the appropriate models that will be able to include the causal relationships between the variables, considering their hierarchical structure of the dataset. The respondents create a hierarchical structure, where responses from teachers and legal guardians may explain students' responses and can vary based on factors such as gender, status, and individual differences. Figure 1 visualizes the hierarchical structure of the covariates, including teachers, parents/guardians, and students.

Figure 1: The hierarchical structure of covariates.



We implement mixed effects models (Stroup, 2012) to analyze the impact of covariates on emotional and behavioral problems (SDQ) and resilience (CYRM-R). The effect of other factors like gender or the status (accompanied or unaccompanied) of the student is also investigated while student's ethnicity is treated as a random effect, considering that our sample does not encompass all ethnic groups of refugee student population in Greece. The preliminary results incorporating this approach are presented in section 4.1.2 of the report.

3.2 Qualitative data

Qualitative data were collected using two focus groups with teachers. The complementary use of qualitative methods provided deeper insights into the risk and protective factors influencing the educational experiences of students with a refugee background.

3.2.1 Focus groups

Two focus group discussions with teachers of refugee students 12-18 years old were conducted. In particular, the first focus group comprised educational professionals working as teachers in reception

classes at public schools, while the second comprised mostly of educational professionals working in non-formal education of refugee children.

3.2.2 Participants

In the focus groups, there were 19 participants, consisting of 16 females (84%) and 3 males. Among them, 12 teachers were employed in public schools (comprising 7 reception class teachers and 3 teachers with administrative responsibilities), while the remaining 7 teachers were engaged in non-formal education programs administered by NGOs.

3.2.3 Procedure

The focus group discussions took place at the end of the school year 2022-2023, in June and July 2023 at the premises of the National Centre for Social Research (EKKE). However, they were both conducted in a hybrid way: participants residing in the Athens area came in-person, while participants from other areas of Greece participated online. More specifically, in the first focus group 7 teachers participated in person and 3 online. In the second focus group, 7 teachers participated in person and 2 online. The first group discussion (formal education teachers) was moderated by a researcher at EKKE and research team member while the second focus group, comprising non-formal education teachers was moderated by the former Deputy Ombudsman for Children's Rights, who is also a research team member. Other research members were present as observers, assigned with notetaking. The project's PI was present in both focus groups and assisted as a co-moderator, prompting answers when needed. The focus groups lasted between 2-4 hours and were audio recorded, after ensuring the participants' written consent. The research team introduced participants to the study's objectives using a semi-structured interview guide comprising open-ended questions. The guide, designed by the research team, clarified the terms of participation and invited participants to share insights based on their experiences in teaching students with a refugee background.

3.2.4 Data analysis

Focus group data were transcribed verbatim to text by members of the research team, without being returned to the participants for further comments (nor did the final findings for that matter). Data were then analyzed using thematic analysis (Braun & Clarke, 2006; Guest et al., 2012), a method that identifies, analyses and reports patterns (themes) within data (Braun & Clarke, 2006). Data were organized and processed with the help of MAXQDA 2022, a software program designed for

computer-assisted qualitative and mixed methods analysis. The transcripts were analyzed in Greek, and the quotes used to present the findings in the current article were translated into English. For the elaboration of the data, we followed the six phases proposed by Braun and Clarke (2006), namely: familiarization with the data, coding, theme development (generating initial themes, reviewing and developing themes, refining, defining and naming themes) and reporting. It should be noted that thematic analysis was data-driven, without using a pre-defined code frame (Braun & Clarke, 2006; 2021). On the contrary, final themes were the outcome of a reflexive process and careful consideration of the data, yet always informed by the relevant literature discussed in the previous section.

3.3 Research ethics

The research has obtained approval from the Ministry of Education, Religious Affairs and Sports to ensure compliance with the GDPR laws for the protection of personal data. The study has also been approved by the Committee of Ethics at the National Centre for Social Research. The research team adheres to the guidelines and standards set for ethical research, ensuring the protection and well-being of the participating individuals at every stage of the research. Collected data is securely stored and strictly utilized for research purposes according to the provisions of the Code of Ethics and Conduct of Scientific Research of the National Centre for Social Research (EKKE).

3.4 Informed consent

Parental consents were sent to the school principals. Parents were provided with detailed information about the research objectives, methodologies, and participants' rights, including the right to withdraw their children from the study at any time without consequences. In the case of unaccompanied students, permission was formally granted by the regional Prosecutor’s Office for Minors in each geographical area where the sample school unit was located. For the focus groups, participants were informed both verbally and in writing about the aim of the research, the reasons they have been identified and selected for contact, the context of their voluntary participation in the focus group and the procedures about anonymity in data processing and confidentiality about their participation. Participants signed a consent form before the discussion, which also included relevant information about the procedure and their rights.

4. Findings

4.1 Quantitative findings

4.1.1 Participants

The pilot study was conducted from December 20, 2023, to January 31, 2024, involving 37 students. The questionnaires were completed by the 37 students as well as by their teachers, parents, and legal guardians. Table 1 below shows the sample distribution of the pilot study. There were 37 teacher questionnaires, 5 parent questionnaires, and 19 legal guardian questionnaires. It should be noted that some teachers, parents or legal guardians may have responded for multiple students.

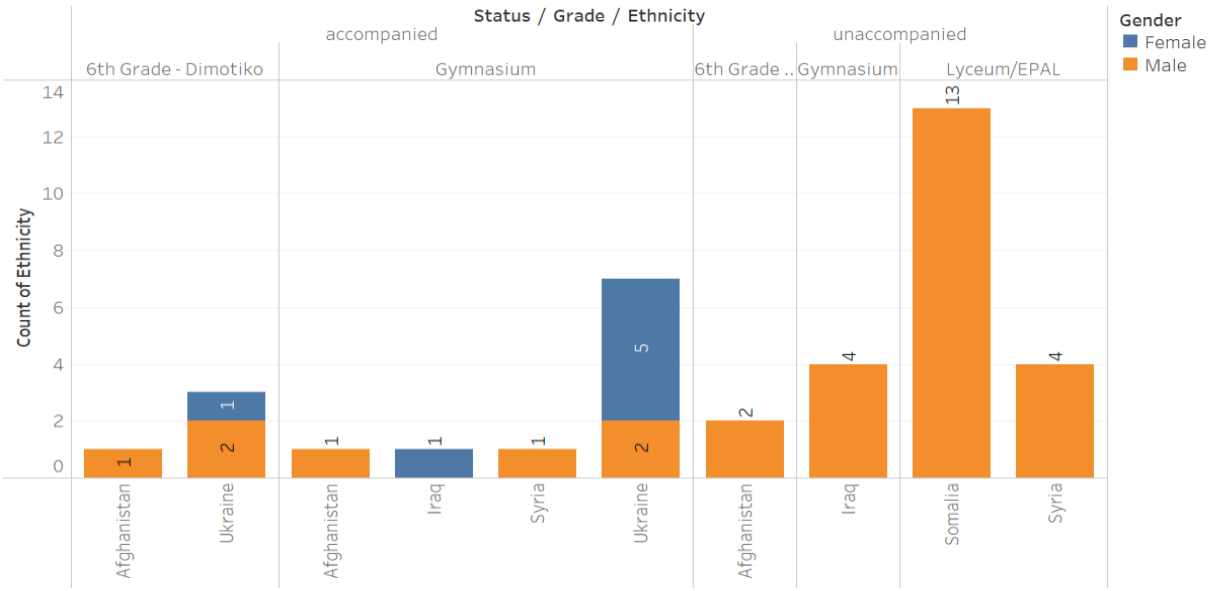
Table 1. *Sample distribution of the pilot study*

		Students	Teachers	Parents	Guardians
Cases		37	37	5	19
Status	Accompanied	14	14	5	-
	Unaccompanied	23	23	-	19
Gender	Male	30	30	1	19
	Female	7	7	4	0
Ethnicity	Afghanistan	4	4	-	2
	Iraq	5	5	-	-
	Somalia	13	13	-	13
	Syria	5	5	-	4
	Ukraine	10	10	5	-
Grade	6th Grade - Primary School	6	6	2	2
	Lower Secondary School (Gymnasium)	14	14	3	-
	Upper Secondary School* (Lyceum/EPAL)	17	17	-	17

* *General and vocational upper secondary education*
Note: Status, gender, ethnicity, and grade levels correspond only to student data as reported by students, parents, and legal guardians.

The bar plot in Figure 2 below, visualizes the joint distribution of the main demographic factors of the students, i.e., status, grade, ethnicity, and gender. For the students' grade level, the teachers' responses were only taken into account, as there were some inconsistencies with the students' responses (e.g. in some cases the students misreported the grade they were attending). The unaccompanied students were more numerous than the accompanied ones, specifically 23 (62.2%) versus 14 (31.8%), while the difference between genders was even greater; 30 (81.1%) males and only 7 (18.9%) females. Thus, the most common case of a refugee student during the pilot study was an unaccompanied boy. Specifically, considering the joint distribution of gender and status, all the females were accompanied, while only 7 males (approximately 23.3%) were in Greece with a guardian, or in other words, about 3/4 of boys in the study were unaccompanied.

Figure 2. Joint distribution of status, grade, ethnicity and gender of the students in the pilot study

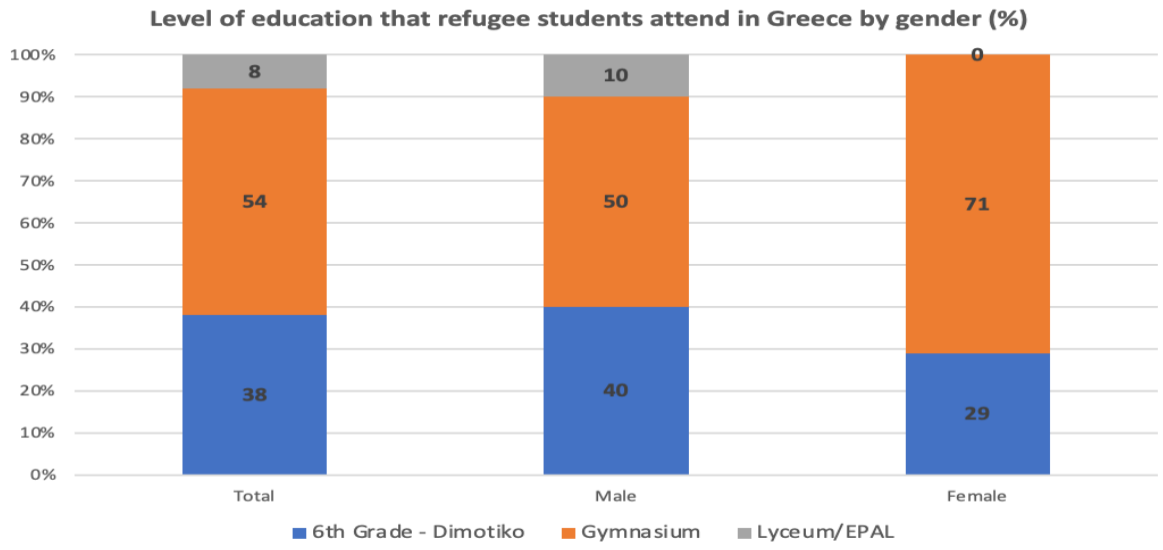


Regarding ethnicities, the largest groups were Somalis (13 students or 35.2%) and Ukrainians (10 students or 27.0%), followed by Syrians and Iraqis (5 students from each ethnicity or 13.5%) and Afghans (4 students or 10.8%). It is worth mentioning that out of the 14 accompanied students, only 5 Ukrainian parents completed questionnaires and none from all the other ethnicities combined. The remaining accompanied children other than Ukrainians were 4 (2 girls from Afghanistan, 1 boy from Iraq, and 1 boy from Syria). On status and ethnicity, all Somali students were unaccompanied, while all Ukrainians were accompanied.

Regarding the percentages by grade, these are approximately uniformly distributed; 17 students (45.9%) attended upper secondary school (Lyceum/EPAL), 14 students attended lower secondary school (Gymnasium; 31.8%), while 6 students (22.3%) attended 6th grade of primary school. As far as the status of the children, all the children attending high school were unaccompanied. It is important to note that the Somali students were all unaccompanied male Lyceum/EPAL, Ukrainian students (all accompanied) were younger (no student from Ukraine attended higher secondary education), while for the remaining ethnicities, their percentages were more distributed. Finally, regarding the age of the students, the overall mean age is 16.25 years (sd=2.42), with the unaccompanied students (mean=17.44, sd=2.28) being slightly older than the accompanied students (mean=14, sd=1.41).

In total, 14 students (38%) of the sample attended the 6th grade of primary school, 20 students (54%) attended the lower secondary school (Gymnasium), and 3 students (8%) attended the upper secondary school (Lyceum/EPAL). There were no female students in the sample attending upper secondary school (Lyceum/EPAL; See Table 2).

Table 2. *Level of education by gender*



4.1.2 Results from the Strengths and Difficulties Questionnaire (SDQ) and Child and Youth Resilience Measure-Revised (CYRM-R)

To investigate the correlations between the psychometric scores of participants in the study, we used the nonparametric Spearman correlation coefficient, which shows the monotonic (positive or negative) correlation between each pair of variables. Along with this, we applied the corresponding

two-tailed statistical test for each pair to determine if the Spearman correlation coefficient of the pair is statistically equal to 0.

The variables (psychometric scores) we used are the SDQ prosocial (the only SDQ score that has a positive contribution in the sense that the higher it is, the better the student's perception of mental health), the SDQ Total Difficulties, SDQ internalizing, SDQ externalizing, SDQ impact supplement, and CYRM overall (the CYRM score also has a positive contribution, as higher values indicate). We provide these pairwise coefficients for these six scores in three cases: accompanied students, unaccompanied students, and overall, comparing each of these three groups, namely students, teachers, and parents/guardians (denoted by st, t, and g, respectively). Thus, resulting in a total number of 6x3=18 scores and creating three 18x18=324 cell correlation matrices (for the accompanied students, the unaccompanied students, and overall).

The results are presented in Figures 3, 4, and 5, which are the correlation plots (i.e., the visualization of the correlation matrices) of all pairwise combinations for all the groups of respondents, the accompanied minors, and the unaccompanied ones, respectively.

The color palette of the plot indicates the type and strength of the monotonic correlation, ranging from dark red (negative correlation, with Spearman correlation coefficient values close to -1) to dark blue (positive correlation, with Spearman correlation coefficient values close to 1), while faded colors indicate Spearman correlation coefficient values close to 0, i.e., loose correlation or lack thereof. For visualization purposes, Figures 3, 4, and 5 show only the correlation coefficients that are statistically significant at a significance level (type I error) of 5%, while cells without a value indicate that the corresponding correlation coefficient is not statistically significant. In other words, we observe the cells whose p-values are below 0.05, so we reject the null hypothesis of no association at the 5% significance level.

From the results, we see that the SDQ prosocial and CYRM scores are negatively correlated with the other scores, while most of the scores within each group have statistically significant correlation coefficients, creating some blocks (commented below) of statistically significant correlation coefficients. Specifically, each correlation matrix has 9 blocks created among the 3 different groups.

The matrices are symmetrical along the main diagonal (i.e., the blocks between the groups above and to the right of the 3 diagonal blocks appear inverted at the bottom and left of the Table). From these, three blocks with significant correlations are created (more clearly in some cases, less clearly in others): one with the children's responses (top left), one with the teachers' responses (center), and one with the parents/guardians' responses (bottom right).

Apart from the SDQ internalizing or SDQ externalizing which are mathematically related to the SDQ Total Difficulties (making such occurrences logical), the blocks with significant correlations show consistency in the participants' responses, especially among the teachers who have more intense colors, followed by the students, and finally the parents/guardians.

The only exception to this result is the group of parents/guardians for the accompanied minors where only one correlation coefficient is statistically significant (between SDQ externalizing and CYRM, correlation coefficient=-0.92 and p-value=0.028). However, this is logical due to the particularly small sample size (only 5 parents), which is not sufficient to capture any pairwise associations, even if they exist. This is also confirmed by the “Not a Number” (NaN) indication in all correlations of the SDQ impact supplement for the parents/guardians because the score for all parents was the same (zero), so there was no variability in this measure and the correlation coefficient could not be defined.

However, what is of greater interest are the correlation coefficients among groups, as these will indicate the understanding of teachers and parents/guardians regarding the mental health (emotional and behavioral problems) and resilience of children, based on the principle of triangulation.

In this case, for all the matrices, the concentration of statistically significant correlations is smaller compared to the correlations within the same group, and the (weak) correlations that are statistically significant (or very close to being statistically significant) come mainly from pairs of students and teachers (the correlations above the teachers' block and to the right of the students' block), or teachers and parents/guardians (center right).

In other words, statistically significant correlations between students and parents/guardians are absent (top right). Between students and teachers, for the overall matrix, indicatively we have cor(SDQ-Total-difficulties-st, SDQ-Total-difficulties-t)=0.44 (p-value=0.006), cor(SDQ-Total-difficulties-st, CYRM-t)=-0.33 (p-value=0.044), cor(CYRM-st, SDQ-Total-difficulties-t)=-0.34 (p-value=0.039), cor(CYRM-st, CYRM-t)=0.32 (p-value=0.051).

On the contrary, at the top right of the overall matrix, we observe that the corresponding coefficients between students and parents/guardians are generally statistically non-different from 0 at the 5% significance level (i.e., the corresponding p-values are greater than 0.05). Only one correlation is statistically significant (between the students' SDQ impact supplement and the parents/guardians' SDQ internalizing, which is likely at the margin of statistical error, as the correlation coefficient is negative (correlation coefficient=-0.41 and p-value=0.044), which does not align with any logical hypothesis.

Finally, it is worth mentioning the existence of some significant (weak) correlations between teachers and parents/guardians (center right). Continuing with the matrices representing the correlations of accompanied and unaccompanied minors, we see that few correlation coefficients are statistically significant, which is logical to some extent due to the extremely small sample size of the pilot. Given that correlations between groups are not strong (it is reasonable that they are weaker than correlations within groups), larger sample sizes are needed to reduce uncertainty and reveal statistically significant correlations.

The above findings indicate the existence of (weak) correlations in the psychometric score responses between students and teachers, rather than with parents. Although multiple statistical tests inflate the number of false rejections of the null hypothesis, the results can be used as an initial tool for understanding children's emotional, behavioral problems as measured by SDQ and resilience as measured by CYRM-R, from the answers of teachers and parents/caregivers.

Figure 3. *Correlation matrix with significant Spearman's correlations (α=0.05)-SDQ and CYRM-R triangulated*

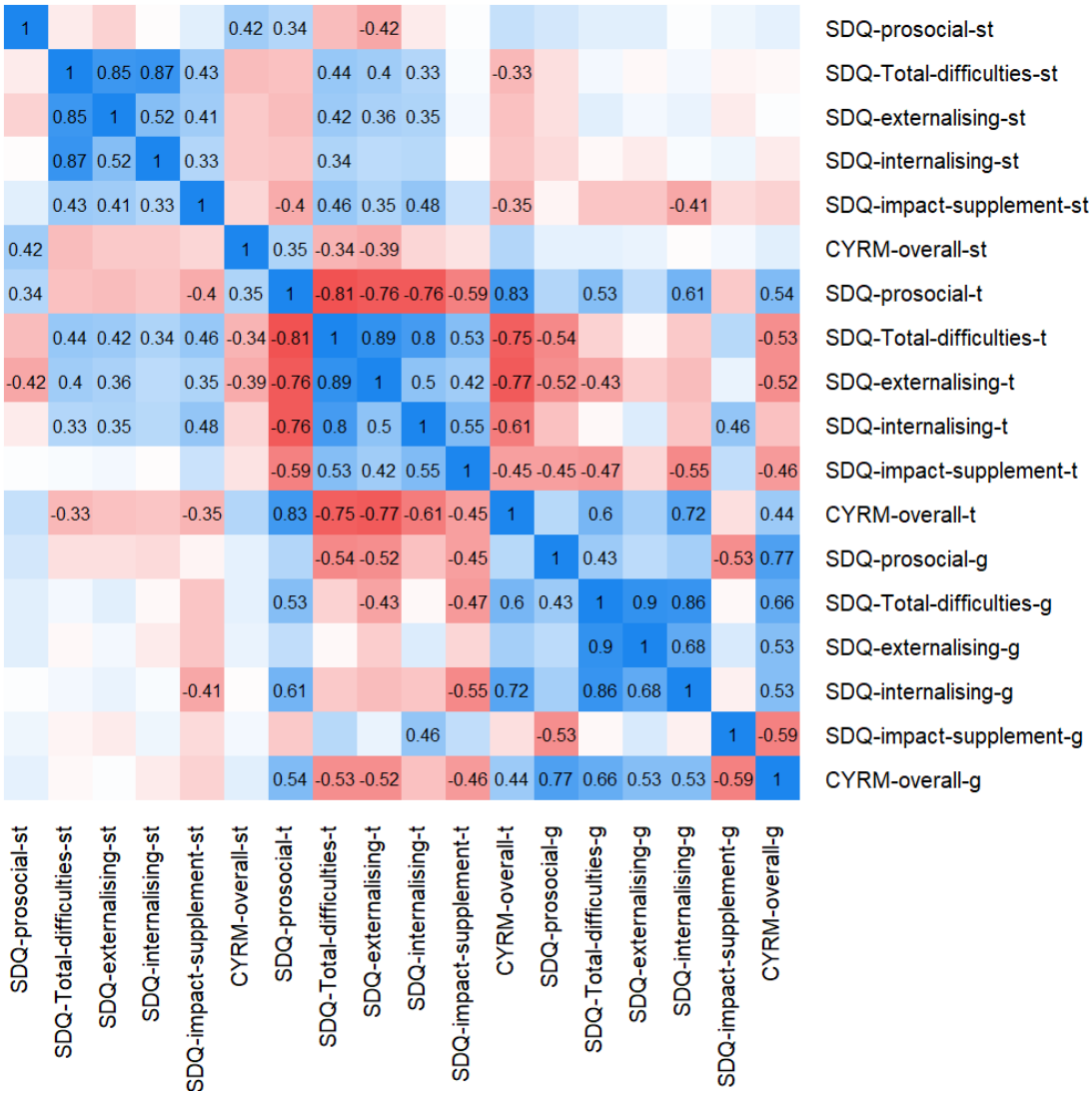
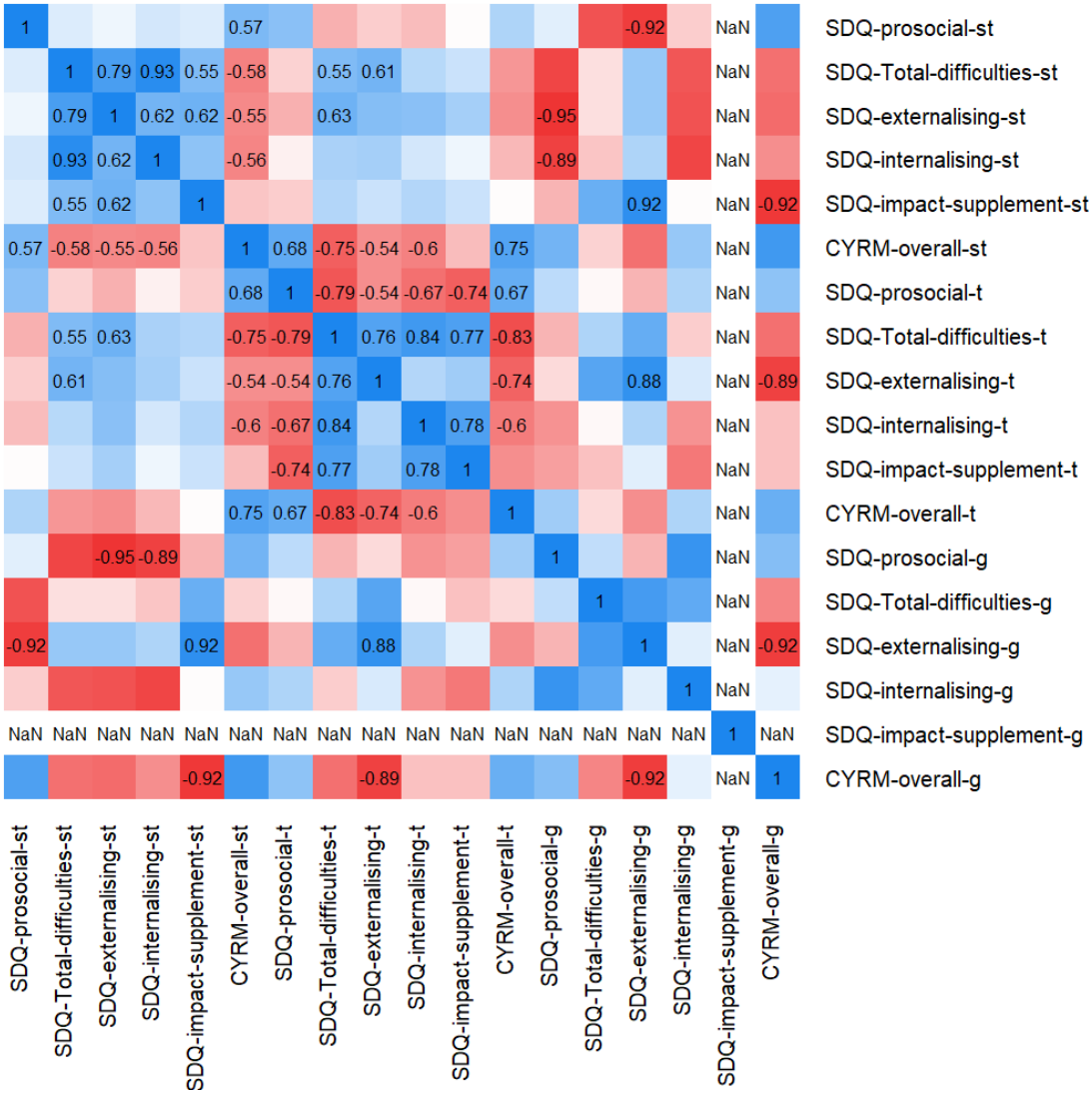
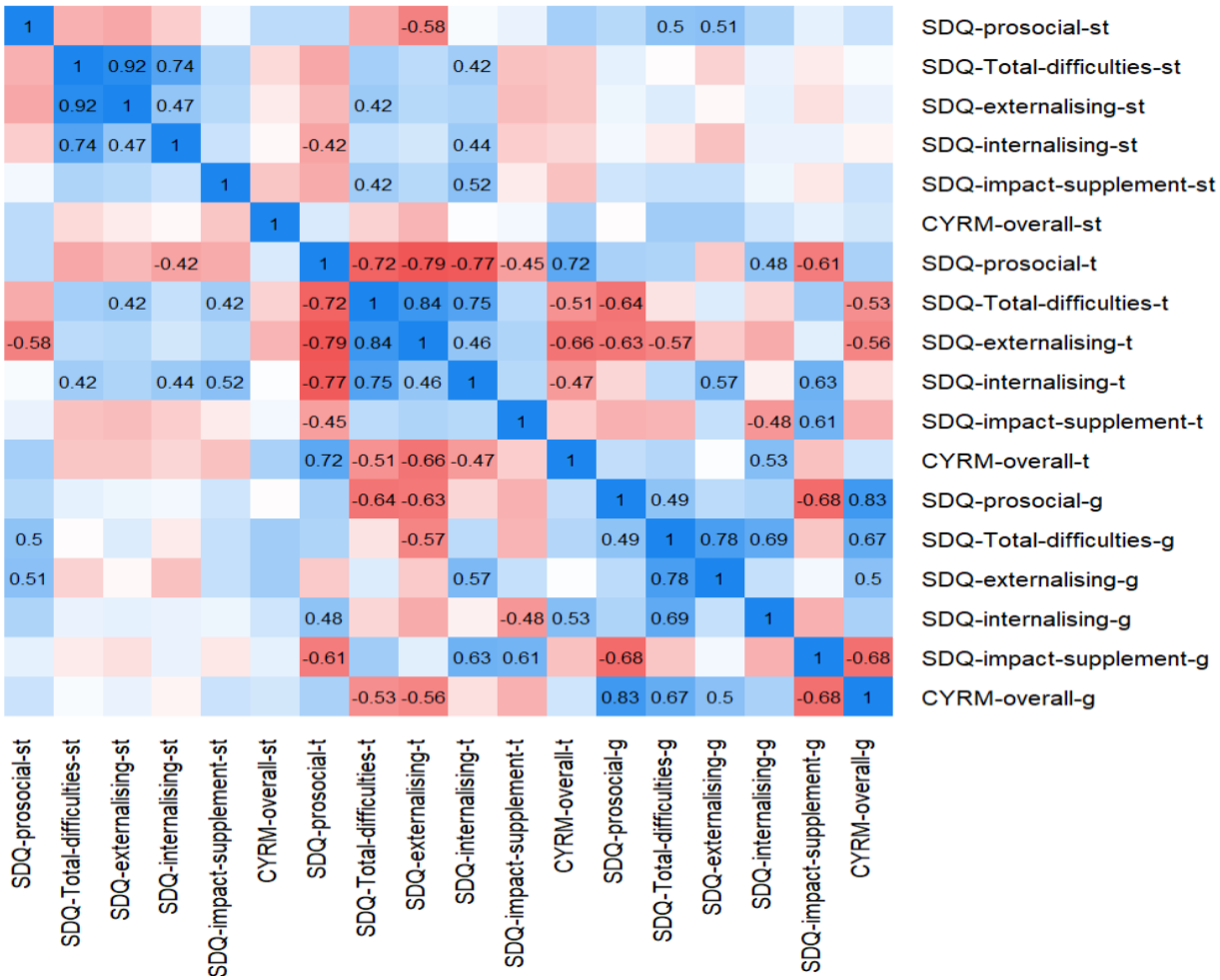


Figure 4. Correlation matrix with significant Spearman's correlations (α=0.05) for accompanied students



*NaN: Not a Number

Figure 5. *Correlation matrix with significant Spearman's correlations (α=0.05) for unaccompanied students*

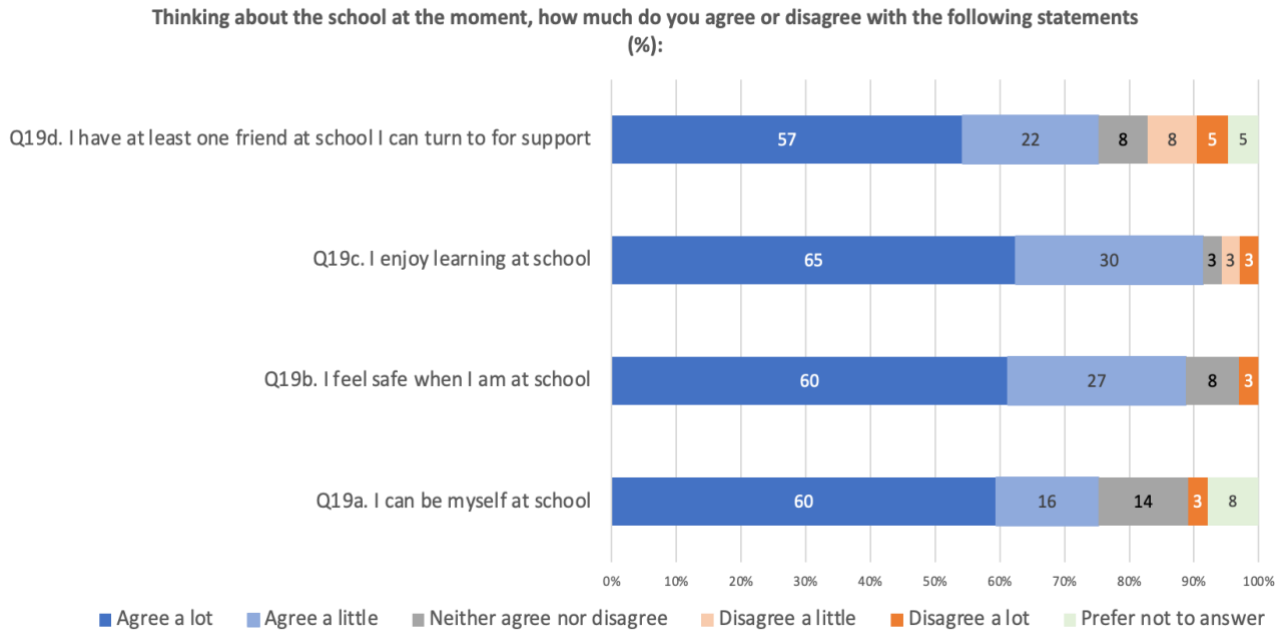


4.1.3 School environment

In this section some indicative findings related to the school environment are presented. Table 3 shows that a significant majority of students, 57%, strongly agree that they have at least one friend at school they can turn to for support, with an additional 22% agreeing slightly. This suggests that 79% of students feel they have a strong peer support network. However, 8% neither agree nor disagree, while 13% (8% disagree a little, 5% disagree a lot) do not feel they have such support, and 5% preferred not to answer. In addition, 65% of students strongly agree that they enjoy learning at school, and 30% agree a little, indicating a high level of positive engagement with their educational experience (95% in total). Only a small fraction, 3%, express a neutral stance, and another 3% disagree a little. A minimal 3% preferred not to answer.

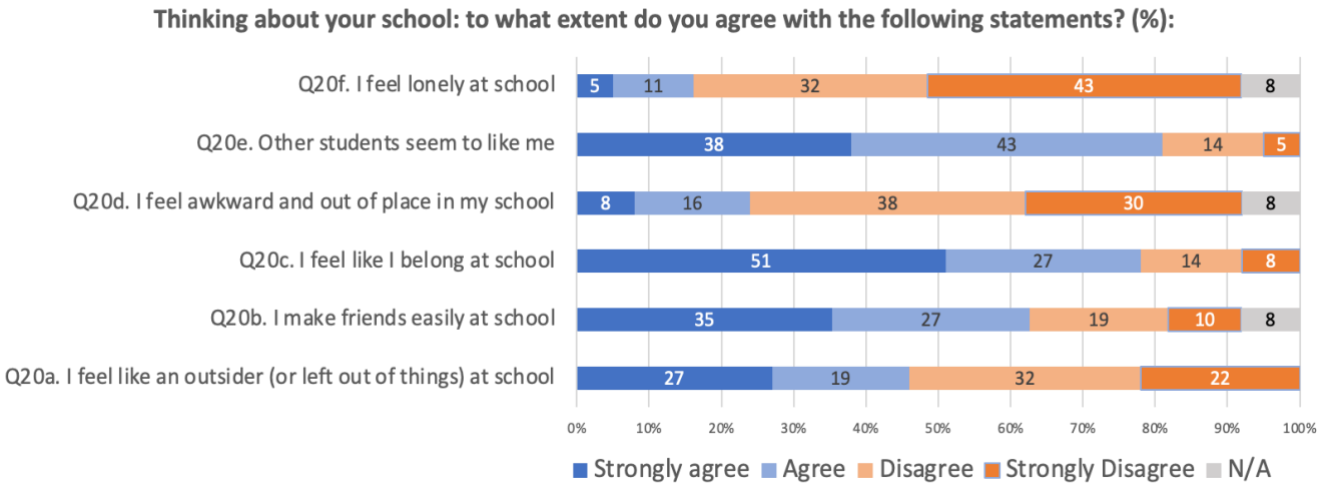
The perception of safety among students seems to be robust, with 60% strongly agreeing and 27% agreeing to some extent that they feel safe at school, totaling 87%. Additionally, 8% of students responded neutrally, while 3% disagreed slightly. None of the students strongly disagreed, indicating a generally safe and positive school environment.

Table 3. *Students' assessment of the school environment*



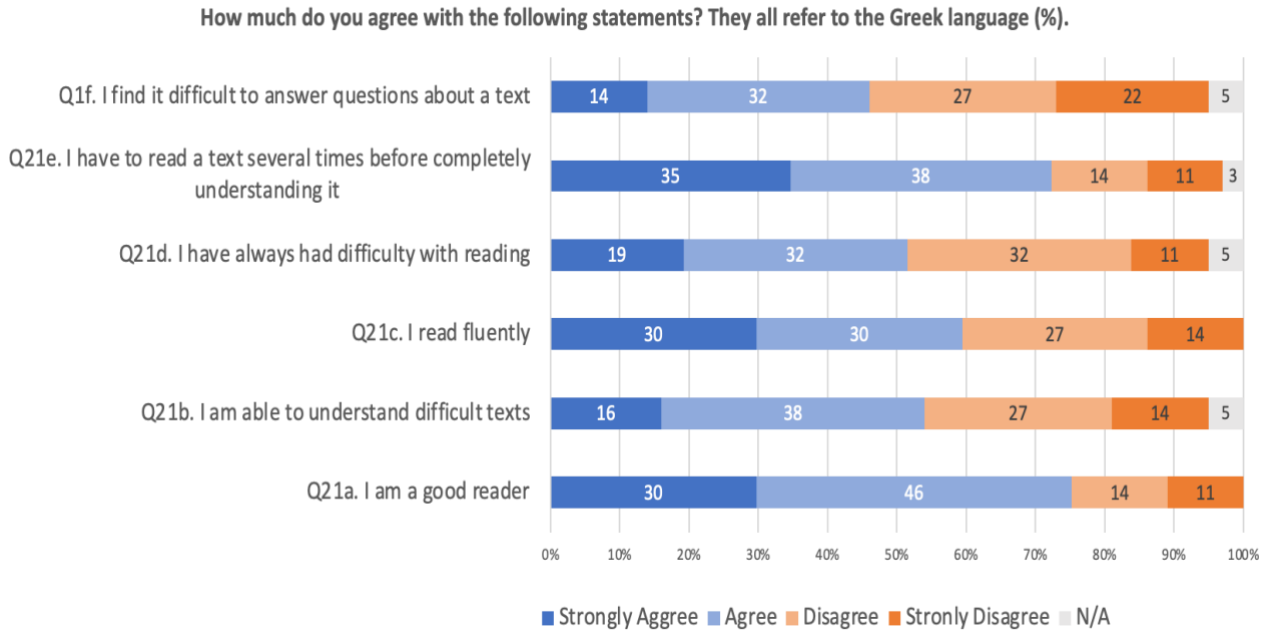
As Table 4 indicates a small proportion of students, 5% strongly agree and 11% agree that they feel lonely at school, totaling 16%. A significant 75% (32% disagree, 43% strongly disagree) do not feel lonely, indicating a generally positive social environment at school. The majority of students, 38% strongly agree and 43% agree, feel that other students seem to like them, making up 81%. Moreover, 24% of students feel awkward and out of place (8% strongly agree, 16% agree), while the majority, 68% (38% disagree, 30% strongly disagree), do not share this sentiment. A significant 46% of students feel like outsiders (27% strongly agree, 19% agree). However, 54% do not share this feeling (32% disagree, 22% strongly disagree), indicating varied assessments of the sense of belonging at school.

Table 4. *Students' assessment of the sense of belonging at school*



Overall, the data indicates that while the majority of students feel liked, safe, and able to make friends, a significant minority experiences feelings of loneliness, awkwardness, and social exclusion at school. According to Table 5 most refugee students (73%) either agree or strongly agree with the statement, "I have to read a text several times before completely understanding it.", while 76% agree or strongly agree with the statement, "I am a good reader." Regarding the statement: "I find it difficult to answer questions about a text" answers were split between 46% who agree & strongly agree, and 49% who disagree and strongly disagree.

Table 5. *Students' responses on their perceived educational performance*



4.2 Qualitative findings

The qualitative data include teachers' insights and reflections on the two focus groups. The thematic analysis yielded several different themes, all of which captured some aspects that shaped students from refugee backgrounds educational experiences, as perceived by their teachers. However, considering both the volume of collected material, the present analysis will only address four main themes that encapsulate the views of teachers regarding school-related factors shaping the educational experiences of students with a refugee background. These themes are a) the challenges of reception class teachers, b) different educational experiences, c) lack of collaborative culture, and d) positive and negative impact on students (See Figure 6). Table 6 shows the themes, subthemes, and examples of participants' quotes.

Figure 6. *Themes of the thematic analysis*

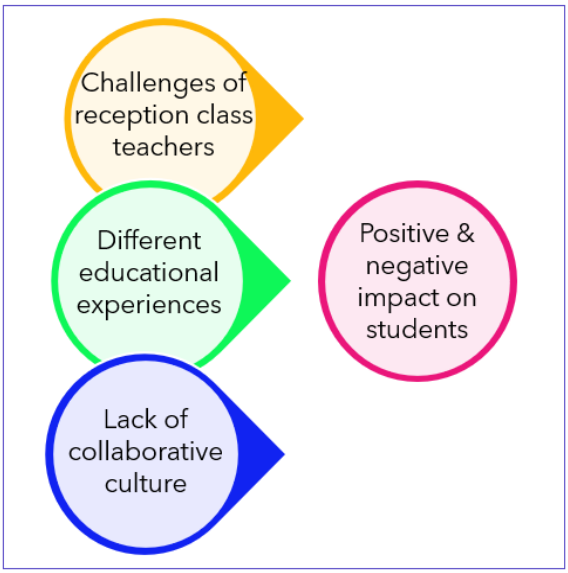


Table 6. *Themes, subthemes and participants' quotes from the focus groups*

Themes	Subthemes	Examples of participants' quotes
Theme 1: Challenges of reception class teachers - "The poor relative of the school"	**A. Hiring of teachers**	*… in September when we were not hired, we were hired in November, we're not even there, during the academic design of the students' program.* (Formal Education Teacher B) *…the teacher in the reception class left in the middle of the year and then the children could not continue going to the Greek lessons.* (Non-Formal Education Teacher A)
	B. Part-time work and pay	*The budget. Reception class teachers are hired for 15 hours.* (Formal Education Teacher H) *I, who want to stay in refugee education and teach children with this background, I have to think that I will get half a salary and that my points [for rehire in the next year] will be half.* (Formal Education Teacher B)
	C. Lack of teaching experience in Greek as a foreign language	*We know language, we know Greek, we are language arts teachers [philologists], but we don't teach it to first graders. It is at least for me something outside my waters, I had a lot of difficulty at first.* (Formal Education Teacher C)

Theme 2: Different educational experiences - "What is the point of coming? They didn't understand anything"	**A. Challenging curriculum in general education**	*Most children are thrown into a class that has nothing to do with their background, the teacher they have and the language they don't know or know very little. So, in no way can they cope with an academic vocabulary, so that's where it ends.* (Non-Formal Education Teacher C) *..but the student can't be giving exams in Ancient Greek, simply because it's his second year in school.* (Formal Education Teacher G)
	B. Differentiation in reception class	*…this is positive because we make our own materials more adjusted to the needs of children.* (Formal Education Teacher B) *They are very simple ways to differentiate a quiz... I kept the same topics just with different syntax, structured them and differentiated.* (Formal Education Teacher G)
Theme 3: Lack of collaborative culture - "Children are not enrolled in a reception class but in a Greek school"	**A. General education vs reception class teachers**	*It also requires better cooperation with the teachers of the general education classes who are probably not so...* (Formal Education Teacher E) *…because there is this gap in the law, we are also unprotected as reception class teachers because there will not always be a well-intentioned colleague who will tell you to differentiate.* (Formal Education Teacher G)
	B. Formal vs non formal education teachers	*… and we said these are the afternoon teachers [from NGOs], let's coordinate them with the morning teachers so that in the afternoon the children do the homework for the morning classes, a simple thought, which had never been implemented.* (Formal Education Teacher F)
	C. Social exclusion of refugee students	*… on the class trip we went to a nearby area that was an auditorium and a forest, they were alone. This was the image of the refugee children. There was no connection with the rest of the student community.* (Formal Education Teacher A)
Theme 4: Positive and negative impact on students – "The classroom as a shelter vs dropping out"	**A. Protective role of the reception class teacher**	*A young man called me mom... he was in tears, and I was very impressed… the relationship was incredible. And this also helped their performance in Greek.* (Formal Education Teacher E) *They were revealing things to me that shouldn't be said. How will the family get here…They wanted to share them. It was necessary, I could see it. I sat and listened to it.* (Formal Education Teacher D) *He [reception class teachers] is a point of reference. We also used him as a teacher advisor... he is the person they trust…he is the human link with everyone… he makes school extremely easy.* (Formal Education Teacher H)

	B. Drop out as a protective strategy	*Apart from the educational aspect that does not offer them anything, I think that it [attending general classes] also does them no good psychologically. Of course, in the end they don't go…* (Formal Education Teacher I) *All this instability they feel throughout their life, they have nothing stable, they don't even have their teacher stable.* (Non-Formal Education Teacher B) *They preferred to stop going after a point because they didn't feel the school familiar [after the reception teacher left].* (Non-Formal Education Teacher A)

The teachers who participated in the focus group discussions described the constraints at the systemic level, which have an impact on the educational experiences of students from refugee backgrounds. For example, teachers stated that an emergency-linked budget, which would not cover basic educational needs, as well as the delays in the hiring of staff and the insufficient training of the latter played a key role in the poor quality of instructional planning and in the inadequate teaching methods employed in refugee education in Greece.

Teachers also pointed out that, despite the implemented measures and policies for a more inclusive education, students from refugee backgrounds continue to be substantially secluded and "marginalized" in the reception classes, which focus on teaching Greek as a second language, and run in parallel with general education classes in public schools.

In addition, from teachers' narratives, it becomes clear that children's attendance at school is greatly determined by the relational aspects of their school experiences. For example, all teachers underlined the important role of the reception class in optimizing the learning experience and indicated that the reception class's teacher acts as a guiding influence for the refugee children. Thus, the reception classes functioned as a personalized learning and social-emotional supportive environment aiming at academic success through language teaching for students from refugee backgrounds. These positive experiences are particularly important as mastering the language of instruction plays a key role in refugee children's psychological well-being as well as in school and community integration (Aligfeli & Hunt, 2022; Mezzanotte 2022).

5. Conclusion

The findings from the pilot study suggest that teachers demonstrate a nuanced understanding of the challenges and psychological resilience of refugee students. However, a similar level of comprehension does not appear to be evident among parents or guardians. These interesting insights underscore the importance of targeted interventions, highlighting the need for further research. Reception class functions as a separate educational program with limited resources. There is a lack of continuity in education of students with refugee backgrounds. Reception class teachers are a protective factor in the lives of students with refugee backgrounds. Valuable educational practices are developed and implemented in reception classes (e.g., differentiation of instruction). It is important to support and provide training for teachers in general education and reception classes. Thus, there is a necessity for sustainable and flexible educational policies and practices concerning refugee education to ensure equitable learning environments for students with refugee backgrounds.

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