



TALLINN UNIVERSITY OF TECHNOLOGY  
SCHOOL OF ENGINEERING  
Department of Mechanical and Industrial Engineering

**ADAPTATION OF UKRAINIAN REFUGEE YOUTH  
INTO THE ESTONIAN EDUCATIONAL  
ENVIRONMENT**

**UKRAINA PAGULASNOORTE KOHANEMINE EESTI  
HARIDUSKESKKONNAGA**

MASTER THESIS

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Tallinn 2024

(On the reverse side of title page)

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**THESIS TASK**

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**Thesis topic:**

(in English) *Adaptation of Ukrainian refugee youth into the Estonian Educational environment*

(in Estonian) Ukraina pagulasnoorte kohanemine Eesti hariduskeskkonnaga

**Thesis main objectives:**

1. Understand and analyze the everyday life of Ukrainian refugee youth in Estonia
2. Identify potential issues stemming from trauma related to war and relocation
3. Develop a design concept to aid in the adaptation of Ukrainian refugee children

**Thesis tasks and time schedule:**

No	Task description	Deadline
1.	Complete theoretical research	01.02.23
2.	Field research	01.07.23
3.	Design Concept drafting	01.10.23
4.	Thesis finalization	01.01.24

**Language:** ..... **Deadline for submission of thesis:** ".....".....20....a

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## **PREFACE**

The selected research topic, overseen by Kätlin Kangur from the Department of Mechanical and Industrial Engineering, delves into the critical importance of assimilating Ukrainian refugee youth into Estonia's educational framework. The conflict commenced by Russia against Ukraine has resulted in a substantial wave of refugees seeking safety and stability in neighboring nations such as Estonia and the research focuses on the pressing need to integrate such students. Their successful integration significantly influences not just their academic progress but also profoundly affects their emotional welfare, social belonging, and future opportunities.

The preface is aimed to convey sincere appreciation to Kätlin Kangur for her invaluable contribution to the project. The project's objectives were unattainable without Kätlin Kangur's substantial involvement in its development and elaboration. Certainly, I'd like to extend my gratitude to the Räägu School in Tallinn, particularly Principal Natalja Mjalitsina and the teachers. Their support during the interviews and school visits was immensely valuable, providing essential insights for the project's development.

Keywords: Primary Education, Adaptation, Ukrainian refugees, Refugee children

# 1. INTRODUCTION

In February 2022, Russia launched a full-scale aggression against Ukraine, resulting in the invasion of Ukrainian territory and a significant evacuation of residents. As of December 2023, approximately 153,000 Ukrainian citizens had relocated to Estonia due to the ongoing invasion. The war precipitated a humanitarian crisis of substantial magnitude. Among the deeply affected groups, Ukrainian refugee youth found themselves thrust into the unfamiliar terrain of Estonian educational settings. This educational migration, fueled by the tumultuous circumstances back home, presents a multifaceted challenge marked by cultural dissonance, linguistic barriers, and trauma-induced adaptations. Addressing the challenges, they face within the educational environment is pivotal to fostering a supportive atmosphere, ensuring these young individuals have the necessary tools and opportunities to thrive despite the adversities they've encountered.

Understanding and addressing the complex process of how young refugees integrate into the Estonian educational environment is crucial for their adaptation to new societies. It's an issue of significance not just from the refugees' perspective but also from the standpoint of the state or society. As the refugee crisis continues to be a challenge, exploring and comprehending this adaptation process is pertinent for future issues that might arise (del Llano 2019). The thesis delves into the challenges and opportunities associated with adapting Ukrainian refugees to a new educational environment. It seeks to explore whether schools can facilitate and alleviate the issues related to adapting to new living environments. The main objective of the thesis is to identify how elementary schools can create a welcoming and inclusive environment for refugee children, who have experienced trauma and displacement. A welcoming environment can be defined as a space or setting where people feel comfortable, accepted, and included. It fosters a sense of belonging and community, encouraging people to share their thoughts and ideas freely and to engage in positive interactions with others. It is a place where diversity is celebrated and differences are embraced, creating a safe and inclusive space for all who enter (Bucholz & Sheffler 2009).

A significant fraction of the world's population has suffered the effects of war, displacement, and persecution; furthermore, refugee families often face numerous stressors during resettlement including inadequate housing conditions and poverty that negatively affect both their children's behavior as well as emotional health (World Health Organization 2022). Existing literature surrounding asylum seekers and refugees indicates a difficulty in developing social bonds with others in their newly adopted

community leading many individuals within these groups to feel isolated which may exacerbate existing psychological troubles such as anxiety or depression (Ermansons et al. 2023).

Creating a welcoming and inclusive environment for refugee children at school is crucial for their successful adaptation. By fostering a supportive atmosphere, schools play a pivotal role in these children's lives. A welcoming environment not only aids in their academic progression but also significantly contributes to their emotional well-being and social integration. When schools prioritize inclusivity and understanding, they facilitate a smoother transition for refugee children, fostering a sense of belonging and safety. This sense of belonging encourages confidence, supports resilience, and allows children to thrive despite their challenging circumstances (Block 2014). The thesis looks into ways of creating a learning approach that embraces diversity, engagement, and displacement. Therefore, the central research question of this thesis is: 'How can elementary schools create a welcoming and inclusive environment for refugee children, who have experienced trauma and displacement?'

## **2. BACKGROUND OF THE PROBLEM**

Regardless of an individual's gender, race, socioeconomic status, religion, or creed, every individual is entitled to a set of human rights, which are moral principles that can be used to illustrate certain behaviors and are protected by law, and are applicable all around the world. The right of the child to receive an education is among human rights and it was claimed by the United Nations in the Universal Declaration of Human Rights, adopted by the United Nations General Assembly in 1948 to be an obligation for each individual to receive secondary education. States are required to provide all children with equal access to educational resources.

During the early 21st century's worldwide refugee crisis, numerous individuals were displaced from their homes, especially due to conflicts in the Middle East. This global upheaval led to the evacuation of many, including minors and adolescents, who were forced to leave behind not just their homes but also their families and the educational institutions where they had been learning (Suarez-Orozco 2019). Upon arrival to unfamiliar academic establishments come several obstacles including acquiring knowledge regarding a new language as well as confronting cultural disparities following mental distress. In society's hierarchy of vulnerability exists youths at the topmost rung according to UNHCR reports which estimate that there are more than 26 million refugees dispersed globally where over half depict those below the age threshold for legal adulthood (18 years). The quality education advocacy amongst this population presents persistent challenges due to failures or exclusion from opportunities thereby jeopardizing lifelines sorely needed by such individuals faced with trauma hindering adaptive abilities towards educational purposes. Hence, it's crucial to focus on providing coping mechanisms for refugee youth and effectively equipping them with useful methods to ensure proper retention, even in the face of emotional disruptions.

Numerous immigrants have experienced the effects of war, displacement, and persecution as well as refugee families experience various stressors during their resettlement, such as poor housing conditions and poverty which can negatively impact the behavior and emotional health of the children. In addition, the literature on asylum seekers and refugees suggests that social bonds can be difficult to develop. A great number of refugees and asylum seekers feel isolated and have trouble connecting with other people in their new community and various psychological problems such as depression and anxiety exacerbate the issue (UNHCR Handbook 2020).

Numerous obstacles exist that hinder the full participation of refugee children in education, yet among existing challenges, there is inadequate information regarding each child's educational background and unique needs, insufficient support from families and schools, improper grade placement for newcomers to a school system, as well as limited funding for educators who go beyond contractual duties. Some studies suggest negative reactions could lead individuals to form new social bonds instead of bridges that assist newly arrived refugees during their initial struggles; however, due to poor quality standards paired with restricted access within the realm of education itself - successful levels remain low overall (OECD 2012). Expertise among resources is often scarce when it comes specifically towards educating the students which is a single key factor affecting high-quality learning experiences among refugees present today.

Studies reveal that forming stable connections and engaging with others can assist recent arrivals in building a sense of assurance and drive to surmount their seclusion (Tournier, Chimier, & Jones 2023). Social interactions are essential to humans, as they maintain building a sense of purpose and belonging as well as develop a sense of security and confidence. Establishing stable connections and interacting with others can help individuals overcome the negative effects of loneliness and isolation, which can result in feelings of inadequacy and insecurity. By connecting with others, an individual can establish a network that enables one to manage their well-being and cope with life's challenges. Besides, being able to establish stable connections with others and develop new perspectives can help an individual grow and develop themselves as through social interactions, people can expand their knowledge, skills, and worldview as well as gain a greater sense of purpose and fulfillment. Establishing a stable network and interacting with peers can help individuals develop a sense of assurance about their potential and abilities since by receiving constructive criticism and encouragement, greater self-worth and confidence in personal abilities can be attained, especially while going through challenging times. Within academia, such networks also enable neophytes to participate more seamlessly; nevertheless, based on the opinions of fellow students, harassment, biases, and unfair treatment may arise towards immigrants or exiles who come off as disparate, yet educators lack the aptitude required for promoting diversity among cohorts (CEPR 2019).

In the context of Ukrainian refugee youth adapting to the Estonian educational system, fostering inclusive and supportive social environments is crucial. Numerous studies, including those by Cartmell & Bond (2015) and Cohen et al. (2018), underscore the significance of such environments in facilitating successful adaptation and academic integration for refugee students. Cartmell & Bond's research notably highlights that

establishing a sense of belonging and social connectedness significantly contributes to academic achievement and psychological well-being among refugee students in educational settings. Similarly, Cohen's findings emphasize the importance of inclusive practices and supportive social networks in alleviating the stress and trauma associated with displacement, thus promoting smoother integration into the education system. These research insights underscore the critical need for targeted interventions and comprehensive teacher training initiatives focused on cultivating social connections, promoting inclusivity, and embracing diversity within educational environments. Studies have shown that when educators actively foster a sense of belonging and encourage interactions among students from diverse backgrounds, it significantly contributes to academic engagement, emotional well-being, and a positive educational experience for refugee youth. Furthermore, evidence-based strategies, such as peer mentorship programs and culturally responsive teaching practices, have demonstrated notable success in supporting the social and academic adaptation of refugee students. Therefore, the integration of these approaches into teacher training programs becomes paramount to ensure a nurturing and supportive environment conducive to the successful educational journey of Ukrainian refugee youth in Estonia.

## **2.1 Historical background of Russian aggression against Ukraine**

Although Ukraine previously belonged to the Polish and Lithuanian Commonwealth, the Russian Empire seized control of the country's eastern region during the 17th century. Empress Catherine the Great then seized control of Poland's central portion during the 18th century. Austria's Habsburg monarchy then incorporated the western part of the country into its empire (Wandycz & Stefan 2001).

The western region of Ukraine is known for its agricultural industry, yet on the other hand, the eastern regions are known for their industrial activities and historically, it has had strong ties with Russia. The relationship between Russia and Ukraine has been vital in terms of the nation's economy and until the late 2010s, Russia had been the top export destination for Ukraine as its gross domestic product was around one-third of that of Russia (Subtelny & Orest 2009).

Due to the restrictions during the Soviet era, the Russians in Ukraine did not consider themselves to be part of the country's ethnic group. Surveys conducted during the 1990s revealed that Russian Ukrainian residents in the eastern region identified themselves as Ukrainian, similarly to the western region. Studies also indicated that the number of people with Russian ancestry who have become stronger Ukrainians has increased since 2014 (Besters-Dilger 2009). Most people in eastern Ukraine are fluent in Russian, and before the annexation of Crimea in 2014, they were not hostile toward Russia (Freeland 2015).

After Ukraine became an independent country in 1991, in fact, it had a pro-Russian government. In 2004, a pro-EU (European Union) candidate won the presidential election, which was supported by the Orange Revolution and as a result, Russia started to exert pressure on Ukraine, which led to the country's natural gas supplies being terminated. Since the election of Viktor Yanukovich, who was a pro-Russian politician, as the new president, Moscow kept a close eye on Ukraine, yet it has always been on the lookout for signs that Ukraine might become closer to the EU (Scheide & Schmid 2014).

Following the Euromaidan Revolution that led to the removal of Yanukovich from office, Ukraine started moving toward the EU. Subsequently, Russia seized Crimea and threatened to expand its influence causing the two nations' relationship to deteriorate. The number of people supporting Ukraine's membership in the North Atlantic Treaty

Organization (NATO) has expanded significantly since then. Although the EU is seen as an economically advantageous organization for Ukraine, the country's main reason for becoming more pro-EU has been Russia's actions.

In 2014, the conflict in Ukraine began after Russia seized Crimea and the situation in the country deteriorated following the protests, which led to the departure of President Viktor Yanukovich resulting in Crimea's occupation by Russian troops. Russian President Vladimir Putin noted that the rights of Russian speakers in the southeast and Crimea were at stake and after Crimea's votes were falsified to become part of Russia, the country formally seized the region. The situation in Ukraine turned increasingly tense as pro-Moscow separatists in the east retained elections jeopardizing independence. Both Ukraine and NATO reported that Russia had been carrying out military activities in the region, including the deployment of heavy weapons and military equipment. The conflict then escalated into stagnation, with consistent confrontations and artillery bombardment occurring along the border between Ukraine and Russia. The four nations, which included Russia, France, Germany, and Ukraine, tried to launch a dialogue to end the fighting in Ukraine by establishing the Minsk Agreements in February 2015. The agreement provided for a ceasefire, the disengagement of heavy weapons, and full control over the region by the Ukrainian government, however, the efforts to establish a settlement and end the fighting were not successful (Smith & Harari 2014).

From November to December 2021, various social media platforms and commercial satellite imagery revealed that Russia was moving heavy weapons and armor toward Ukraine, and by the end of the year, over a hundred thousand troops were massed near the border with Ukraine. The images, which were taken early in February 2022, showed that Russia had deployed large numbers of troops near Belarus. Although the US, Germany, and France tried to resolve the matter, the solution was not reached eventually (Zabrodskyi et al. 2022).

During the meeting of the UN on February 24, 2022, Putin announced the launch of a full-scale invasion of Ukraine, involving the utilization of air, land, and sea forces against the country's military. At approximately 5 am Kyiv time, the invasion emerged, and the Ukrainian Martial law was immediately implemented. A full-scale invasion stood for numerous individuals departing the country seeking protection as countless cities were destroyed almost to the last brick. Millions of refugees fled the war from different cities in both eastern and western Ukraine, alone or with children or elderly parents. Europe has not seen such a scale since the end of World War II (Bielka et al. 2023).

## 2.2 Ukrainian refugees in Estonia

On 24 February 2022, Russia initiated a full-scale aggression against Ukraine and the invasion by the Russian military into Ukrainian territory led to a considerable number of individuals being compelled to evacuate their residences. According to the Estonian Police and Border Guard Board, at the beginning of February 2023, a substantial number of Ukrainian citizens relocated to Estonia due to the full-scale invasion amounting to roughly 125,000. Subsequently, approximately 50% have already returned to Ukraine or left for other places. The tally shows that as of November 2023, nearly 36,000 refugees from Ukraine are in possession of temporary protection status - this is believed to be the largest group obtained anywhere worldwide (Estonian Police and Border Guard Board 2023, Number of applicants for temporary and international protection). In order to legally reside in Estonia and have eligibility for employment and education, individuals from Ukraine can apply for a temporary protection residence permit, which endows refugees with equal opportunities and advantages as individuals who belong locally within Estonian society's resources and services available at the disposal such as healthcare access, etc. (Cedefop 2022). However, the exact residing term is uncertain on account of war circumstances remaining indeterminate presently which contribute more complexity when trying to integrate newcomers into country-wide affairs such as education and labor systems.

Refugees are provided with the necessary information about employment opportunities, education, and health care alongside administrative procedures at regular events organized by educational institutions and local governments. Besides regular events, Vocational Education and Training (VET) institutions employ existing networks to exchange information about programs and activities, for instance, dedicated web pages for a variety of languages designed by various bodies, including the Ministry of Education and the Unemployment Insurance Fund. Furthermore, the Unemployment Insurance Fund supported the development of an enhanced understanding of the refugee position in Estonia, and in addition to that, through direct contact, volunteers were able to provide refugees with the necessary information and services. Estonia is dedicated to providing Ukraine's children and young individuals with the opportunity to pursue education, including both general and higher education concerning Ukraine's demand to maintain connection with its culture and language. The Parliament has approved a budget rendering nearly 76.7 million euros to assist war refugees with education, in particular, facilities for children and adults to learn the language of Estonia, including summer camps and language immersion programs (Haridus-ja Teadusministeerium 2022).

Despite having high academic credentials, many refugees are not able to access the high-skilled positions in Estonia due to a lack of knowledge about the country's language and that is why Estonia offers adult education by means of training courses. Through the next round of funding, VET institutions can provide continuing or retrained courses to support refugees in finding jobs and improving proficiency which can be done in Russian. Despite the number of Russian speakers among the refugees from Ukraine, there are infinite limitations when it comes to learning English or Russian in Estonia, however numerous VET schools in the country accept students who have not previously learned foreign languages. The former Russian language learners in upper secondary VET started using the Estonian language as their primary medium of instruction in 2020. Although this allows them to continue with up to 40% of their studies in Russian, there is only a limited selection of curricula. According to feedback from schools, most refugees are motivated to learn the Estonian language as statistics show that they are most likely to enroll in various labor market training courses (OECD 2020).

To ensure that Ukrainian students have the necessary education, the government has launched a number of measures to improve the quality of VET education, including establishing high autonomy of educational institutions, providing free access to all programs, and working with employers to develop training programs that meet the needs of the labor market. The illustration of registered children and young people from Ukraine in the Estonian Education Information System (Haridusandmete portaal) can be seen in Figure 2.2.1.

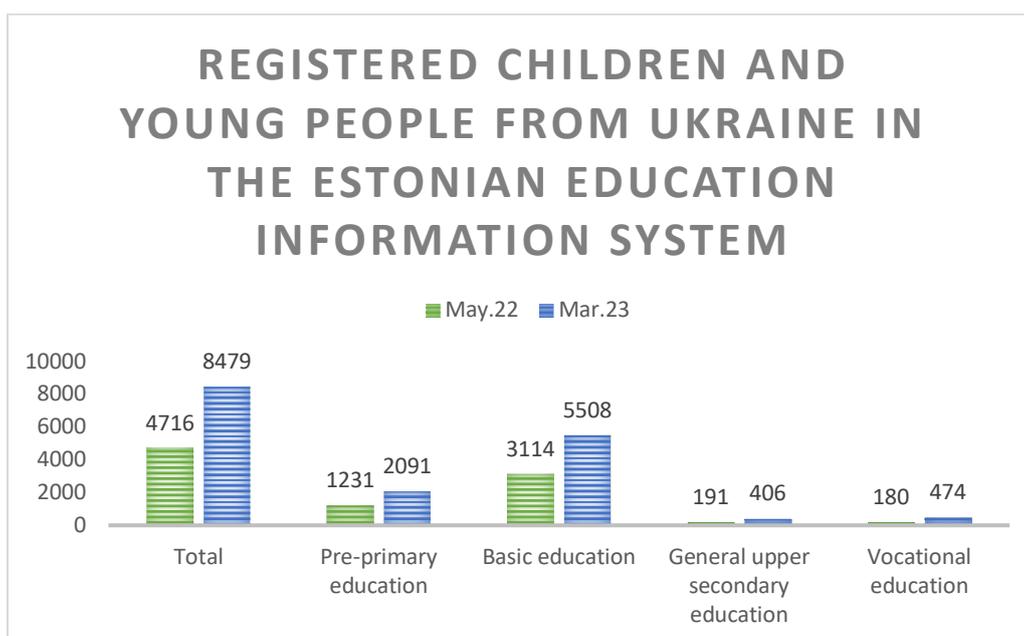


Figure 2.2.1 Registered children and young people from Ukraine in the Estonian Education Information System (Haridusandmete portaal)

## **2.3 Routine aspect of Ukrainian refugees in Estonia**

Exploring the adaptation of Ukrainian refugee youth in Estonian schools involves understanding their daily lives in the country. This subchapter aims to provide a comprehensive look at the experiences and challenges the refugees face beyond the classroom. By closely examining routine aspects, the goal is to reveal the various factors influencing the adaptation journey and to gain insights into the comprehensive support systems.

### **Temporary Residency and Asylum**

Providing temporary protection entails granting Ukrainian citizens and their accompanying family members a one-year residency permit, affording them commensurate privileges akin to those enjoyed by established residents of Estonia. This encompasses entitlements such as access to social services, the prerogative to engage in gainful employment, and the facilitation of educational pursuits. Moreover, this status confers the liberty of unhindered mobility within the ambit of the European Union. Pertinent information pertaining to the application process for temporary and international protection, the extension of temporary protection, as well as its potential revocation, can be found within the resources available on KRIIS, Temporary protection for Ukrainian citizens (2022).

Eligibility for temporary protection extends to Ukrainian nationals and their familial affiliates who have arrived in Estonia subsequent to February 24, 2022. Similarly, individuals of alternative nationalities, who have previously been granted international protection within Ukraine, and their accompanying family members who have similarly relocated to Estonia since February 24, 2022, are eligible to submit an application for this status. In instances where an individual has vacated Ukraine prior to February 24, 2022, and due to ongoing hostilities, repatriation remains unviable, recourse to an application for international protection is tenable. Furthermore, it is imperative to note that the purview of temporary protection does not encompass citizens of Ukraine and their family members who were either domiciled or sojourning within Estonia prior to February 24, 2022. Such individuals remain subject to the adjudication of the Estonian Police and Border Guard Board, which may afford them provisional leave to remain in Estonia, even if alternative grounds for residency have elapsed (KRIIS 2023, Temporary protection for Ukrainian citizens).

### **Housing and Shelter**

Ukrainian citizens who have filed applications for international protection are afforded accommodation for a duration of up to four months, as deemed necessary. This

provision aligns with the analogous assistance extended to war refugees who have sought provisional safeguarding under the rubric of temporary protection. The Estonian government not only orchestrates the provisioning of transitory lodgings for war refugees but also extends support in their endeavor to secure more enduring living arrangements. While suitable lodgings can be identified across Estonia, it is noteworthy that the process of securing accommodation, particularly in urban centers such as Tallinn, Tartu, Pärnu, and Haapsalu, may entail a considerably more protracted duration (KRIIS 2022, Place of residence). During the initial stages of the full-scale invasion, the Estonian Refugee Council facilitated the resettlement of refugees, primarily within urban areas, offering short and long-term accommodation options. These accommodations ranged from dormitories, hotels, and apartments to private residences. However, the current situation presents challenges in securing accommodation, compelling refugees to autonomously seek housing.

Within the cohort of war refugees who have sought sanctuary in Estonia, a discernible majority possess a higher education background. Conspicuously, half of the adult war refugees who have recently sought refuge in Estonia are accompanied by underage dependents. Ukrainian war refugees have gravitated toward urban centers, and it is estimated that approximately half of them have established residence in Tallinn. This trend is not surprising, given that over fifty percent of the war refugees currently residing in Estonia originate from Ukraine's principal metropolises. Notably, within this demographic, approximately 68% of individuals have taken up residence in apartment-style accommodations (Lees & Espenberg 2023).

Furthermore, the Estonian governmental authorities have undertaken the initiative to secure a cruise vessel for use as a temporary abode, with the capacity to house up to 3,000 refugees from Ukraine. Over the course of a year, this maritime facility has provided provisional shelter to displaced individuals from Ukraine who sought refuge from the hostilities of war. However, it is imperative to underscore that, owing to the culmination of the extant charter agreement, refugees were obliged to vacate the vessel by February 1, 2023.

### **Healthcare Services**

Ukrainian individuals seeking refuge due to the conflict are ensured immediate access to emergency medical and dental care, COVID-19 testing and vaccination, as well as prescription services. Notably, Ukrainian refugees granted temporary protection are not automatically enrolled in the Estonian health insurance system. Subsequent to securing

a residence permit, individuals are eligible to apply for health coverage under conditions akin to those afforded to Estonian residents.

Furthermore, every war refugee arriving in Estonia from Ukraine is afforded a complimentary comprehensive health assessment. This assessment encompasses a structured interview, a thorough medical examination, a screening for infectious ailments, and a diagnostic evaluation. The findings of this health evaluation are meticulously recorded within a secure health information repository, which safeguards pertinent medical data and examination outcomes (KRIIS 2022, Medical care, medications, mental health). In addition to physical health services, psychosocial crisis intervention is readily accessible through designated information centers and lodging establishments. Moreover, individuals may opt for psychological support via an online platform, which offers services in Estonian, Russian, and Ukrainian languages.

### **Language and Integration Support**

Individuals holding temporary protection status are mandated to complete a 100-hour A1 Estonian language course, in addition to participating in a one-day adaptation program. This adaptation program is tailored for military refugees originating from Ukraine, who have been granted temporary protection status and a corresponding residency permit. Its overarching objective is to furnish comprehensive insights into the quotidian life and prevailing cultural milieu of Estonia. The curriculum encompasses fundamental tenets of the Estonian state, alongside the rights and responsibilities accorded to its residents (KRIIS 2022, Adaptation program for the recipient of temporary protection).

The government provides complimentary language instruction, available both in traditional classroom settings and through online platforms. Within the framework of the adaptation initiative, all adult beneficiaries of temporary protection are required to partake in Estonian language courses at the A1 proficiency level. The duration of the A1 Estonian language course typically spans an average of three months. Participants have the flexibility to select from morning, afternoon, or evening sessions held in various regions across Estonia. Presently, all language groups are at full capacity, with anticipated re-enrollment slated for late 2023. It is pertinent to note that language instruction is conducted exclusively in Estonian, and groups are assembled without regard to the participants' initial linguistic backgrounds, ensuring diverse and inclusive learning environments (Settle Estonia 2023).

## **Financial Support**

Following the acquisition of temporary protection status, Ukrainian war refugees are accorded entitlement to the subsistence minimum on par with individuals, whether permanent or temporary residents of Estonia. The computation of the subsistence minimum is as follows: the initial member of the family unit receives one subsistence minimum (200 euros), the second adult is allocated 0.8 subsistence minimum (160 euros), and minor children are granted 1.2 subsistence minimum (240 euros). In cases where an individual possesses a domicile exempt from rental fees, an additional sum of 150 euros per month is accessible through the subsistence minimum program, earmarked for the procurement of sustenance and essential provisions (KRIIS 2023, Benefits and allowances).

Furthermore, refugees hailing from Ukraine, currently domiciled in Estonia, inclusive of those in receipt of temporary protection, possess the prerogative to avail themselves of support and services, which encompass provisions of sustenance, as warranted. To access this assistance, individuals are required to submit an application to the local governing body, which will undertake an assessment to determine the necessity for food aid.

## **Job Training and Employment Opportunities**

According to Statistics Estonia, as of 17th September 2023, the most Ukrainian refugee employees are located in the following regions: Harju county - about 18,000 where about 12,500 employees are in Tallinn; Tartu county - 2,700 employees; and Pärnu county - 1,500 employees (Statistics Estonia 2023, Ukrainians in the Estonian labour market). In the pursuit of employment, unemployment benefits are disbursed to individuals meeting specific criteria. These include a minimum of 180 days of prior employment (including work undertaken in Ukraine), caring for a child under the age of eight, full-time study, or engagement in comparable activities within the twelve months preceding the registration as unemployed. The stipulated unemployment benefit amounts to 327.05 euros monthly, with the payment period extending up to nine months. It is noteworthy that this benefit is not disbursed if an individual's alternate income surpasses 327.05 euros per month.

In the absence of a temporary protection application, individuals possess the right to engage in short-term employment within Estonia, for a duration of up to one year. Under this arrangement, employers are obliged to remunerate temporary workers with a gross sum of 1685 euros per month (KRIIS 2023, Employment in Estonia).

## **2.4 Background of Ukrainian refugees**

Understanding the backgrounds of each community is essential to ensure it is feasible to effectively address the needs of children who were forced to leave their home country. In fact, upon teaching in larger immigrant communities, researchers and educators may not be able to identify fully the various issues that refugee children face, for instance, resettlement can cause a sense of hopelessness and loss. Although financial hardship can be experienced by adults, children may feel the identical trauma as researchers such as Aghajafari et al. (2020) and Hodes & Vostanis (2019) believe that these children may develop psychological problems due to their academic performance and behavior.

### **2.4.1 Regional context**

The conflict in the East of Ukraine has affected the residents of the Donetsk, Kharkiv, and Luhansk regions as about 39% of East Ukraine's residents mentioned family separation, which is more than the national average for Ukraine as a whole of 22%. Moreover, about 33% of East Ukraine's homes and properties were damaged or destroyed. Almost 30% of East Ukraine's residents lost their jobs compared with 19% of the country's overall population. Besides, 22% of the region's citizens reported experiencing a complete income loss, which is more compared to the national average. The share of unlawful mobilization, torture, and bullying in the Eastern region is four times higher than the average in Ukraine. Despite the situation in the East, merely 9% of its residents have been affected by the actions of the Russian army, yet on the other hand, 27% of Ukraine's residents have been affected by the military activities of the Russian forces. The Northern region is reportedly experiencing the highest rate of income reduction at 42.4% (Razumkov Centre 2022, 168). The representation of Russian military forces' breakthrough can be seen in Figure 2.4.1.1.



Figure 2.4.1.1 Map of the Russian invasion of Ukraine. Source: Natural Earth; United Nations Office for the Coordination of Humanitarian Affairs (OCHA); Worldpop.org; Ukrainian officials; Janes; Institute for the Study of War with AEI’s Critical Threats Project (Russian-occupied territory data as of 3 p.m. EST, May 30); UK Ministry of Defence; Reuters

In fact, there is a huge dependency on the administrative division and the disparity in the quality of education between urban and rural schools causes inequality of access to quality educational services in the place of residence and limits the opportunities for students from rural areas. According to PISA 2018, in Ukraine, the gap between the performance of students in large cities and villages is more than 2 years of schooling (Dementjev 2020). According to that, Ukrainian refugee children coming to Estonia might be referred to the same grade, yet their gained knowledge can be on a significantly different level.

#### **2.4.2 Humanitarian consequences of Russian invasion**

A survey conducted in 2022 revealed that a significant number of individuals are working as usual, while others are working remotely or partially, yet roughly half of Ukrainians who had a job before the full-scale invasion are currently unemployed, causing various psychological and economic issues. Apart from being a vital component of the economy, employment is known to help people cultivate a sense of confidence, reduce anxiety, and improve their self-esteem, yet numerous individuals have lost the support that they previously had. The percentage of unemployed individuals was highest among residents in the Eastern region (74%), as well as young people under 35 (60%), and internally displaced individuals (66%) (Razumkov Centre 2022, 166).

According to the report compiled by the United Nations Development Programme (2023), living conditions stabilized after the conflict's early stages but suffered setbacks in the winter of 2022/2023 due to nationwide disruptions in utilities. This affected health and education, with 22% of households spending more than 25% of their monthly income on healthcare, and 11% of young people experiencing difficulty accessing quality education. Gender-based violence posed a threat to 3.6 million individuals, with 55% of women feeling unsafe in their daily lives and 23% dedicating over 50 hours weekly to domestic chores. Financial constraints affected 44% of households, causing food insecurity in one-third of them, leading to limitations in food intake, borrowing food, or choosing cheaper options for 43%. Furthermore, 45% of the population belonged to vulnerable groups, including internally displaced persons, persons with disabilities, and older individuals, all facing considerable financial strains.

In May 2022, a survey was conducted by the Ilko Kucheriv Democratic Initiatives Foundation, supported by a Press Research Fund from Oxford University, and the Center for Political Studies. It revealed the effects of the conflict on the residents of Western and Central Ukraine, whereas about 20% of respondents stated job loss due to the full-scale invasion, and nearly a third already managed to become employed. At the beginning of the conflict, around 23% of the respondents were unemployed and in comparison with other regions, individuals residing in regional centers had lower levels (5%) of job losses than residents of other cities (12%) and villages (13%).

### **2.4.3 Family Separation**

The majority of refugees left the territory of Ukraine along with parents and kids under 18 years old, as well as some with pets. On average, individuals were accompanied by 2 or 3 people, while around 66% of adults were forced to leave their parents at home, 43% - siblings or relatives, and 42% - a husband or partner. The impact of the full-scale invasion on families' lives is represented in Figure 2.4.3.1.

### **2.4.4 Linguistic factor**

Since Ukraine was part of the USSR, the majority of Ukrainian citizens understand and can speak Russian. When it comes to vocabulary, Belarussian is the closest language for Ukrainians, followed by Poland, Slovakia, and the Czech Republic. Due to the unique language usage in different regions, it has been observed that Russian-speaking individuals have been the most affected by the Russian aggression. The utilization of the Russian language in Ukrainian regions is illustrated in Figure 2.2.4.1.

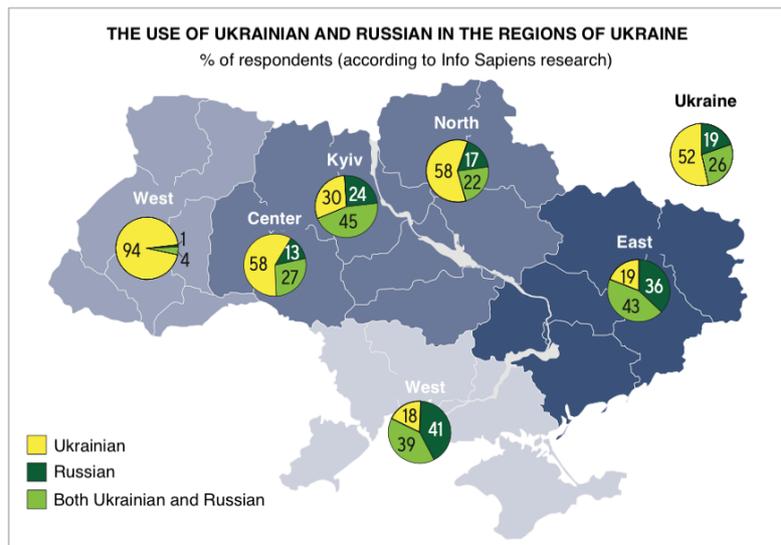


Figure 2.4.4.1 The utilization of the Russian language in Ukrainian regions (Razumkov Centre 2022, 170)

#### 2.4.5 Destruction of the educational infrastructure

The full-scale invasion of Ukraine by Russia, which started on February 24, 2022, has seriously affected the country's secondary education system as numerous teachers and students have been murdered, and hundreds of schools have been destroyed or damaged. Many children and teachers in Ukraine were forced to leave their homes. Besides, due to the ongoing conflict, schools are forced to interrupt their regular schedule and on a daily basis, students and teachers have to overcome the various challenges brought about by war, such as power outages, air raids, and forced breaks in school. The effects of the war on education are severe as it has worsened access to education, raised educational inequality, and negatively affected academic performance and teachers' emotional state. Since the right to secondary education is a fundamental component of Ukraine's Constitution, the government and its partners are working to restore the availability of this vital resource.

As of November 2023, since the beginning of the full-scale invasion, over 3,790 educational facilities have been damaged or destroyed, according to Ministry of Education and Science of Ukraine figures, severely interrupting access to education for millions of children (Ministry of Education and Science of Ukraine 2023, Save Schools).

#### 2.4.6 The impact of war on the organization of the educational process

In 2022, the educational activities in Ukrainian schools were temporarily suspended due to the invasion of Russia. In some schools, the program continued until the end of the

academic year – May 2022. Commencing September 1, 2022, schools with adequately equipped shelters resumed in-person education. Institutions lacking such facilities must conduct education through online modalities or adopt a hybrid approach. This status remains subject to alterations contingent upon the security conditions prevalent in the nation and its regions. Additionally, it is pertinent to highlight that the potential for online learning enables certain children to concurrently pursue education in both a Ukrainian school and a school within the country where they've acquired refugee status. Students who remain in schools on temporarily occupied territories, study online, yet the availability of full education is limited due to the threats and communication issues (Ministry of Education and Science of Ukraine 2023, On the organization of educational activities in out-of-school educational institutions in the 2022/2023 academic year).

Around 3% of teachers and 13% of students were still overseas as of December 2022 and the majority were originally from the Southern and Eastern regions, where there have been ongoing hostilities (Cedos 2023). Due to the ongoing conflict in Ukraine, numerous schools were forced to stop teaching kids in the traditional face-to-face manner. Around 36% of educational institutions in the country alternated between face-to-face and distance learning in December 2022, in fact, numerous of them are located in the Southern and Eastern regions.

Approximately 10-17% of Ukrainian refugees are recognized as education professionals. Surveys conducted by the joint European Union Agency for Asylum and OECD (EUAA; IOM; OECD 2022) and the Narodowy Bank Polski (NBP) (NBP 2022) indicated that roughly one in ten refugees, with documented work experience, had previously worked in the educational field. The escalating enrollment of refugee students in host country schools has led nations to engage Ukrainian teachers as an interim solution (OECD 2022). Educators who relocated abroad encountered challenges in securing employment, enrolling their children in schools, and finding suitable accommodation. Some teachers continued their work remotely, conducting classes and consultations with students and parents. However, as of late 2023, teachers and lecturers in Ukraine were partially restricted from remote work, compelling them to seek employment in their host countries. A significant portion of educators with temporary protection status confront language barriers in the host countries and encounter difficulties in validating their qualifications. Moreover, educators, like other displaced individuals, experience high levels of stress and require psychological support. Some teachers have contemplated changing professions or shifting their areas of expertise due to these circumstances (Lukianova & Ovcharuk 2023).

According to both teachers and parents, the war has caused educational gaps in the majority of schools as students are missing out on both offline and online classes due to the threat of artillery strikes and the power outages caused by the fighting. Despite the hardships, the teachers are still trying to follow their students' curriculum. In order to improve the quality of education, distance education providers have started implementing various strategies such as combining topics and technologies. Unfortunately, some teachers are still not able to pay attention to every student equally due to the lack of face-to-face communication. The majority of parents support the idea of providing additional lessons or individual one-on-one time with teachers or tutors to help compensate for the lost skills and knowledge caused by the war and pandemic, however, they do not support the concept of extending the school year.

The full-scale invasion has reportedly affected the emotional state of teachers and students. According to a survey, most parents believe that their kids experience stress-related symptoms such as anxiety and poor sleep. The students feel isolated as they don't have any communication with their teachers or peers during their forced "vacations". On the other hand, teachers reportedly experienced a deterioration in their emotional state due to the invasion, especially in areas where there were active hostilities (Cedos 2023).

Many obstacles exist that hinder the full participation of refugee children in education. These challenges include inadequate information regarding each child's educational background and unique needs, insufficient support from families and schools, improper grade placement for newcomers to a school system, as well as limited funding for educators who go beyond contractual duties. Studies reveal that forming stable connections and engaging with others can assist recent arrivals in building a sense of assurance and drive to surmount their seclusion. Within academia, such networks also enable neophytes to participate more seamlessly; nevertheless, based on the opinions of fellow students, harassment, biases, and unfair treatment may arise towards immigrants or exiles who come off as disparate (Cummins 2015).

## **2.5 Context of Schools in Estonia**

Since Estonia has been part of the Soviet Union until 1991, it has an ethnical impact of a variety of domains, in particular, the educational system which is divided into subcategories based on the regional and linguistic context. Despite being the country's official language, there is a wide variety of cultural and linguistic diversity within its population. The largest ethnic group is the ethnic Estonians, which made up 69.7% of the country's population and Russians came in second with 25.2%, followed by Ukrainians with 1.7% and Finns with 0.6% (Santiago et al. 2016). Currently, in Estonia exists four types of schools language-wise: Estonian, International, Russian, and project-based Ukrainian schools.

### **2.5.1 Estonian school type**

School is compulsory for children who turn seven years old by October 1 and it can last until they are old enough to acquire a basic education or until they turn 17. The local government of a municipality or city may provide free education to children residing in its administrative regions. The assigned school for each child is determined by the local government based on their residence and the proximity of their house to the school. In addition, the parents' wishes are considered (Põhiharidus 2022).

Preschool kids are evaluated and assessed before admission to the school by dint of the school readiness card compiled by parents which informs the institution if the kid is ready to proceed to class. Subsequently, the card is submitted to the school where the kid starts to meet the requirements. A child younger than the compulsory school entrance age may start school if the parent gives the approval, and the advisory committee or the educational institution where the child is enrolled has evaluated the readiness. Besides, the school is also obligated to accept students from the residence and a parent can also choose a residential school for their child if there are vacant places free of charge.

Students in general education schools are typically grouped depending on their age, yet the maximum number of learners in a class is 24 in basic education, with the possibility of increasing to 26 if the board of trustees allows it. In upper secondary education where groups can be formed according to the learners' choice of elective courses, the Ministry of Education explained that this method can be used. A basic school student's weekly workload is regulated by the national standard, for instance, in the first year, the maximum number of lessons is 20, in the second, the figure is 23, yet in the third to

fifth years there are 25 lessons allocated, while in years six to seven, 30 lessons are allotted (Santiago et al. 2016).

General education schools fall under three main ownership categories: state, municipal, or private. While municipal ownership has historically dominated, the landscape is changing. There has been a decline in municipal schools due to decreasing student numbers, while the count of private institutions has risen. Typically situated in major cities witnessing internal migration, private schools have been on the rise. State schools are established by the Minister of Education and Research, while municipal schools are established by rural municipalities or city/town councils. On the other hand, private schools are set up by private organizations. These schools encompass various educational models, from preschools combining pre-primary and general education (spanning Years 1-4, 1-6, or 1-9) to primary schools covering Years 1-4 or 1-6. Additionally, general education is offered through basic schools (Years 1-9), full-cycle schools (Years 1-12), and upper secondary schools (Years 10-12) (Santiago et al. 2016).

Regardless of the language used, the education system in Estonia is based on the National Curriculum, which is the primary source of instruction. Schools establish educational programs according to the National Curriculum, besides optional subjects are provided as well such as environmental courses, rare languages, and project education. Additionally, a study program for pupils who do not speak the country's native language can be created individually.

### **2.5.2 International school type**

Estonia's educational system has a subgroup for new immigrants, namely the individuals who have been staying in the country for a relatively brief period of time and are therefore considered to be special education students. The following subgroup mainly consists of students with varying migration backgrounds, for instance, certain individuals are staying in the country for only a short time, while others are planning on continuing their education in Estonia after several years. The language of instruction in the school may also affect the immigrant status of students in the database. Only educational institutions in Estonia are allowed to provide such support services to pupils with migrant backgrounds and the purpose of the limitation is to encourage integration of immigrant children into society (Põder et al. 2017).

In accordance with the Act on Basic and Secondary Schools, studies related to European languages can be conducted in Estonia by applying the curriculum approved by the

International Baccalaureate Organization (IBO) or the curriculum established according to the Convention on European Schools and schools that have received the necessary permission to carry out in-depth studies of the subject can continue doing so until 2024 (Availability of international general education in Estonia 2022). This means that schools that have received the necessary permission to implement the IB curriculum in some classes do not need to apply for a new permit every year, they can still utilize other languages in the lessons taught in order to provide additional support to students with special needs and coping with care issues.

In Estonia, there are seven schools in Tartu and Tallinn that offer international education programs based on recognized curricula, yet the majority are private schools that pay tuition. The targets for admission into these schools are determined by the agreement between the school and the state. For instance, the Miina Härma Gymnasium and the Tallinn English College are municipal schools that are financed by the state budget support and local government budget (Availability of international general education in Estonia 2022).

### **2.5.3 Russian school type**

According to the Ministry of Education and Research (2023), about 70 schools out of 517 schools in Estonia constitute Russian schools (13.5%), yet it is deprecating since the amendments were adopted by the Riigikogu in order to fully implement the conversion to the use of the Estonian language in education. Several laws explicitly state that the instruction of children and adults in educational institutions is in the country's native language. Starting in 2024-2025, learners in kindergartens and 4th grades will start using the instruction in the Estonian language and the transition will be completed by the start of 2029-2030. In high school and vocational education courses, up to the 2029-2030 academic year, learners should have the opportunity to study a language other than English. It is also the obligation of the school to ensure that learners in the 10th, 11th, and 12th grades will be taught in the Estonian language starting in 2030.

Since Russian schools are predominantly urban, their average class sizes and composition are larger than those of their counterparts in Estonia. Besides, there are fewer private educational institutions in the country. In fact, more than a quarter of the pupils in Russian schools are the offspring of immigrants, but this figure is much lower in Estonian schools (Pöder et al. 2017).

In terms of Ukrainian refugee youth entering Russian schools in Estonia, there exist several advantages contradicting the benefits. For instance, since the majority of the population of Ukraine either speaks or understands Russian, from a linguistic perspective, the integration process would be smoother, yet on the other hand, kids tend to reflect opinions directed by parents and it might be challenging and traumatizing for Ukrainian refugee kids to be surrounded by individuals supporting Russian aggression and regime which forced them to leave home country.

#### **2.5.4 Project-based Ukrainian school type**

Due to the escalation of the situation in Ukraine, the government of Estonia supports the country's war refugees. It provides them with the opportunity to study in various educational institutions. Young refugees and children from Ukraine who arrived in the country on short and long-term education plans can continue studying in Estonia. While this type of plan does not clearly state that the student will be allowed to stay in the nation permanently, certain conditions have to be met for this to happen.

Before the full-scale invasion, Estonia was among the popular destinations for Ukrainians, numerous pedagogues were residing in Estonia already and the number has been on the rise since according to the Ministry of Education and Science of Ukraine as of the beginning of the full-scale invasion, from different regions of Ukraine, roughly 26,000 teachers had to leave the country. Based on that, the Estonian government approved the formation of project-based Ukrainian schools which are following the Estonian educational program, yet additionally, maintain the Ukrainian syllabus by adding the Ukrainian language to the curriculum. Due to the fact that there is a possibility to continue studying in Ukrainian schools fully remote, teachers adjust the workload individually for such pupils in order to not overwhelm them.

### **3. THEORETICAL FRAMEWORK**

#### **3.1 Legal foundation**

Many people, including young individuals, left their homes during the worldwide refugee crisis which happened in the early 21st century due to conflicts in the Middle East, leaving behind families, homes, and schools. Upon arrival to unfamiliar academic establishments come several obstacles including acquiring knowledge regarding a new language as well as confronting cultural disparities following mental distress. In society's hierarchy of vulnerability exists youths at the topmost rung according to UNHCR reports which estimate that there are more than 26 million refugees dispersed globally where over half depict those below the age threshold for legal adulthood (18 years). The quality education advocacy amongst this population presents persistent challenges due to failures or exclusion from opportunities thereby jeopardizing lifelines sorely needed by such individuals faced with trauma hindering adaptive abilities towards educational purposes. It is imperative therefore that attention be given towards providing these young ones coping mechanisms effectively equipping them with useful methods allowing proper retention despite emotional disruptions related thereto.

##### **3.1.1 National Frameworks Throughout the European Union**

While some European countries provide the same opportunities to migrants, including asylum-seeking children, other regions grant them different access. This is due to the fact their legal status determines the criteria for differentiation. For instance, in countries such as Germany, Sweden, Poland, Bulgaria, and Croatia, the right to education is routinely granted by law. In some European countries, the implementation of the regulation requiring schools to provide education to children entering the country within three months is not carried out completely, because the procedures involved in implementing the regulation are frequently lengthy. According to Eurocities, it can take children up to six months to start a school in a stable environment. On the other hand, some countries possess laws that provide for shorter waiting periods. For instance, in Sweden, refugees are required to start school within a month of their arrival. In most European countries, policies on the education of asylum seekers and refugees are focused on three main goals: acquiring the national language; integrating into mainstream education; and vocational training.

The various measures are designed to help displaced children reach their goals in the shortest achievable timeframe as well as the importance of continuous language support

to help displaced children reach their educational goals is considered. Although the second goal applies to all refugee children, the third goal is related to older refugees, in particular, secondary school students. In fact, numerous administrative procedures can prevent refugees and other students from accessing education, for instance, it can be challenging to enroll in school when the legal status of migrants is uncertain.

In Bulgaria, the procedures related to the asylum application must be completed in 24 working days. In countries, for instance, the Netherlands, Belgium, and Italy, education is mandatory for all school-age children. In some alternate countries, including Sweden and Germany unaccompanied minors and children from "safe countries of origin" are not required to attend school (Trasberg & Kond 2017). Considering that the absence of school attendance is regulated in many countries, schools can refuse to enroll refugee children willing to continue education at the stages when it becomes optional to receive education. Although regulations on mandatory school attendance are usually implemented at the national level, it is up to the municipalities to ensure that the necessary facilities are in place to accommodate the students.

In some countries, such as the UK and Belgium, education for refugees and asylum seekers is not included in the central policy framework. This means that the implementation of comprehensive reception education is not high on the priority list. In response to the increasing number of refugees and asylum seekers in Greece, the country's Ministry of Education is developing a comprehensive action plan to address the education and training needs of these individuals. The Finnish Ministry of Education is also working on a long-term strategy to address the issue of education for refugee students.

Despite the lack of concrete legislation, some countries have started implementing effective measures to help improve the education of these students. One of these is the implementation of a law in Sweden that allows introductory classes for new students for two years utmost. Within two months, a refugee student must map out his or her previous education and assess the level of proficiency in math and literacy. Based on that, the school will determine the grade the pupil will be placed in, the support they will receive, and the teaching time allocated for each subject. Currently, the mapping materials for various subjects, such as chemistry, physics, and biology, are being provided for refugee students.

In Italy, education authorities have started implementing initiatives aimed at improving the education of unaccompanied minors and asylum-seeking children. A Zampa law passed in Italy in 2017 provides certain rights to education for asylum-seeking students,

allowing them to obtain a certificate bypassing the maximum allowed age required for a certain course.

### **3.1.2 Educational arrangements**

One of the cross-curricular goals of education is to provide students with the opportunity to develop their cultural identity. This can be done through the use of the native language and the analysis of various aspects of children's past. The main goal of the refugee youth's preparatory classes is to transition into regular classes, which is regarded as the key point in their integration, however, it is in fact challenging to achieve. In Germany, stakeholders are suggesting that the refugee youth be given longer periods of time to prepare for the national language, due to the fact that it will allow them to have better chances of succeeding in studies and social integration (UNHCR 2019).

Some believe that the refugee youth should be placed in mixed classes with their age peers in various subjects, such as science, math, arts, and religion. It will allow them to develop their social and academic skills while also giving an opportunity to keep up with regular education. In Finland, the Netherlands, and Belgium, refugee children are given a year to prepare for the national language before they are transferred to mainstream classes. It has been represented in practice that the following approach contributes to the successful integration of the refugee youth.

In most EU countries, school systems follow a hierarchy of tracks and streams, with the lower level being separated from the higher level by ability level. As a result, late or less selective tracking provides more opportunities for academic and higher education. In Germany, the Netherlands, Belgium, and Greece track the earliest learners at the age of ten, yet early tracking results in refugee children having low chances of finishing high school (Koehler 2017). People who have been postponing their arrival are disadvantaged as they have conceded opportunities to improve academic performance.

## **3.2 Estonian Regulations and Frameworks**

### **3.2.1 Estonian Integration Act**

The Integration Act of Estonia was first introduced in 1998 and is an important piece of legislation that reflects Estonia's commitment to ensuring the successful integration of ethnic minorities and other groups living in the country. The Act outlines the basic principles of integration, establishes an Integration Foundation, and creates a framework for cooperation between governmental bodies, local authorities, non-governmental organizations, and individuals in the promotion of integration (Council of Europe 2019).

The act provides the legal basis for the establishment and implementation of integration policies in Estonia as well as includes the rights of foreigners in the country and the duties of local and state authorities. Effectively, the act acknowledges the fact that the process of integration involves both the individual and society. Additionally, the act stresses the importance of being familiar with the culture and traditions of Estonia and learning the country's national language as well as acknowledges the need to provide opportunities for employment and education, and prohibits discrimination based on one's nationality or ethnicity.

### **3.2.2 Estonian Basic Schools and Upper Secondary Schools Act**

The Estonian Basic Schools and Upper Secondary Schools Act is a legal document that sets out the regulatory framework for basic education and upper secondary education in Estonia.

Estonia's Basic and Upper Secondary Education Act applies to all students in the country, regardless of their nationality as well as ensures that all students have equal access to education, irrespective of their background. The law, which was last updated in 2019, was enacted to establish the legal basis for the operation of schools. It states that all children from kindergarten until reaching the age of 17 are required to attend elementary schools. These establishments only provide education in Estonia's local language, however, it can be offered in foreign languages in case there is a high demand. The curriculum in educational institutions is divided into two cycles: the first cycle lasts for four years, while the second cycle lasts for three years. The curriculum of Estonia's public schools includes an extensive spectrum of subjects, particularly foreign languages, mathematics, literature, and natural sciences (Riigi Teataja 2013).

Although upper secondary education is not obligatory in Estonia, students can continue with studies in the institutions after finishing basic school. The following schools provide education in different languages and offer courses in subjects, in particular social sciences, humanities, and technical and vocational education as well as programs in sports, music, and art.

The conditions for teachers in Upper Secondary Schools and Basic Schools are set by the Act, providing the necessary information about working conditions and qualifications. The Act plays a vital role in ensuring that all pupils in Estonia have the opportunity to receive superior education and that the system is efficient, effective, and equitable.

### **3.2.3 Estonian Language Proficiency Requirements**

The Estonian language is the language of instruction in the majority of Estonian schools, including basic and upper secondary schools. Refugees who do not speak Estonian are required to take language courses in order to learn the language and meet the language proficiency requirements for their level of education. The language proficiency requirements are designed for refugees who are planning to remain in the country and be employed. The requirements are aimed at ensuring that refugees have the necessary language skills to integrate into Estonian society and participate in daily life (Riigi Teataja 2015).

The main language proficiency requirement for refugees is the Estonian language proficiency exam which tests a person's ability to understand and implement the language in everyday circumstances, including speaking, reading, writing, and listening. The level of proficiency required depends on the specific rights being sought, such as the right to work or study in the country. For refugees endeavoring the right for employment, the language proficiency requirements are potentially higher than for refugees seeking the right to study due to the fact that working in Estonia requires more advanced language skills than studying, as it involves interacting with colleagues, customers, and clients in Estonian (Haridus- ja Noorteamet 2023).

While language proficiency requirements may emerge intimidating for refugees, it is a prominent part of the integration process. Learning the language of the host country is essential for refugees to be able to fully participate in the social and cultural activities of the new place of living as well as to facilitate communication and understanding between refugees and Estonian citizens. In addition to language proficiency exams,

numerous courses are available for refugees to support learning Estonian. The courses are frequently offered by local government agencies or non-profit organizations and are designed to provide refugees with the language skills necessary for successful integration into Estonian society.

### **3.2.4 Integration and Migration Foundation**

Similar to other countries in Northern Europe, Estonia has had to face the challenges associated with immigration and integration, and the organization that has played a crucial role in this process is the Estonian Integration and Migration Foundation (EIMF).

The EIMF was established in 1998 as a government agency with the aim of promoting the integration of ethnic minorities in Estonia (Europa n.d.). The organization's mandate was later expanded to include migration management, rendering the responsible for managing the country's immigration policies. The EIMF has since become a critical player in promoting social cohesion and managing the integration of immigrants and ethnic minorities in Estonia.

One of the EIMF's primary goals is to promote the social and economic integration of immigrants into Estonian society by providing a broad spectrum of services and support to immigrants, including language courses, employment assistance, and social and cultural activities. Additionally, the EIMF targets tolerance promotion and mutual respect between distinct ethnic groups in Estonia.

Another critical aspect of the EIMF's work is its role in managing Estonia's immigration policies as the organization is responsible for implementing Estonia's migration strategy, which aims to attract and retain highly skilled immigrants to the country. The EIMF provides information and support to potential immigrants, as well as to employers looking to hire foreign workers.

The EIMF has also been instrumental in promoting the integration of Russian-speaking minorities in Estonia. The Russian-speaking population makes up around 25% of Estonia's population, and many face challenges in accessing education and employment opportunities due to language barriers. The EIMF has developed programs and initiatives to address the previously mentioned issues, including language courses, support for Russian-speaking entrepreneurs, and initiatives to promote civic participation and engagement among Russian-speaking minorities.

### **3.2.5 Support for Refugee Students**

In recent years, Estonia has implemented a range of programs and initiatives to support refugee students, including language courses, financial assistance, and mentorship opportunities as well as the Estonian government provides financial support to refugee students who are enrolled in basic or upper secondary schools in Estonia, covering the costs of school supplies, textbooks, and transportation.

One of the most significant initiatives to support refugee students in Estonia is the "University Without Borders" program which provides free access to higher education for refugees, regardless of their legal status. The program is a collaboration between several universities in Estonia, particularly Tallinn University, Tartu University, and the Estonian Entrepreneurship University of Applied Sciences. By means of the program, refugees are able to participate in courses in subjects ranging from law to engineering, with the ultimate goal of helping them integrate into Estonian society.

Financial assistance is also available to refugee students in Estonia, while the Estonian government provides financial support to refugees who are pursuing higher education, including living stipends and tuition fee waivers. Additionally, there are numerous scholarships available to refugee students, such as the Estonian Scholarship Program for International Students and the Integration Foundation's Scholarship Program.

Ultimately, mentorship programs are an important part of Estonia's support for refugee students as the programs pair refugee students with Estonian students or professionals who can provide guidance and support as the refugee student navigates higher education and integrates into Estonian society. Mentorship programs facilitate refugee students to feel more connected to their new place of living and provide them with valuable networking opportunities.

### **3.3 Efficient Educational Practices**

A welcoming environment is a place where people feel valued and comfortable, where all members of the community are welcomed and included regardless of their sexual orientation, race, gender, or religion. In fact, the following type of environment encourages individuals to express themselves and contribute to the community (Fuller et al. 2021).

The fostering of a welcoming environment can have a substantial impact on a student's success in their studies. When pupils feel respected, safe, and appreciated in their educational setting, they will be more engaged in their studies, are more likely to ask questions, and are more likely to join class discussions. In addition, it can help to alleviate stress and anxiety, two major factors that can prevent a person from achieving academic success. Having a welcoming environment can help pupils focus on their studies, and it can promote cultural awareness, which enhances education. Exposing students to varying perspectives and experiences will elevate their ability to navigate the complex cultural and social issues that each individual faces in professional and academic careers.

In order to create a welcoming environment, school administrators, teachers, and students must take the necessary steps to promote inclusiveness and respect, which can be achieved through the establishment of policies and procedures that support the diverse backgrounds of their students. The current study contains the description of two efficient and prosperous educational practices implemented throughout the globe.

#### **3.3.1 Project-based learning**

Project-based learning (PBL) is a type of educational activity that involves students working on a problem by designing and developing a solution and it aims to develop creative capabilities and is commonly used in small groups. Through project-based learning, students identify a problem, come up with a strategy to solve it, develop a prototype, refine the idea, and get feedback from their peers and instructors (Azizah et al. 2020).

The history of project-based learning is heavily shaped by John Dewey's (1938) philosophy who believed that learning could be accomplished through the exploration of meaningful personal problems. The concept of discovery was then refined by scientists as they encouraged students to develop problem-solving skills through inquiry and investigation.

Project-based learning is also focused on providing all students with a meaningful science learning experience. In the 21st century, science education is geared toward developing students' intelligence in order to solve real-world problems. This is a strategic position for schools. The study revealed that students' attention span and attitude when it comes to learning science become less focused. Instead, they should be actively engaged in developing their knowledge in order to make it more meaningful, which could be achieved through the use of a student-centered learning approach. The Multiple Literacies in Project-based Learning (ML-PBL) intervention, adhering to many of the same objectives of these studies, has taken a different path by estimating the impact on science learning by using a causal design (Miller et al. 2021). Figure 3.7.1.1 shows the relationships among the features of the ML-PBL intervention.

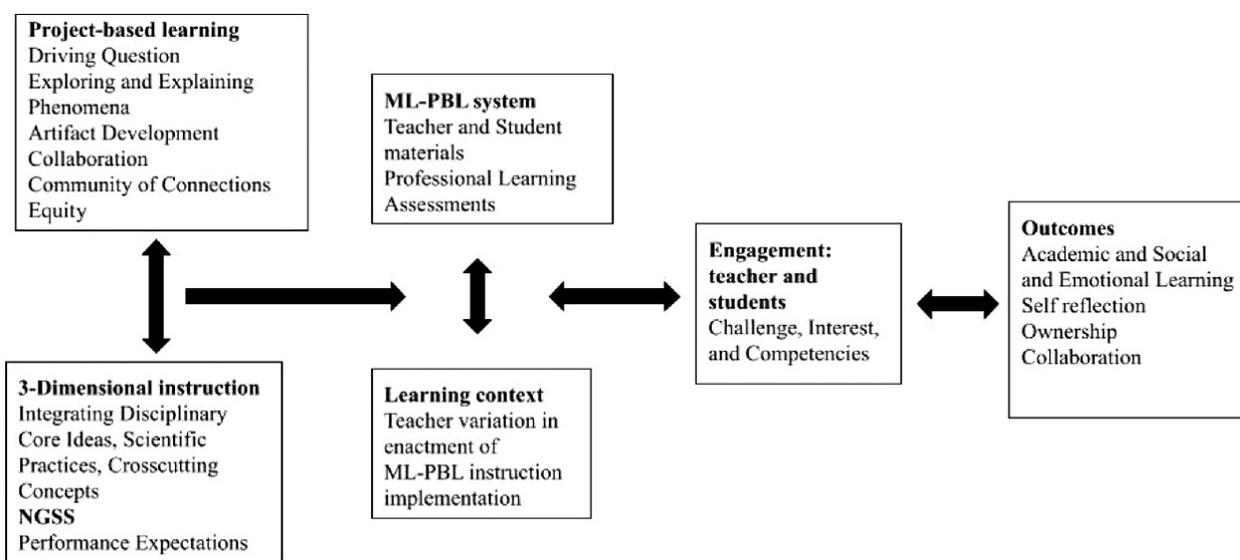


Figure 3.3.1.1 Logic model of ML-PBL (Krajcik et al. 2023)

One of the key features of ML-PBL is its collaboration feature, which ensures that all students are engaged in the process of exploring questions by highlighting the importance of supporting inclusive practices that foster learning (Miller et al. 2021).

### 3.3.2 Think-Pair-Share

The social aspects of school are often associated with being able to work collaboratively with others, having lunch together, playing with friends between classes, or participating in extracurricular programs - these are among the most common memories of school. Besides being entertaining, school social aspects can also make a huge difference in a student's academic performance and well-being due to the fact that these connections can support creating a sense of belonging and make an individual feel valued and supported (Carter et al. 2014).

Think-Pair-Share approach (TPS) is a learning model that provides every student an opportunity to participate actively with other students (Lyman 1981). The number of students participating and acknowledging one another in class significantly increases with the implementation of the TPS, yet it is essential to have a discussion path that encourages interaction and thinking as well as proper management of the program which is crucial to ensure the best possible experience for the learners. The core aspects of TPS are:

- *Think*: The teacher assigns a problem to each student, and they are given the opportunity to listen to their own ideas and thoughts before the conditions are presented to them. Subsequently, the ideas and thoughts are communicated to the teacher before they are paired up;
- *Pair*: The teacher then forms pairs with the students, who are encouraged to collaborate and develop their own ideas and they will then move on to the next stage after reaching the end of their current journey;
- *Share*: The students then share their findings with the class. During this phase, they will take part in a big discussion where they will try to find similarities and differences with other pairs.

The use of the learning model can help improve the learning outcomes of students by allowing them to assume ownership of their learning. Through the training, experienced mentors can support students in developing the necessary skills and confidence to perform their duties as teachers. One of the most important factors that mentors can help students consider when it comes to improving their presentation is ensuring that they are able to stand up and project their voices (ASCD 2021).

The goal of the TPS learning model is to provide students with the necessary skills to solve problems as through discussions, they can improve communication and critical thinking abilities. The model can also improve achievement, develop student interest in learning and self-esteem, and increase collaboration between students. Another advantage obtained through the application of this model is the process of learning activities to be interesting and fun for students, developing cognitive abilities and improving speaking skills (Sharma & Saarsar 2018).

## **Summary**

Implementing PBL and TPS for refugee children in educational settings can be instrumental in their adaptation and integration. PBL's focus on hands-on projects allows these students to actively engage with learning, fostering problem-solving skills and in-depth exploration of subjects. This approach is especially advantageous for refugee kids, offering a means to immerse themselves in educational activities that encourage critical thinking and practical application. Collaboration within PBL enables refugee children to develop critical social skills while facing displacement. By engaging in group work and joint projects, they foster connections, enhance communication, and acquire effective teamwork skills, all pivotal in unfamiliar settings. Furthermore, PBL promotes practical, hands-on learning, enabling refugees to actively participate in educational tasks, fostering experiential learning and problem-solving skills that are immensely valuable during their adaptation. Additionally, PBL often supports tailored learning approaches, catering to individual learning speeds and preferences, offering significant benefits for children who've faced educational interruptions due to displacement.

Meanwhile, TPS, by emphasizing collaboration and discussion, provides a platform for these children to voice their thoughts and ideas in a supportive environment. This interaction is particularly valuable for refugee students adjusting to new educational surroundings, as it promotes engagement, teamwork, and the development of a cohesive learning community. The TPS approach offers tailored benefits to aid refugee youth in adapting to an unfamiliar educational setting as the method establishes a structured platform that nurtures cognitive growth by prompting individual thought organization prior to group discussions. This stepwise procedure not only assists in language acquisition, particularly crucial for those adjusting to a new language, but also provides a secure environment for gradual involvement, bolstering confidence in expressing ideas. Additionally, the collaborative aspect fosters social assimilation, allowing refugee students to forge bonds with peers as they exchange their diverse cultural backgrounds. Ultimately, the combined use of PBL and TPS methodologies supports not only academic development but also aids in the social and emotional integration of refugee children into their new educational contexts.

## **4. FIELD RESEARCH**

### **4.1 Observation of the school setting**

In order to gain a thorough understanding of how young Ukrainian refugees adapt to their new educational environment, I visited several classes at the Räägu project school in Tallinn which was established in response to the onset of the full-scale invasion. According to the Education Data Portal, notably, the total number of Ukrainian refugees in primary school in Tallinn is 978, and Estonia-wide, it reaches 2078. As of the autumn semester of 2023, Räägu school accommodates over 400 Ukrainian refugee students which signifies that nearly half of Ukrainian refugees in primary schools in Tallinn attend Räägu School, constituting almost 20% of Ukrainian refugees in primary school in Estonia in general. A total of 26 teachers are employed at Räägu School as of December 2023, comprising both local Estonian teachers, local Ukrainian teachers, and Ukrainian refugee teachers.

In order to gain insights into the educational process, the research utilized the participant observation method, which can be defined as a technique where a researcher actively engages in the daily activities, rituals, interactions, and events of a specific group, aiming to understand both the explicit and tacit aspects of their cultural routines and life (Musante 2015). In total, 29 pupils and 2 teachers participated in the observation process, specifically 13 pupils - the Estonian class (4th grade), 16 - the Ukrainian language class and the Writing class (1st grade). The following observations provided valuable insights into various key aspects, including language use, cultural integration, classroom dynamics, support systems, student interactions, teacher-student relationships, challenges encountered, and inclusivity initiatives.

#### **Language Usage**

- A considerable number of young Ukrainian refugees in elementary school demonstrate a commendable proficiency in Estonian. The proficiency allows them to comprehend fundamental linguistic structures effectively and to exhibit functional proficiency in the language, enabling comprehension of instructions, basic conversational engagement, and participation in classroom activities.
- Majority of pupils appear to struggle with expressing their thoughts in Estonian, especially when engaging in conversations with teachers. However, they received support from the students who understood the questions or provided instructions.
- Children demonstrate an inclination towards utilizing the Ukrainian language, although it is noteworthy that the predominant mode of communication remains

Russian. It indicates a strong attachment to the native language and a desire to preserve their cultural identity within the educational context.

### **Cultural Integration**

- The school's physical environment is embellished with artistic representations and projects that encompass facets of both Ukrainian and Estonian cultures. Through artwork, projects, and cultural artifacts, pupils encounter familiar elements of Ukrainian culture, providing them with a sense of belonging within their new educational environment.
- The pupils exhibit a sense of pride in their cultural heritage, frequently engaging in the sharing of narratives pertaining to their places of origin in Ukraine. These narratives not only offer windows into the diverse landscapes and traditions of Ukraine but also provide valuable insights into the resilience and fortitude of these young individuals embarking on a new chapter in Estonia.

### **Classroom Dynamics**

- The classroom is configured with compact individual desks that can be amalgamated to facilitate cooperative endeavors and engagement. The inclusion of compact, individual tables allows for an adaptable seating layout that can be customized to suit various instructional approaches. Furthermore, the ability to amalgamate tables encourages collaboration and interaction among peers.
- Pedagogical approach adopted by the teacher is characterized by a commendable array of methodologies and instructional tactics. Visual aids, encompassing multimedia presentations, serve as potent instruments to reinforce learning and accommodate diverse learning modalities.

### **Support Systems**

- Prominently displayed notice board in both Ukrainian and Estonian languages near the school's entrance serves as a pivotal information hub for pupils, parents, and educators alike. It effectively communicates the accessibility of a diverse range of support services, underscoring the institution's dedication to the comprehensive development and well-being of its pupils.
- There is a designated space for confidential one-on-one sessions with counselors signifies a tangible commitment to the socio-emotional well-being of Ukrainian refugee youth. This private and secure setting serves as a sanctuary for pupils to engage in discreet discussions with counselors.
- Each classroom features a designated area intended for children to utilize outside of classes. These spaces are distinct for each class, often containing various board

games, children's artwork, or collections of photos depicting their group activities, as depicted in Figure 4.1.1.



Figure 4.1.1 A classroom's space with a set of photos, made by author

### **Student Interactions**

- One notable feature of the observed school environment is the organic tendency of pupils to assemble in diverse groups during breaks. This inclusive behavior transcends the confines of specific classes, with children from varying grades coming together demonstrating a harmonious and open social dynamic within the school community.
- While a majority of pupils seamlessly integrate into the social fabric of the school, it is evident that some face challenges in finding their place within the community. The process of assimilation may present difficulties for these individuals, possibly stemming from the traumas and dislocations they have endured.

### **Teacher-Student Relationships**

- The interactions between teachers and pupils in the observed setting reveal a notable degree of empathy and patience exhibited by the educators. Educators display a keen understanding of the potential hurdles these pupils may encounter during their adaptation process. They show a genuine concern for the emotional well-being and comfort of each student, creating an environment that is both safe and supportive for learning.
- An essential aspect of the teacher-student relationships observed is the educators' flexibility and adaptability in meeting the diverse needs of each student. This adaptability is particularly evident in their response to pupils who continue attending classes online in their homeland school.

### **Challenges Faced**

- It is evident that a subgroup of pupils display a more reserved behavior within the classroom setting. This reserved disposition could be attributed to a combination of factors, including linguistic barriers and the potential trauma linked with their migration journey.
- Another discernible challenge faced by a subset of pupils is the need for supplementary academic and emotional support to align with the curriculum. The transition into a new educational system, particularly one conducted in a potentially unfamiliar language, can present academic obstacles. These pupils may need extra resources and customized instruction to bridge any gaps in their grasp of the curriculum.

### **Inclusivity Initiatives**

- The school's dedication to inclusivity is evident in its consistent organization of cultural events. These occasions serve as a platform for both pupils and teachers to exchange and celebrate facets of their diverse cultures. This endeavor not only enriches the educational experience but also nurtures a sense of belonging and mutual comprehension within the school community.
- Each classroom has a creative space that serves as an invaluable outlets for self-expression, enabling pupils to partake in various creative pursuits, including art and writing. This endeavor recognizes the significance of nurturing individual creativity and self-identity within the educational context.

## 4.2 Interviews

To gain comprehensive insights into the educational experiences of Ukrainian refugee children in Estonia, I conducted interviews with students and teachers at Räägu school along with parents of refugee kids from various schools. Employing a mix of semi-structured and informal conversational interview methods, I tailored the approach to the specific context and the anticipated outcomes, aiming to delve deeply into their experiences and perspectives. Conducted interviews are presented in Table 4.3.1.

Table 4.3.1 Conducted interviews, made by author

<b>Interviewee</b>	<b>Interview Type</b>	<b>Number of interviews</b>	<b>School</b>
Teacher	Informal conversational	3	Räägu õppehoone
Parent	Informal conversational	2	Linnamäe Vene lütseum
	Informal conversational	1	Tartu Mart Reiniku Kool
	Informal conversational	1	Räägu õppehoone
Student	Semi-structured	7	Räägu õppehoone
	Informal conversational	10	Räägu õppehoone

Semi-structured interviews can be defined as a type of interview in which an analyst has various types of questions at their disposal to be used in opportunistic ways, depending on the demands of the situation (Wood 1997). The choice of semi-structured interviews was aimed at fostering natural and open conversations, allowing for a wide range of insights to be gathered during the interactions.

Informal conversational interview relies on the natural flow of questions during an interaction, often occurring as part of ongoing participant observation fieldwork (Gall et al. 2003). The method was employed in the study to facilitate in-depth conversations, aiming to uncover the most nuanced insights.

### 4.2.1 Parents

#### Demographics

In total, four Ukrainian refugee females, each with one or two children, were interviewed using the informal conversational interview method. One of the parents has a child enrolled at Räägu School, while two parents have their children attending Russian-speaking schools and one parent having a child enrolled in an Estonian-speaking school.

## **Insights**

Document-wise enrolling in schools in Estonia is not overly complex, requiring only fundamental documents validating the attained level of education for the children to gain acceptance. Typically, they are allocated to the nearest school based on their residence, however, if the local school is at capacity, alternative schools in the vicinity are explored for enrollment.

Overall, both kids and parents express contentment with the quality of education provided by Estonian schools. However, the adaptation process varies notably between those attending Estonian and Russian-speaking schools. For students in Russian-speaking schools, linguistic familiarity eases their adjustment, allowing them to comprehend instructions and study materials, and interact with peers more comfortably. Nevertheless, differing viewpoints on the war occasionally lead to conflicts among students. Conversely, adapting to Estonian-speaking schools proves more challenging due to the entirely new environment, including an unfamiliar language and diverse cultural backgrounds among peers. Additionally, discrepancies in the level of acquired knowledge, especially when compared to local Estonian students, can further complicate the integration process. Certainly, it's important to note that two parents expressed constraints in both finances and time, which hinder their ability to enroll their children in extracurricular activities. This limitation not only restricts their social circles but also impacts their holistic personal development.

In essence, teachers display remarkable support and take an individualized approach toward each child. Addressing language barriers or academic gaps, they provide personalized explanations to aid understanding. Given the diverse experiences of war among these children, their emotional trauma varies widely. Upon arrival, many carry emotional wounds, displaying signs of anxiety, depression, and post-traumatic stress disorder, which disrupt their focus and involvement in learning activities. Additionally, the upheaval in their education due to displacement leads to breaks in their learning journey, causing knowledge and skill gaps that complicate their efforts to match their peers' progress. However, a shared experience unites them all: being uprooted from their homeland and compelled to navigate an entirely new environment, a transition fraught with considerable challenges.

### **4.2.2 Teachers**

#### **Demographics**

In total, three teachers were interviewed using the informal conversational interview method, including two Ukrainian refugees and one local Estonian teacher.

#### **Insights**

It was discovered that both refugee and local teachers encounter challenges in connecting with refugee children, often finding it difficult to comprehend certain behaviors or emotions such as withdrawal, fearfulness, or emotional outbursts due to past experiences of conflict, displacement, or loss. Besides, teachers observe struggles with forming social connections or making friends, which can lead to feelings of loneliness or social isolation. While it might appear easier for refugee teachers due to their shared experiences of war and displacement, they too grapple with personal trauma, which can hinder their ability to identify effective intervention strategies and navigate various situations.

As some children continue their studies remotely through their Ukrainian school, teachers consistently consider this circumstance and adopt an individualized approach to manage workloads, such as homework, aiming to alleviate the burden on these students and streamline their academic experience as much as possible.

In general, teachers have not received specific training on managing crises like war, but they rely on their experience and undertake individual research to better comprehend how to support refugee children. However, navigating through the array of available materials becomes time-consuming and challenging, impeding the acquisition of comprehensive expertise on specific topics.

### **4.2.3 Pupils**

#### **Demographics**

In total, 17 Ukrainian refugee kids (6 - 1st grade, 9 - 4th grade) were interviewed using both semi-structured and informal conversational interview methods. Before conducting the interviews, specific topics and relevant questions were prepared. To facilitate a more comfortable and open environment, storytelling dice were utilized as a playful tool, aiming to ease formality and encourage kids to freely express their thoughts. These topics were curated to glean insights into the children's daily routines, educational experiences in both Ukraine and Estonia, extracurricular activities, and their overall daily lives.

## **Insights**

Based on the interviews, it emerged that there are two distinct groups of students concerning their workload: those exclusively attending Estonian schools and those concurrently studying in Ukrainian schools remotely. Parents of children continuing their education in Ukrainian schools remotely expressed intentions to return to Ukraine once the conflict subsides, and a striking 80% of the kids expressed a desire to return to Ukraine someday and share their experiences gained in Estonia. An important aspect is the national identity, with children given the freedom to choose their language of preference; notably, older students (4th grade) often attempted to communicate in Ukrainian, despite encountering occasional challenges. The majority of children mentioned spending their spare time with friends or pursuing hobbies, although the recent relocation has made this more difficult.

Most refugee families experience partial separation as male Ukrainian citizens aged 18 to 60 are prohibited from leaving Ukraine under martial law. This poses a significant challenge for single mothers who struggle to juggle a full-time job, navigate the adaptation process, and organize adequate activities for their children due to limited financial resources and time constraints. Consequently, six kids are unable to participate in any extracurricular activities.

Estonian language class begins at the 1st grade, however, foreign languages, including English, typically commence from the 4th grade. Children express a preference for engaging and interactive learning methods, such as educational videos and intriguing facts. Additionally, they show enthusiasm for unique courses like "IT Technologies" and "Design and Technologies," which were unavailable in their Ukrainian schooling experience. Notably, maintaining privacy in academic results is a crucial aspect for these children. Unlike in Ukraine, where it's common for teachers to share results with the entire class, they value a more confidential approach to academic assessments.

During break times, many kids engage in self-created games or enjoy various board games available in each class. Furthermore, each classroom has its designated space that the students collaboratively design. For instance, one corner showcases group photos from various activities, creating a cherished space where children love to gather and reminisce about shared memories.

## **4.3 User identification and persona development**

The creation of a persona and a user identification process helps designers identify the essential users of a system or product. After defining the characteristics of the users, they should then describe the individuals who will be involved in the system's maintenance and installation. The intended users' characteristics should include a variety of factors such as age, gender, education level or reading ability, physical size, physical abilities (or disabilities), familiarity with the type of product, and task-relevant skills. For scenarios where the product or the system already exists, a sample population can be used to identify the users (Wickens et al. 2003, 37-38).

(Cooper 2004) conceptualized personas to represent the user's key characteristics understandably and concretely. A persona is a hypothetical representation of a person developed through interviews and observations of real people. Personas are not real people, but they represent key characteristics of the user population in the design process (Wickens et al. 2003, 37-38).

The personae are used to describe the goals and limits of a system, and they can be used to identify individuals who perform the tasks and activities that the system needs. This method avoids the design team assuming that users are like themselves. Since personae are used to describe multiple users, this method can potentially overlook the extremes, such as the 95th percentile and the 5th percentile. The sequence diagram can help identify the various roles and tasks that an individual has in a system, as well as the goals and motivations of those who perform them. For most applications that require a single persona, multiple personas can be used to represent the user's characteristics. A separate persona can also be used to describe individuals who have other roles within the system.

### **4.3.1 Demographics**

In order to identify users and develop personas, the Räägu project school based in Tallinn was involved. The school created separate classes for Ukrainian refugee youth by combining both Estonian and Ukrainian educational systems by dint of tutoring occurring by Ukrainian teachers.

Through interviews and informal conversations with 17 kids from Ukraine with 65% girls and 35% boys respectively, the personas were created. The participants' age group was from 7 to 11 years old, and the children were natives of diverse regions of Ukraine. On

grounds of the conducted research, four common patterns were revealed which served as a foundation for personas development:

- *Geographical aspect:* The full-scale invasion spread differently throughout the territory of Ukraine;
- *Level of gained Education:* Highest level of gained level of education of a kid;
- *Access to education:* As discussed in Chapter 2.2 numerous factors affected the access to education of kids in Ukraine;
- *Family unity:* Due to the full-scale invasion, males from 18 to 60 years old are not allowed to leave the territory of Ukraine (State Border Guard Service of Ukraine 2022). Besides, numerous families experienced family member losses.

### **4.3.2 Personas**

In accordance with the implemented research and criteria defined above, four personas were created:

#### **Persona 1**

##### Demographics

*Name:* Kateryna

*Age:* 7

*Education:* right after kindergarten

*Family:* Kateryna along with her mother and sister had to relocate from an urban area in Western Ukraine to Estonia due to economic hardship and job loss in the region. Father and elder brother are currently in Ukraine.

##### Pain Points & Frustrations

*Language skills:* Kateryna is a native Ukrainian speaker she never studied any foreign languages.

*Challenges:* Kateryna has experienced displacement and trauma at a very young age, which has impacted her emotional well-being and ability to socialize with other children. She may struggle with feeling nervous or overwhelmed in new situations and with adjusting to cultural differences.

##### Behaviors & Habits

*Interests:* Kateryna enjoys playing with dolls, drawing, and doing puzzles. She loves to draw and color pictures and is fascinated by animals.

### Needs & Goals

*Goals:* Kateryna is excited to be starting school and hopes to make friends with the other children. She is interested in learning English and wants to be able to communicate better with her teachers and classmates. Kateryna dreams of one day becoming a veterinarian so she can help take care of animals.

## **Persona 2**

### Demographics

*Name:* Oleksandr

*Age:* 10

*Education:* 3<sup>rd</sup> grade in Ukraine

*Family:* Oleksandr along with her mother and grandparents had to relocate from an urban area in Eastern Ukraine to Estonia due to economic instability and dangerous location. His father is in the Armed Forces of Ukraine

### Pain Points & Frustrations

*Language skills:* Oleksandr is a native Ukrainian speaker, he also speaks Russian and learning English in her new school.

*Challenges:* Oleksandr has experienced economic hardship and insecurity due to his family's struggles in Ukraine, which has impacted his emotional well-being and ability to focus in the classroom. He may struggle with keeping up with the academic demands of his new school and adjusting to the cultural differences.

### Behaviors & Habits

*Interests:* Oleksandr enjoys playing soccer and basketball with his new friends. He loves to draw and paint, and enjoys reading books about history.

### Needs & Goals

*Goals:* Oleksandr is excited to be in school again and hopes to catch up with his peers academically. He is interested in learning English and hopes to become fluent in the language. Ultimately, he dreams of becoming a historian or archaeologist so that he can explore and learn about the world around him.

## **Persona 3**

### Demographics

*Name:* Veronika

*Age:* 7

*Education:* 1st grade in Ukraine

*Family:* Veronika lives with her mother, father, and grandparents who had to relocate from a suburban area in Central Ukraine to Estonia together due to the conflict and political unrest in the region.

#### Pain Points & Frustrations

*Language skills:* Veronika is a native Ukrainian speaker but she also speaks Russian.

*Challenges:* Veronika has experienced trauma and loss due to the conflict in her home country, which has impacted her emotional well-being and ability to trust others. She may struggle to adjust to the academic demands of her new school and to make friends with the other children due to language and cultural barriers.

#### Behaviors & Habits

*Interests:* Veronika enjoys puzzles and board games. She loves to read books and is fascinated by fairy tales.

#### Needs & Goals

*Goals:* Veronika is excited to be starting school again and hopes to catch up with her peers academically. She is interested in learning English and hopes to become fluent in the language. Veronika dreams of one day becoming an artist so she can express her creativity and share her artwork with others.

### **Persona 4**

#### Demographics

*Name:* Mykhailo

*Age:* 9

*Education:* 2nd grade in Ukraine

*Family:* Mykhailo along with her mother and younger sister had to relocate from a suburban area in Southern Ukraine to Estonia due to a dangerous location. His father is in the Armed Forces of Ukraine

#### Pain Points & Frustrations

*Language skills:* Mykhailo is a native Ukrainian speaker but he has never studied foreign languages before.

*Challenges:* Mykhailo has experienced trauma and loss due to the conflict in his home country, which has impacted his emotional well-being and ability to trust others. He may struggle to adjust to the academic demands of his new school and to make friends with the other children due to language and cultural barriers.

## Behaviors & Habits

*Interests:* Mykhailo enjoys playing soccer and basketball with his new friends. He also likes to draw and build things with Legos.

## Needs & Goals

*Goals:* Mykhailo is excited to be starting school again and hopes to make friends with the other children. He is interested in learning English and wants to be able to communicate better with his teachers and classmates. Mykhailo dreams of one day becoming a scientist so he can explore and learn about the world around him.

The representation of the developed personas can be seen in Figure 4.1.2.1.

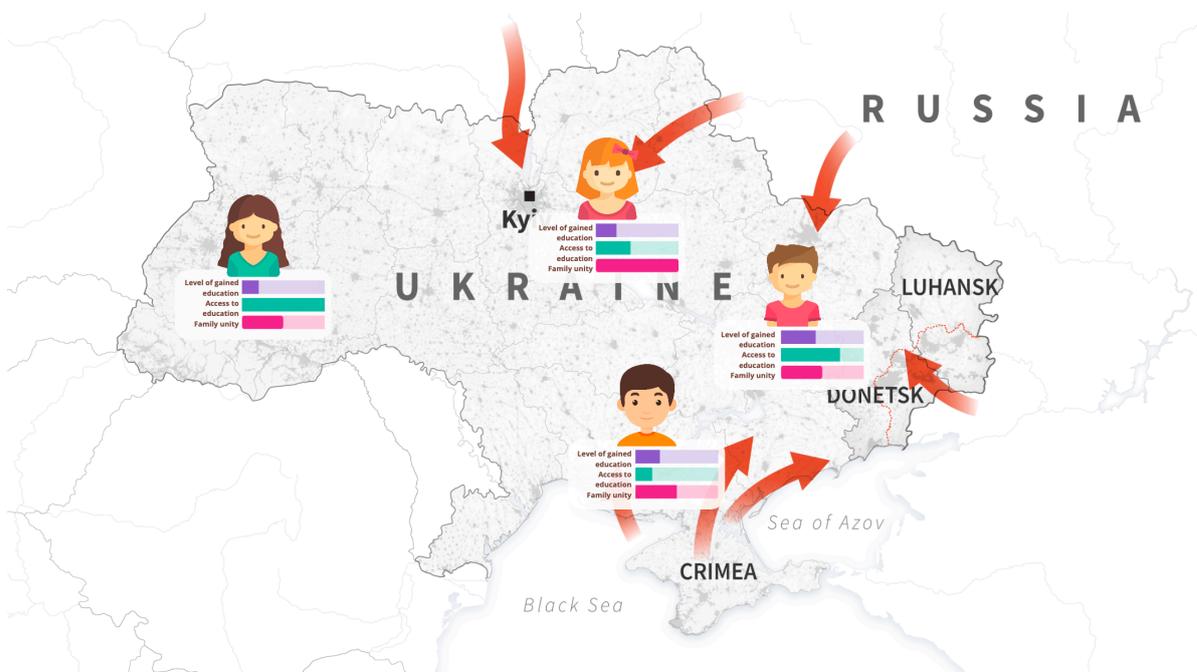


Figure 4.4.2.1 Representation of the developed personas, adapted from Natural Earth; United Nations Office for the Coordination of Humanitarian Affairs (OCHA); Worldpop.org; Ukrainian officials; Janes; Institute for the Study of War with AEI's Critical Threats Project (Russian-occupied territory data as of 3 p.m. EST, May 30); UK Ministry of Defence; Reuters, modified by author

## 4.4 Research Synthesis

The conflict sparked in Ukraine following Russia's full scale invasion in February 2022 has significantly affected the educational sphere, causing considerable disruptions and hurdles for both students and teachers. Many students endure isolation and stress-related symptoms arising from communication gaps and disturbances caused by the conflict. Likewise, educators, alongside other displaced individuals, contend with heightened stress levels, necessitating psychological support. Additionally, research indicates that both local and refugee teachers encounter difficulties in relating to refugee children. Moreover, teachers observe challenges in refugee children forming social bonds or friendships, potentially leading to feelings of loneliness or social seclusion. Despite the perceived shared experiences among refugee teachers, arising from war and displacement, they also grapple with personal trauma, which can impede their ability to devise effective intervention strategies and navigate various situations.

In the exploration of the adaptation of Ukrainian refugee youth in the Estonian educational environment, the research offers a nuanced understanding of the multifaceted processes involved. Through immersive observations at the Räägu project school in Tallinn, key aspects of language usage, cultural integration, classroom dynamics, support systems, student interactions, teacher-student relationships, challenges faced, and inclusivity initiatives have been illuminated. These insights emphasize the importance of recognizing the unique needs and strengths of Ukrainian refugee youth, advocating for tailored interventions, and fostering a holistic and inclusive educational experience that promotes successful adaptation within the Estonian educational system.

The observed inclusivity and unity among pupils, transcending classroom boundaries, paint a picture of a school environment that naturally fosters social connection. Teachers, with their empathetic approach and flexibility, emerge as crucial pillars in guiding students through the complexities of adaptation. However, challenges, including reserved behaviour and the need for additional support for teachers, underscore the importance of a nurturing environment and targeted interventions.

In Estonia, school leaders enjoy a notable level of independence in their roles, standing out with the foremost degree of autonomy in Europe. Their duties encompass fostering the growth of educators within their schools and shaping the pedagogical framework (Estonian World 2022). Principals in Estonia bear the responsibility of steering the evolution of the teaching and learning environment, meticulously overseeing the

utilization of the school's resources, and managing the tasks assigned to teachers, yet teachers lack the necessary materials to implement different practices.

### **Visualization of the findings**

The utilization of visualizations within the design work plays a pivotal role in presenting the intricate research findings in a more accessible and impactful manner. Visual elements like infographics and maps serve to distill complex data into easily comprehensible formats, enabling a more profound grasp of complex patterns and correlations within the research.

In order to comprehensively grasp the educational landscape for refugee children, it was imperative to identify and map all stakeholders involved in the process. The Stakeholders Map, detailed in Appendix 1, provided a holistic view of these parties. This visual representation facilitated the formulation of strategies for engagement, communication, and collaboration with these stakeholders.

In addition to that, after visiting Räägu School and observing multiple classes, it became imperative to create a User Journey map to visualize a typical day for teachers and refugee children and to correlate it with the observations. Additionally, an Emotional Scale was employed to pinpoint potential areas of concern and extract deeper insights. The User Journey map is presented in Appendix 2.

## **5. DESIGN CONCEPT**

### **5.1 Proposal**

Studying the adaptation of Ukrainian refugee youth in the Estonian educational landscape on the example of Räägu school has culminated in the formulation of a design proposal. Recognizing the trauma of displacement and the manifold challenges faced by Ukrainian refugees, this design is geared towards fostering support during the adaptation process into new learning environment. Emphasizing collaborative activities and group engagement, the aim is to forge connections among children, providing them with a platform for free expression and fostering a welcoming atmosphere. Additionally, the concept underscores the importance of increasing awareness among teachers who may encounter challenges in engaging with refugee students.

Drawing inspiration from project-based learning and the Think-Pair-Share methodology, the design proposal envisions a framework that can contribute to existing educational process. It suggests that engaged students, actively participating in the educational journey, can act as catalysts for each other's growth. By weaving together diverse experiences, linguistic nuances, and cultural backgrounds, this proposition strives to cultivate a dynamic environment where knowledge flows organically through collaborative student efforts.

Teamwork and collaboration, especially for refugee children, signify the ability to work together towards a common goal, pooling diverse skills and experiences to accomplish tasks and projects. It involves harmonizing despite cultural distinctions, respecting diverse perspectives, and offering mutual support in a novel setting. For teachers, it entails guiding collaborative efforts, establishing an inclusive environment, and nurturing a sense of community among students. Commencing a new project with a new team necessitates various crucial factors. These encompass establishing transparent objectives, fostering open lines of communication, acknowledging individual strengths, and promoting a sense of shared responsibility and belonging.

Sustaining a collaborative mindset involves nurturing trust, responsibility, and collective purpose within the team. In the case of children impacted by traumatic experiences like war, trust can be cultivated by encouraging open dialogue, creating secure spaces for expression, teaching effective communication techniques, and fostering empathy and understanding among peers.

Encouraging open expression in a supportive environment, learning active listening skills, and progressively building camaraderie within the group are essential steps in nurturing trust and cooperation among children who have faced challenging circumstances. Empathy and understanding are pivotal in establishing a cooperative and encouraging ambiance where everyone feels esteemed and valued.

### **5.1.1 Co-designing session**

In order to delve further into the process and validate the approach, a co-designing session was conducted. Co-design encompasses communal innovation, extending throughout the entirety of a design journey, aligning with the essence of this publication's title. Hence, co-design is a distinct manifestation of collaborative creation, yet in a wider context, co-design is employed to denote the innovation fostered by both trained designers and non-designers collaborating in the design evolution (Sanders & Stappers 2008).

The session commenced with an introduction to the main topic, 'The Forest,' where the children were tasked with forming groups of 3-4 individuals based on specific subtopics related to the theme. They were provided with plasticine and assorted materials to craft figures representing their chosen subtopics, which included animals, trees, the sky, and other elements such as ponds or mountains. Each group was required to select a subtopic contributing to the overarching theme. Once the groups were established and their topics chosen, collaborative work ensued. Throughout the session, I provided assistance and answered questions as needed. Finally, each group showcased their creations on a board, collectively arranging them to form a plasticine forest, depicted in Figure 5.1.1.1.



Figure 5.1.1.1 Group of participants of the co-designing session holding the plasticine forest, made by author

### **Demographics**

In order to facilitate the co-designing session, the Räägu project school in Tallinn participated, involving 23 fourth-grade Ukrainian refugee pupils, consisting of 15 girls and 8 boys.

### **Objectives**

- Implement real-world practices concerning group formation, topic selection, task assignment, and collaborative project development.
- Observe the active participation of children in each process.
- Evaluate the interaction dynamics among the children.
- Understand the necessary steps in supporting children who face challenges in communication and collaboration.

### **Results**

As a result of the session, it became evident that providing clear, visual instructions is crucial for children. Some children find it challenging to express themselves vocally, necessitating intervention and support from an external party, such as a teacher. Moreover, notable enthusiasm was observed among certain children eager to engage in the project, with positive feedback highlighting their enjoyment of interactive activities.

## 5.2 Design Concept - UnityLab

UnityLab is a web-based platform designed to facilitate physical group projects and foster learning among teachers and children. The projects are particularly focused on discovering Estonia and sharing Ukrainian culture as it is important to initially study aspects of your home country before initiating the process of learning and potentially establishing connections with a new culture and country. Additionally, project topics are directed towards the exploration of personal problems such as peer support networks, storytelling through art, building personal narratives, etc. Each project is intended to take place over a school quarter, which typically spans around 7 weeks, providing ample time for project preparation without overwhelming the children. Additionally, these projects take place during the school day, but since some children remain at school after classes, they are encouraged to continue working on their projects and discuss them with the teacher after classes. The timeline of a project is represented in Figure 5.2.1.

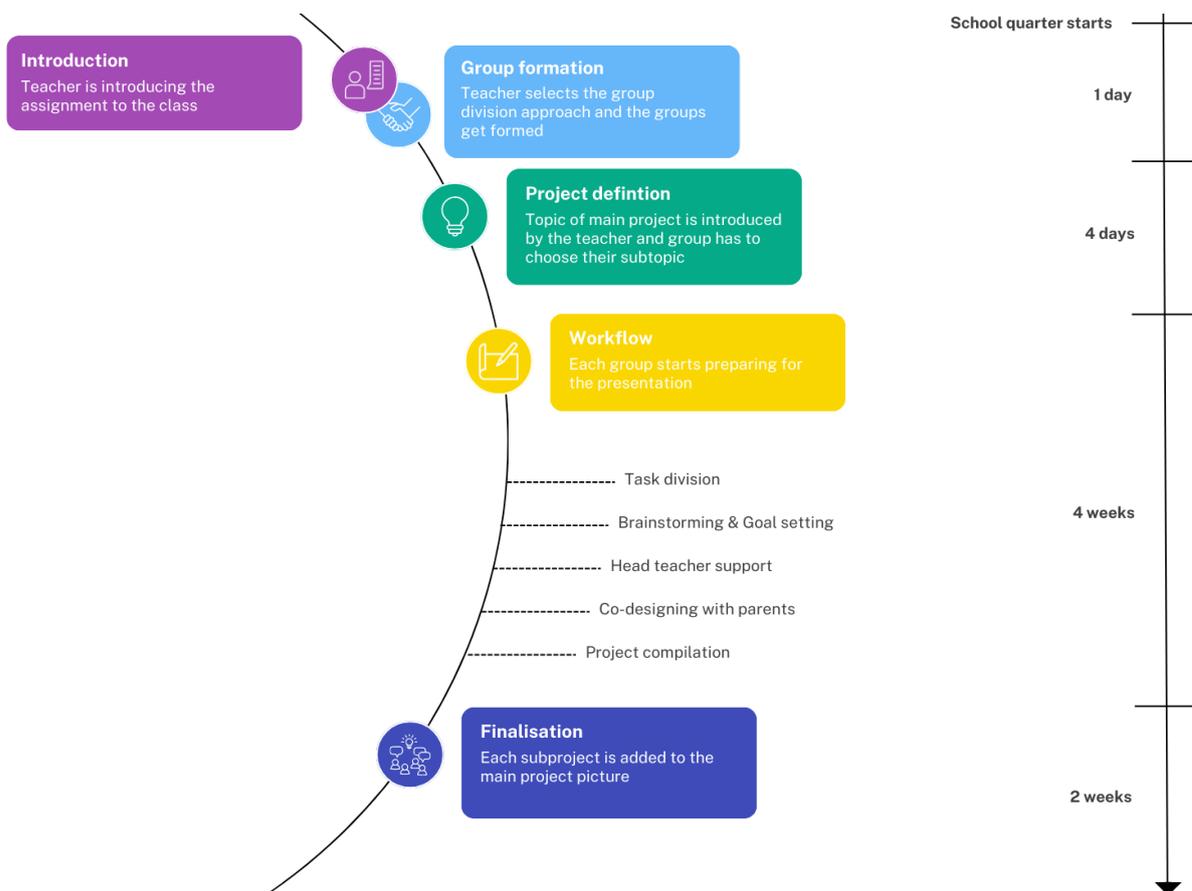


Figure 5.2.1 Timeline of the main project, made by author

### 5.2.1 Concept Structure

In order to structure the UnityLab concept, the Circular Design approach was utilised as a framework which recognizes that design does not follow a linear path but operates in cycles, continuously iterating and incorporating feedback loops. This method promotes continual learning, refining, and adjusting designs in response to evolving insights, user input, and shifting contexts (Medkova & Fifield 2016). The structure of the UnityLab is presented in Figure 5.2.1.1.

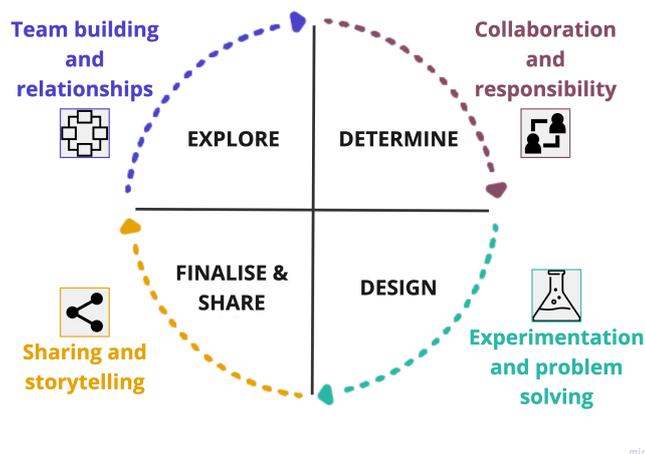


Figure 5.2.1.1 Concept Structure, made by author

The initial stage of the concept involves exploring the topic, followed by determining the direction and designing the project. The culmination phase in finalising the project and sharing its outcomes. The framework is structured around four main principals:

- *Team building and relationships*: focuses on encouraging empathy, communication, and mutual support among individuals who may have different backgrounds or experiences, ultimately creating a supportive network;
- *Collaboration and responsibility*: refers to working together towards common goals and taking ownership of individual contributions within a collaborative setting, involving combining efforts, sharing ideas, and collectively contributing to achieve a shared objective;
- *Experimentation and problem solving*: involves fostering hands-on activities where children build, test, and engage in collaborative endeavors nurturing not only teamwork but also problem-solving skills;
- *Sharing and storytelling*: allows sharing the project on the platform to facilitate knowledge transfer to peers in Ukraine. Additionally, it extends the opportunity for students and teachers from diverse locations to engage and derive insights from the shared project materials.

## 5.2.2 UnityLab

Teachers accessing the platform can readily view completed projects for inspiration and ideas. Likewise, children can access the project area to explore new material. A visual depiction of the teacher's home screen is presented in Figure 5.2.2.1.

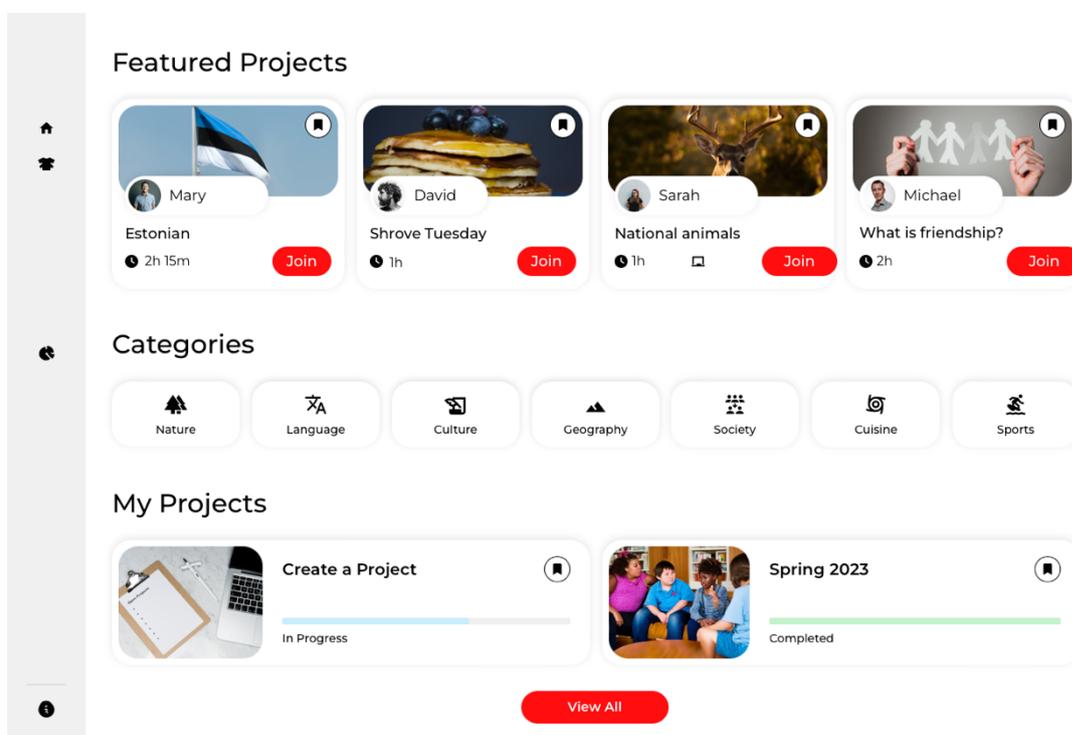


Figure 5.2.2.1 Mock-up version of the concept platform Unity Lab, 'Home screen', made by the author, photos from Unsplash

Upon entering UnityLab, teachers gain access to a wealth of supportive resources, not only specific to project-related materials but also guidance on engaging with refugee children and supporting their adaptation process. For instance, as a basis for the instructions, the 'Teaching about Refugees' formulated by the United Nations Refugee Agency (2021), is implemented offering ideas and pedagogical approaches for educating about forced displacement and utilizing teaching materials within a particular teaching context. Supporting kids with trauma and displacement involves a comprehensive understanding of their experiences and needs. Teachers should be aware that trauma may manifest differently in each child, so a personalized approach is crucial. In the beginning, when new kids arrive, it's vital for teachers to create a safe space, be approachable, and maintain open communication. When a new kid joins mid-project due to war-related movements, fostering a welcoming atmosphere among peers is essential. Encourage existing students to greet warmly, share their experiences, and involve the newcomer in activities to create a sense of belonging. Supporting one child with emotional problems may involve individual counseling or specific coping strategies,

while guiding the entire team stuck in decision-making requires fostering empathy, active listening, and collaborative problem-solving, ensuring that everyone's perspectives are heard and respected. The representation of the supportive materials available for teachers and an example of the 'Identifying Signs of Trauma in Students' materials are presented in Figure 5.2.2.2 and Figure 5.2.2.3 respectively.

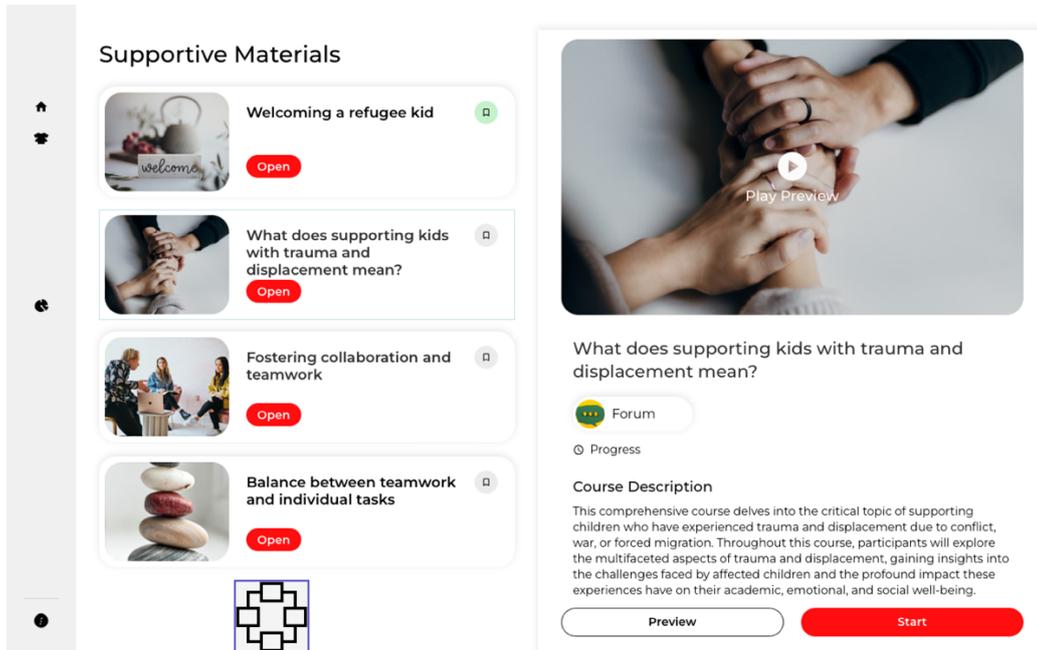


Figure 5.2.2.2 Mock-up version of the concept platform Unity Lab, 'Supportive materials', made by the author, photos from Unsplash

What does supporting kids with trauma and displacement mean?

Start Activity

## Identifying Signs of Trauma in Students



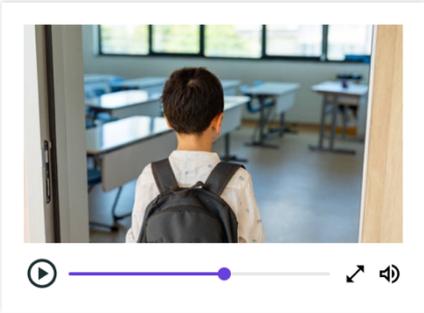
Identifying signs of trauma-related stress in students is pivotal to provide necessary support. Observe changes in behavior, such as sudden withdrawal, extreme anxiety, or persistent sadness. Look for academic decline or difficulty concentrating, which could indicate underlying stress. Physical symptoms like unexplained headaches or stomachaches may also suggest distress. Pay attention to hypervigilance, startle responses, or heightened sensitivity to noise as potential signs of trauma. Additionally, note mood swings, frequent nightmares, or avoidance of specific topics or places as indicators of possible trauma-related stress in students. By staying attuned to these behavioral cues, you can better understand students' experiences and offer the appropriate assistance and care they might need.

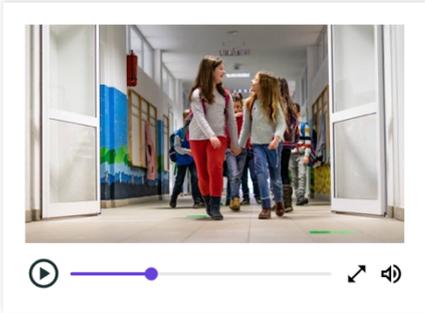
Figure 5.2.2.3 Mock-up version of the concept platform Unity Lab, 'Identifying Signs of Trauma in Students' Materials, made by the author, photos from Unsplash

Each course is accompanied by a forum that encourages teachers to engage in discussions, exchanging insights, experiences, and tips related to the learning materials' topic. To bridge theory with practice, interactive activities complement the coursework, allowing deeper exploration of the subject matter. As an illustration, in Figure 5.2.2.4, teachers are presented with two video scenarios depicting different children entering a classroom. Utilizing the provided preparatory materials, teachers are asked to analyze the children's behavior and devise personalized approaches tailored to each child's needs.

## What is the difference and what does it signify?

Watch the following videos and identify what the difference in both behaviours is





It is better for the kid on the first video to be left alone

It is better for the kid on the second video to be paid attention to

On the first video have a private conversation is displayed

Forum
Check

Figure 5.2.2.4 Mock-up version of the concept platform Unity Lab, Step of bridging theory with practice, made by the author, photos from Unsplash

As the initial step, the teacher introduces UnityLab to the class, elucidating its purpose. Following this introduction, when initiating a new project, the primary task is to determine the main project topic and form groups. The main project's topic should bridge the Estonian and Ukrainian contexts, facilitating learning about the new environment while also sharing cultural backgrounds. The platform offers the teacher various approaches to group formation, each option accompanied by detailed explanations. The teacher is afforded the freedom to select an approach, prompting subsequent actions accordingly. For instance, upon selecting the 'Random group assignment' approach, the teacher can define the criteria for this assignment. Illustrated in Figure 5.2.2.5, the teacher opted for the 'What character are you?' flow, allowing students to initiate the process using their smartphones.

**Project ID :**  
**546721t471**

Help

Share



## Group Formation

How ?

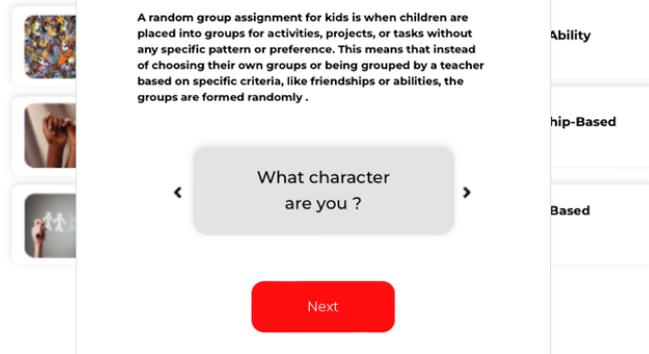
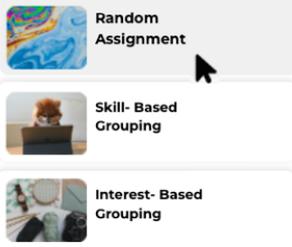


Figure 5.2.2.5 Mock-up version of the concept platform Unity Lab, Group formation: 'What character are you?', made by the author, photos from Unsplash

When students scan the QR code or enter the project ID code associated with the project, they gain access to the predefined process. Upon opening the project page, they are invited to participate in a quiz titled 'What character are you?'. Following the quiz, each participant is assigned a character, and the subsequent task is to form groups comprising a diverse range of characters. The quiz flow from the kid's perspective is illustrated in Figure 5.2.2.6.

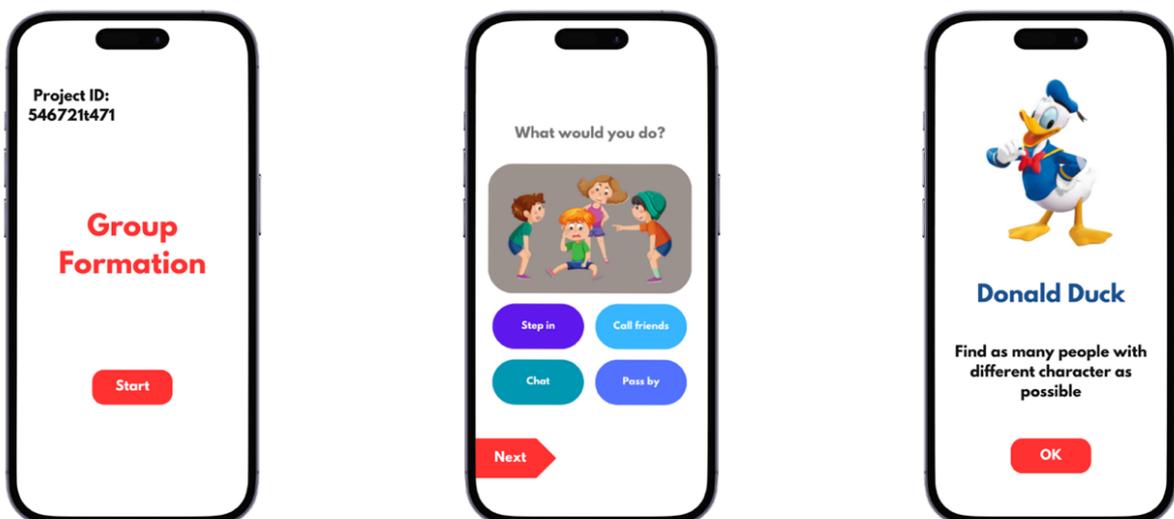


Figure 5.2.2.6 Mock-up version of the concept platform Unity Lab, 'What character are you?' quiz, made by the author, photos from Unsplash

After the formation of groups, students are tasked with selecting a subtopic relevant to the main project theme. This selection occurs through group discussions facilitated by the teacher. Once the subtopic is finalized and entered into UnityLab, students can commence project preparation. The idea behind this approach is collaborative learning, where children educate and learn from each other. Therefore, each subproject compilation is bifurcated into two segments: workflow and assignment. Figure 5.2.2.7 illustrates the visual representation of the workflow and final assignment activities.

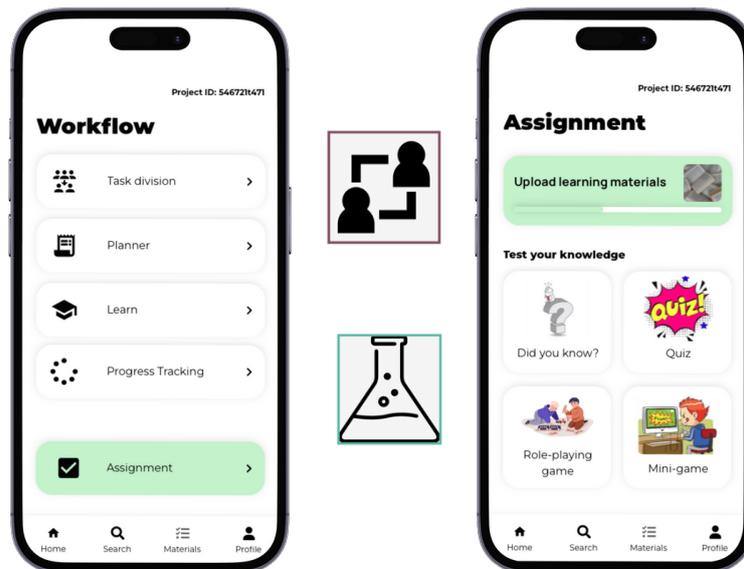


Figure 5.2.2.7 Mock-up version of the concept platform Unity Lab, Workflow and final assignment activities, made by the author, photos from Unsplash

The 'Workflow' section serves as a space where students can delve into the topic using the 'Learn' section, leveraging Artificial Intelligence and a search engine to access answers to topic-related queries and gather assignment ideas. It provides supportive tools like task division (for distributing tasks among group members), a planner (to set task deadlines), and progress tracking (for monitoring team progress). Autonomy for kids involves fostering their independence, initiative, and decision-making abilities within the educational context. To support autonomy, kids are assigned individual tasks that encourage independent learning, such as conducting research, creating individual components of a project, or exploring specific topics on their own. Additionally, tasks within a team setting are designed to promote collaboration, where kids contribute collectively to project goals, share responsibilities, and make joint decisions about project directions. Encouraging self-directed learning while providing guidance and resources empowers refugee children to engage actively, contribute ideas, and take ownership of their learning experiences. The teacher can oversee each team's progress and offer support as needed. As students gather learning material, they can move to

the 'Assignment' section, enabling the creation of interactive activities for others to learn and test their knowledge. There are four activity types for each project: 'Did you know?' – featuring intriguing facts with visual aids such as videos and learning cards; 'Quiz' – containing topic-related questions; 'Role-playing games' – offering game instructions, such as a fashion show for the fashion topic; and 'Mini-game' – creating a simple mini-game out of the proposed types, for example, 'Name that Tune' for the 'music' topic.

Each project involves physical engagement, a significant aspect of project-based learning, aimed at motivating children to experiment, test, prototype, and construct objects. This element is integral to fostering initiative and problem-solving through hands-on learning experiences. For instance, children can sculpt figures using plasticine, scan them using the UnityLab platform, and utilize them for the activities in the 'Assignment' section.

When the deadline approaches and all sub-projects are ready, they are combined into one main project. Each project is easily accessible to external parties, so others can learn and gain inspiration. The 'Check' section is connected to the 'Assignment' interactive part which kids create during their project preparation, so others can learn and test their knowledge in an interactive and sometimes gamified way. Additionally, each project can be easily shared, so that Ukrainian refugee kids could show their peers from Ukraine what they are doing in Estonia. The general view of the main project is presented in Figure 5.2.2.8.

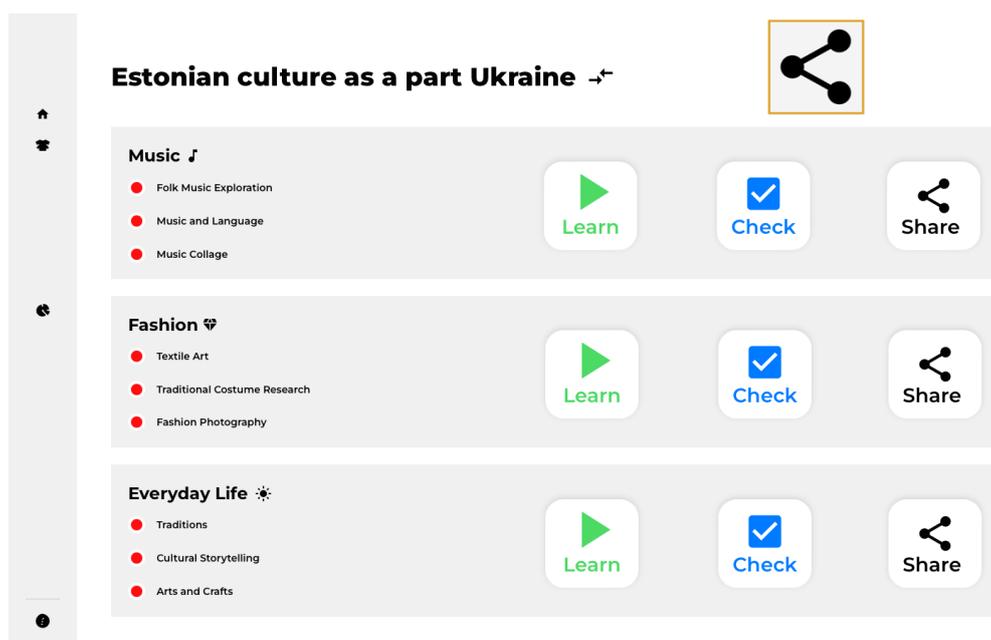


Figure 5.2.2.8 Mock-up version of the concept platform Unity Lab, Project view for external parties, made by the author, photos from Unsplash

### **5.2.3 Analysis of similar existing platforms**

Analyzing existing platforms is crucial before launching a new product. Among the post-COVID educational platforms, examples like Khan Academy, ClassDojo, and Seesaw offer valuable insights into potential improvements and new value propositions for UnityLab.

*Khan Academy* provides diverse subject video tutorials and interactive practice sessions. Users can follow tailored learning paths, advancing at their preferred speed. Its vast video collection, engaging exercises, and comprehensive progress monitoring cater to self-guided learning and extra educational support. *ClassDojo* concentrates on overseeing classrooms and facilitating communication among educators, learners, and guardians. It provides features for monitoring behavior, implementing classroom rewards, and updating parents on student advancements. Moreover, *ClassDojo* empowers teachers to relay messages, notifications, and media to parents, nurturing enhanced school-home interactions. *Seesaw* functions as a digital portfolio and classroom communication platform facilitating students' sharing of their assignments with educators and parents. It permits students to record their educational journey using varied multimedia formats like photos, videos, and drawings. *Seesaw* encourages student involvement and accountability in learning by providing a space for presenting and contemplating their work. Additionally, teachers can offer feedback and evaluate student development using the platform.

#### **Summary**

Each of these platforms provides distinct functionalities that address diverse educational facets, encompassing individualized learning (*Khan Academy*), classroom organization, facilitating teacher-parent communication (*ClassDojo*), and empowering students in curating portfolios and self-reflection (*Seesaw*).

However, each of these platforms exhibits a gap in certain aspects:

- Absence of access for external visitors to delve into specific subjects or projects;
- A tendency towards individual learning over sharing materials, experiences, and ideas;
- Limited capacity for teachers to share their experiences or gain inspiration, despite having necessary guidelines;
- A primary focus on online learning, potentially sidelining the promotion of physical learning experiences;

## SUMMARY

Irrespective of personal characteristics like gender, ethnicity, financial standing, faith, or belief system, every person is endowed with fundamental human rights. These rights, ethical standards delineating behavior, are safeguarded by law and universally applicable. Notably, the entitlement of children to receive an education is entrenched within these fundamental human rights. However, due to Russia's invasion of Ukraine, Ukrainian children were deprived of this basic right as they were compelled to flee their homeland.

The comprehensive engagement of refugee children in education faces various hurdles. These challenges include inadequate information about their educational background and specific needs, insufficient support from families and schools, placement issues within the education system, and limited resources for educators. Studies show that building stable connections and engaging socially can boost confidence and alleviate feelings of isolation among newcomers (Tournier, Chimier, & Jones 2023). Social interactions are vital for a sense of purpose, belonging, security, and confidence, countering the negative impact of isolation and reducing feelings of inadequacy and insecurity.

The integration of project-based learning (PBL) and Think-Pair-Share (TPS) in educational settings offers substantial benefits to refugee children. PBL encourages critical thinking and practical application, especially advantageous for these students. Similarly, TPS fosters collaboration and discussion, supporting their expression of ideas in a new educational setting. This interactive method aids their adaptation by promoting engagement, teamwork, and cohesive learning. Ultimately, combining PBL and TPS supports academic development and enhances the social and emotional integration of refugee children in their new educational environments.

In the study, multiple methodologies were utilized, including participant observations, semi-structured and informal conversational interviews, alongside a co-designing session. Following the analysis of the gathered insights, the UnityLab web platform was developed. This online platform aims to facilitate group projects, aiding learning for both teachers and students, with a specific emphasis on exploring Estonia and showcasing project results. UnityLab serves as a supportive tool fostering a welcoming environment for Ukrainian refugee children and assisting in their adaptation process.

## EESTIKEELNE KOKKUVÕTE

Olenemata isikuomadustest, nagu sugu, etniline kuuluvus, finantsseisund, usk või veendumustest, on igal inimesel inimõigused. standardid, mis on seadusega kaitstud ja kõigile kehtivad. Need õigused on käitumist määratlevad eetilised. Eelkõige on nende põhiliste inimõiguste raames juurdunud laste õigus saada haridust. Ukrainasse jäid Ukraina lapsed sellest põhiõigusest ilma, kuna nad olid sunnitud kodumaalt. Kuid Venemaa sissetungi tõttu põgenema.

Pagulaslaste igakülgne kaasamine haridusse seisab silmitsi erinevate takistustega. Need väljakutsed hõlmavad ebapiisavat teavet nende haridusliku tausta ja spetsiifiliste vajaduste kohta, ebapiisavat toetust perekondadelt ja koolidelt. Samuti on probleemiks nende paigutus haridussüsteemis ja õpetajate piiratud ressursid. Uuringud näitavad, et stabiilsete sidemete loomine ja seltskondlik kaasamine võib suurendada uute tulijate enesekindlust ja leevendada isolatsioonitunnet (Tournier, Chimier ja Jones 2023). Sotsiaalsed sidemed on eluliselt olulised inimeste jaoks, sest annavad eesmärgi, kuuluvuse, turvalisuse ja enesekindluse tunde, tõrjudes isolatsiooni negatiivset mõju ning vähendades ebapiisavuse ja ebakindluse tunnet.

Projektipõhise õppe (PBL) ja Think-Pair-Share (TPS) integreerimine haridusasutustesse pakub pagulaslastele olulist kasu. PBL julgustab kriitilist mõtlemist ja praktilist tegevust, mis on nende õpilaste jaoks eriti kasulik. Samamoodi soodustab TPS koostööd ja arutelu, toetades nende ideede väljendamist uues hariduskeskkonnas. See interaktiivne meetod aitab neil kohaneda, edendades kaasatust, meeskonnatööd ja sidusat õppimist. Lõppkokkuvõttes toetab PBL ja TPS kombineerimine akadeemilist arengut ning suurendab pagulaslaste sotsiaalset ja emotsionaalset integreerumist nende uutesse hariduskeskkondadesse.

Uuringus kasutati mitmeid meetodikaid, sealhulgas osalejate vaatlusi, poolstruktureeritud ja mitteametlikke koos loomise sessioonidega. Pärast kogutud informatsiooni analüüsi töötati välja UnityLabi veebiplatvorm. Selle veebiplatvormi eesmärk on hõlbustada grupiprojekte, aidates nii õpetajatel kui ka õpilastel õppimida ning pannes erilist rõhku Eestiga tutvumisele ja projektitulemuste tutvustamisele. UnityLab on toetav tööriist Ukraina pagulaslaste jaoks vastuvõtva keskkonna loomisel ja nende kohanemisprotsessis abistamisel.

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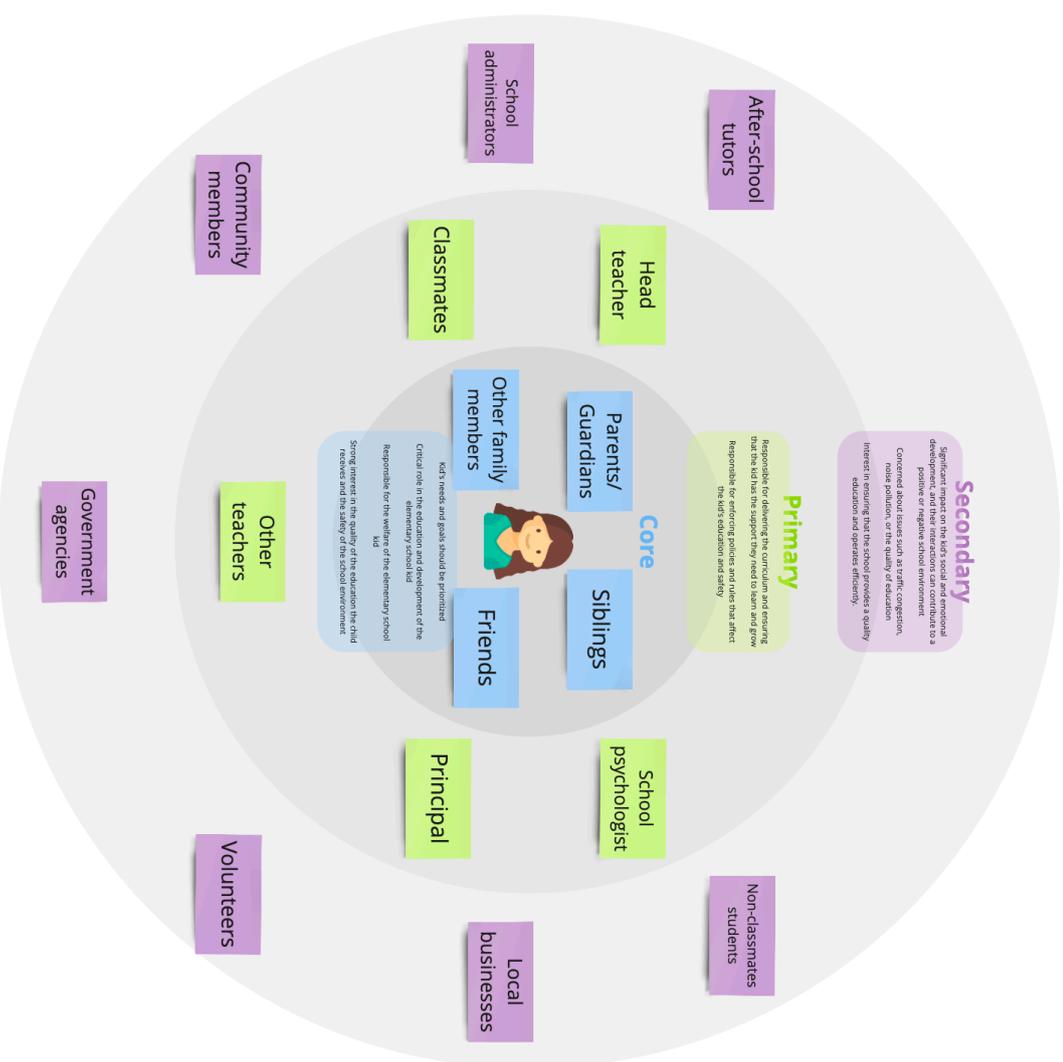
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# Stakeholder Map



## Appendix 1

