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Leveraging innovative technology in literacy and education programmes for refugees, migrants and internally displaced persons

Education 2030

Leveraging innovative technology in literacy and education programmes for refugees, migrants and internally displaced persons

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Learners take part in an International Computer Driving Licence (ICDL) session at the Za'atari refugee camp in Jordan.

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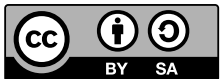

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Foreword

On 21 May 2015, over 1,600 participants from 160 countries adopted the Incheon Declaration for Education 2030. The Incheon Declaration is a commitment to develop 'more inclusive, responsive and resilient education systems to meet the needs of children, youth and adults' in conflict-afflicted areas and other emergency situations; it highlights specifically the plight of internally displaced persons (IDPs) and refugees (UNESCO, 2016a).

Since 2015, the UN has recorded significant increases in the numbers of displaced persons: from 2015 to 2021, the number of refugees increased from 16.1 million to 26.6 million, while the number of IDPs grew from 40.5 million to 48 million (UNHCR, 2021a). Similar trends apply with regard to international migration, with an increase in the number of migrants worldwide from approximately 232 million in 2013 to almost 272 million in 2020 (IOM, 2019). It is expected that population movements will continue to intensify as a result of climate change, pandemics, conflict and other emergencies.

Education is critical for the empowerment of refugees, migrants and IDPs. Literacy is the first step in a person's lifelong learning journey, and plays a crucial role in enabling migrants and refugees to integrate into their host countries' societies and labour markets. Literacy skills, including knowledge of the host country's language, are key to understanding a new culture and accessing social services and further education opportunities.

The rapid development of information and communication technologies (ICTs) has played a major part in facilitating the delivery of education to meet the complex needs of refugees, IDPs and migrants. Better access to digital devices, improved internet connectivity and the increasing availability of online learning platforms have opened up new opportunities for delivering education and training to people on the move.

The present compilation brings together a selection of case studies showcasing how ICTs can be integrated both innovatively and effectively into literacy and education to improve the lives of refugees, migrants and IDPs. The case studies in this compilation demonstrate the potential of technology to support learners' acquisition of literacy skills through arts-based learning, integrated literacy programmes, entrepreneurship training or in combination with tertiary education opportunities. They highlight the multitude of stakeholders that have come together across sectors, including through public-private partnerships, to shape innovative responses that can make a real difference to learners' lives. At the same time, the compilation shows the various modalities through which technology can be harnessed to deliver effective literacy and educational opportunities in diverse and challenging environments while recognizing and remaining sensitive to the needs of learners, be they refugees, IDPs or migrants. It also documents coping strategies in the context of the COVID-19 pandemic.

I sincerely hope that this compilation will serve as a valuable resource for all stakeholders adopting innovative technologies to support the delivery of quality literacy programmes and educational opportunities to people on the move.

David Atchoarena
Director
UNESCO Institute for Lifelong Learning

Introduction

In 2021, there were an estimated 26.6 million refugees and 48 million internally displaced persons (IDPs) worldwide (UNHCR, 2021b). Conflicts and persecution in countries such as Afghanistan, Myanmar, Venezuela and Yemen resulted in a large-scale displacement of people, as more than 84 million were forced to flee their homes by November, breaking record highs from previous years (UN, 2021). The International Organization for Migration (IOM) estimates that there were 272 million international migrants globally in 2019, accounting for 3.5 per cent of the world's population (IOM, 2019). Weather-related crises have triggered more than twice as many displacements as conflict and violence over the past decade, with an average of 21.5 million people being forced to move due to extreme weather conditions (UN, 2021).

Refugees, migrants and IDPs come from diverse backgrounds, but most share similar goals: to seek dignified, safe and fair work, improve their own lives and those of their families, and be active citizens, participating in their local communities and in society as a whole. To achieve these goals, they must be provided with opportunities to continue their education through provision ranging from basic literacy programmes through vocational skills training to tertiary education. Young and adult refugees, migrants and IDPs should be afforded these opportunities within the context of their right to education, as enshrined in international law.

Recent and rapid developments in digital technology open up learning pathways that offer people on the move new ways of overcoming the challenges they face. As noted in the UNESCO Strategy for Youth and Adult Literacy (2020–2025), the inability to read and write at a basic level, or to actively participate in an increasingly literate and digitalized world, leads to exclusion and acts as a major barrier to more active engagement in political, social, cultural and economic activities. At the same time, the educational needs of refugees, migrants and IDPs extend far beyond literacy learning alone; international organizations and education programme providers equally emphasize the importance of access to tertiary education, training in vocational skills, digital literacy and the development of soft or transversal skills (UNESCO, 2018; UNHCR, 2019).

Information and communication technologies (ICTs), including radio, television, mobile phones, personal computers, and the use of big data and artificial intelligence, can widen access to learning opportunities and quality learning materials, and foster an enabling learning environment (UNESCO, 2018). ICTs have been used to support language acquisition (Mullamaa, 2010), health education (Alami et al., 2019) and social integration (AbuJarour et al., 2019) . Furthermore, navigating the digital environment and interacting with other users online can help improve learners' problem-solving, creative thinking and communication skills. The potential of ICTs to address the literacy and learning needs of the most vulnerable groups, such as refugees, migrants and IDPs, thus deserves special attention.

This compilation of case studies includes programmes from around the world that have used ICTs in innovative and effective ways in order to provide literacy and education opportunities to youth and adult refugees, migrants and internally displaced populations. It builds on compilations developed over the past 10 years for the UNESCO Effective Literacy and Numeracy Practices Database (LitBase) and responds to record increases in the number of people on the move by offering insights into how the diverse educational needs of refugees, migrants and IDPs can be better addressed by utilizing the potential of technology.

REFUGEES, MIGRANTS AND INTERNALLY DISPLACED PERSONS: DEFINITIONS

Refugee: defined in international law as a person fleeing persecution or conflict in her or his country of origin.

Internally displaced person (IDP): those forced to leave their homes to escape the effects of armed conflict, generalized violence, human rights violations, or natural or human-made disasters, who have not crossed an internationally recognized national border. They are accorded rights as citizens of their country.

Migrant: there is no universally accepted definition as to what constitutes a migrant but it is understood to cover all cases where a person has freely chosen to migrate, usually across an international border, without external compelling factors as in the case of refugees and IDPs. The term applies to individuals and family members who move to another country or region in order to improve their material or social circumstances, as well as their or their family's prospects (UNHCR, 2021c; UNESCO, 2018).

LITERACY AND EDUCATIONAL NEEDS OF YOUTH AND ADULT REFUGEES, MIGRANTS AND IDPS

UNESCO defines literacy as 'an autonomous or discrete set of cognitive skills which may be taught independently with the help of a step-by-step instructional approach … it [goes] beyond mere cognitive skills to encompass the social contexts, purposes and relationships in which literacy is actively used' (UNESCO, 2016b). Technological developments in twenty-first century society have made access to the internet and digital devices increasingly indispensable for many, to the extent that some argue that it should be considered a human right (UN, 2021). Similarly, the impact of technology on society has led to the realization that any definition of literacy should include the ability to navigate digital content and access information online (OECD, 2016).

Youth and adult refugees, migrants and IDPs require meaningful opportunities to acquire literacy, digital skills and higher education, all of which are critical to their social inclusion, economic empowerment and personal well-being. The United Nations High Commissioner for Refugees (UNHCR) has found that most refugees living in one of Jordan's refugee camps were keen to participate in skills training and would enrol in such programmes if offered (UNHCR, 2017). Educational opportunities for adult refugees, migrants and IDPs are also vital because data show that foreign-born migrants have lower literacy rates compared to the general population (OECD, 2016). IDPs in Colombia, for example, are twice as likely to be illiterate compared to non-IDPs (Carrillo, 2009). As regards tertiary education, UNHCR estimates that only around 5 per cent of refugees are enrolled, compared to almost a third of the global population (UNHCR, 2022). However, because data are fragmented or unavailable in most countries, it is difficult to obtain a comprehensive or conclusive understanding of the literacy levels and educational qualifications of refugees, migrants and IDPs.

Due to the COVID-19 pandemic, youth and adult literacy programmes have been disrupted, with literacy likely regressing as a result. Educators have faced challenges adapting to distance teaching using television, radio or internet-based platforms. Learners living in areas with poor ICT infrastructure or who cannot afford the data or devices necessary for distance learning have been left out. There is thus an urgent need to create flexible and personalized learning opportunities that address the realities and social contexts of these marginalized populations. The following overview and summary of the programmes illustrate the various ways in which technology has been used to create and enhance literacy and educational opportunities for marginalized populations.

OVERVIEW OF PROGRAMMES

This compilation consists of 21 technology-supported literacy and education programmes whose implementing organization or case provider is registered in one of UNESCO's five major regions: Africa (4), Asia and the Pacific (4), Latin America and the Caribbean (1), Europe and North America (11), and the Arab States (1). The programmes adopt technology that enables cross-border communication and primarily targets people on the move. Of the 21 programmes, 15 focus on refugees, 13 on migrants, and six on IDPs, although there are overlaps between target groups in many of the programmes. The programmes are listed below by subtheme: literacy and language learning, literacy and integrated skills development, professional development and language learning for educators, and higher education. These four subthemes have been selected in order to assist readers' understanding of the nuances that exist within the main theme of the present compilation.

LITERACY AND LANGUAGE LEARNING

The Sydney Theatre Company's programme, **Connected**, builds English literacy among adult migrants through drama and performance. Drama, art and 'translanguaging' are used to create a welcoming and inclusive language-learning environment where learners practise speaking, listening and reading skills. The programme also provides learners with information on physical and mental health issues. It switched to online teaching during the COVID-19 pandemic.

Rising On Air provides learning opportunities through radio broadcasts to reach some of the poorest and most marginalized communities in Liberia and Sierra Leone. Its content covers literacy, numeracy and arts from early childhood to senior secondary school ages. Feedback and reminders are sent by text message through Short Message Service (SMS) to help adult caregivers keep track of lessons.

Learning French through Film, created by the Cellule de la francophonie-Club RFI Kigoma (Francophone Unit) in the United Republic of Tanzania, uses films to promote literacy in French. Facilitators help moderate groups of learners as they practise speaking and listening in French after watching a film. The format and modality are chosen to keep the learning process light and informal, and thus to accommodate learners who have experienced the trauma of violence and displacement from their home countries.

Paper Airplanes Languages and Skills supports conflict-affected students in the Syrian Arab Republic by providing literacy and language learning in English, digital literacy training, and pathways to employment and higher education. It connects learners with volunteer tutors in the United States of America (USA), United Kingdom of Great Britain and Northern Ireland (UK) and Canada through a range of mobile-friendly and easily accessible technologies, such as Google Meet, Zoom and WhatsApp. Under Paper Airplanes' specialized curriculum, learners use these tools to engage in coordinated one-to-one or group lessons with facilitators.

UNESCO Bangkok's **Learning Coin: Open Education Opportunities for Out-of-School Migrants** programme has developed a free app and cash transfer programme for migrant children and youth in Thailand that promotes literacy and good reading habits. Learners are recruited from community learning centres (CLCs) and schools in Thailand, and provided with tablets that have been preloaded with the LearnBig app and equipped with an internet connection. The LearnBig app provides books in learners' mother tongues and several national languages. It tracks their reading progress on a daily basis and rewards achievements with cash incentives to parents designed to encourage them to support their children's participation

in the programme. To expand access, further materials are made available to learners on the programme website. Pre- and post-assessments of learners are carried out by teaching staff.

Global English Language Programme is run by the Jesuit Worldwide Learning organization. It provides preparatory English courses to marginalized learners, including refugees and IDPs, in a number of developing countries. Courses are conducted by trained volunteers using blended learning formats. A dedicated learning management system and digitalized materials allow learners to learn flexibly outside the classroom. Teachers provide support both in person (through classes at local learning centres) and online.

The **Thabyay eLearning Platform** provides online English language courses, exam preparation and training in professional and personal development to migrants, refugees and IDPs in Myanmar, Thailand and Bangladesh. Some language courses are also offered in Burmese and Karen. The programme uses the online Moodle platform to provide content, and is designed to function on a range of low bandwidth devices, including mobiles, tablets and computers.

DigLin: The Digital Literacy Instructor is a language-learning system developed in 2012 for refugees and migrants who want to learn other languages, and aims to support independent learning paths. It uses grapheme-phoneme correspondence and immediate feedback approaches to enhance the lexical and grammatical skills of learners, who access the application online using any type of digital device. The programme also uses user behaviour tracking to analyse learner behaviour and performance.

SpråkPlay, based in Sweden, is a free mobile application designed to expand access to media for refugees and migrants in order to improve their language acquisition and assist them in integrating into Swedish society. The application uses media (such as TV, Twitter, online news and e-books) as learning resources, and offers integrated dictionary and learning tools based on each student's language level. It is currently available in 25 languages.

vhs-Lernportal is an online learning portal developed by Deutscher Volkshochschul-Verband (DVV) in Germany. It helps migrant learners to study German and learn about German culture. German is offered at pre-beginner to intermediate levels. Learners are able to use VHS-Lernportal in classrooms or independently. Tutors provide support either remotely or in person depending on the format of the course.

LITERACY AND INTEGRATED SKILLS DEVELOPMENT

Broad Class: Listen to Learn is run by the Power99 Foundation in Pakistan, and compensates for the lack of ICT infrastructure in remote areas by providing radios, memory cards and USBs to deliver interactive radio instruction on literacy, numeracy and health that is aligned with Pakistan's national curriculum. Lessons support the promotion of cooperative learning methods and active learning among students. Its beneficiaries include IDPs, out-of-school youth and adults, and Afghan refugees.

Sistema Interactivo Transformemos Educando is an ICT-embedded programme developed by Fundación Transformemos for illiterate or out-of-school youth and adults aged between 15 and 60. In partnership with the Colombian National Ministry of Education, the programme delivers different levels of courses in four integrated areas of knowledge – social sciences, mathematics, natural sciences, and language and communication – under the aegis of the national Special Integrated Academic Cycle.

The **Norwegian Refugee Council (NRC) Youth Programme in Jordan** is designed to strengthen the personal, social and economic resilience of Syrian and Jordanian youth living in Jordan's

refugee camps. Skills development is offered in partnership with local non-governmental organizations (NGOs), community-based organizations and other training providers. The programme offers literacy and numeracy support, post-basic skills training in a wide range of subjects (e.g. vehicle maintenance, tailoring, hairdressing and computer maintenance), life skills development, and distance learning courses.

M-Shule SMS Learning & Training is a mobile learning management platform in Kenya, which uses artificial intelligence (AI) to deliver customized content. It uses SMS to reach learners, as text-messaging services are widely available in Kenya. The M-Shule programme is offered in both Swahili and English. In addition to literacy and numeracy classes, the programme provides courses in financial literacy, entrepreneurship, marketing, leadership and community-building for youth and adult learners who are interested in developing their income-generating capabilities.

PROFESSIONAL DEVELOPMENT AND LANGUAGE LEARNING FOR EDUCATORS

Technology can also support educators' continuous professional development so that they can teach refugees, IDPs or migrants effectively, and develop their subject expertise. The COVID-19 pandemic forced the **English Language Course for Refugee Teachers**, implemented by the Education Development Trust in Lebanon, to transition to Zoom videoconferencing software and WhatsApp to facilitate communication. Teachers undergo structured, weekly sessions to improve their English proficiency and teaching skills, while also developing their digital skills.

Similarly, Mosaik Education's **Dogme Training Programme** provides virtual education in Lebanon. Given that teachers are key to tackling the educational difficulties brought about by the COVID-19 pandemic, the training programme aims to enhance the teaching skills of English-language instructors in the targeted refugee communities, and to boost their resilience in the face of the challenges they encounter. The programme offers live sessions through Zoom, as well as self-study sessions via the Moodle platform, to assist instructors using Dogme teaching techniques.

The development of educational resources for migrants across different contexts is the main goal of **Migrant Liter@cies**, a European Commission-funded initiative that integrates digital and media literacy, creativity and teacher training into adult education provision for migrants. Adult education and media institutions in eight European countries are involved in the project. To enhance educators' media and digital skills and thus improve their ability to assist adult migrant learners, the programme has implemented a teacher training centre hosting free massive open online courses (MOOCs).

Another multi-country initiative is the **Upskilling Adults 45+ with Migrant Background** programme, which is run by the Romanian Institute for Adult Education and aims to tackle the issue of labour market integration for new and returning migrants in a number of European countries. The programme uses an online platform to improve migrant learners' basic, digital, entrepreneurship and soft skills, and provides educators with training to enhance their digital skills and adult-appropriate teaching approaches.

HIGHER EDUCATION

Refugees' limited access to higher education is well documented. Only about 5 per cent of refugees enter higher education. **Education for Humanity**, organized by Arizona State University (ASU), harnesses solar energy to provide higher education opportunities for refugees in Uganda. The programme has developed a solar-powered device known as SolarSPELL to serve as a WiFi hotspot and resource database through which learners are able to download learning materials from local networks without an internet connection. Learners are also able to connect with ASU teachers by phone and WhatsApp. They attend preparatory classes to improve their literacy and digital skills, before progressing to courses on rural development, vocational training and job skills.

In partnership with Southern New Hampshire University (SNHU), **Kepler Kiziba** provides higher education to refugees in Kiziba, Rwanda, by equipping them with digital devices and internet access. Participants learn at their own pace, and can also benefit from maternity leave and financial subsidies provided by the programme. A structured, phased process builds learners' literacy skills, digital competences, English-language abilities and knowledge of mathematics, enabling them to gain an online tertiary qualification from SNHU.

While the above programmes are hosted in refugee camps, the Germany-based **Kiron Campus Programme** adopts an alternative approach: its online learning platform provides free access to and certification for customized study programmes and short courses to any refugee, IDP, asylum seeker or member of an underserved community. It offers tutorials, language courses and mentoring programmes to learners who wish to obtain relevant job skills and improve their language ability. Learning completed through Kiron Campus is recognized as part of the admissions process to local universities in Germany, Jordan and Lebanon. Course content is provided in multiple languages and is made available for offline use where possible.

CONCLUSION

These case studies demonstrate the wide range of programmes that have harnessed available technologies and innovative approaches in order to meet the diverse literacy and educational needs of youth and adult refugees, migrants and IDPs, both in their respective countries and in regions around the world.

The use of free, mobile-based applications, whether for messaging or for videoconferencing, in combination with other online learning tools, has increased access to learning; it has also reduced the geographical limitations imposed by programmes requiring in-person participation. Many of the programmes highlighted in this publication have established links with different organizations and institutions, and are being implemented in multiple countries.

The increased use of new technologies has also led to the rise of independent learning through mobile applications or platforms. The accessibility of user-friendly learning resources that are available on learners' phones in a language they understand, using culturally relevant content, has mitigated many of the challenges that these learners faced with in-person learning. Mobile learning solutions of this kind can often complement or enhance learning led by trained teachers and educators.

At the same time, technology alone is not a panacea. Promoting ICT access remains a persistent challenge. This applies even in the case of more basic technologies, such as radio and television. The programmes profiled in this publication responded to this challenge through various means, including, for example, by providing learners with devices, leveraging existing access to ICT, installing fully-equipped learning spaces, developing online platforms

and applications that are freely available, and delivering learning content in a user-friendly and effective way.

In some cases, multistakeholder partnerships have proven necessary for ensuring the flexible delivery of literacy and education programmes by, for example, producing printed materials, offering alternative communication channels or approaching local organizations and centres to host in-person classes. Many programmes have also found it necessary to implement a training component for educators, facilitators or trainers in order to ensure that they use effective facilitation and instructional approaches when integrating new technologies into their teaching. Nevertheless, more sustained and evidence-based mechanisms are needed to monitor and evaluate learning and other beneficial outcomes, and to assess the effectiveness of technology-based interventions compared to other forms of intervention.

Finally, it should be noted that a number of the case studies in this compilation were implemented some years ago; a few have since evolved into different programmes, while others are no longer running. The experience and knowledge gained through these programmes continue to serve as a valuable resource for literacy and education providers and practitioners, however, and illustrate the important work that has taken place to ensure that refugees, migrants and IDPs are able to exercise their right to education. Further examples of inspiring adult literacy and learning programmes can be found in UNESCO's Effective Literacy and Numeracy Practices Database (LitBase), a continuously developing collection of high-potential adult literacy programmes, at **www.unesco.org/uil/litbase**.

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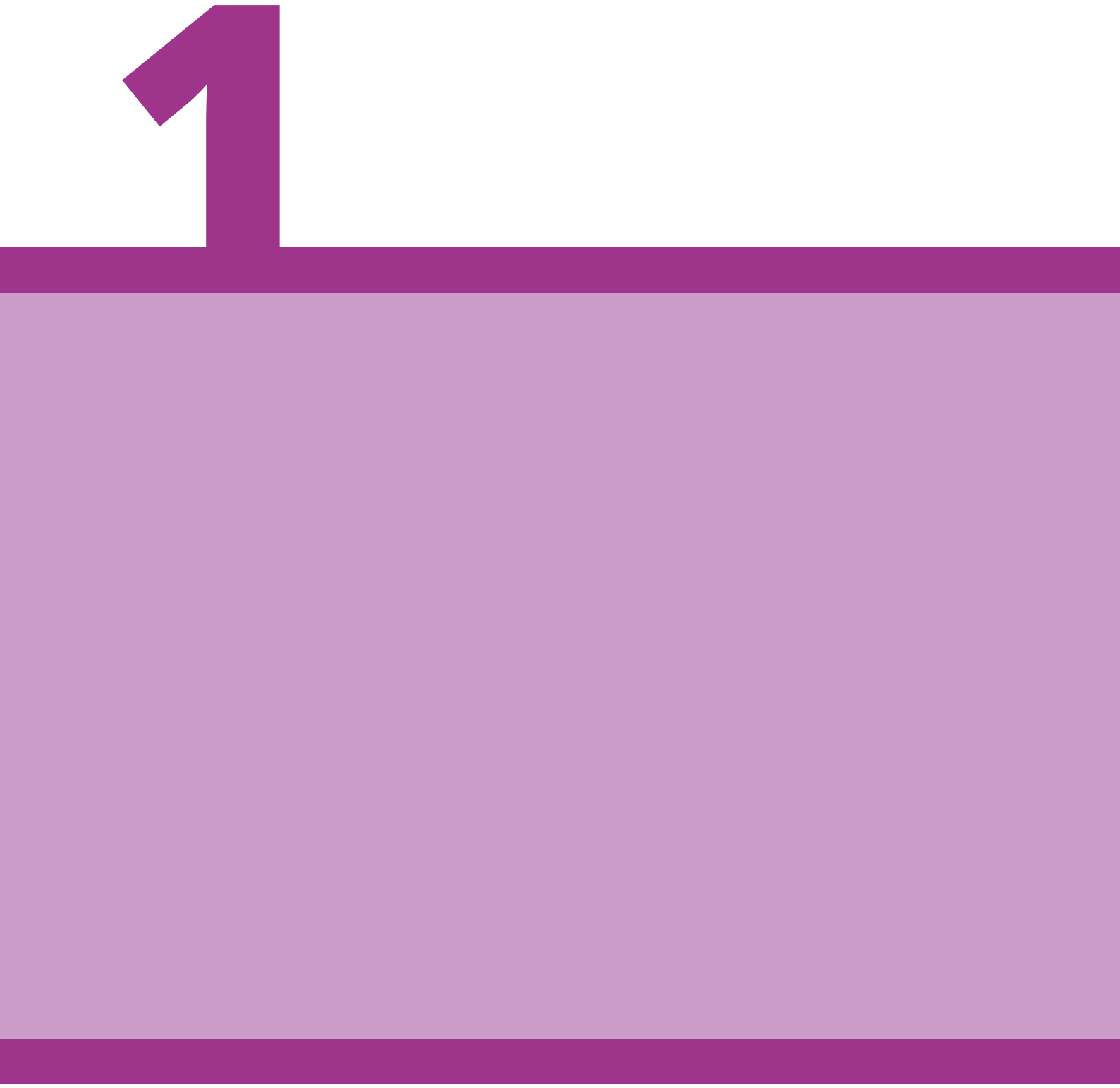
Broad Class: Listen to Learn, Islamic Republic of Pakistan



Programme title	Broad Class: Listen to Learn
Implementing organization	POWER99 Foundation
Location	Pakistan
Language of instruction	Combination of first and second languages
Date of inception	October 2012
Programme partners	UKAid (limited to one district only)
Funding	International NGO and foreign donor
Annual programme costs	USD 93,750
Annual programme cost per learner	USD 10.50
Annual cost of the digital tool	USD 47
Digital tool(s) used	Radio, USB
Target population	Refugees seeking higher education
Learner age	Children, youth and adults
Learner to instructor ratio	45:1
Target skill(s)	Literacy
Impact	7,500+ children across 187 classrooms
Programme website	**https://power99.foundation/**, **https://www.facebook.com/broadclass/**

BACKGROUND

Of Pakistan's total population of over 216 million, about 35 per cent are aged 14 and younger (Data Commons, 2021; UIS, 2020). Both boys and girls are missing out on all forms of education, but girls are the worst affected. In 2019, according to the UNESCO Institute for Statistics (UIS), of nearly 58 million illiterate youth and adults (aged 15 and above), only 37.7 per cent were men, while 62.3 per cent were women (UIS, 2020). Female enrolment rates in primary schools are low due to barriers such as violence, child marriage and harmful gender norms that prioritize boys' education. The cost of education is also prohibitively high for poor families. Both paid and unpaid work often falls on the shoulders of young girls from families who struggle to afford school fees (HRW, 2021).

These challenges are exacerbated in rural areas of the country. In remote rural areas, schools are few and far between, creating difficult and dangerous commutes for students. Further, there are fewer trained teachers, which leads to overcrowded classrooms and lower quality education compared to urban areas (UIS, 2020). Across Pakistan, forces such as political instability, and ethnic and religious violence have impeded the government's efforts to invest in improvements to education (HRW, 2021).

ICT is an emerging sector in Pakistan. The Ministry of Information Technology and Telecommunication has invested significantly in digitalization, increasing the nationwide internet penetration rate by 28 per cent between 2014 and 2018 (ITU News, 2018). However, many learners still struggle to access reliable internet connections and electricity, especially in rural and poor areas. These learners include over 1.4 million Afghan refugees who have resettled in Pakistan (UNHCR, 2020). Government restrictions prevent the construction of permanent schools in refugee villages, and poverty leads to troubling numbers of out-of-school refugee children. In 2011, 49 per cent of Afghan refugee children in Pakistan were not enrolled in school, while the drop-out rate for female refugee students was 90 per cent (UNHCR, 2018).

The Power99 Foundation developed the 'Broad Class: Listen to Learn' programme to address these gaps. The programme aims to provide interactive instruction that creates active learning opportunities for schoolchildren via radio broadcasts that can reach both Afghan refugees and vulnerable Pakistani communities.

OVERVIEW OF THE PROGRAMME

Power99 is the first independent radio station in the country, and began broadcasting in 2003. The Power99 Foundation is its non-profit arm that 'envisions an educated and non-violent society of Pakistan where people respect diversity, human rights and resolve their conflicts nonviolently' (Facebook, 2020). The Broad Class: Listen to Learn programme was created by the Power99 Foundation in 2012. In 2013, Broad Class launched an Interactive Radio Instruction (IRI) programme in Haripur, Pakistan. It seeks to 'transform education practices in Pakistan', creating a more equitable educational system that provides opportunities to marginalized children both in and out of schools.

Broad Class: Listen to Learn is based on the principle that effective education for children and young people needs to be active, interactive and relevant to children and their families. In order to create opportunities for girls, who are traditionally underserved in education, Broad Class lessons are designed to foster a girl-friendly environment among its audience, which includes not only the children themselves, but their families as well. Broadcast on national radio, lessons are made available to schools and community groups in a range of formats in order to reach those who cannot access radio in rural and remote environments. Moreover, the content of the curriculum is designed to address marginalized sections of society. In short, the programme strives to provide equality with respect to gender, geographical location and social status, and to promote active learning, critical thinking and emotional development.

Much like the children's television shows *Sesame Street* or *Mister Rogers' Neighborhood* in the United States, Broad Class has broad appeal throughout Pakistan in terms of both its content and its social impact. Themes of instruction include literacy/numeracy, health and hygiene, and arts and culture. Radio episodes last 45 minutes. A team of national and international experts, teachers and scriptwriters designed the content primarily for families with children, ensuring that it remains socially and culturally relevant while teaching learners key skills using methods that engage them interactively.

The second part of the programme, Listen to Learn, focuses on student participation and activities as part of the learning process. The programme design incorporates physical activity into classes and ensures that broadcast material is relevant to the lives of students and their families, while remaining cognizant of the diverse needs of the different communities that participate in the programme.

PROGRAMME OBJECTIVES

The overall goal of the programme is to provide equal, high-quality and inclusive education guided by the Sustainable Development Goals (particularly SDG 4, which calls for inclusive and equitable education for all), the United Nations Convention on the Rights of the Child (UNCRC), and the Framework for the Protection of Children. The programme cites the following objectives:

- Improve learning outcomes in literacy, numeracy and social/moral development throughout primary school.
- Improve teaching practices, learning environments and provision of learning materials.
- Reduce drop-out rates and increase retention rates, particularly among girls.
- Increase participation and satisfaction among parents and members of school councils/communities with regard to school activities.

LEARNERS

Broad Class provides its courses by radio in order to reach as wide an audience as possible of all ages and at low cost. It therefore addresses a mixed learner group. Between 30 to 40 per cent of Broad Class leaners are adults.

Broad Class seeks to improve educational equality for marginalized students. Girls make up 60 per cent of learners in the programme, which also seeks to benefit female teachers and education department officials. Other marginalized populations include refugees and internally displaced persons (IDPs), who struggle to maintain normality while living in camps, and whose education is routinely disrupted.

Through the one-year Listen to Learn Interactive Radio Instruction (IRI) programme, Broad Class has provided radio courses in Haripur, home to a significant population of IDPs due to the construction of the Tarbela Dam. The district also has a large number of Afghan refugees who were displaced due to the Afghan War (Power99 Foundation, 2014).

LEARNER ENROLMENT

Students in Pakistani schools who choose to use Broad Class are automatically enrolled in the programme. Out-of-school youth and others who do not regularly attend schools in communities where Broad Class operates can also participate. They are recruited in conjunction with parents and community organizations.

The Broad Class programme comprises a strong administrative component, which includes registration drives to reach out-of-school youth. Learners are given pre- and post-assessments. Group sizes can be as large as 45 students per facilitator for lessons conducted in person in schools or learning centres.

LEARNER ASSESSMENT

Broad Class explains its pre- and post-assessment process as follows:

> ***The assessment(s) […] are conducted to ascertain the level of learners at the inception phase of the project. The same test is conducted at the end of the project to measure the change in the learning outcomes of the students as a result of intervention.***

Children enrolled in public schools using the Listen to Learn curriculum are assessed separately at the local level by educational institutions.

TEACHING AND LEARNING APPROACHES

Broad Class aims to evoke '[i]nquiry [and] curiosity/excitement about learning' – values that are 'communicated in each programme'. Broad Class materials have been developed by a pool of academic and industry experts. IRI is the main method of instruction. Each lesson includes rhyme segments on a theme related to literacy, numeracy or health. Each radio session consists of interactive activities delivered by characters who model lessons and activities for an audience of schoolchildren. These audio broadcasts guide learners and their teachers by means of specific instructions. A short pause in the broadcast presents teachers and learners with a cue to react verbally or physically to these instructions. Broad Class radio shows are broadcast every morning across Pakistan, followed by a shorter, summarized segment of the same show that is aired each afternoon. The Broad Class curriculum is consistent with the national education curriculum.

Power99 Foundation highlights that:

> ***The programme is usually implemented through partner radio stations in target areas. The IRI has helped to stabilize fragile communities by providing a consistent, attractive and reliable service; engaging families and communities; and teaching knowledge and skills that both children and adults need in order to move out of conflict and poverty.***

To improve gender equity, female characters have been chosen as role models: a learner, Gul, and a teacher, Ameena Bibi, help to build a female-friendly learning environment. This is particularly important in rural areas of Pakistan, which have very low rates of female enrolment, retention and completion at all levels of education.

RECRUITMENT AND TRAINING OF FACILITATORS

The programme sends trainers into communities throughout Pakistan to work with teachers, meet with parents, and provide administrative oversight in order to ensure the proper delivery of educational services. Remuneration of facilitators varies depending on the organization providing the services. For context, a public school teacher in Pakistan earns roughly USD 250 per month.

The administrative support provided by Broad Class is a key factor in its success. Facilitators can be volunteers as well as paid teaching staff. All are given 40 hours of training. They are required to teach Broad Class material for two years after training, and they accept responsibility for the safe-keeping of the materials provided to them.

Broad Class trainers work with volunteers and teachers to plan lessons using a teachers' guide.

© Najib Ahmed
A wooden radio and programme materials

Lesson plans follow the 'three Ps': presentation, practise and performance. Teachers are guided by trainers to use cooperative learning techniques, including pair and group work, questioning, games, stories and rhymes. Teachers are trained to be facilitators of the Broad Class material, and to use its radio shows as teaching tools in their classrooms. They receive five days of specialized training, in addition to on-the-job mentoring (including teaching observations) twice a month. Frequent meetings are conducted between teachers and Broad Class trainers in order to collect feedback and monitor progress.

Facilitators differ depending on whether they are working in formal or non-formal settings. In formal settings, facilitators are school teachers who have received IRI training. In non-formal settings, the community recruits an adult with relevant certification and the willingness to teach, who is subsequently provided with comprehensive training. Assistants, known as 'helping hands', are also recruited in the community. These assistants help the facilitators during life-skills teaching sessions by presenting the tools used or adapting the content to the local community.

TECHNOLOGY: INFRASTRUCTURE, MANAGEMENT AND USE

Prior to setting up an IRI service, suitable infrastructure must be established: the launch of Broad Class in Haripur in 2013 is a case in point. Before procuring furniture, equipment and other consumables for use by staff, a building had to be rented in order to set up an office (Power99 Foundation, 2014).

There are infrastructural challenges to be overcome with regard to digital access, too: the areas of Pakistan that the Broad Class programme is designed to reach are both marginalized and remote; this in turn limits the extent to which ICT can be used. The World Bank indicates that less than 16 per cent of the Pakistani population used the internet in 2017 (Global Change Data Lab, 2020). Moreover, Broad Class facilitators themselves have varying levels of digital literacy.

Radio was thus selected as the delivery format for Broad Class: Listen to Learn because it can reach more areas in Pakistan than the internet. For regions of the country where radio coverage

is problematic and/or electricity supplies are unreliable, 'special wooden radios with dry rechargeable batteries, built-in sound system, and USB/memory card options are provided'. Lessons are also provided on USB for those who can utilize them. The benefit of using radio is that it provides continuity of instruction both inside and outside of school in a highly mobile and oral culture. Even in fragmented areas, a network of radio stations can provide learning activities to students and youth wherever they are.

© Shahid Abbasi
Example of the wooden radio-based lesson

Radio lessons are broadcast via specially designed radio sets with a back-up battery that enables up to two days of uninterrupted lesson broadcasting in the classroom, even in the case of a 48-hour power outage. Other than radio, the programme also uses Facebook to make announcements to learners. In areas where people have access to mobile internet, WhatsApp groups have been created to provide parents with course content and specific guidance during the COVID-19 pandemic.

PROGRAMME IMPACT

Broad Class: Listen to Learn was initially implemented in 198 classrooms across 59 public schools of Haripur. A third-party evaluation on the impact of the Broad Class programme in Haripur found that the project improved the partnership with the education department, particularly the Executive District Officer (EDO) office. Changes in knowledge, attitude and practice of the students were also statistically significant. For example, students had better learning outcomes and were more motivated. The report also found that radio-based activities increased learner attentiveness by 78 per cent compared to non-radio based traditional learning activities (Ilm, 2015).

A recent internal evaluation of the Broad Class: Listen to Learn programme by the Power99 Foundation noted the following key outcomes:

- Student participation in the classroom increased by 14 per cent;
- Student attendance increased by 18 per cent compared to control schools;
- Student enrolment increased by 10 per cent compared to control schools;
- 92 per cent of teachers used Broad Class teaching techniques in their classrooms;
- Parent satisfaction increased by 3 per cent;
- Teachers' lesson planning skills and English pronunciation improved.

	Benefits to participants	Benefits to facilitators	Benefits to community
General	Awareness of health and hygiene issues	Improved teaching practices	Knowledge of the importance of education
Specific	Enhanced learning through continued education	Capacity built for teaching in non-formal settings	Improved/continued learning among children Awareness of basic health issues

Table 1.1: Summary of general and specific benefits of Broad Class: Listen to Learn.

TESTIMONIALS

Below are highlights from the extensive list of accolades that the Broad Class programme has received:

- The Finnish non-profit organization HundrED, in collaboration with the OECD, recently included Broad Class: Listen to Learn in its list of the leading education solutions to have emerged during the global COVID-19 pandemic (HundrED, 2021).
- Broad Class is listed as an innovative pedagogical approach in *Early Childhood Care and Education (ECCE) in the Asia-Pacific region: A Resource Pack* (UNESCO/UNESCO Bangkok/ARNEC, 2016).
- The UNESCO Institute for Statistics' publication, *Out-of-School Children and Adolescents in Asia and the Pacific: Left Behind on the Road to Learning Opportunities for All*, includes a section headed 'What's working' that lists Broad Class: Listen to Learn as one of the best programmes for out-of-school children and adolescents in both formal and non-formal education settings (UIS, 2015).

CHALLENGES

Thanks to its successful track record and constant demand for its services, Broad Class has experienced very few challenges in terms of programme sustainability. The Power99 Foundation has established an international reputation and provides a strong basis of support for Broad Class and its other philanthropic projects and programmes.

There are no indications that the Broad Class programme will face financing challenges, unlike similar programmes. Some implementation challenges could occur as a result of adverse weather and unreliable electricity supplies (hindering programme distribution), or religious and/or governmental objections to subject matter. As with any educational curriculum, a futher challenge is to keep the material fresh and relevant.

In response to the COVID-19 pandemic, the Pakistan Government created a national educational television channel, TeleSchool. Television reaches 95 per cent of the country (Zacharia, 2020) and may emerge as a competitor for radio-based programmes such as Broad Class. Both Broad Class and TeleSchool would benefit from collaboration to provide educational services at a time when schoolchildren and teachers cannot meet in person.

STAKEHOLDERS AND PARTNERSHIPS

The Power99 Foundation is a non-profit organization (NGO) registered with the federal government in Pakistan (Power99 Foundation, 2020). It has an extensive list of global partners, including the US Department of State. It assesses its own operations and those of foreign donors using internal and external monitoring and financial auditing methods.

The project lists a wide range of key stakeholders for the programme, comprising the Ministry of Federal Education and Professional Training, schools and their administrations, community organization partners, parents and teachers. Broad Class programme officials serve as intermediaries between government officials and schools, harnessing feedback from these partners to influence the delivery of lessons by teachers on the ground. The Power99 Foundation ensures that lines of communication remain open, and that frequent meetings are scheduled to bring stakeholders together and ensure the programme's success.

FUTURE PLANS

The Broad Class programme benefits from highly professional organizational structures, which should enable it to update its curriculum regularly as new teaching practices are developed. The Power99 Foundation has recently created a separate IRI programme, 'PARHAI CARO-NA' and 'RADIO MY BEST FRIEND', to mitigate the effects of school closures during the COVID-19 crisis. To further address the challenges faced by schoolchildren and their families as a result of the pandemic, Broad Class aims to expand its outreach by collaborating with TeleSchool.

The Broad Class programme continues to evolve in response to the changing needs of its beneficiaries. Following its success, the programme development team has decided to commit to enriching course content with the aim of serving a more diverse group of learners. It is envisioned that the programme will continue to be scaled up, both vertically and horizontally. Vertically, the scale-up refers to inclusion of segments related to health and hygiene, manners, culture, tourism, etc. The horizontal scale-up refers to development of content in line with the national curriculum for the primary and higher grades.

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Connected, Australia

2

Programme title	Connected
Implementing organization	Sydney Theatre Company
Location	Australia
Language of instruction	English. Participants' first language is also welcomed and integrated into instruction and communication.
Date of inception	2016
Programme partners	The University of Sydney Refugee Language Program, Asylum Seekers Centre, MTC Australia, STARTTS (New South Wales Service for the Treatment and Rehabilitation of Torture and Trauma Survivors)
Funding	Local government, private donors
Annual programme costs	Approx. USD 19,000
Annual programme cost per learner	Approx. USD 50
Annual cost of the digital tool	USD 150
Digital tool(s) used	Zoom
Target population	Refugees, asylum seekers and migrants
Learner age	18 to 70+
Learner to instructor ratio	6:2–20:2
Target skill(s)	English literacy, English speaking
Impact	Over 700 learners since 2016
Programme website	**www.sydneytheatre.com.au/connected**

BACKGROUND

Australia has a tumultuous history with regard to refugee resettlement. A number of government policies have restricted the number of refugees permitted to enter the country. In more recent years, the country has faced criticism for turning away asylum seekers arriving by boat. These refugees come from countries experiencing civil unrest, such as the Syrian Arab Republic, Afghanistan, Iraq, Sri Lanka and Myanmar. Since 2013, Australia has forcibly transferred more than 3,000 asylum seekers arriving on its shores to temporary camps on Papua New Guinea and Nauru (Pearson, 2020). Some are eventually resettled in Australia, but many return to their home countries or move to other places.

Refugees who are accepted into Australia wait in detention centres, sometimes for years, to acquire permanent residency status, and are accorded minimal welfare and restrictive work permits (Martin and McAdam, 2020). Australia's slow resettlement system leaves refugees in a constant state of uncertainty and makes it difficult for them to build communities and access basic services. Low access to English language learning further exacerbates their marginalization.

In response to this challenge, the Australian Government announced major reforms to their Adult Migrant English Programme (Australian Government Department of Home Affairs, 2022). These reforms allowed wider access to English language learning provided by resettlement organizations. Because of restrictions brought by the COVID-19 pandemic, however, these services have had to adjust to online delivery.

Australia has one of the highest percentages of internet users relative to its population in the world. Nevertheless, a large digital divide still excludes low-income households and rural areas (Curtin, 2020; QUT, 2012). A stable internet connection is needed for about 90 per cent of public services available to residents in Australia (QUT, 2012). Low-income households, among which refugees and migrants are well represented, are less likely to access government services and information online, and doing so can be especially difficult for people whose first language is not English (ibid.). The need for English language learning programmes that can be delivered online thus remains high among marginalized populations in Australia.

Research shows that learning grounded in the arts can be an effective approach to English language education. Arts-based language and literacy education can help learners develop social and emotional growth and build community ties while helping them to develop their English language skills. In a diverse classroom, learning through the arts often has a levelling effect: it accommodates different learning styles, opens pathways to dialogue among learners, and empowers students to direct their own learning (Farokhi and Hashemi, 2012).

OVERVIEW OF THE PROGRAMME

The Connected programme is run by the Sydney Theatre Company (STC) in Sydney, Australia. Established in 1978, STC is Australia's largest theatre company. In addition to hosting Australian artists through regional, national and international tours, STC seeks to provide enriching opportunities for students, teachers and lifelong learners to engage with theatre on stage, in the classroom, online and in the community.

In 2016, STC established Connected: Adult Language Learning through Drama, a programme providing English language learning to adult refugees, asylum seekers and migrants in Australia through drama and literacy workshops. The programme uses imaginative stories, myths and folktales to stimulate English language learning and promote social connectedness through creative expression.

Connected works with four community partners to deliver its programme:

1. Asylum Seekers Centre (ASC): Provides English language classes, caseworkers, financial relief, healthcare, and food and recreational activities for asylum seekers who do not have access to government-funded resettlement resources for individuals with refugee status;
2. MTC Australia: Provides employment and vocational training programmes to youth and adults from marginalized populations;
3. The University of Sydney's Refugee Language Program: Offers classes and individual tutoring to refugees, focusing on communication skills, technology and professional development;
4. STARTTS (New South Wales Service for the Treatment and Rehabilitation of Torture and Trauma Survivors): Provides culturally relevant psychological treatment and support to heal refugee trauma.

Prior to the COVID-19 pandemic, Connected provided exclusively in-person services. Due to the crisis, the programme had to transition rapidly to online workshops. Connected opted for Zoom due to the digital platform's user-friendliness, accessibility and privacy settings.

PROGRAMME OBJECTIVES

The programme has three primary objectives; they are to:

1. improve literacy in English, particularly confidence in speaking;
2. use process-based drama (combined with imaginative stories, see 'Teaching and learning approaches'), which helps students practise speaking English in meaningful and purposeful ways, to increase new learners' confidence and decrease their anxiety when learning;
3. build social connections among socially isolated refugee and migrant adult learners.

LEARNERS

Connected learners are adults from refugee and migrant backgrounds, ranging in age from 18 to over 70. Participants vary in terms of their gender, native languages and home countries, the latter including the Syrian Arab Republic, Iran, Viet Nam, the People's Republic of China and Afghanistan. Learners begin the programme with varying levels of English language proficiency. Some are beginners (perhaps familiar with basic greetings), while others have more intermediate fluency. Most learners live in urban or suburban areas of Sydney, where Connected is one of many programmes offering support and English language courses to the refugee community.

Specific learner demographics differ depending on the partner organization. For example, ASC learners tend to be recent arrivals to Australia and are from more diverse language backgrounds. As a result, as many as five or six different languages may be represented in Connected workshops. Meanwhile, Connected's partner, MTC Australia, works alongside Skills for Education and Employment (SEE), a government-funded language, literacy and numeracy programme for various groups including migrant communities and the long-term unemployed. Consequently, most MTC learners are seeking employment. STARTTS learners may have lived in Australia for many years and are motivated to learn English for social purposes rather than for employment. Connected's flexible curriculum design allows it to work across these diverse populations and adapt to the needs of learners.

ENROLMENT OF LEARNERS

Connected workshops are open to all individuals who wish to enrol, at no cost to the learner or partner organization. Connected relies closely on its partner organizations to enrol learners, and travels to the partners' headquarters to deliver its workshops. For some partners, Connected functions as a weekly drop-in programme that

does not require any formal commitment from participants. For others, a workshop lasts seven weeks and is attended by the same group of learners throughout; on completion, a further seven-week workshop starts with a new group of learners. In some cases, Connected is invited back to work with the same group for a second seven-week period.

ASSESSMENT OF LEARNERS

Connected deliberately creates an environment that does not administer examinations or collect traditional data (e.g. test scores) about literacy outcomes, as it is intended to supplement adult education programmes rather than serve as a comprehensive, stand-alone programme. Although partner organizations (e.g. adult learning centres) may offer language testing to learners who have participated in workshops, Connected only measures learners' experiences in terms of their personal, social and creative engagement in the programme. For this, it relies on focus group discussions, facilitator reflections, and surveys with its partner organizations. In their benchmarking data reports, teachers anecdotally assess students' vocabulary, pronunciation, eye contact and vocal expression. The following excerpt from one such report indicates that teachers at partner organizations also evaluate the programme's social impact on participants:

> ***[Student 1] has gained more knowledge and understanding in communicating creatively and effectively. [Student 2] has improved considerably with her grammar and delivery of sentences. She has gained confidence through these seven weeks and enjoyed being part of the programme.***
>
> ***— Excerpt from teacher report***

TEACHING AND LEARNING APPROACHES

Connected workshops are usually held once a week over a period of seven weeks. Each workshop lasts 90 minutes and brings together between 5 and 25 students (depending on the partner organization) and two facilitators. Two- or three-day intensive programmes are also offered. Required materials include minimal costumes, props, printed or digital images for vocabulary practice, and (in some cases) printed or digital texts that are relevant to the storylines used in the drama activities.

Connected draws on a number of theatre-based pedagogical resources and approaches. The programme's incorporation of creative expression into English language learning is informed by 'School Drama', STC's well-established drama and literacy programme for primary schools.[2.1] Developed in 2009, in partnership with The University of Sydney and Professor Emerita Robyn Ewing AM, School Drama has worked with over 35,000 students and teachers in Australia and New Zealand and has consistently demonstrated a positive correlation between drama experience and literacy learning. In 2016, STC began adapting School Drama approaches in adult language learning contexts, leading to the launch of Connected.

Connected draws on 'process drama' pedagogy, defined as the exploration of a given theme through dramatic devices, culminating in an improvised drama experience (Haseman, 1991; O'Neill, 1995). In process drama, participants work with facilitators to create a fictional 'world' by means of a theatrical scenario. This ensures that the content of the dramatic activities is relevant and has personal meaning to participants, as each plays a part in creating it.

[2.1] For more information on Connected's School Drama programme, see **https://www.sydneytheatre.com.au/education/teacher-learning/school-drama**.

The repeated use of English through responses to visual cues, group discussions, storytelling and dialogue in drama activities encourages fluency of expression. The pace of learning is faster than in a traditional classroom. During a drama activity, students respond to and act on ideas that are proposed spontaneously by others in the group. The responsive nature of these improvisation activities encourages students to try out using new words unselfconsciously.

In addition, drama activities and vocal warm-ups used in theatre can make learners aware of the stress and intonation patterns of English, which in turn improves their speaking rhythm and pronunciation. Drama activities also introduce learners to new vocabulary and expressions. In one learning activity at Connected, participants are given a prop and mime different uses for it in a small group of their peers. Creativity adds to the motivation to learn and practise new words. For example, using body language and physical/non-verbal expression, a scarf could become a fishing net, a skirt, or a bag. While the student is acting out the item's purpose, the other learners are searching for the right English word to describe the object in the mime.

> ***We will see a shy student much more likely to make that leap to speaking English because there's not such a focus on getting things right. The process frees them up to take more risks.***
>
> ***— Zoe Hogan, Director of Education and Community Partnerships at STC***

In other Connected activities, students simulate examples of human situations (e.g. requesting information) that require learners to communicate various intentions and feelings, such as justification or doubt. This role play brings context to the language the students are learning, making it more relatable to cultural and personal experiences. Moreover, learners' improved ability to improvise and respond rapidly in the target language through meaningful role play, coupled with improved pronunciation and wider vocabulary, will subsequently prove invaluable to learners in real-life contexts:

> ***The student reflected that the drama devices allowed spontaneous creativity and thinking quickly on one's feet. He believes these skills are now more internalized, helping him with rapid thinking. Using improvisation techniques will prove to be an advantage during job interviews.***
>
> ***— SEE trainer at MTC***

Connected does not merely focus on the needs of the individual, however: a core objective is to foster collaboration. To this end, it follows a process drama pedagogy approach, with the aim of encouraging teamwork and, ultimately, building community. Connected facilitators and partner organization staff select a myth or folktale that they think will resonate with learners. During the seven-week workshop, learners collaborate to create a new version of the folktale. For example, workshops might use the pretext of Pandora's box, a popular Greek mythical tale, as an overarching theme. Throughout the co-development of the folktale, students focus on a particular 'word of the week' that becomes an anchoring theme. By the end of the seven-week period, participants have created their own unique written version of the original tale. This formal end product ensures that participants' contributions are valued, visible and remain central to the learning experience.

This re-imagining of folktales is a group activity and, indeed, most Connected activities are carried out in pairs or groups in order to encourage cooperation and teamwork in pursuit of a common goal, and to foster social interaction between English learners from many different backgrounds. Learning a new language, especially

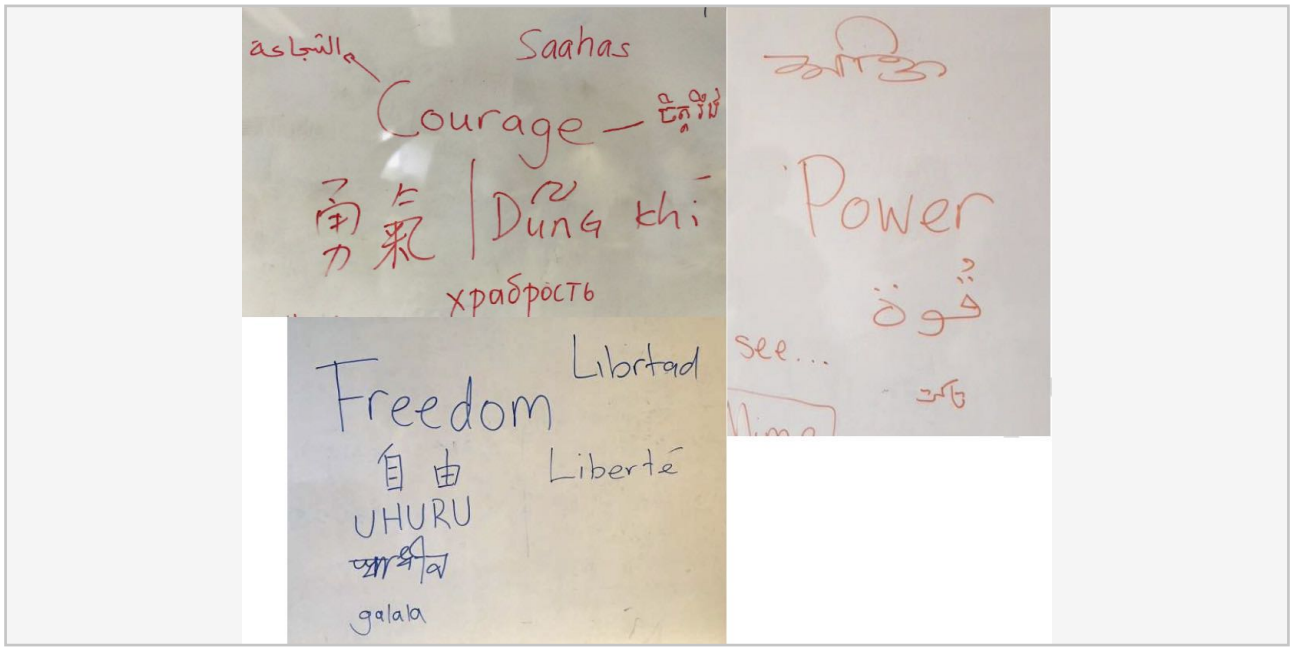
for an adult, can be an intimidating and frustrating process; however, as psycholinguist Susan Stern observes, 'drama encourages the operation of certain psychological factors in the participant which facilitate communication: heightened self-esteem, motivation, and spontaneity; increased capacity for empathy; and lowered sensitivity to rejection' (Stern, 1980, p. 77). Moreover, to further ensure that the workshop offers a welcoming and inclusive environment, Connected practises 'translanguaging', a process that recognizes a multilingual person's full linguistic repertoire, and uses and honours his or her first language in the second language learning process. This approach de-emphasizes language hierarchy and does not prohibit students from using their first language in the classroom. Instead, a drama activity may be conducted in several languages, where participants are invited to teach, speak and embody words in their own and other's languages (as in photo below).

Connected's partner organizations recognize that this arts-based pedagogical approach differs from traditional language learning programmes that may subject students to rote learning and examinations. Connected can complement traditional language learning programmes by engaging learners on a deeper level through adding a creative element.

When workshops transitioned to Zoom during the COVID-19 pandemic, Connected maintained its imaginative and playful content and approach, but made online workshops shorter (60 minutes instead of 90) and more intimate, with about six learners for every two facilitators. Before the pandemic, participants in a 2017 programme evaluation remarked that the drama workshops helped them relax and concentrate their minds on something other than the various challenges and stresses in their lives. This held true during the pandemic: many participants saw the workshops as a way to take their minds off the stress, uncertainty and loneliness they felt during citywide lockdowns.

RECRUITMENT AND TRAINING OF FACILITATORS

Connected is facilitated by a cohort of paid STC 'teaching artists': actors, directors and community



© Zoe Hogan, STC

Translanguaging: participants translate a thematic word central to the workshop into their mother tongue and teach it to the group.

artists who have a diverse range of performance skills and usually have a background in working with children and youth through STC's primary school drama literacy programme, School Drama. They are sometimes supported by counsellors and teachers from community organizations, as well as volunteers. Volunteers are screened for professional experience in acting, directing or community theatre, and must express an interest in literacy education. Workshops are co-led by at least two facilitators.

In partnership with the University of Sydney, facilitators attend an annual training week, wherein Connected staff use their experience working with students to share strategies for incorporating storytelling into language learning and nurturing English language learners' linguistic and cultural knowledge. It brings together teachers of all levels of experience and mentors them to integrate drama-rich approaches in various classroom contexts.

In this creative process, facilitators are equal to learners, and the hierarchical barriers between students and teachers are dismantled, which has garnered positive responses from teaching staff. Moreover, the training and instructional design of the programme is continuously enhanced based on focus groups with students, feedback from facilitators, and surveys of partner organizations.

TECHNOLOGY: INFRASTRUCTURE, MANAGEMENT AND USE

In the wake of the COVID-19 pandemic, ASC has focused its digital outreach through online workshops on learners who have previously participated in its drama workshops, drawing on the ASC database. ASC then circulates Zoom meeting information via text messages on the day of the virtual weekly workshop.

ASC donates laptops and internet USB dongles for use by learners who are unable to use Zoom because they do not have suitable devices or internet access. In some cases, ASC conducts home visits to set up this technology for learners and teach them how to join Zoom. For learners who wish to join the workshops via their smartphone but do not have a strong internet connection, the programme pays for their phone data so that they can participate.

To enhance presentation and delivery in small groups, Connected teachers utilize built-in Zoom tools during online workshops. These include Zoom's digital whiteboard, screensharing function (to practise vocabulary by showing images and text) and breakout rooms. In most cases, however, Connected has deliberately kept its use of inbuilt Zoom functionality and its related interventions as low-tech as possible, as even clicking the appropriate buttons to join a breakout room has proved complicated for some learners with limited digital skills. Moreover, many learners join the virtual sessions via their mobile phones, which limits their ability to use additional features. When Connected's stock of theatre props cannot be accessed, the programme encourages participants to make creative use of everyday objects as costumes and props. As well as delivering online workshops for students, Connected has also transitioned to Zoom to provide training opportunities for teachers.

To provide technical support during the online workshops, ASC personnel assist Connected facilitators with any ICT problems that may arise. This usually entails calling participants by phone to help them if they lose their internet connection. This helps Connected facilitators to remain focused on the workshop and ensures that they do not need to pause learning to address any technical issues.

Following the online workshop, ASC sends participants an email with a list of related vocabulary. Participants have indicated that this helps them memorize vocabulary before learning new words in the following week's workshop.

PROGRAMME IMPACT

In a typical year, Connected delivers approximately 100 workshops for more than 350 learners, comprising over 2,000 hours of activity-based learning. While improvements in oral expression and literacy are consistently observed, the personal and social benefits – such as increased confidence, reduced social isolation, and enhanced intercultural contact and cooperation – are often valued just as highly by participants.

When asked whether the drama workshops had helped them learn English in a 2017/18 evaluation of the programme, surveyed participants from one partner organization responded with an emphatic 'yes'. Partner staff have also noticed improvement in clients who had recently attended a drama workshop. The participants presented at job interviews with greater confidence, which was reflected in their body language and voice. Moreover, in 2019, Connected won two awards: Best Project at the STARTTS Humanitarian Awards, and the Out of the Box prize for most innovative project at the Western Sydney Community Forum's ZEST Awards.

The COVID-19 pandemic has increased Connected's outreach, extending it to a more diverse group of learners who would have been unable to participate in person. This group includes people with young children and people who live in the outer suburbs of the city who would otherwise have had long commutes to attend Connected workshops. Furthermore, the pause on live theatre performances during the pandemic has enabled STC staff to spend more time administering the Connected programme.

TESTIMONIALS

Learner testimonials are equally positive:

> ***I like the drama classes a lot. Everyone has fun. We're all very happy and speak more English. I'm not scared to make mistakes in English. My teacher and friends help me. I want to learn more every day.***
>
> ***— Raad, student from Iraq***

> ***We love the school and teacher. We learn English and also learn to respect each other. We are all one family here.***
>
> ***— Adil, student from Iraq***

> ***Drama classes help me with my speaking and listening. I'm more confident and very happy.***
>
> ***— Ghuson, student from Iraq***

> ***I have been learning English for four years: grammar, grammar, grammar. I cannot memorize grammar. I think it is a good idea to learn English naturally, with our bodies, like we learn our mother tongue, with people. Refugees have a lot of trauma from their past, they are struggling, they cannot read mindfully, they are always thinking. It is a good idea to learn with laughing – no more stress.***
>
> ***— Student participating in the University of Sydney's Refugee Language Programme***

STC's YouTube channel offers further video testimonials from organizers, facilitators and learners.[2.2]

CHALLENGES

Some students who are more accustomed to conventional teaching styles may initially resist engaging with the drama workshops.

More recently, the COVID-19 pandemic has forced three of the programme's community partners to pause collaboration with Connected in order to focus on providing for the basic needs of their communities. Connected has thus had to rely on just one community partner, ASC, who has the resources at its disposal to equip learners with the laptops and additional support they need in order to continue the programme. The pandemic has also delayed the rollout of Connected programmes to new partners and locations.

STAKEHOLDERS AND PARTNERSHIPS

In addition to delivering the programme in collaboration with the community partner organizations, STC continues to develop the design of Connected in partnership with the University of Sydney. The Connected programme is currently funded through private donations from the STC Foundation and grant funding from the City of Sydney.

FUTURE PLANS

In early 2022, STC and Currency Press will publish *Connecting through Drama: Drama and Literacy for Learning English as an Additional Language*, a resource for language teachers and community artists working with adults learning an additional language. The book includes an overview of the theory, research and principles that underpin the programme, in addition to practical, step-by-step workshop plans for teachers and artists who work in language learning contexts.

Now that in-person workshops are beginning to resume, Connected is revisiting plans to scale up its programming to reach more learners and partners across Australia. Reflecting on its success in engaging more hard-to-reach learners through Zoom workshops, Connected is exploring opportunities to continue online programming after the COVID-19 pandemic.

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[2.2] See e.g. **https://youtu.be/TnjoOFgyUYk**, 'Connecting refugees through creativity'.

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DigLin: The Digital Literacy Instructor, Netherlands

3

Programme title	DigLin
Implementing organization	Friesland College (Netherlands)
Location	100+ countries
Language of instruction	Host country's language or L2 or foreign language
Date of inception	2013
Programme partners	Northumbria University (UK), Granada University (Spain)
Funding	Friesland College
Annual programme costs	Undisclosed
Annual programme cost per learner	USD 30 for Dutch; free for English (requires registration) and Spanish (open access)
Annual cost of the digital tool	Undisclosed
Digital tool(s) used	Log files[3.1], photos and audio files, computers, tablets, phones
Target population	Adult migrants with limited or no schooling or literacy in their first language who are trying to learn the language of the host country
Learner age	12+ years
Learner to instructor ratio	1:20, but could also be used for self-study
Target skill(s)	Literacy and digital skills, literacy in a multilingual context, second-language literacy and learning, self-motivated learning
Impact	8,000–10,000 users each year
Programme website	**https://app.diglinplus.nl/** (Dutch – license needed) **https://en.diglin.eu/** (English) **https://app.fcsprint2.nl/menu/24** (Spanish ABC)

[3.1] Log files: User behaviour tracking technology

BACKGROUND

In 2018, 2.4 million migrants arrived in the European Union (EU) from non-EU countries (Eurostat, 2020a), motivated by a combination of economic, environmental, political and social push factors in migrants' countries of origin, and pull factors in migrants' destination countries. The EU's economic and political stability is a significant pull factor for many migrants (ibid.). In 2018, Spain was one of the top hosts of migrants from non-EU countries, receiving a total of 507,000 migrants. The United Kingdom of Great Britain and Northern Ireland is home to 347,000 migrants, the Netherlands to 96,000, and Finland to 16,000. These migrants come from countries such as Morocco, Venezuela, India, Pakistan, Iraq and Russia (ibid.). In addition to these voluntary migrants, the EU hosts refugees who are forced to seek protection from persecution and violence in their home countries. In 2015, the EU received 1,282,000 asylum applications, mostly from Syrian refugees. Most asylum seekers resettled in Germany, Spain and France (Eurostat, 2020b).

For both migrants and refugees, learning the official language of their host country is key to their social and economic integration. In fact, proficiency in the official language can increase migrants' labour income between 5 and 35 per cent (Gazzola, 2017). However, for migrants with already low literacy skills (the adult literacy rate in Pakistan, for example, is 59 per cent), learning a second language can be daunting (World Bank, 2018). In 2013, over 562,000 migrants from non-EU countries were unable to use at least one of the official languages of their host country (Gazzola, 2017), severely limiting their employment prospects and ability to engage with local residents.

With technology constantly evolving, developing digital skills can also increase migrants' employment opportunities and their ability to use online resources, such as healthcare and electronic money management tools. The migrant workforce often lacks these skills too, however: in Iraq, India and Pakistan, for example, less than 50 per cent of the population uses the internet (World Bank, 2019).

The 'Digital Literacy Instructor', DigLin, is an online platform designed to increase digital literacy and second-language acquisition for adult learners. Available worldwide, it is currently being used by adult learners in over 100 different countries. It is administered by Friesland College (Netherlands) in collaboration with Northumbria University (UK) and Granada University (Spain).

Friesland College (FC) is a regional training centre for secondary vocational education and training (VET) and adult education. It offers a variety of full- and part-time training programmes to more than 9,000 students. Formed in 1996, FC is an open educational institution divided into seven schools, each focused on a particular business sector.

Northumbria is a research-rich, business-focused, professional university. It is based in the heart of Newcastle upon Tyne, northeast England. The university has over 30,000 students from 131 different countries and over 210,000 alumni. Research within the English-language programme covers a wide range of areas, including research into first- and second-language acquisition and learning; applications of language and linguistics in real-world contexts; socio-linguistics; language variation and change; theoretical linguistics; and the evolution of language and communication.

The University of Granada (UGR), meanwhile, has over 60,000 students and offers a wide range of courses at undergraduate and postgraduate level. UGR's Modern Language Centre teaches Spanish to migrants. Its Centre for Development Cooperation Initiatives (CICODE)[3.2] coordinates with local NGOs and delivers training to teachers employed by organizations that teach Spanish to newcomers but lack qualified staff. UGR staff

[3.2] See **https://cicode.ugr.es/**.

members work as volunteers with NGOs in Granada to provide classes for marginalized adult migrants who, without legal residency status, cannot access public education.

The first two institutions, along with other EU partners, collaborated to launch the international DigLin project in 2012, with EU funding from the Grundtvig Lifelong Learning Multilateral Project Scheme. Since then, the programme has expanded to include more languages, including Dutch, English, Finnish, French, German and Spanish.

OVERVIEW OF THE PROGRAMME

DigLin provides free, contextualized and individualized online learning materials to enhance the literacy and lexical and grammatical skills of second-language learners with limited education. DigLin's materials are aligned with the Common European Framework of Reference for Languages (CEFR), which is divided into six levels of language proficiency: A1 ('beginner') through to C2 ('proficient') (COE, 2021). Most users begin DigLin at the pre-A1 CEFR level, i.e. they are unable to understand and use basic expressions in conversation in the target language.

There is a dearth of pre-A1 learning materials for adult students with low literacy skills in host countries' classrooms, as the majority of such materials are aimed at children. Without access to the appropriate learning materials, adult students often use materials designed for higher CEFR levels, which omit the foundational phonological (how sounds come together to form words) and orthographic (how the sounds of a language are written) techniques that help learners move through the CEFR levels towards advanced proficiency. Additionally, classes for low-literate learners often include students from many different CEFR levels, making it difficult for teachers to meet learners' individual needs.

The goal of DigLin is to use innovative methods and technology in teaching and learning in order to reduce the disparities in learning outcomes that affect disadvantaged learners. DigLin designs learning content that develops learners' decoding skills, i.e. their ability to recognize the letter-sound relationships and patterns that make up a word in order to understand its use and meaning. DigLin resources are accessed via an online program that requires an internet connection; however, it can be used by learners in their own time or provided in a more structured manner in a virtual classroom where the teacher assigns DigLin materials to students. DigLin began with pre-A1 programs for four languages (English, Dutch, Finnish and German) and has since expanded to include Spanish and French. The content has also expanded from pre-A1 to B2 level ('upper intermediate').

PROGRAMME OBJECTIVES

The programme has four main objectives:

1. To provide concrete solutions to enhance the decoding skills of adult literacy learners at the pre-A1 CEFR level by employing advances in technology and findings from second-language acquisition research to inform design and content;
2. To provide an individualized route to learning and development through materials that are customized and responsive to each student's unique progress;
3. To enhance learner autonomy by providing learners with materials that encourage them to work by themselves or with others, whenever and however they want;
4. To enhance the linguistic and digital skills of these adult learners in order to help them integrate into the host country.

LEARNERS

DigLin's learners are adult migrants who have limited or no schooling and/or literacy in their first language and who are learning the language of their host country. Learners come from over

100 different countries, with the majority located in Europe (see **Table 3.1** and **3.2**).

Country	Percentage of total learners
Netherlands	91%
Belgium	5%
Spain	0.5%
Germany	0.4%
Austria	0.3%
Indonesia	0.2%
United Kingdom of Great Britain and Northern Ireland	0.19%
United States of America	0.18%
Switzerland	0.16%
Hong Kong SAR, China	0.10%

Table 3.1: Top 10 locations of learners using the Dutch program (May 2020–May 2021). *Source:* Google Analytics of the DigLin platform

Country	Percentage of total learners
United Kingdom of Great Britain and Northern Ireland	38%
Netherlands	16%
Finland	15%
Austria	8%
France	7%
United States of America	6%
Canada	2%
Australia	1%
China	0.6%
New Zealand	0.5%

Table 3.2: Top 10 locations of learners using the English program (May 2020–May 2021). *Source:* Google Analytics of the DigLin platform

In an evaluation conducted between 2012 and 2015, DigLin found that learners who had never used a computer before experienced minor difficulties when navigating the program. However, the simplicity of the software allowed them to adapt quickly and build digital literacy skills such as using a keyboard and computer mouse.

LEARNER ENROLMENT

Although DigLin is publicly accessible, the majority of learners are introduced to it through their teachers or a language institute in their host country that supports migrants. From there, students may either continue to use DigLin independently or under the supervision of a teacher who assigns them DigLin lessons.

LEARNER ASSESSMENT

Although all students have access to the full range of DigLin content, a preliminary assessment is usually conducted by a language institute in order to assign learners to the appropriate DigLin level. DigLin encourages teachers to have high expectations of their students, and to assign learners to a program whose level slightly exceeds their current language level.

Nearly every DigLin exercise is a form of assessment and provides learners with immediate, automated feedback. For example, if students type the wrong letter into the text box, it will turn red. DigLin's technology tracks users' behaviour as they work through the different exercises and analyses their correct and incorrect answers in order to provide tailored feedback. In addition to this digital assessment, learners are also evaluated in a teacher-directed environment via non-DigLin testing provided by their school.

Despite these assessment measures, DigLin does not follow a linear progression in learning in the same way that levelled coursework would. An essential component of DigLin's design is

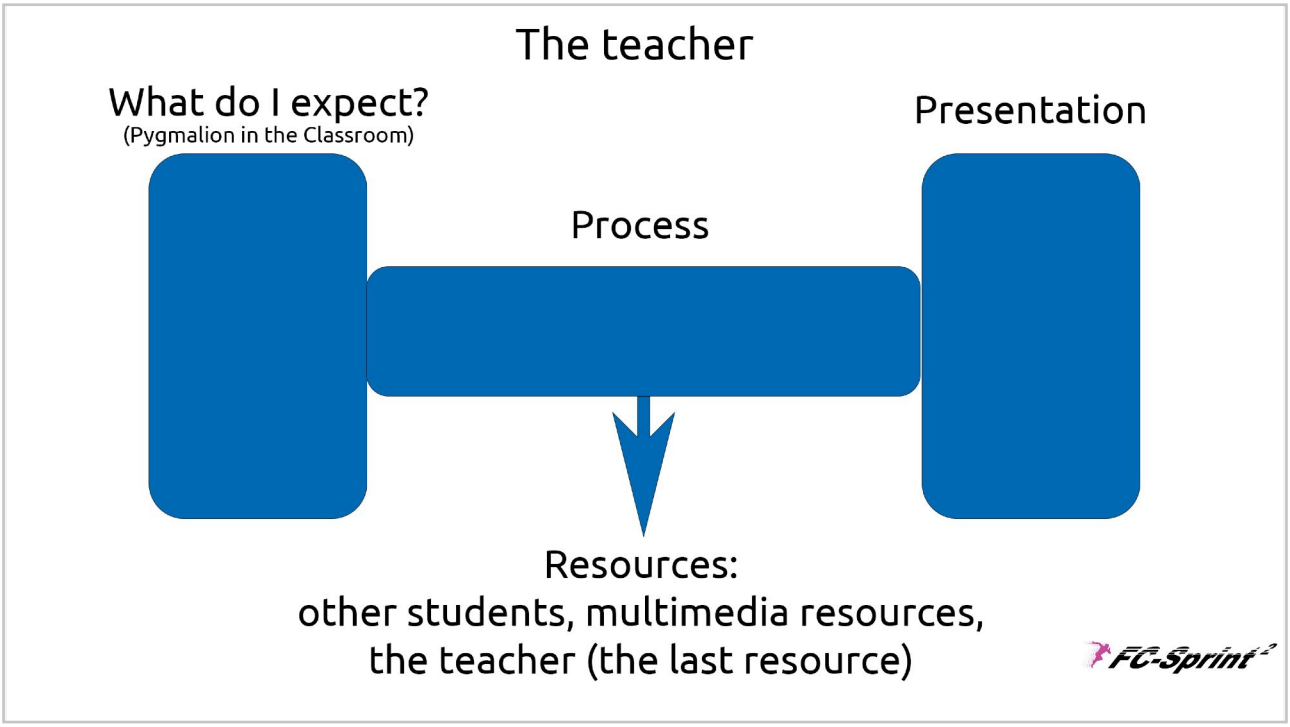

Figure 3.1: Chart illustrating the principles of FC-Sprint². *Source:* Jan Deutekom

its ability to be tailored to individual learners, allowing them to move between resources as they need instead of following a plan dictated by a teacher. Even within a single DigLin exercise, the learner is presented with many choices: they can click on a picture, play a soundbite, click and drag letters to different places, and so on. In brief, the learning process is not formulaic. This has the advantage of accommodating a wide variety of learners but makes it more difficult to track students' progress because each user's interaction with the program is different. Individualized learning is important for these learners, however, because it accommodates the diverse skills and abilities that they bring to the program, ranging from no literacy at all in the second language to some oral literacy acquired through their journey to the host country and while waiting for access to language classes.

TEACHING AND LEARNING APPROACHES

DigLin's pedagogical approach is based on the FC-Sprint² concept, used at Friesland College (FC) and developed by Jan Deutekom in 2008 (Deutekom, 2021). FC-Sprint² is based on two fundamental approaches:

1. A learner-focused approach: control moves from the teacher to the learner. The teacher is an organizer and facilitator rather than an expert imparting information to the student. The student takes responsibility for his or her own education;
2. An autonomy-focused approach: learners are provided with resources to learn independently rather than complying with pre-established learning routes set by the program. Asking a teacher for help is seen as a last resort.

The principles of FC-Sprint² place high expectations on the students from the start, which is intended to motivate them to rise to the occasion, and make learning an active rather than a passive experience. Instead of being the primary source of information for students, the teacher's role is to help motivate them, and to encourage their innate ability to achieve their learning goals over time and with continued effort.

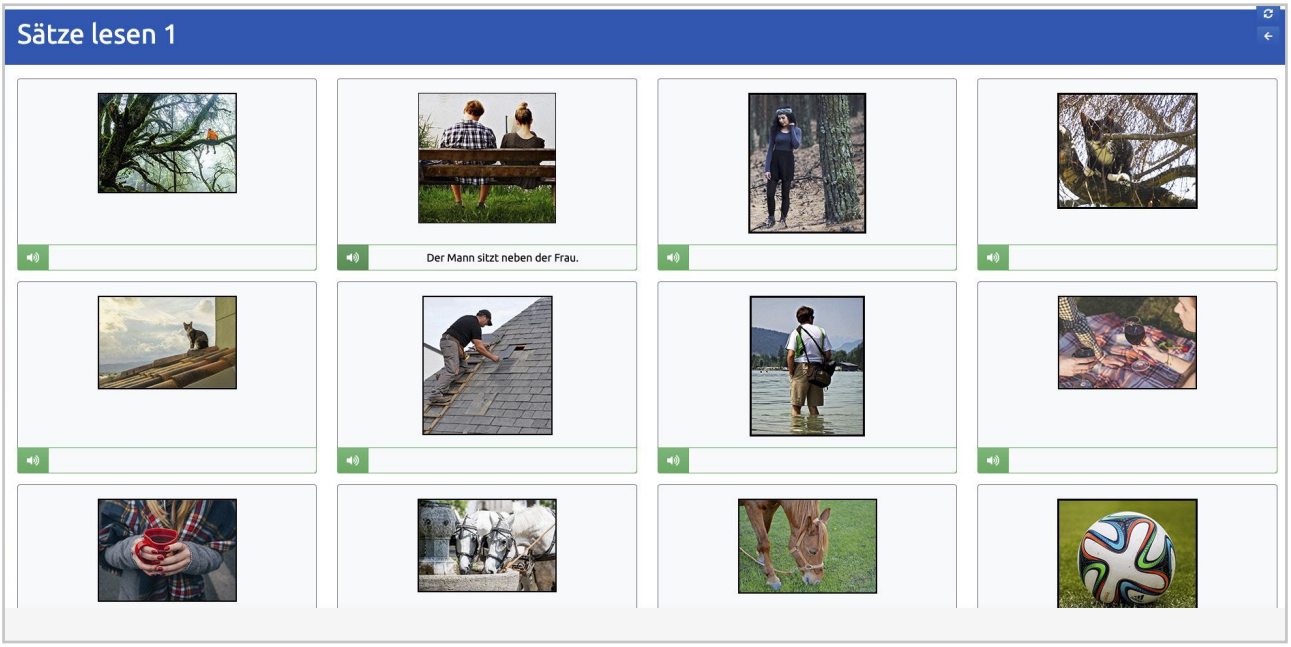

Figure 3.2: Example of a German-language lesson for beginners, featuring audio, letters and photographs. *Source:* Diglin German Platform

Figure 3.1 illustrates the FC-Sprint[2] principles (from left to right). Learning begins with the teacher setting clear and high expectations of students. The latter then consult resources in order to achieve the stated expectations. Finally, students present their learning outcomes to the teacher.[3.3]

DigLin's compatibility with mobile devices makes it easy for learners to access it anywhere and at any time, thereby increasing their autonomy and control of their learning experience. DigLin technology provides immediate feedback to learners in accordance with their unique needs as they interact with the program, allowing them to correct their mistakes quickly. Students have access to the full platform from the start and are not required to 'unlock' different levels in order to progress. This agility makes DigLin more relevant to the students compared to a traditional classroom, where a teacher delivers content in a linear fashion and at the same pace for everyone.

Drawing on research on second-language acquisition, DigLin designs its learning content to develop learners' decoding skills, or the ability to recognize the letter-sound relationships and patterns that make up a word in order to understand the word's use and meaning. These skills are practised using 300 words – mostly nouns – in the language the student is learning and can be supported with photographs (rather than abstract drawings), which is helpful for learners with low literacy. The vocabulary, comprising monosyllabic and polysyllabic words that vary in difficulty, is learned through 70+ different exercises, which include 4,500 photos and 10,000 audio files (see **Figure 3.2**).

RECRUITMENT AND TRAINING OF FACILITATORS

While DigLin's focus is on building learning resources, some language institutes who use DigLin train teachers to facilitate the material.

[3.3] For a video explaining the FC-Sprint[2] philosophy and how it is used in DigLin, see **https://vimeo.com/522731056**.

These teachers can be either paid, volunteers, full-time or part-time depending on the language institute. These classroom settings usually feature one or two teachers for 20 learners. While DigLin does not recruit or train teachers directly, it does support an active community of DigLin educators on Facebook. This online community has about 1,300 members in multiple countries who exchange teaching techniques, ask questions about the FC-Sprint[2] approach, and give feedback to improve DigLin materials.

TECHNOLOGY: INFRASTRUCTURE, MANAGEMENT AND USE

In order to provide immediate feedback to learners, DigLin uses its own behaviour-tracking technology to track every action learners take as they interact with the program and to enable immediate feedback. During the initial project (2012–2015), DigLin recorded every action learners took in real time using log files and analysed the data to ascertain the relationship between learners' actions in the program and their understanding of the content, and consequently made targeted improvements to the learning materials. (Young-Scholten, Naeb and Sosinski, 2021).

These detailed records are also used to provide feedback to teachers and students and thus improve their learning outcomes. Students have access to their behaviour log and can see how many attempts they needed in order to answer a question and receive a higher score on an exercise. This instant feedback is especially important for learners who have not developed study skills from formal education. DigLin has found that this instant feedback mechanism motivates leaners to take control of their educational experience, as they can examine their progress and determine what they need to do in order to achieve a higher score. This autonomous behaviour learned through DigLin can then be transferred to other life skills and educational endeavours that the learner may pursue.

At the time of its creation, educators expressed doubt as to whether DigLin's technology would be suitable for learners with low literacy. However, teachers and students alike quickly learned how easy the digital platform was to navigate. The learning exercises developed by DigLin include a combination of the following:

- Writing letters by tracing them on the screen;
- Learning to spell by dragging and dropping different letter combinations in order to form a word and, at higher levels, creating phrases and sentences by dragging and dropping words;
- Learning to match letters and sounds, and to pronounce words by recording them and comparing the recording with a native speaker's voice;
- Developing vocabulary by viewing text, clicking on a word to hear it and viewing a photo describing the word.

These exercises utilize gaming principles such as timers and points for correct answers. Learners can 'play' the exercises numerous times in order to obtain the highest possible score. Unlike traditional language learning lessons that teach explicit language 'rules', DigLin uses interactive exercises to expose students to implicit patterns in the new language, which they can then recognize and learn. DigLin believes that understanding implicit language patterns is more helpful to learners in everyday language use than traditional grammar lessons that are difficult to recall outside the classroom.

Figure 3.3 shows an example of one of the drag-and-drop exercises for DigLin Spanish. Feedback is instantaneous, as the letter bounces if it is dragged to the wrong position. Both photos and sounds guide the reader to the correct combination of letters. The photos provide the learners with context so that they can assign meaning to the vocabulary that they are learning and master the content faster.

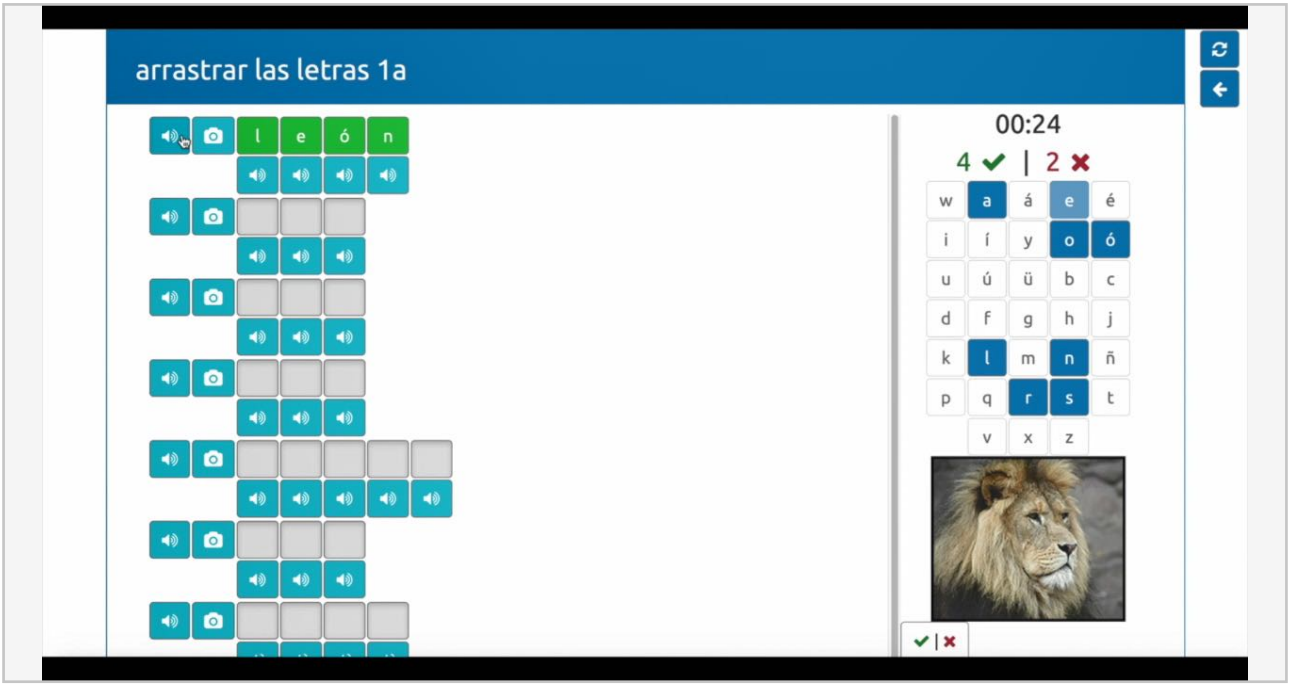

Figure 3.3: Example of a drag-and-drop exercise for DigLin Spanish.[3.4] *Source:* Diglin Spanish Platform

PROGRAMME IMPACT AND CHALLENGES

In 2020, DigLin was recognized by Germany's Gesellschaft für Pädagogik, Information und Medien e.V. (Society for Pedagogy and Information, GPI) and received the Comenius EduMedia Award for exemplary digital education content.

In 2014, DigLin evaluated the learning outcomes of students after engaging in Dutch and Finnish DigLin exercises for at least 10 hours. It analysed interviews and questionnaires with teachers and students, and user behaviour-tracking technology to show that students' language competency improved significantly compared to that of a control group of students using traditional language learning tools that involved listening to audio recordings and performing repetitive tasks. DigLin continues to rely on routine questionnaires and the Facebook community of language teachers to collect feedback and evaluate the impact of the programme.

One challenge that DigLin faces is maintaining financial support for the program. So far, the most popular language is Dutch, with over 642,000 log ins over the past year. Because of the high number of users, DigLin has begun charging USD 30 for yearly access. It has been able to introduce this charge without compromising user numbers; in fact, DigLin has seen a rise in usage of the Dutch program after introducing the annual fee. It has found that, when students and teachers pay for DigLin, it becomes their primary learning resource and they spend more hours using the program. In turn, the income enables DigLin to develop more content. For now, DigLin programs for other languages remain free to users, although some require users to set up a free account in order to use them.

The COVID-19 pandemic has presented both opportunities and challenges for DigLin's technology infrastructure. Globally, governments, schools and language institutes have shifted their focus to online learning. This has resulted in some of DigLin's learners

[3.4] Available online at **https://player.vimeo.com/video/421436990?app_id=122963**.

receiving donated laptops: for example, a poll conducted by the organization shows that almost all ISK schools have provided their students with laptops or tablets,[3.5] while several adult learning organizations have reported that their literacy groups have similarly been equipped with laptops or tablets. Learners who previously used DigLin when attending a language institute in person averaged three or four hours a week on the program. After receiving laptops that enabled them to use DigLin at home, their weekly usage increased to 10 hours. In 2020, there were approximately 24,000 log ins from 1,000 users of DigLin English, and 642,000 log ins from 7,000 users of DigLin Dutch.

However, some learners lacked the digital literacy skills to use DigLin on their own with their new laptops. For example, learners who had previously used DigLin in person at learning institutes relied on public computers with login information for general use, i.e. they did not have individual DigLin accounts, and thus struggled to register a new account and log in on their personal laptop at home. Many teachers overcame this challenge by sharing their login credentials with students to use at home. This allows students to access the program but limits how accurately DigLin can measure the activity of its user base.

TESTIMONIALS

I work for a charity in Southampton, UK, which provides ESOL (English as a second language) lessons and supported internet access. I started using DigLin with a gentleman who approached us for English classes at the end of the summer term, just as things were shutting down for a couple of months. He worked with it for a few weeks while waiting for classes to start and it gave him the jumpstart he needed. He was just starting to get a bit bored and wanted things to read that had some meaning – and then all this new content started appearing on DigLin. Wow! Just wow! I've just started another couple of learners on it and suggested to colleagues that we need to use it more alongside lessons for those who have some catching up to do with literacy.

— English teacher, UK

I started using DigLin with refugees in our pre-employment programme and it is fantastic. It's fun, it builds computer skills, and it began to expand their vocabulary, listening and writing skills as well. I'm so grateful to have this resource.

— English teacher, UK

[3.5] An Internationale Schakelklas (International Transition Class, ISK) is a school for young people from abroad which they attend for an average of two years after arriving in the Netherlands before transitioning to the formal education system. For more information, see e.g. **https://iwcn.nl/newcomers/settling-in/education/international-schools-2/**.

DigLin makes a difference because you get more answers and feedback from the computer than the teacher can ever give you. The teacher is busy with other things and other students. The computer is there for me. The computer is my private teacher.

— ***Somali learner of Dutch aged 30 in the Netherlands***

I like working with DigLin because it is fun and I can do it alone, without the teacher. I think I learn more by doing it myself.

— **Guinean learner of English aged 21, UK**

Software like this stimulates [you] to think by yourself and to make the decisions on your own.

— **Somali learner of Dutch aged 29 with no previous schooling , the Netherlands**

STAKEHOLDERS AND PARTNERSHIPS

DigLin received start-up funding from the EU's Grundtvig Lifelong Learning Programme until 2015. The funder evaluated the programme in 2015 based on criteria such as project management, financial management, sustainability, and software quality and development. DigLin received a cumulative score of 9.5 out of 10. Today, DigLin receives most of its funding from Friesland College, and some from user fees. Additionally, DigLin collaborates with a private publisher to manage sales of the program to customers.

FUTURE PLANS

DigLin aims to expand its offerings by using existing templates to create programs for other languages. It is also working to create programs at higher CEFR levels, as its courses currently stop at B2 ('upper intermediate').

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Dogme Training Programme, Jordan/Lebanon

4

Programme title	Dogme Training Programme
Implementing organization	Mosaik Education
Location	Jordan and Lebanon (virtual)
Language of instruction	Host country's language or second language or foreign language
Date of inception	June 2020
Programme partners	Undisclosed
Funding	International NGO; approximately USD 13,000 from Open Society Foundations (as part of a larger grant); USD 60,000 from Humanitarian Education Accelerator
Annual programme costs	USD 60,000
Annual programme cost per learner	Undisclosed
Annual cost of the digital tool	Undisclosed
Digital tool(s) used	Video tagging software, live and asynchronous online training via mobile phones, Zoom, Moodle, Facebook
Target population	English-language teachers of refugees
Learner age	Undisclosed
Learner to instructor ratio	1:10
Target skill(s)	Learner-centred teaching, engaging and contextual lesson planning, digital literacy and online teaching, assessment of learners
Impact	60+ English-language teachers: 92% of teachers improved communication skills; 77% of teachers reported increased confidence; 100% of teachers subsequently used the techniques learned in the training in their classrooms; 80% of teachers reported the techniques from the training led to increased student participation in their classrooms.
Programme website	**https://mosaik.ngo/opportunities/dogme-training**

BACKGROUND

Since the start of the conflict in the Syrian Arab Republic in 2011, more than 6.6 million Syrians have been forced to leave their homes and relocate to a neighbouring country for safety (USA for UNHCR, 2021). After Turkey, Lebanon and Jordan are hosts to the largest numbers of Syrian refugees (ibid.). Approximately 650,000 Syrian refugees live in Jordan, making up nearly 10 per cent of Jordan's population (WFP USA, 2020). Moreover, an estimated 1.7 million refugees live in Lebanon, approximately 88 per cent of whom are from the Syrian Arab Republic (UNHCR, 2021). Both Jordan and Lebanon were facing economic and infrastructural challenges even before the Syrian refugee crisis, and have been struggling to integrate this large influx of newcomers into the workforce.

For these refugees, particularly those who are younger, learning English is essential. English is an official language on the national curriculum in Lebanon and is key to pursuing higher education in Jordan (Alameri, 2016; British Council, 2018). In addition, English-language skills can help adult refugees engage in their children's educational pursuits, communicate with resettlement and support organizations in their host country, increase their employment prospects, and assist them in preparing to relocate to a third country such as the United States of America or the United Kingdom of Great Britain and Northern Ireland (Abou-Khalil et al., 2019). However, most Syrian refugee children are not enrolled in school, and many adult refugees are unable to attend in-person English classes due to work and family obligations. Moreover, there is a severe shortage of teaching/learning materials and digital equipment such as laptops in these refugee communities. On top of these challenges, the spread of COVID-19 in 2020 forced the sudden closure of all existing face-to-face courses. This created a huge demand for online learning courses that were accessible and affordable to refugee populations.

According to the UN Refugee Agency (UNHCR), 100 per cent of refugees living in Lebanon and 98.5 per cent of those living in Jordan have access to the internet (UNHCR, 2016). A further UNHCR report points out that 84 per cent of refugee households in Lebanon own mobile phones (UNHCR, UNICEF and WFP, 2019). This opens up the possibility of using ICT and online platforms as an avenue to English-language learning for these vulnerable populations: online English courses that are accessible via simple digital tools such as mobile phones will greatly enhance their educational opportunities.

However, simply having access to such online learning does not guarantee better learning outcomes. Well-trained and qualified teachers are needed to guide and support learners so that they can benefit from online courses and other resources. Yet many teachers do not have the cultural competences and technical training to support refugee learners effectively in an online learning environment, as confirmed by Chris Sowton in his research into the Jordanian context (Sowton, 2019). There is therefore an urgent need to build professional skills among teachers in refugee communities, especially following the shift to online learning during the COVID-19 pandemic.

OVERVIEW OF THE PROGRAMME

Against this backdrop, Mosaik Education initiated the Dogme Training Programme in June 2020 in order to create better language learning opportunities for refugee communities in Jordan and Lebanon.[4.1]

Since teachers are one of the primary actors driving educational change, the programme

[4.1] https://mosaik.ngo/about-us

targets English-language teachers in these refugee communities in order to enhance their language learning and pedagogical skills. Teachers learn how to integrate Dogme teaching techniques into their existing English-language programmes, or how to establish new complementary language classes applying the Dogme approach (see **Box 4.1**). Improving teachers' skills contributes to better learning outcomes and expanded opportunities for learners in refugee communities.

Box 4.1: The Dogme approach

Dogme is a new approach in the field of English Language Teaching (ELT). Rather than relying on cumbersome textbooks, it places a strong emphasis on conversational communication among learners and teachers, using materials they bring themselves (Meddings and Thornbury, 2009). During a language class, for example, students might share and discuss news from their communities. Teachers then use these topics as a springboard for further discussion, addressing queries on vocabulary and grammar as they arise.

Through the Dogme Training Programme, English-language teachers are trained to use Dogme teaching techniques. They have opportunities to practise their teaching; they also have access to digital guides on setting up Dogme-based lessons. The programme is delivered entirely online via both live and asynchronous sessions.[4.2] Learning activities and materials can also be accessed via mobile devices.

The programme comprises 12 hours of asynchronous learning and five hours of self-paced learning. There are three types of session: intensive facilitated sessions (two three-hour sessions) that introduce key teaching skills and techniques; weekly sessions (six one-hour sessions) that help teachers adopt specific instructional techniques and reflect on teaching practices; and a Moodle platform induction session (one one-hour session) that prepares learners for the remaining four hours of self-paced study on the platform.

As an extension to the online course, online post-course skills-building sessions are offered to previous learners who form the community of practice. During these sessions, language teachers share their experience of applying Dogme techniques, and receive support and guidance from peer teachers/learners so that they can further improve their teaching practices.

PROGRAMME OBJECTIVES

The overall goal of the programme is to enable refugees, asylum-seekers, displaced people and conflict-affected communities to access, shape and lead the education they need to rebuild their own societies and to integrate smoothly into their host societies. This goal is achieved by enhancing the teaching skills of English-language teachers in the target communities and establishing a professional support system for them. Teachers develop their professional skills and knowledge through online training courses as well as self-study modules offered by the programme. By the end of the online courses, trainee teachers are expected to be able to:

- determine learners' context, needs, preferences and competences;
- plan a series of lessons appropriate to the learners, using available resources and relevant materials;

[4.2] Asynchronous learning refers to forms of instruction and learning that do not occur in the same place or at the same time. The term is most commonly applied to various forms of digital and online instruction and learning, e.g. pre-recorded video lessons.

- manage these lessons confidently using a sufficient variety of techniques and routines;
- create optimal conditions for learning by maximizing learner engagement and participation;
- assess learning and provide constructive feedback to learners;
- demonstrate the capacity for continuous professional development through reflection, adaptation and a positive mindset.

LEARNERS

The direct learners of the programme are English-language teachers in the targeted refugee communities (hereafter referred to as programme participants). Indirect learners are the refugees who take English courses offered by these teachers. To date, 38 teachers from Jordan and Lebanon have participated in the programme. Mosaik plans to expand its teacher-training services by adding three additional programmes in Jordan and Lebanon in the near future.

LEARNER ENROLMENT

Programme participants are enrolled through two main channels: either they are nominated by one of Mosaik's partner organizations, or they apply in person via the Mosaik website or through social media channels such as Facebook. Potential participants are contacted and asked to fill in the pre-course registration form. They are also invited to attend an induction session prior to the training course.

LEARNER ASSESSMENT

Before and throughout the programme, surveys and interviews are conducted to collect information on learners and assess their progress. Pre- and post-course surveys are conducted to obtain information which is analysed to measure changes in participants' attitudes and skills.

Moreover, trainers carry out in-depth interviews to gain an insight into participants' experience of the course. Trainers also watch or listen to video or audio recordings (each lasting around 10 minutes) of actual teaching submitted by participants as reflective activities. Participants then receive individualized feedback from trainers on specific areas for improvement. At the end of the course, certificates are awarded to participants who have attended 80 per cent of the sessions and submitted a minimum of two reflective activities.

TEACHING AND LEARNING APPROACHES

Live sessions (facilitated intensive sessions and weekly reflection sessions) are delivered via Zoom, while induction and self-study sessions take place on the Moodle platform.[4.3] The live sessions employ the cognitive apprenticeship approach that brings problem-solving processes into the open, where 'students can observe, enact, and practise them (the tacit processes) with help from the teacher' (Collins, Brown and Newman, 1987, p. 4). For this purpose, each live session contains a breakout activity section where participants practise skills demonstrated by facilitators and receive feedback from trainers and peer participants. Facilitators, meanwhile, watch recordings of learners' teaching and provide individualized feedback on how they can improve their teaching practices.

The programme encourages English-language teachers to promote their students' nascent language skills by using communicative learning techniques that enable effective and meaningful

[4.3] Moodle is a free, open-source learning management system. For more information, see **https://moodle.org/** [Accessed 14 October 2021].

Session title	Activity type	Intervention type
Needs analysis	Brainstorming, polls, surveys	Modelling
Communicative activities	Guessing games	Corrective feedback
Talk	Text chat/discussion	Recasting
Present	Show-and-tell/presentations	Giving feedback
Write	Chain story/collaborative writing	Focus on form
Planning	Lesson planning and overview	Scaffolding

Table 4.1: The structure of the weekly sessions. *Source:* Mosaik Dogme Toolkit training syllabus

interaction between participants and trainers. Instead of relying on existing teaching materials, which are often expensive and irrelevant to participants' contexts, trainers guide the participants to explore topics that are relevant to their interests by initiating learner-driven dialogues. The six weekly sessions provide programme participants with intensive training on how to apply the Dogme approach in their teaching (see 'Overview of the programme').

Table 4.1 shows the structure of the weekly sessions, including the content, activities and interventions covered each week. An overview of the Mosaik Dogme course syllabus is available online.[4.4]

RECRUITMENT AND TRAINING OF FACILITATORS

Trainers include both paid staff and volunteers, and are recruited through open applications and follow-up interviews. They are required to have an advanced (C1) level of English proficiency and experience of teaching English in emergency contexts, and to have attended Dogme training and be familiar with the approach. The trainer-participant ratio is 1:10.

Before the start of the course, Mosaik inducts trainers into the theories and practices of the Dogme teaching approach, as well as the cognitive apprenticeship approach for teaching English. Trainers also receive technical instruction on how to design and organize virtual learning via platforms such as Zoom, Moodle and Facebook.

TECHNOLOGY: INFRASTRUCTURE, MANAGEMENT AND USE

As noted, the programme is delivered in an entirely virtual format via mobile devices using both synchronous and asynchronous activities. The following three types of ICT are used:

- Moodle Learning Management System;
- Zoom (to deliver live online training sessions and post-course skills-building sessions);
- Facebook (to maintain a community of practice for further interaction and exchanges).

The programme harnesses Moodle as a low-cost platform for organizing teaching content and materials and facilitating interaction between participants. Participants can download the freely accessible Moodle app on their

[4.4] The Mosaik Dogme Training Syllabus is available at: **https://docs.google.com/document/d/1sqe-lyrl9lYdRIDZOloqryY_-_LaqLbkfz9_ZO1WYe0/edit#heading=h.wy5flxiow7j5** [Accessed 14 October 2021].

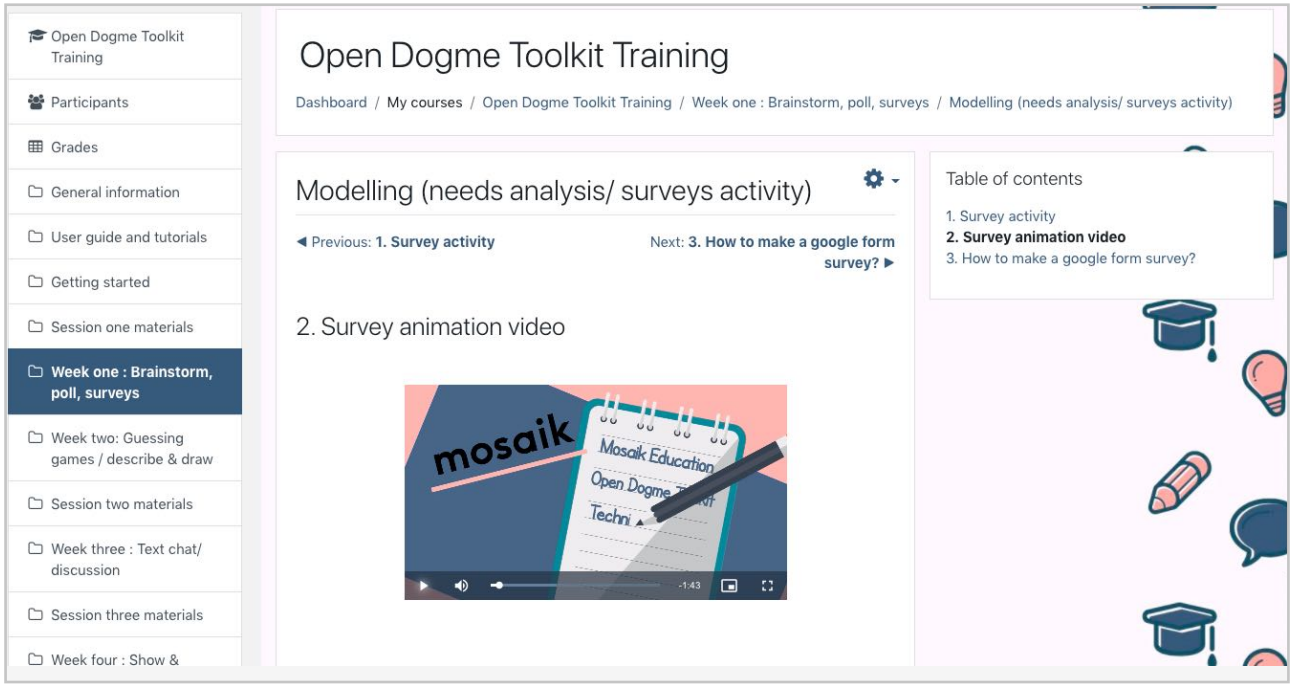

Figure 4.1: The Dogme training programme on Moodle. *Source:* Mosaik Education

smartphones and register on the platform. Once registered, they have free access to all sessions and materials (**Figure 4.1**). The session materials correspond to the live training sessions delivered via Zoom, with a user guide and tutorials also available. One specific session supplements the knowledge and skills that learners have acquired in the live training sessions by teaching them how to use materials in their teaching (**Figure 4.2**). Participants can also test their knowledge by taking a simple quiz and sharing their thoughts with their peers on Moodle for each corresponding session (**Figure 4.3**).

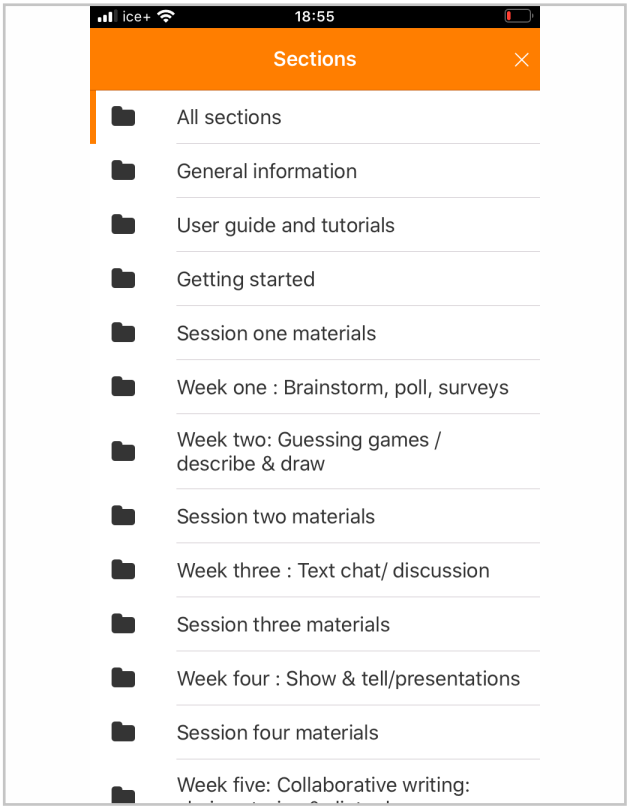

Figure 4.2: Screenshot of the sessions offered on Moodle. *Source:* Mosaik Education

	Benefits to participants	Benefits to facilitators	Benefits to community
General	Learners are better prepared and equipped to deliver quality online teaching.	Facilitators' knowledge and skills in teaching are enriched and expanded.	Access to and quality of education in refugee communities is greatly enhanced.
Specific	• Participants acquire communicative and interactive teaching techniques and tools. • Their teaching becomes more fun and engaging. • Learning attendance and participation increases. • Skills in delivering language courses online/remotely are enhanced. • Learners receive teacher and peer support via the community of practice.	• Facilitators gain enhanced skills and experience in teaching, learning and delivering training courses based on the Dogme method. • Some learners from previous Mosaik Dogme courses are hired by the programme as facilitators.	• Refugee communities are able to continue their education online. • Their English online courses become more interactive and engaging. • Their English language skills are improved. • They pass on skills and knowledge acquired from the programme to their family members.

Table 4.2: Summary of the general and specific benefits of ICT use to participants, facilitators and the community. *Source:* Mosaik Education

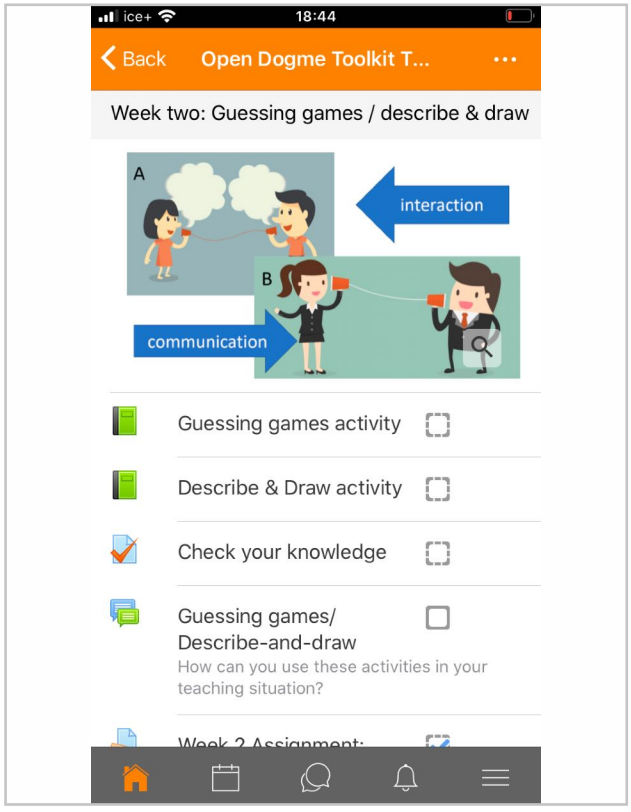

Figure 4.3: User interface of a session on the Moodle platform. *Source:* Mosaik Education

Zoom provides relatively stable live video conferencing for multiple connections of different speeds at no extra cost to programme participants. Participants can attend the live training sessions via their mobile phones or tablets, and engage in virtual learning while interacting directly with their trainers and peers. The 'breakout room' function allows participants to have in-depth conversations with peers and trainers.

At the beginning of the training course, a Facebook group is set up in order to build a community of practice for participants. The group is facilitated by Mosaik trainers, and all participants are encouraged to share their thoughts, reply to peer learners' posts, and share resources that they find useful. Programme participants are relatively active in this virtual community, even after completing their training course.

PROGRAMME IMPACT

According to the post-course survey, 92 per cent of programme participants improved their knowledge and skills in using communicative Dogme techniques during the training course. Moreover, 77 per cent reported an increase in confidence in their teaching, while 92 per cent found the Dogme techniques relevant to their teaching context and planned to apply the techniques in their own teaching.

Participants also indicated that their students participated more actively in their lessons when Dogme methods were applied: 80 per cent reported a large or significant increase in student participation, while 20 per cent reported a small increase. During in-depth interviews, many learners indicated that they had gained new insights into and skills in designing and facilitating interactive learning online. In **Table 4.2**, Mosaik details the benefits of ICT use in its Dogme training programme.

TESTIMONIALS

The following testimonials demonstrate the impact of the programme on participants and their communities.

> ***Now most of my students are not absent from the classes. They attend all their classes. … [The students] enjoy English more. They were so enthusiastic and excited for the classes and absorbed the material better.***
>
> ***— 'A', English teacher, Jordan***

> ***[The Mosaik Dogme training] was so practical at first, and not just theoretical information. We do activities together and I then applied these activities with my students, and I really see the outcomes. The students like these activities, they became more interactive in the class. Especially with teaching online, where sometimes students feel bored. I have two levels [of English classes], and these activities are suitable for both. I can adapt these activities to the higher or lower level.***
>
> ***— Hadeel, English teacher, Jordan***

> ***It's a really huge difference [using Zoom to teach classes before and after the training]. I can't even compare before and now. I used to hate it, to be honest, using Zoom. And I hated online teaching. I'm not going to say I love it now because I prefer seeing my students and being with them. But there's a huge difference. Now I can engage with my classes in a fun, communicative way.***
>
> ***— Abeer, English teacher, Jordan***

CHALLENGES

One significant challenge faced by the programme concerns learner retention. Mosaik reports that only 15 of the 38 enrolled learners attended 80 per cent of the training sessions. Such low attendance and retention not only affect the quality of interactions in the course, but also wastes the effort and resources invested in the training. Mosaik is still working on solutions to this challenge and is considering moving towards a Massive Open Online Course (MOOC) delivery model, followed by interactive sessions that take place on the online platform during office hours. It is anticipated that this model will resolve attendance issues.

A further challenge is that the programme had to adjust its training courses and monitoring evaluation and learning (MEL) system several times throughout the implementation phase in order to remain responsive to the constantly changing reality of learners living in refugee communities.

One obvious challenge not mentioned by the programme but which nevertheless must be addressed is the availability of technology. Technological equipment must be available to all stakeholders so that they can use the educational services of the programme. However, many refugees do not have access to technology or even electricity, and are therefore unable to take part in the Dogme programme.

STAKEHOLDERS AND PARTNERSHIPS

Mosaik has partnerships in Lebanon and Jordan that connect it to programme participants. It has six key partners: the University of Reading; UK Aid Direct, which supports small-and medium-sized civil society organizations (CSOs); The Growth Project, an NGO that supports small charities to help them maximize their impact; the Humanitarian Education Accelerator (HEA), an Education Cannot Wait-funded programme led by UNHCR; and the Stephen Lloyd Awards, which supports early-stage projects that have the potential to achieve sustainable social change. In addition, the programme receives financial support from the Open Society Foundations, a grant-making network, and the HEA programme.

As the current iteration of the programme can be classified as a pilot project, Mosaik plans to operate with a mixed model of grant and earned income in the future. The mixed model will distinguish between services paid for by larger institutions and international agencies, and lower cost or free services for smaller community-based organizations.

FUTURE PLANS

As well as scaling up the existing programme, Mosaik will develop a MOOC version of the Dogme training programme to reach more refugee learners living in Jordan, Lebanon, Africa, Europe and the Middle East.

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Education for Humanity, Uganda

5

Programme title	Education for Humanity
Implementing organization	Arizona State University, USA
Location	Uganda, Burundi, Democratic Republic of the Congo, Rwanda, Somalia, South Sudan
Language of instruction	Host country's language; second/foreign language
Date of inception	2019
Programme partners	The Office of the Prime Minister of Uganda, district educational officer and local government, UNHCR, Connected Learning in Crisis Consortium
Funding	Self-financed
Annual programme costs	USD 19,206
Annual programme cost per learner	USD 640.20
Annual cost of the digital tool	USD 5,150
Digital tool(s) used	Laptop, mobile phone, tablet, SolarSPELL, WhatsApp, Moodle
Target population	Refugees, displaced persons, marginalized settlements
Learner age	18+
Learner to instructor ratio	15:1
Target skill(s)	Literacy and digital skills Literacy for economic self-sufficiency Literacy and vocational education and training Job-related skills and higher education opportunities
Impact	Over 2,100 learners in 8 countries
Programme website	**https://edforhumanity.asu.edu/**

BACKGROUND

The 'Education for Humanity: Powered by SolarSPELL' programme, delivered through the **Arizona State University**'s Education for Humanity (E4H) initiative, is an educational service to provide university-level content to refugees located in the Nakivale settlement in Uganda. According to the United Nations High Commissioner for Refugees (UNHCR), Uganda was expected to host over 1 million refugees in the year 2020 (UNHCR, 2020a, p. 6).

Uganda has an international reputation as a welcoming place for refugees, making it the largest host country for refugees in Africa. Agriculture is one of Uganda's most important economic sectors, and 'refugee self-reliance is predicated on subsistence agriculture' (ibid.). UNHCR estimates that the largest ethnic groups of refugees in Uganda are South Sudanese (62 per cent) and Congolese (29 per cent), with women and children making up 76 per cent of the population (UNHCR, 2020b).

A predominantly rural country, Uganda has low rates of educational participation and literacy (UIS, 2020). According to UNHCR (2018), '57% of refugee children in Uganda (at least 353,000) and 34% of local children in refugee-hosting districts (around 171,000) do not have access to education'. The Ugandan Ministry of Education and Sports has developed the Education Response Plan (ERP) to specifically address the educational needs of its refugees. The ERP prioritizes building both physical and instructional infrastructure, supplying more classrooms and textbooks, and strengthening the educational system at the administrative and governmental levels in order to improve overall quality. UNHCR considers that '[t]he Plan, which was developed within the framework of the Comprehensive Refugee Response Framework (CRRF) recently adopted by all nation states, confirms Uganda's leading global role' (ibid.).

Globally, fewer than 5 per cent of refugees attend higher education institutions (UNHCR, 2021). Lost documentation, high costs and educational interruptions represent significant barriers, while refugees in Uganda face the additional obstacles of a general lack of higher education opportunities and a consistent electricity supply and/or internet connectivity.

Access to and usage of technology is a significant challenge: only 28.9 per cent of the Ugandan population had access to electricity in 2019 (IEA, 2020). According to UNHCR, the Nakivale refugee camp identifies the electricity network as 'makeshift', stating that 'the network is unreliable and can only support a few lights and small devices at the same time' (UNHCR, 2020a, p. 66). Although the area has access to 3G technology for telephone communications, the UNHCR report states that 'poor access to ICT (information and communication technology) services i[s] a critical mechanism for youth in terms of access to information for education and to allow for potential business opportunities' (ibid.).

The aforementioned ERP, although supported at the highest level of the Ugandan Government, makes no mention of access to technology. However, the UN Office for the Coordination of Humanitarian Affairs (OCHA) does list educational technology as a component of its Education Cannot Wait (ECW) fund, which is run in coordination with UNHCR. ECW is described as '[l]everaging Ed Tech and Learning Packs for the continuity of learning for secondary school refugee and host community children during [the] Covid-19 pandemic in Uganda' (OCHA, 2020).

Students in the pilot E4H programme were required to have completed secondary school and many were already enrolled in an agriculture-based vocational programme, thus demonstrating a motivation to take a course centred on agribusiness. The agribusiness theme dovetails with the Ugandan Government's policy of providing arable land for refugees, and reflects the fact that agriculture is a leading component of the Ugandan economy overall. Through **learning management system** (LMS)

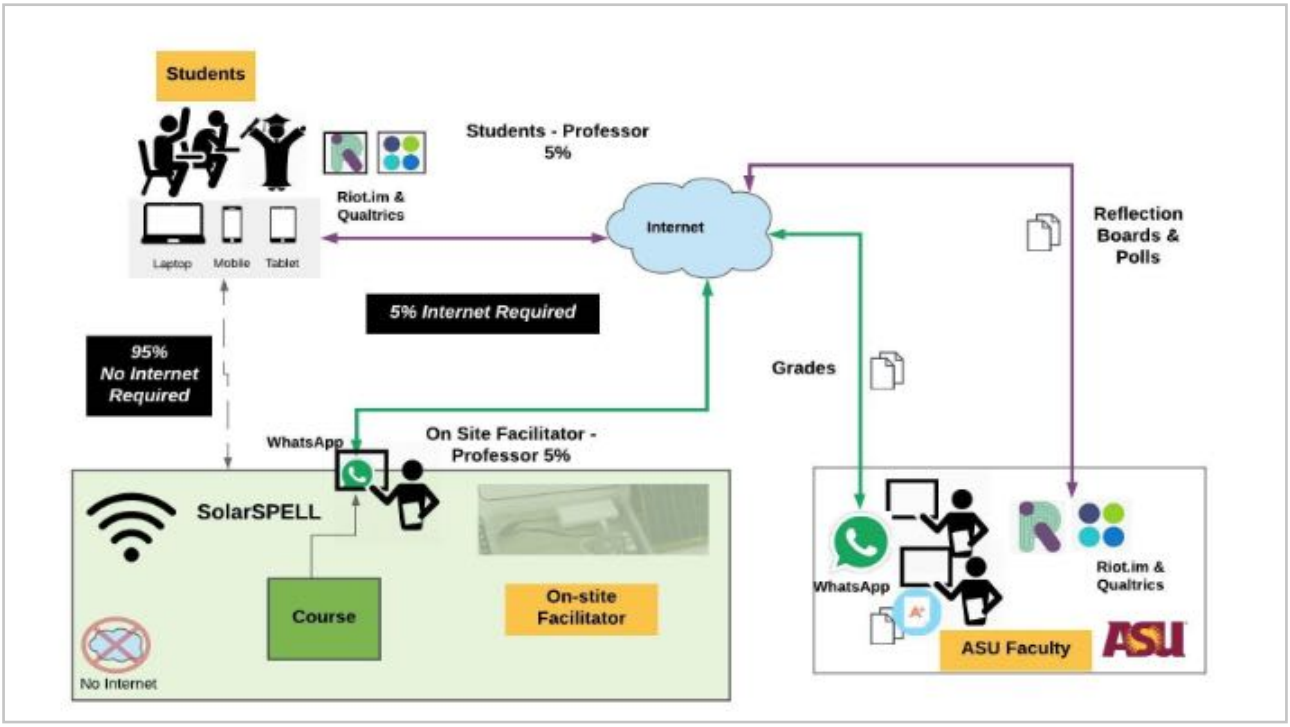

Figure 5.1: The Dogme training programme on Moodle. *Source:* Mosaik Education

technology, the programme seeks to provide refugees, displaced persons and marginalized settlements with an opportunity to enrol in a reimagined online tertiary-level course in a mostly offline format, and to engage with faculty across the globe. The programme aims to extend learners' existing agricultural skills and knowledge in critical economic theory to enhance their ability to pursue livelihood avenues, thereby increasing the chances for self-reliance.

OVERVIEW OF THE PROGRAMME

Arizona State University (ASU) has been providing online degree opportunities to students in 170 countries worldwide since 2009. ASU has five years of experience providing services in English as a Second Language (ESL) and related fields to refugee learners in nine countries.[5.1]

The mission of ASU's E4H programme is to provide higher education to refugee communities worldwide while promoting community, prosperity, social progress and inclusivity. ASU notes that many NGOs across the globe address the educational needs of students of primary and secondary school age (K-12), while higher educational needs often go overlooked. E4H therefore seeks specifically to provide the university and higher education experience to displaced/refugee students, using solar energy to address the barrier of unreliable access to internet and/or electricity that many students in Uganda face. The programme addresses two infrastructural issues that prohibit learning in refugee settlements: (1) the dearth of higher education opportunities for Ugandans generally and refugees specifically; (2) the lack of electrical power and fixed internet access.

The pilot programme included 26 students who took one course over 12 weeks. While the course was not credit-bearing, it followed the curriculum of a credit-bearing ASU course. The programme intends to expand to offer certification upon completion of five courses, and to find educational partners who will work to develop

[5.1] Colombia, Iraq, Israel, Jordan, Kenya, Lebanon, Rwanda, Thailand and Uganda.

an accredited outcome for students. Themes addressed by the pilot course include literacy, digital skills, rural development, economic self-sufficiency, vocational training and job skills. Around 5 per cent of coursework was expected to be completed online and 95 per cent offline.

OBJECTIVES OF THE PROGRAMME

The overall purpose of the pilot programme was to assess how effectively SolarSPELL technology could deliver an offline college-level course in an under-resourced context. The programme aimed primarily to increase access to tertiary education in settlements in Uganda with a high percentage of refugee, displaced and marginalized learners.

The stated project objectives are to:

- offer opportunities for 25–30 refugees and host community learners to take the AGB250 course, Agribusiness: Economics of the Allocation of Resources;
- advance offline delivery methods and technology for tertiary education;
- gather insights into blended (offline, online and face-to-face) tertiary education opportunities for refugee and host country populations;
- refine the partnership model required to administer higher education to refugee learners through a local organization.

LEARNERS

The 26 students who first completed the pilot programme were located in the Nakivale refugee settlement in Uganda. As a prerequisite, students were required to possess a high level of English language proficiency in order to qualify for the university-level work required by ASU.

The intake team aimed for an evenly mixed cohort of male/female and Ugandan/non-Ugandan students. However, gender parity was not achieved in the first cohort. Student enrolment consisted of ten females and 20 males from six countries: Burundi (5), Democratic Republic of the Congo (9), Rwanda (3), Somalia (1), South Sudan (4) and Uganda (8).

Refugees in Uganda come primarily from South Sudan, the Democratic Republic of the Congo and Burundi. Children form the largest segment of the refugee population, up to 60 per cent according to UNHCR (UNHCR, 2020b). Although education is compulsory in Uganda for children aged 6–12, enrolment in tertiary education (the level of the E4H programme in this report) is in the single digits percentage-wise (UIS, 2020). The numbers are overwhelming (UNHCR, 2020c, p. 17):

> ***Currently, 53 per cent of the primary-aged and 92 per cent of the secondary-aged refugee children in Uganda are out of school, and an average of 22 per cent are enrolled in grades lower than expected for their age.***

LEARNER ENROLMENT

Students were recruited by Windle International Uganda (WIU), ASU's partner organization in Uganda. The students were already enrolled in an agricultural education programme based in Nakivale's vocational centre. All learners then recruited through WIU were expected to have strong English skills, as they had attended primary and secondary school in English or were native/second-language English speakers. However, during the programme implementation, the English writing level of the learners was found to be lower than typical ASU students. Applicants were screened to ensure that they met the following criteria:

- Aged 18+;
- Strong English skills;
- Motivation to study at university level;
- Expressed interest in agribusiness.

LEARNER ASSESSMENT

ASU conducted thorough assessments of the outcomes of the programme. Although the students were not given a standard preliminary test to assess their skills, they were closely monitored throughout the programme via a variety of tools and instruments. ASU required students to take part in regular assessments in order to collect data; mid-course data were reviewed by staff upon completion of assignments. Post-course surveys and interviews were also conducted.

Although 95 per cent of the course was designed for students to complete offline, 'during the 5 per cent online portion of the course, students would submit assignments, take chapter polls, and receive feedback from the course professor'. These activities were completed via two internet data cards and smartphones that were supplied to learners by the programme management team. Intermittent quizzes, a practice exam and a final exam allowed for periodic graded knowledge checks that culminated in a final knowledge assessment. The quizzes and practice tests also provided additional time and opportunities for learners to review concepts with which they may have been struggling.

This combination of formative and summative assessment practices guided learners to the specific section of the course that needed to be reviewed prior to the final exam. WIU facilitators and ASU staff provided students with constant feedback, including for tests and a final exam. ASU intends to continue data collection on the long-term impact of the programme on the students (see examples of assessments in the appendix).

TEACHING AND LEARNING APPROACHES

E4H uses the Universal Design for Learning (UDL) framework,[5.2] which is an approach to 'teaching and learning that helps give all students an equal opportunity to succeed'. This approach was used in the instructional design of the university-level course using blended learning techniques. The course also features interactive activities as an important part of the curriculum. The course designers used a retrospective method of design, first setting course objectives, then planning the coursework in steps that would lead to students' successful achievement of these objectives. The instructional designers also incorporated video lectures, online discussions and similar educational techniques that would lend themselves to the online format, taking into account the fact that traditional teaching techniques such as instant feedback and face-to-face learning would not be available.

E4H guides its learners through the material using a '**learning pyramid**' (**Figure 5.2**). Instruction is scaffolded and each unit is structured in a design that is repeated so that students quickly acclimatize to the learning environment. Students can opt to take an exam at the end of each unit to self-monitor their learning and acquisition of target concepts.

[5.2] Universal Design for Learning (UDL) is a framework to 'optimize teaching and learning for all people based on scientific insights into how humans learn'. Source: **https://www.cast.org/impact/universal-design-for-learning-udl#.XyH6Sh1lCgQ**.

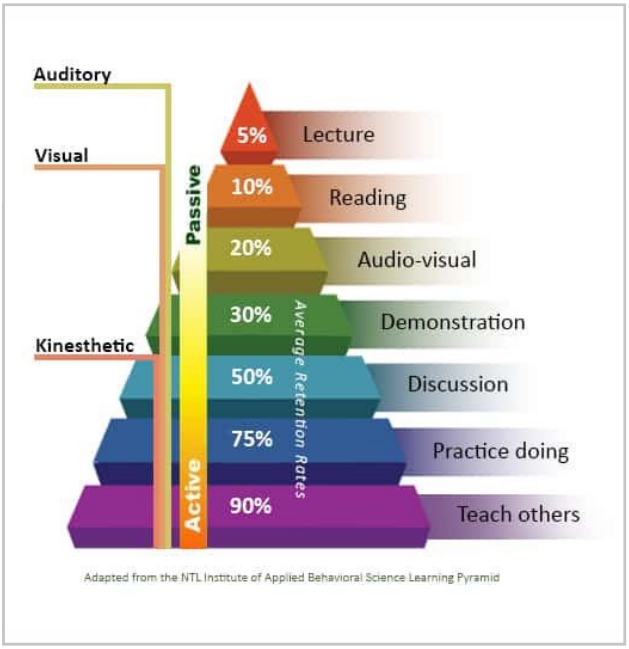

Figure 5.2: Learning pyramid. *Source:* Education Corner (**www.educationcorner.com/the-learning-pyramid.html**)

The curriculum was designed in partnership with E4H and local experts. Its content was broken down into seven units (**Figure 5.3**).

Figure 5.3: Agribusiness: The Economics of Resource Allocation syllabus. *Source:* Arizona State University

The instructional designers used a combination of open-source and self-created materials for the programme (see the **appendix** for a list of teaching and learning materials). The main textbook used is *Principles of Economics* (University of Minnesota Libraries Publishing, 2016), selected in part because it is an open educational resource in the public domain and is adaptable to the local Ugandan context.

Language skills, especially reading and writing in English, are a focus of the programme. Elements of reading and writing are supported through features such as a glossary and text analysis using the **Readable.io** tool, which was used to align the written course content to a Grade 10 reading level. Learners are provided with writing practise opportunities and are able to receive feedback from the facilitators. English courses are also offered at levels A1 to B2 of the Common European Framework of Reference for Languages (CEFR) in other locations such as Jordan, Lebanon, Kenya and the Thailand-Myanmar border.

Since the programme is conducted through ICT, it allows students to practise digital literacy skills. These include creating a username and password and accessing information from valid and trustworthy websites, among others. ASU reported that many of the digital skills developed by learners matched competences promoted under the Digital Competence Framework 2.0 (DigComp 2.0).[5.3]

RECRUITMENT AND TRAINING OF FACILITATORS

Facilitators in Uganda were recruited directly based on their previous work experience with WIU. They were eager to augment their technological expertise, improve their facilitation skills, and become an integral part of an innovative education programme. They were required to complete a pre-service training course in conjunction

[5.3] DigComp 2.0 is a framework developed by the EU Science Hub, the European Commission's science and knowledge service. It identifies key components of digital competence across five areas. Source: **https://ec.europa.eu/jrc/en/digcomp/digital-competence-framework**.

Competence area	Competences
1. Information and data literacy	1.1 Browsing, searching and filtering data, information and digital content 1.2 Evaluating data, information and digital content 1.3 Managing data, information and digital content
2. Communication and collaboration	2.1 Interacting through digital technologies 2.2 Sharing through digital technologies 2.3 Engaging in citizenship through digital technologies 2.4 Collaborating through digital technologies 2.5 Netiquette 2.6 Managing digital identity
3. Digital content creation	3.1 Developing digital content
4. Safety	4.1 Protecting devices 4.2 Protecting personal data and privacy
5. Problem solving	5.1 Solving technical problems 5.2 Identifying needs and technological responses 5.3 Creatively using digital technologies

Table 5.1: DigComp 2.0 competence areas and competences.

with programme staff, SolarSPELL, WIU and the ASU course professor. As part-time employees, facilitators were paid 1,000,000 UGX (approx. USD 267) monthly for the length of the programme. They were also required to be proficient in writing and explaining difficult concepts in English.

It was necessary to train the facilitators in the use of SolarSPELL and the Moodle LMS so that they themselves gained confidence with the technology that would be used by students. The training was hands-on, with facilitators interacting with the technology multiple times throughout the three days to ensure comfort and confidence.

During the three-day training workshop, facilitators were exposed to students' perspectives on educational delivery, as well as their own roles as enablers. The workshop consisted of technology and hardware training covering the SolarSPELL technology, the Moodle LMS, course and library access, and the 95/5 delivery model, whereby 95 per cent of coursework is completed offline and 5 per cent online. It also included teaching-learning approaches; learner-centred strategies to engage, interact with and empower struggling learners; the use of study groups and group discussions; and course assignment practise. To complete their training, facilitators were required to compose an eight-week action plan that served as a guide to working with the curriculum.

TECHNOLOGY INFRASTRUCTURE, MANAGEMENT AND USE

The need to overcome the challenge of using ICT was the main driver of the SolarSPELL programme piloted by ASU, since a lack of electricity and/or internet access is a major barrier to those wishing to take part in higher education in Uganda. To overcome this barrier and deliver education services to students, E4H harnesses solar energy. E4H sought to provide utilities that would enable students to actively participate in a university-level class using a virtual, online learning format with ASU faculty while being physically located in Uganda. This distance necessitated

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ASU staff provide support to learners

an asynchronous learning format,[5.4] resulting in teaching/learning that did not take place at the same time.

E4H uses ICT to provide a blended learning experience for students, combining digital learning and in-person support. Using their personal phones/tablets and a local wireless internet connection, students would download a unit's worth of work from the SolarSPELL library. They then reviewed the materials and completed assignments, receiving feedback from ASU professors along the way.

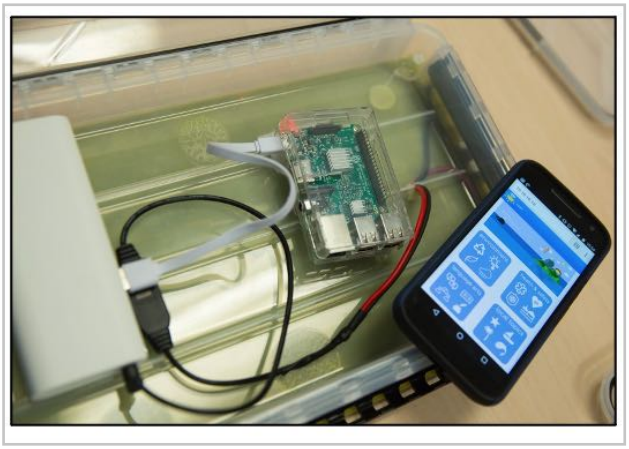
Students completed these assignments using either their own devices or those provided by the programme (including tablets, earphones and chargers). The final submissions constituted 5 per cent of online coursework, transmitted to ASU professors via the internet.

The E4H programme utilizes the **Moodle** LMS, which is accessible to the students, facilitators and management team. An LMS like Moodle provides students with a digital classroom environment in which they can interact with instructors and fellow students, access class materials, and participate in online discussions. Students also have access to the SolarSPELL digital library of open-access resources: video lectures, multimedia files and digital textbooks curated by ASU. Coursework is transmitted and completed via a low-bandwidth 2.5G network; however, as stated above, the curriculum is designed so that 95 per cent of the work is completed offline. Textbooks, video lectures and multimedia files provided by SolarSPELL offline made up this larger portion of the coursework.

[5.4] Synchronous learning refers to learning whereby participants learn and interact at the same time, in the same physical location or online environment. Asynchronous learning is the opposite: participants are not engaged in learning at the same time and do not interact with one another in real time. Source: **https://www.easy-lms.com/knowledge-center/lms-knowledge-center/synchronous-vs-asynchronous-learning/item10387**.

> ***SolarSPELL 'mimics an online experience by generating its own Wi-Fi hotspot to which any Wi-Fi capable device can connect' (Bauer and Gallagher, 2020, p. 7).***

ASU provided the SolarSPELL device, which can act as a WiFi hotspot, as part of the programme. The device was especially designed for resource-constrained locations such as Nakivale. The SolarSPELL set-up (see photos, below) consists of a Raspberry Pi 3 B microcomputer housed in a ruggedized, water and dustproof plastic container, with a solar PV panel attached to the exterior of the container. Inside, in addition to the Raspberry Pi, is a USB-powered battery pack, charging circuit, SD memory card hosting library content, Raspberry Pi operating system and LAMP stack application.



© ASU Education for Humanity
The (left to right) charging circuit, Raspberry Pi and a mobile phone.

© ASU Education for Humanity
The SolarSPELL device is housed in a ruggedized plastic container.

WhatsApp, a free messaging application, was also utilized by facilitators to relay learners' successes and challenges to ASU and WIU administrators to ensure that issues were resolved on an ongoing basis throughout the programme period. ASU faculty were also able to connect with facilitators via WhatsApp to report student assignment grades. A structured weekly debrief was conducted via WhatsApp by the programme lead, along with the (technical) design team and course facilitation team. Additionally, faculty were able to access and provide feedback on learners' work on the instant messaging client **Element**'s reflection boards and via cloud-based **Qualtrics** polls.

PROGRAMME IMPACT

A total of 26 out of 30 students completed the programme successfully, yielding an 87 per cent pass rate. The programme can also document success on many other levels, including: (a) the development of the SolarSPELL technology, replicating an online learning environment in an offline format; (b) proven growth in the course focus on agribusiness; and (c) statistically demonstrable growth in student motivation, confidence and comfort levels using digital technology in the learning environment (see **Table 5.2**).

Since ASU has extensive experience in the design and delivery of educational services to refugees internationally, it was cognizant from the outset of the importance of collecting data in order to document gains. Students, facilitators and ASU staff were involved in monitoring and evaluation throughout the programme. ASU collected feedback and data before, during and after the completion of the programme.

The programme stipulates that it focused on the collection of qualitative data in a short-term context: pass rate, satisfaction rate, comfort with technology, and the like. It was able to demonstrate improvements in each of these

	Benefits to participants	Benefits to facilitators	Benefits to community
General	• Access to higher education • Access to internet-enabled devices	• Employment opportunities • Improved classroom management skills	• Higher education opportunities • Educated population • Improved content knowledge
Specific	• Demonstrated growth in learners' agribusiness knowledge and skills • Statistically significant growth in learners' motivation, confidence and comfort levels in interacting with digital learning courses • Improved soft skills in the areas of critical thinking, collaboration and teamwork, and problem-solving	• Improved facilitation skills via three-day training workshop on facilitating a university-level course • Access to and training on state-of-the-art digital learning technology	• Opportunity for secondary school graduates to enrol in higher education • Expanded population base with content knowledge in the area of agribusiness • Expanded population base with digital literacy skills • Expanded population base with strong soft skills

Table 5.2: General and specific benefits of E4H.

categories. The programme would, however, have done well to include quantitative data as well, especially with regard to the measurement of digital literacy skills.

As regards long-term outcomes and achievements, a brief post-completion follow-up interview carried out about one year after the completion of the programme found that seven of the 30 learners subsequently found full-time employment.

TESTIMONIALS

As part of the post-programme data collection process, students were asked to assess the course's greatest strength. Nine of the 24 learners who responded stated that the main strength of the course was that it could be accessed through technology, including SolarSPELL's Wi-Fi hotspot and accompanying devices.

> ***The greatest strength of the agribusiness course is that it can train learners to teach themselves by using technology devices.***

In addition, daily usage of internet-enabled devices over an eight-week timeframe in a facilitated course environment offered students an ideal opportunity to strengthen their digital literacy skills.

Echoing the sentiments of the students, Mary, a course facilitator, states the following about her students:

> ***They got to know how they can predict prices in the market and how to specialize. We had a student who was initially dealing in three products, but now he says he's going to look into the market and focus on what people like most.***
>
> — ***Mary (AGB250 Course Facilitator, Nakivale Refugee Settlement, Uganda)***

CHALLENGES

Like any innovative, one-of-a-kind initiative, the E4H programme faced many challenges. The first of these was that the various partners of the programme were located on different continents, which posed a constant challenge to communication across time zones.

ASU indicated three areas that were particularly challenging: costs, materials development and the self-paced course structure. With regard to the first issue, ASU had underestimated the costs involved in shipping the SolarSPELL devices to Uganda. In future, the team will consider building the SolarSPELLs in-country using local labour and materials to offset high production costs. It also acknowledges the need for technological advancements, including developing and providing stronger battery power for devices. E4H has also identified device availability to students as an area for improvement.

Regarding the development of course materials, although the programme was adapted from an existing course, the transition to fully open-source materials was time-consuming for both subject-matter experts and instructional designers, whose task was to source and incorporate comparable material into the agribusiness course on SolarSPELL. In future, the programme recommends having a team dedicated to this preliminary process of content expansion.

The third challenge concerned the self-paced nature of the course, which became evident during the quizzes and exams, as students were allowed to take as much time as they wanted to complete them. This allowed students to compare and share answers, thereby compromising the integrity of these forms of assessment. The programme suggests that this integrity could be restored by adding technology to the Raspberry Pi microcomputer that enforces a time limit on quizzes and exams. The self-paced nature of the course furthermore enabled students to progress faster than the course instructor was able to provide feedback, thus limiting the usefulness of such feedback. The programme lead suggested a number of options to address the issue of pace, such as limiting the amount of content available to learners each day, and synchronizing grading and feedback features via the cloud.

STAKEHOLDERS AND PARTNERSHIPS

E4H is an initiative of the ASU Knowledge Enterprise. It partners with WIU to provide educational services to the Nakivale Refugee Settlement in Uganda. WIU provides registration and administrative support on site, while ASU provides the instructional design and digital content, and deals with administrative tasks relating to project management, including funding.

The programme's success relies on various partners such as the Office of the Prime Minister of Uganda, the District Educational Officer and local government, UNHCR, and the host community. E4H: Powered by SolarSPELL was self-funded by ASU.

The costs associated with the delivery of the programme could be covered by future partners

and in that sense could be labelled as an area for improvement. The cost of the SolarSPELL technology and tablets was listed as USD 5,150, excluding shipping costs. This does not seem like a prohibitive cost for programme expansion.

Costs for personnel would rise significantly if more courses were offered, since this would require more professors and facilitators, and thus more administration. ASU was willing to absorb such expenses for the pilot programme but is currently limited in its capacity to assume similar responsibilities were the delivery of educational services to be expanded.

FUTURE PLANS

ASU reports plans for expansion and replication, and has signed an agreement with the Ethiopian Administration of Refugee and Returnee Affairs to provide SolarSPELL technology to K-12 schools. The Ministry of Education has made the Ethiopian curriculum for Grades 1 to 12 available to the programme in both English and regional languages. These materials will be included in the digital library. It is hoped that the partnership will enact a participatory strategy, with teachers trained to incorporate the device into classroom and library settings, and to update content as locally relevant examples are identified and new pedagogical approaches adopted. The collaboration was conceived to achieve multiple goals, including increasing access to locally relevant educational resources in low-resource areas; fostering the development of information literacy and technology skills in students and teachers; empowering teachers by increasing their access to supplemental resources such as lesson plans, teacher guides and additional training; and expanding the use of ICT-mediated teaching.

ASU has identified that this partnership could also help to mitigate the effects of learning losses sustained due to the COVID-19 pandemic. ASU aims to find multinational funding and educational provider partners to replicate the success of the programme in other areas. It also aims to partner with professional development programmes for teachers in order to reach more communities.

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APPENDIX

TEACHING AND LEARNING MATERIALS PROVIDED BY E4H

SolarSPELL Facilitator Action Plan:
https://app.luminpdf.com/viewer/5f8e46c0a17d54001112328a

Unit 1 (PowerPoint):
https://drive.google.com/file/d/1p0OHc1aqZecbunq75s-GhR_05dpnh67g/view?usp=sharing

Unit 2 (video):
https://drive.google.com/file/d/1Td1y39zL7Lx7VPZYdoLl2XrIJse45fpO/view?usp=sharing

Interactive example (drag and drop):
https://drive.google.com/file/d/1GMUz62oYFLUKv_Kllg0_fG8qiz-xYXKe/view?usp=sharing

Interactive example (hotspot):
https://drive.google.com/file/d/1H4DYNBPN8lQXbpLdFRW8yozbyEC3kN70/view?usp=sharing

Poll example:
https://drive.google.com/file/d/1GaBVqMNZSbcbE8yLlngKWnHWUYoJgRNf/view?usp=sharing

Reflection board example:
https://drive.google.com/file/d/1zVWfZtGzEaiULSiFfEu6EDP067vARurF/view?usp=sharing

Unit quiz question example:
https://drive.google.com/file/d/1BpLR8cDQDxtTFpUmleAcHxHgGvMkS-6k/view?usp=sharing

English Language Course for Refugee Teachers, Lebanon

6

Programme title	English Language Course for Refugee Teachers (ELCRT)
Implementing organization	Education Development Trust (EdDevTrust)
Location	Lebanon
Language of instruction	Host country's language; second or foreign language
Date of inception	2017
Programme partners	Jusoor, Save the Children, Out of the Wilderness, Sawa for Development and Aid, Multi-Aid Programs (MAPS)
Funding	EdDevTrust
Annual programme costs	USD 85,000
Annual programme cost per learner	USD 850
Annual cost of the digital tool	USD 400
Digital tool(s) used	Zoom, WhatsApp, Padlet, edPuzzle, Microsoft Forms
Target population	Refugees
Learner age	Adults aged 18+
Learner to instructor ratio	15:1
Target skill(s)	English teaching, speaking and writing; digital literacy
Impact	Teachers trained to serve 1,500 Syrian refugee children
Programme website	**https://www.educationdevelopmenttrust.com/**

BACKGROUND

According to the United Nations High Commissioner for Refugees (UNHCR), there were almost 1 million Syrian refugees in Lebanon in 2019 (UNHCR, 2020). The country currently has the largest number of refugees per inhabitant in the world: one in six (EdDevTrust, 2020a, p. 5); it is therefore no surprise that it has experienced difficulties providing adequate housing, employment and access to social services to support this influx of refugees.

Although refugee children are entitled to attend public schools in Lebanon, high poverty and language barriers prevent many of them from receiving an education (Anera, 2021). UNHCR estimates that only 57 per cent of refugee children aged 6–14 are enrolled in school (UNHCR, 2021). In addition, public schools often lack the funding and personnel to provide remedial education, such as English language learning for refugee students. Many of these students therefore fall behind and drop out. Moreover, there is a shortage of qualified English speakers who can teach core subjects in English, one of the languages of the national curriculum (USAID, 2021).

In 2017, the Education Development Trust (EdDevTrust), an international organization based in the United Kingdom of Great Britain and Northern Ireland, founded the English Language Course for Refugee Teachers (ELCRT) programme in Lebanon in response to the Syrian refugee crisis. Working with several NGO partners in the country, EdDevTrust's ELCRT programme provides training for teachers, who are themselves Syrian refugees, to instruct refugee children in English, numeracy and science, using English as the primary language of instruction. The objective of the ELCRT programme is thus to train refugee teachers, who can in turn prepare refugee children to enrol in the Lebanese school system. Believing that 'everyone's life can be transformed through excellent education' (EdDevTrust, 2021), EdDevTrust and its partners developed ELCRT as a successful programme that can serve as a model for other NGOs to replicate with refugee populations across the world.

OVERVIEW OF THE PROGRAMME

Learners on the ELCRT programme are teachers who wish to improve their teaching skills and apply these improved skills in their classrooms. They are selected by EdDevTrust in consultation with its NGO partners. Learners attend courses in literacy and digital skills in a multilingual context, literacy for social, cultural and economic integration, and vocational education. The skills that they acquire during training can then be reproduced and provided to others in their communities through their teaching.

The programme provides learners with 30 hours of instruction: 20 sessions lasting 90 minutes each. They learn teaching strategies and pedagogical approaches that they can use in their own classrooms, while simultaneously improving their English language skills. Each group of learners is given a weekly assignment requiring around 10 hours of work per session. Learners receive a certificate upon completion of the course.

Learners are guided in using the flipped classroom approach (whereby videos, PowerPoint presentations or similar are sent to participants ahead of the lesson for discussion in the session) and presentation-based teaching. Using blended learning techniques that combine in-person and virtual instruction, learners are taught to use technology as a tool for instruction. Learners who are initially unfamiliar with the technology build their own digital competences while learning how to integrate such tools into their lessons.

Periodic formative assessments are conducted, including classroom observations and other opportunities for reflection, to assess and guide the learners. Learners have access to online

'teacher learning communities' (TLC), where they are encouraged to share their experiences and setbacks, exchange ideas, and support one another in their teaching work with Syrian refugee children in Lebanon.

PROGRAMME OBJECTIVES

Through its ELCRT programme, EdDevTrust seeks to:

- deliver an English language course for teachers to improve their language proficiency and confidence using English;
- help teachers to teach more effectively in English by providing them with training and curriculum support;
- deliver professional development to school leaders so that they can become effective instructional leaders;
- encourage teachers and NGOs to take ownership of their professional development by supporting them in facilitating TLCs.

LEARNERS

EdDevTrust works closely with its partners (Jusoor, Sawa for Development and Aid, Out of the Wilderness, Multi Aid Programs [MAPS] and Save the Children) to identify the learners who will take part in the programme. These NGOs provide professional development to teachers. Learners mostly comprise Syrian refugees living in Lebanon and working as teachers.

Many teacher-learners do not have strong English language skills. The programme strengthens their English proficiency while also providing them with instruction on pedagogical techniques. Learners face the challenge of juggling the responsibilities of the course with teaching their own classes throughout the country, some in very remote areas. This challenge has been exacerbated still further by the COVID-19 pandemic: during the academic year 2019/20, a total of 106 teachers signed up for the course but only 88 managed to complete it (EdDevTrust, 2020b).

ENROLMENT OF LEARNERS

An application process for teachers who wish to take part in the programme is carried out through the EdDevTrust partners. Approximately four learning groups are formed, each comprising 10–15 learners with comparable English skill levels, who progress through the curriculum together.

ASSESSMENT OF LEARNERS

Learners are assessed before, during and after the course. They are given the Oxford Online Placement Test at the outset to determine their initial English speaking level. During the course, 10 hours of assignments are given. Two weeks into the course, the teacher-learners are given an additional speaking assessment. Around the same time, classroom observations of their teaching begin. Midway through the course, the teacher-learners are asked to fill out a satisfaction survey. At the end of the course, advanced teacher-learners complete a project, while the less skilled receive a further assessment. After the course, they are given a follow up assessment to determine whether the course has met expectations, along with in-person focus groups to gather further feedback.

In 2019, for example, EdDevTrust conducted an in-depth evaluation of the programme for the period 2018/19, which sought to measure its impact on learners' teaching and learning. The research questions focused on two areas: how the language course had enabled teacher-learners to improve the delivery of their lessons, and how the new English curriculum developed by EdDevTrust for Jusoor had informed their teaching and learning in English. A range of

Group 2 Level A1 -A2	Code	Listening/Speaking	Code	Reading	Code	Writing
Overall general ability	G1-OGA-LS2	CAN express opinions on abstract/cultural matters in a limited way and understand instructions.	G1-OGA-R2	CAN understand straightforward information within a known area and simple textbooks or reports on familiar matters.	G1-OGA-W2	CAN complete forms, respond to a survey on a familiar topic, write simple narratives related to personal information and take part in simple written conversations on social media.
Social typical abilities	G1-SoTA-LS2	CAN comprehend and respond to familiar shopping dialogues.	G1-SoTA-R2	CAN understand straightforward information, for example labels on food, standard menus and signs.	G1-SoTA-W2	CAN complete most forms related to personal information.
Work typical abilities	G1-WTA-LS2	CAN state simple requirements within own job area, such as language for classroom instructions.	G1-WTA-R2	CAN understand simple passages and lesson plans, related to teaching & learning, provided enough time is given.	G1-WTA-W2	CAN write a short, comprehensive text message. CAN write up a basic lesson plan for their classes and assessment questions.
Study typical abilities	G1-SdTA-LS2	CAN understand instructions on classes and assignments given by a teacher or trainer/coach.	G1-SdTA-LR2	CAN understand instructions and messages on assignments given on course forums.	G1-SdTA-W2	CAN write a very short simple narrative, description or short story, such as about 'Where I Live' or 'Special Occasions'.

Figure 6.1: Sample pacing guide for teacher-learners with A1- and A2-level proficiency in English. *Source:* Education Development Trust

methods were used, including an online language proficiency test, an anonymous online survey to gather participant feedback using open-ended and Likert-scale questions, focus group discussions and lesson observations.

TEACHING AND LEARNING APPROACHES

In the ELCRT programme, teaching and learning practices are interconnected. A range of teaching methodologies are used, such as flipped learning, presentation-based teaching, and learning-by-doing. For a more diverse approach, facilitators also use case studies and videos in their lessons. Such methods provide learners with ideas as to how they can teach English to their students.

The programme also uses the lexical approach to teaching, which sees words and word combinations as the building blocks of language learning and communication. Lexical approaches to language teaching place a particular emphasis on multiword lexical units, or 'chunks', that are learned and used as single items (Richards and Rodgers, 2001).

During the programme development phase, EdDevTrust conducted a number of classroom observations and held several meetings with its main partner NGO, Jusoor, to identify problems to be addressed. The curriculum was developed in order to meet the needs and contexts of teacher-learners, and to improve their English language abilities based on the proficiency levels laid down in the Common European Framework Reference for Languages (CEFR).[6.1] These CEFR levels are also used to inform the course pacing (see **Figure 6.1**), and to guide facilitators in developing their curricula.

The curriculum is revisited on an annual basis based on feedback received from pre- and post-course classroom observations, focus group interviews, a teachers' survey, and expert input from the EdDevTrust's programme team.

RECRUITMENT AND TRAINING OF FACILITATORS

Teacher trainers hired by EdDevTrust are required to have obtained a bachelor's degree

[6.1] CEFR organizes language proficiency into six levels, from A1 to C2, which in turn can be regrouped into three broad levels: basic user, independent user and proficient user (see CoE, 2021).

in education or English, and preferably further certification, such as the Certificate in English Language Teaching to Adults (CELTA). Facilitators also receive additional support from EdDevTrust through conferences and online courses on teaching skills, particularly teaching English to adults and teaching English as a second language.

Facilitators must also be able to travel to and work in rural and refugee contexts. This requirement has proven challenging in the Beqaa Valley, a rural area of Lebanon that is considered high risk. EdDevTrust reports a general unwillingness among recruitment candidates to work in predominantly Syrian refugee camps due to historical differences and to drive long distances to deliver in-person classes.

TECHNOLOGY INFRASTRUCTURE, MANAGEMENT AND USE

The programme uses two main digital platforms: the virtual meeting platform, Zoom; and the free instant messaging platform, WhatsApp. Like most educational providers confronting the COVID-19 pandemic in 2020, the programme adapted its curriculum to transition from in-person to online/digital instruction. Needs assessment and training were provided for learners in order to equip them with a working knowledge of Zoom and other relevant teaching apps with which they may have been unfamiliar.

When the COVID-19 pandemic hit, the programme reached out to teacher-learners concerning their access to technology at home. Unfortunately, some were unable to participate due to internet connectivity and other issues, but the decision was nonetheless taken to transition to the Zoom platform and continue working with those learners who can access and use it.

All ICT tools used in the programme have been selected based on accessibility and connectivity in terms of bandwidth and affordability. WhatsApp was chosen because most of the learners were already using it privately and were therefore familiar with it. In the programme, facilitators use WhatsApp to communicate with teacher-learners, and to send them homework assignments and corrections. They use a combination of written messages, voice messages, images and video clips to interact with learners, and encourage them to practise their English. For example, learners are asked a question, which they answer by recording themselves and submitting their response via a dedicated WhatsApp group.

Other educational apps used regularly during the programme include Padlet,[6.2] edPuzzle[6.3] and Microsoft Forms.[6.4] EdDevTrust indicates that more educational software can and will be incorporated as the shift to virtual teaching progresses.

As with many teacher-training programmes, participants are required to film themselves while they teach. Generally, learners record themselves using their personal mobile phones. As a result, a TLC has been created to allow learners to meet voluntarily each month to share and discuss video clips of their work. While this practice developed spontaneously, it is now considered to constitute an important part of the programme.

[6.2] Padlet can be accessed at **https://padlet.com/**.

[6.3] EdPuzzle is available at **https://edpuzzle.com/**.

[6.4] Microsoft Forms can be accessed here: **https://forms.office.com**. A Microsoft account is required to create surveys and polls; however, anyone sent a link to a survey or poll can respond without registering.

PROGRAMME IMPACT

Since its inception in 2017, 88 learners have participated in the programme, teaching in 15 different schools and reaching 1,500 children (EdDevTrust, 2020b). Thanks to its extensive data collection routine, EdDevTrust can report in detail on the accomplishments of programme participants. Its impact evaluation for the period 2018/19 (see EdDevTrust, 2020b) was used to improve and refine project delivery for the following academic year, and yielded the following conclusions:

- Teacher-learners reported using English more frequently in their lessons. As a result, their students were understanding English better and using it more. This was verified through lesson observations conducted by EdDevTrust.
- The new English curriculum developed by Jusoor and EdDevTrust encouraged a move towards more learner-centred teaching methods. Observations of lessons with teacher-learners using the new curriculum showed an improvement in English language teaching methods.
- Most teacher-learners found the videos and songs used in the new curriculum to be more engaging and relevant for their students. They found the new curriculum easy to implement and felt supported by the Jusoor English Coordinator in implementing it.

Furthermore, most teacher-learners reported that their training had adequately prepared them to implement the curriculum. Self-reported data indicates that:

- 95 per cent of participants were satisfied with the quality of professional development provided;
- 98 per cent of participants felt that the course had improved their confidence in listening and speaking;
- 97 per cent of participants found that the course had equipped them with language to use in the classroom;
- 100 per cent of participants reported an improvement in the level of English language used in their classrooms.

While EdDevTrust regularly evaluates its teacher-learners, it reports that data collection has proven more challenging in recent months due to political upheaval in the country and the COVID-19 pandemic. Further barriers impede the assessment of ELCRT's overall impact on the schoolchildren taught by teachers who have taken the programme: the Lebanese educational system and the migratory nature of the refugee population present obstacles to collecting such data.

The programme's potential to have a strong impact educationally and socially in Lebanon and beyond is, however, clear. In a report entitled *Our Response to the Syrian Crisis*, EdDevTrust notes that 'the Lebanese education system was only designed to accommodate 300,000 students' and references a study by No Lost Generation that found that, 'according to official figures in 2017, of the 625,222 registered school-aged Syrian refugees, 264,970 were enrolled in formal education and 92,617 were enrolled in non-formal education' (EdDevTrust, 2020a, p. 5). **Table 6.1** summarizes the benefits of the programme to various stakeholders.

	Benefits to participants	Benefits to facilitators	Benefits to community
General	Improved language skills; Confidence in using English; Increased pedagogical knowledge.		Improved access to teaching in English; Smoother transition into the Lebanese school system for refugee children; Improved community relationships between Syrian refugees and Lebanese facilitators; Move away from historical conflicts and ongoing tensions around migration.
Specific	Improved English teaching; Learning community enables language practise and sharing of good practice.	Improved capacity of local Lebanese instructional leaders (teaching, coaching, managing projects, training and conducting classroom observations); Exposure to international research and practices; Opportunity to connect with external international consultants.	

Table 6.1: Benefits of the English Language Course for Refugee Teachers programme to various stakeholders. *Source:* EdDevTrust

TESTIMONIALS

In the makeshift classroom in Lebanon where the state system is at capacity, alternative school settings are flourishing and the appetite to learn – and to teach – is as strong. Our language courses for teachers, customized to meet the needs of the teachers working in non-formal education, many of whom are refugees themselves, are welcomed with open arms. The teachers want to continue their mission to teach; they want to help pave a way out of the situation they find themselves in and they want to ensure that generations aren't lost.

— Senior Project Manager, EdDevTrust

CHALLENGES

In addition to the political upheaval and COVID-19 pandemic currently affecting the country (and impeding programme delivery and evaluation, as noted in the section on the impact of the ELCRT programme), EdDevTrust faces two main challenges. The first is finding facilitators to deliver educational services, especially in remote areas (see the earlier section on the recruitment and training of facilitators); the second is the weather. Neither challenge has as yet been fully resolved. With COVID-19 forcing providers worldwide to move their instruction online, the programme may be able to transition to online provision in order to eliminate the physical travel barriers caused by bad weather and governmental restrictions on travel. However, both programme facilitators and potential participants may find that teaching and learning remotely from home, coupled with familial demands, prohibits them from taking part in the programme.

STAKEHOLDERS AND PARTNERSHIPS

EdDevTrust provides all funding for the ELCRT programme. As mentioned above, it works closely with a number of partners in Lebanon, including Jusoor, Sawa for Development and Aid, Out of the Wilderness, MAPS and Save the Children. These partners provide teacher participants for the programmes. They also contribute to the instructional design of the programme, and meet at the start of each academic year to review the curriculum and make necessary updates. Stakeholders are provided with detailed information about the participants enrolled in the programme and their progress.

FUTURE PLANS

Based on the impact evaluation conducted in 2019, EdDevTrust reports that the following changes and enhancements have been implemented through 2020/21 to improve delivery of the ELCRT programme:

- A blended learning approach: This offers more flexibility and resilience in the face of the COVID-19 pandemic and accompanying restrictions, while also circumventing accessibility issues caused by political protests and extreme weather conditions that hinder face-to-face classes. The programme's reading circle sessions and conversational English elements mostly take place online.
- More structured involvement of English-speaking volunteers from across EdDevTrust: Volunteers were invited to attend and participate in conversation lessons and reading circle sessions.
- A greater focus on equipping teachers with knowledge of digital pedagogy: Digital pedagogical aims were incorporated into the language course, and a monthly newsletter was published to allow teachers to share tips, best practices and online teaching advice.

EdDevTrust has been approached by other NGOs with regard to expanding its programming in the region but is currently limited by available funds.

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Global English Language Programme, Switzerland

7

Programme title	Global English Language Programme
Implementing organization	Jesuit Worldwide Learning
Location	Afghanistan, Central African Republic, Democratic Republic of the Congo, India, Iraq, Kenya, Jordan, Malawi, Myanmar, Philippines, Sri Lanka, Thailand, Togo
Language of instruction	Host country's language; second/foreign language
Date of inception	2017
Programme partners	Bavarian Parliament, UNHCR, Jesuit Refugee Services
Funding	Government, private sector, national NGO, international NGO
Annual programme costs	USD 310,000
Annual programme cost per learner	USD 150
Annual cost of the digital tool	USD 15 per student
Digital tool(s) used	Computer, tablet, or smartphone
Target population	Indigenous peoples, IDPs, marginalized learners, migrants, minority groups, refugees, women and girls
Learner age	Youth and adults
Learner to instructor ratio	1:20
Target skill(s)	English-language skills
Impact	Over 2,500 students studying in 33 centres in 13 countries
Programme website	**https://www.jwl.org/en/home**

BACKGROUND

The UN Refugee Agency, UNHCR (2021a), reports that, in 2021, 'At least 82.4 million people around the world have been forced to flee their homes'. This is the highest level of displacement on record. Global trends in refugee populations show an increase every year from 2012 as more and more people seek safety from persecution, conflict, violence, natural disasters and human rights violations (ibid.).

About half of these refugees are under 18 and will reach college age within the next 10 years (ibid.). These young refugees should be active and engaged learners in education systems, but instead remain largely excluded. Worldwide, only 23 per cent of refugee adolescents attend secondary school compared to the 84 per cent world average, and less than 5 per cent of refugees pursue higher education compared to global enrolment of 37 per cent (UNHCR, 2019; UNHCR, 2021b; UNHCR, 2021c).

Additional challenges such as poverty, social isolation, weak English language proficiency and low literacy serve as barriers to higher education for refugees, who often struggle to catch up when their education is interrupted due to violence and displacement. When they do arrive in a new location, it is difficult to improve their literacy in an education sector that is already facing problems. For example, the literacy rate of people aged 15 and older in Central African Republic is 37 per cent, one of the lowest in the world (UNHCR, 2021d), and the Central African Republic is also the location of over 630,000 internally displaced people (World Bank, 2021). This low literacy rate among refugees significantly impacts their access to higher education and employment. Additionally, UNHCR found that, in 2016, only 39 per cent of refugee households had access to an internet-capable mobile phone (UNHCR, 2016). This means limited opportunities for refugees to develop digital literacy skills, again putting them at a disadvantage when seeking employment (Culbertson et al., 2019).

The Jesuit Worldwide Learning (JWL) organization has been in operation since 2010, with a mission of providing higher education to refugees. In the last decade JWL has expanded the scope and sequence of its delivery of educational services. Based in Switzerland, JWL offers blended and online educational services to over 4,000 students from marginalized communities in almost 20 countries. It expanded its work in 2017 to include the Global English Language programme (GEL), which provides instruction in English as a second language to students who are interested in continuing to higher education. JWL views GEL as a stepping stone in a student's journey to higher education. According to GEL representatives, students graduating from the programme are better equipped to access higher and further education via a JWL professional or academic course.

The GEL course also enhances students' job opportunities and the chance of success in a local university course.

> ***The GEL programme serves 2,500 students studying in 33 centres in 13 different countries, and will continue to expand its outreach in 2021 with new GEL courses in Iraq, South Sudan and Guyana.***

OVERVIEW OF THE PROGRAMME

Founded in 2017, GEL views itself as a preparatory course for students to improve their English language skills, which in turn improves their chances of success in higher education. The GEL programme has a good overall design administratively and pedagogically. The programme also benefits from being part of JWL and its international presence. Administrative support is provided by the programme director, who is in continuous contact with satellite locations around the world. There is a professional quality registration

process, including tests for students. GEL uses the Cambridge English Placement test and the Linguaskill test through Cambridge Assessment English. Its curricula and class-level offerings are guided by the Council of Europe's **Common European Framework of Reference for Languages** (CEFR).[7.1] **Table 7.1** summarizes the CEFR proficiency levels.

Basic User	A1: Starter A2: Elementary
Independent User	B1: Intermediate B2: Upper intermediate
Proficient User	C1: Expert C2: Mastery

Table 7.1: CEFR level A1-C2. *Source:* CEFR.

GEL uses a 'blended learning' approach, with class work taking place both in person and online using the English Unlimited textbook series (see CUP, 2020). In terms of structure, the programme offers two hours of classroom teaching and two hours of independent study per day. Each level requires approximately 120 hours of classroom teaching and 120 hours of independent study, and students usually take three courses per year. On average, it takes two years to complete all six levels of the course.

The programme includes multiple activities outside the classroom to further enhance target skills covered in class. Learners have access to the English Unlimited resources,[7.2] and other online resources, such as independent study guides that contain links to YouTube videos and related websites. These resources help students read, write, speak and listen in English both inside and outside the classroom.

Students are offered the online **Cambridge English Placement Test** when they join the course, and the **Cambridge Linguaskill Test** when they exit the programme. They leave with a Cambridge test report and JWL GEL certificate.

JWL support also includes facilitator training in its local learning centres and extends that support by offering expert remote assistance to ensure that facilitators are equipped with a wide range of teaching skills. One of these skills is the adaptation of course materials in learning centres with little or no internet access, or where students do not have access to suitable devices. In such cases, printed copies of materials are made available to students, and course delivery is adapted so that students can learn English whether or not they have access to technology.

PROGRAMME OBJECTIVES

The objectives of the GEL programme, as determined by JWL, are to:

- increase access to tertiary education: by attending a high-quality English course, students are able to acquire the English skills they need to access tertiary education, whether a professional or academic course through JWL or a tertiary course at a local university; they also have access to better job opportunities;
- improve English language skills: since English is the international language of communication, improving students' English language skills empowers them and gives them a voice in the local and global community;
- promote diversity: the GEL course brings together students from different countries and ethnic and religious groups, which in turn promotes tolerance and opens minds;

[7.1] CEFR: **https://www.coe.int/en/web/common-european-framework-reference-languages/level-descriptions**

[7.2] See **https://www.cambridge.org/us/cambridgeenglish/catalog/adult-courses/english-unlimited**.

- develop computer literacy: students can access GEL course materials through a learning management system (LMS), which helps them become computer literate and prepares them for JWL's tertiary courses; in addition, familiarity with technology allows students to access better employment opportunities.

LEARNERS

As GEL serves learners from different countries, the demographic data for GEL students is diverse. In general, JWL serves refugees, internally displaced persons (IDPs), and otherwise socially and geographically marginalized/underserved youth in the countries in which it operates. Between 2017 and 2020, 10,155 students enrolled in and completed 18,752 GEL courses.

Learning centre coordinators recruit students in their local communities using various marketing strategies, such as social media, radio and houses of worship. All potential students in the community are welcome to attend an information session, where they learn that the GEL programme can serve as a bridge to university and/or employment.

Although JWL's international programme delivery remains free, in some cases students make contributions to the local partner to defray local running costs. Students are also responsible for transportation costs, where applicable.

© Jesuit Worldwide Learning.
Learners discuss what it means to be a JWL Global English Language student in a JWL promotional video.[7.3]

The coordinators at the learning centres are given guidance as to which students to prioritize for the programme. Preference is given to those who are most in need and would not otherwise have access to this kind of opportunity, and to those who are most committed to completing the course (i.e. do not have too many work or other study commitments). Students also need to be able to physically access the centre regularly for lessons.

ENROLMENT OF LEARNERS

Potential students are invited to an interview in order to make sure that their academic goals coincide with those of the GEL programme, and that they can physically access the learning centre.

Once students are cleared to enrol, they take a pre-test to assess their English reading and listening skills. They are given practice tests before they take the online **Cambridge English Placement Test**. Those results, along with an oral exam, determine the student's level of English according to the 6 levels offered by the programme. An online demonstration of the test is available here: **Test Delivery**.

[7.3] **https://www.youtube.com/embed/c3iAyR4-naU?feature=oembed**

© Jesuit Worldwide Learning
Mobile devices allow for flexible, further independent study for students in Khanke, in the Kurdistan Region of Iraq (KRG).

ASSESSMENT OF LEARNERS

GEL uses standardized and quality testing tools to assess students. Tests are taken in person at a GEL learning centre. Along with the Cambridge pre-test, students are given the Cambridge Linguaskill test at the end of the GEL course, having completed a minimum of three levels. Linguaskill is an online, adaptive, multi-level and on-demand test lasting 60–85 minutes. After completing the test, candidates are issued with a report indicating a Cambridge score and their CEFR level, as well as a JWL GEL certificate. Some students complete just one level, while others complete three or more. On average, students take two levels per year. Certificates are available at the end of each successfully completed GEL level.

JWL and GEL have their own database of learners that tracks their progress, including test scores. Online student application and programme administration features are in place to capture data on student registrations and programme enrolment. GEL reports that some students leave the programme with lower results than expected in the online Linguaskill test. While this may reflect a need for more teacher training and/or better preparation on the part of the student, it may also be a sign of students' lack of confidence in using testing technology or unfamiliarity with the test format.

TEACHING AND LEARNING APPROACHES

The GEL programme uses the Cambridge textbook series, **English Unlimited**, which has six levels (A1, A2, B1, B1+, B2 and C1).

Figure 7.1: The English Unlimited textbook series. *Source:* CUP, 2020

Cambridge University Press (CUP) describes the textbook series thus:

> ***Centred on purposeful, real-life objectives, it prepares learners to use English independently for global communication. English Unlimited is a six-level (A1 to C1) CEFR goals-based course for adults (CUP, 2020).***

The English Unlimited course provides the basic structure of the GEL course. Teachers are encouraged to supplement the textbook and its general curricular outline with other materials based on learner's interests. For example, if learners wish to perform better on an academic course, the teacher may focus more on writing. GEL recognizes the need to adapt the general outline of English Unlimited to local contexts in order to provide the best possible experience for its students.

The English Unlimited course includes a section called 'Writing Essentials', which helps students with basic letter formation. This is particularly important for students who have little

educational background or who are not familiar with the Roman alphabet. Some students do a pre-A1 course to acquire these basic skills before enrolling on the A1 course.

The classroom component of the course means that students can engage in in-person interaction. However, some centres have started delivering the course online instead of in-person due to the pandemic. Where feasible, facilitators and students have shifted to instant messaging and teleconferencing platforms to continue lessons and discussion groups online.

The ICT component of the programme allows for a greater variety of audio and video materials compared to printed books. These materials are also more cost efficient. The complementary role of ICT is seen as a key element in the course's success, along with input from the local teacher.

RECRUITMENT AND TRAINING OF FACILITATORS

JWL and GEL have paid special attention to teacher training, which in turn has had a positive effect on student learning. The teaching methods are student-centred (i.e. the focus of instruction is on the student, not the teacher) and the curriculum is set by the programme director. Teachers are mostly recruited locally in order to encourage local communities to develop from within. Candidates are selected whose profiles match the job description posted locally. These candidates are then invited for a first interview. Shortlisted candidates then have a second interview with the GEL director via video-conference. Suitable candidates are invited to sit the Linguaskill test to determine their level of English. Before starting, they receive safeguarding training.

GEL has identified teacher training as a priority and teacher retention as a challenge, and has developed two solutions in response: **The Creighton Teacher Training Course** and the **GEL Buddy Initiative**. The Buddy Initiative pairs teachers with native-speaker English tutors from across the globe for the purposes of professional exchange. After getting to know one another, the pair identifies a skill or skills which the teachers would like to improve. Together they research, plan, practise, deliver and reflect on their work. The project is shared virtually with other groups participating in the mentoring programme. The aim is to enhance the professional development of GEL teachers, offer them exposure to the wider world, and enable them to share good practice.

The primary purpose of the Creighton Teacher Training Course is to prepare new TESOL (formerly Teachers of English to Speakers of Other Languages) teachers and provide professional development for experienced TESOL teachers in the English classroom. JWL gives 50 teachers per year the opportunity to take the course. It takes place online and includes 150 hours of instruction by Creighton University's Intensive English Language Institute (IELI) in the United States (Omaha, Nebraska). In addition, GEL has created a mentoring programme for newer teachers to partner with a more experienced co-worker. Teachers are hired either full-time or part-time. Conditions vary depending on the location of the programme. Most teachers are paid, though some are volunteers.

In response to the COVID-19 pandemic, GEL offered teachers a four-week course, Teaching English Online, by Cambridge Assessment English and Future Learn, which focused on the use of online tools for language teaching.

TECHNOLOGY INFRASTRUCTURE, MANAGEMENT AND USE

Even before the onset of COVID-19, the GEL programme used a combination of online and in-person instruction. Some of its centres have been able to move to 100 per cent online instruction since the pandemic.

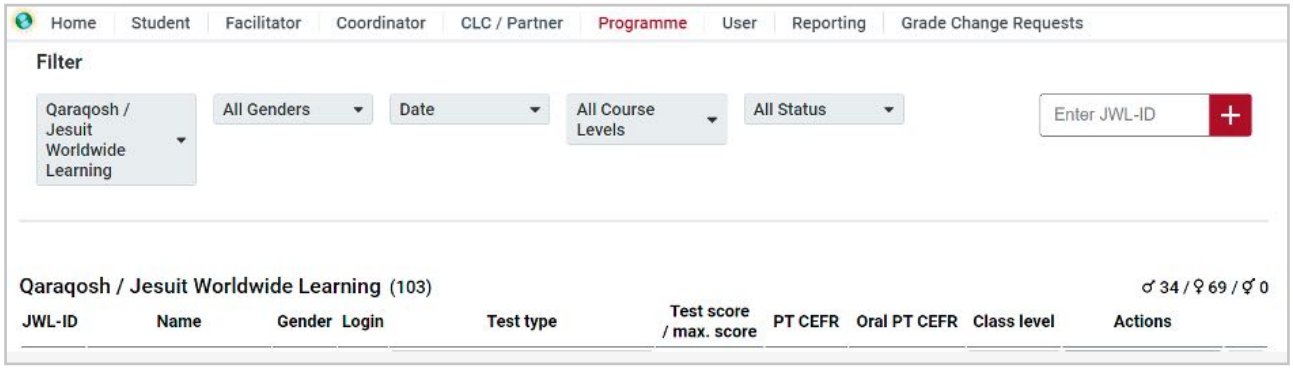

Figure 7.2: Screenshot of the SIS. *Source:* Jesuit Worldwide Learning

Recognizing issues relating to internet quality and access, GEL offers solutions with the assistance of local partners. To distribute learning content, JWL has equipped learning centres with a local server that automatically connects to the organization's main servers to retrieve new content when it is uploaded. To save and optimize internet bandwidth, large files are first transferred to the local server where they can later be downloaded by students at the learning centre. The course format is flexible so that it is possible to deliver an effective, low-tech GEL course in areas where there is no internet connectivity at all.

The GEL programme uses JWL Help (Humanitarian eLearning Platform), an LMS that allows its students to access materials and other educational services online. Developed in partnership with Seitwerk GmbH, an IT-srvices and -consulting firm based in southern Germany, the LMS is available for all course levels: A1, A2, B1, B1+, B2 and C1. Students can work their way through the levels, guided by the teacher. Students are also encouraged to do additional, extended reading online as part of their independent study. The website informs students:

> ***All the course materials and independent study materials can be accessed on our [LMS] using a computer, tablet or Smartphone. This is a compact and practical learning solution that allows students to learn English anytime and anywhere (JWL, 2020).***

To access materials at the centre, students can use their own devices and connect to the local Wi-Fi network to download what they need. These materials will then be available to them offline. For those students without a personal device, JWL may be able to provide one or provide access to a desktop computer at its learning centre location. In some cases (including during the COVID-19 pandemic), classes are carried out 100 per cent online. JWL has created a digital version of the placement test, which students can take from home using a mobile device.

The GEL programme works with students to ensure that their digital literacy skills are high enough to use the LMS and a device to access it. A training session is provided at the start of the programme for them to learn how to download the course app and access the LMS. The LMS is formatted to work on smartphones as well as tablets and computers.

In addition to the LMS, GEL uses a student information system (SIS) to manage student data, generate reports and track student history. The information gathered from the applications (e.g. data relating to student applications and programme administration) is saved to a database and maintained through the SIS (**Figure 7.2**).

PROGRAMME IMPACT

With over 2,500 students studying in 33 centres in 13 different countries, and additional centres planned in three more countries in 2021, the GEL programme could call itself a success based on these figures alone.

In addition, feedback on the English Unlimited course material is generally very positive. GEL reports find that learning objectives are presented clearly, content is relevant, and the course is deemed to be user-friendly. Students have plenty of opportunities to practise all of their language skills (speaking, listening, reading and writing), which makes for varied and interactive lessons.

> ***Students quickly feel that they are making progress in their English. For many students, it is the first time they are following a comprehensive and structured English course (JWL, 2020).***

GEL has furthermore helped students to study successfully at local universities. In Kinshasa, Democratic Republic of the Congo, for example, students enrolled in GEL were able to continue into the third year of their degree course in civil engineering, where the sole language of instruction was English. GEL also prides itself on the fact that its courses have given students a voice in their local and global communities. On a more humanistic level, GEL courses have fostered friendships among students from different nationalities and varying ethnic and religious groups, as they find themselves working side by side in the same classroom. This encourages integration, tolerance, mutual understanding, and the desire to live and grow together peacefully.

TESTIMONIALS

The basic tenets of GEL in general and JWL in particular are reflected in students' testimonials. Mayas from Amman, Jordan, highlights the effective teaching techniques that she reports have enabled her to share her learning with her community:

> ***One of the hardest challenges I faced in Jordan was to continue learning my second language. That's what I found in JWL, with their modern teaching techniques which helped me not only to learn this language but to share it in multiple ways with my whole community.***
>
> ***— Mayas, Amman, Jordan***

Inspired by the teaching and learning experienced at JWL, the following student plans to bring these experiences to her home country one day:

> ***If I am able to return to my home country one day, I plan to teach English and computers to my community. I believe that both English and computer skills are very important and beneficial skills […] if my community can receive this education and knowledge, it will provide many opportunities and allow them to develop and advance their skillset.***
>
> ***— Anonymous, Bangkok, Thailand***

Reflecting on one of the main objectives of the programme, the development of English language skills, Atta from Iraq says:

> ***When I attend JWL's GEL course, my English language becomes better which helps me a lot in my daily work and will help me get a better job in the future. I will be able to support my community through education.***
>
> ***— Atta, Domiz Refugee Camp, Kurdistan Region of Iraq***

Finally, responding to a question on the importance of the GEL programme, nine students shared their views in a YouTube video produced by JWL.[7.4]

© Jesuit Worldwide Learning
Learners discuss why the GEL course is important to them in a video produced by JWL.

CHALLENGES

The GEL programme faces multiple challenges with regard to planning, finances, implementation, recruitment, instructor-learner retention and the development of materials.

Planning: Due to the large number of centres and wide range of contexts in which the course is delivered, it is impossible for all centres to follow the same rhythm. Academic terms vary from country to country, and each learning centre has its own internal schedules depending on the availability of students and access to classrooms. To address these disparities, GEL tracks when courses commence and/or conclude in different centres. It then follows up by providing monitoring data and support with admissions and end-of-level tests, etc.

Finances: Although funding the programme is no easy feat, JWL states that its financial model makes the course extremely cost-effective. Local costs are generally covered by the local partner, which sometimes involves student contributions to cover individual centre costs. Since JWL oversees the academic delivery of the whole programme, including the curriculum, assessment and teacher training, it has taken steps to ensure that its model remains cost-effective.

Implementation: Intermittent internet access and quality hamper the programme's implementation considerably. JWL recognizes the challenges involved in setting up a good internet connection and/or delivering devices to students.

Recruitment: In some contexts, it is challenging to find suitably qualified English teachers on site. To overcome this, GEL provides teacher training through the Creighton Teacher Training Course and mentoring opportunities like the GEL Buddy Initiative.

Instructor-learner retention: Retention can be challenging due to the transient and often precarious lifestyle of many of GEL's refugee and marginalized students and teachers. In response, GEL has established a thorough student admissions process, so that priority is

[7.4] https://www.youtube.com/embed/MwBkhxrL5-o?feature=oembed

given to students whose needs and commitment are greatest. Information sessions help to ensure that students are clear about the required level of commitment. Teachers and coordinators are encouraged to follow student progress closely and to follow up quickly if there are any attendance issues so as to support the students and encourage them to return to class where possible. Regarding teacher retention, the numerous possibilities for professional development offered by GEL are intended to encourage teachers to feel that they are on a career path rather than 'just doing a job'.

Development of materials: It is impossible to produce a curriculum that is 100 per cent relevant to and suitable for all the different settings within JWL. To address this, the programme director uses orientation sessions to explain to participants that the English Unlimited course only provides the basic structure of the programme. Teachers are encouraged to be selective and supplement the programme with their own materials and activities depending on the needs and interests of their students.

STAKEHOLDERS AND PARTNERSHIPS

The list of stakeholders on the JWL website includes universities, organizations, foundation sponsors and donors (JWL, 2020). JWL receives donations from a number of sources to deliver the GEL programme, including public governments, such as the Bavarian Parliament, and other private, philanthropic organizations. A list of programme donors and funders can be found here: **Who are our Partners**?

While JWL pays for the use of the Cambridge Assessments (USD 15 per student), there are no costs attached to the use of the English Unlimited textbooks due to an agreement that allows JWL to use the English Unlimited textbooks.

FUTURE PLANS

GEL reports that it has carried out student surveys in individual centres, and is in the process of putting into place a review system that will evaluate the programme's impact upon completion of each level. JWL also had plans to conduct research in 2021 to analyse how the GEL programme assists students in embarking on a learning pathway for the first time, looking specifically at how many GEL students go on to study in a JWL academic or professional course and what they go on to do. This analysis will help determine the impact that the programme is having on the lives of the students, their families and their communities.

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Kepler Kiziba, Rwanda

8

Programme title	Kepler Kiziba
Implementing organization	Kepler (formerly Generation Rwanda)
Location	Rwanda
Language of instruction	Host country's language; second/foreign language
Date of inception	2015
Programme partners	Southern New Hampshire University (SNHU)
Funding	Private sector, SNHU
Annual programme costs	USD 360,000
Annual programme cost per learner	USD 2,400
Annual cost of the digital tool	USD 500 per new learner, USD 100 per existing learner (included in the cost per learner, above)
Digital tool(s) used	Laptop, phone
Target population	Refugees seeking higher education opportunities
Learner age	18+
Learner to instructor ratio	30:1
Target skill(s)	Literacy, digital skills, economic self-sufficiency, vocational education and training
Impact	Provided higher education to more than 170 learners, around 66 of whom have received a bachelor's degree from SNHU
Programme website	**https://www.kepler.org/kepler-kiziba/**

BACKGROUND

In 1996, just two years after the Rwandan civil war and genocide, Rwanda received a large influx of refugees fleeing conflict in the Democratic Republic of the Congo (DRC). Kiziba, 'Rwanda's oldest existing refugee camp', has since housed thousands more refugees (UNHCR, 2020). In 2020, Rwanda hosted 164,000 refugees from the DRC and Burundi, about 17,000 of whom live in Kiziba camp (ibid.).

Although Rwanda has made significant improvements to the quality and skills-building capacity of its higher education system (MINEDUC, 2021), university enrolment was still just 6.2 per cent in 2019 (UIS, 2021), and higher education remains largely unattainable for refugees. Worldwide, less than 3 per cent of refugees pursue higher education, compared to a global enrolment rate of 37 per cent (UNHCR, 2019a, p. 37). According to the United Nations High Commissioner for Refugees (UNHCR) in Rwanda, of the 1,169 refugees who completed secondary school in 2019, only 124 refugee learners went on to enrol in higher education in 2020 (Mbonyinshuti, 2020).

Literacy is a major obstacle for unemployed youth and adults in the refugee community hoping to access higher education and the job market (UNHCR, 2017, p. 21). At the national level, 26.8 per cent of Rwandans aged 15 and older were illiterate in 2018, well above the global average (UIS, 2021).

In an increasingly digitized world, technology and online education can serve to increase digital literacy and English language proficiency, both of which are critical for higher education and for the development of a robust workforce. Rwanda needs this digital infrastructure, as only 2.5 per cent of households own a computer and 9.3 per cent have access to the internet (ITU, 2019). It is evident that higher education, and usage of the technology needed to take part in it, pose challenges for learners living in Rwanda.

OVERVIEW OF THE PROGRAMME

Kepler is 'a non-governmental organization working in Rwanda since 2013, in partnership with Southern New Hampshire University' (Kepler, 2021a). Kepler oversees a number of programmes in East Africa; its partnership with Southern New Hampshire University (SNHU) at the Kiziba camp location focuses specifically on providing higher education to the refugees living there.

Launched in 2015, the Kiziba programme offers learners the opportunity to earn a US-accredited degree from SNHU, which in turn equips them to explore expanded employment opportunities. To date, the Kepler programme in Kiziba has provided higher education to over 170 learners, around 66 of whom have received a bachelor's degree from SNHU.

Since its inception in 2013, Kepler has been committed to developing an effective pathway for marginalized and economically disadvantaged youth to exit poverty. Through a combination of in-person, online and on-the-job learning that combines group discussions and activities with online courses followed by internships and work-study positions, the programme aims to improve its learners' critical thinking and cognitive skills, English language proficiency and employment prospects.

Before specializing, learners build basic skills through independent core courses in technology and communication skills along with vocational skills training. In addition, Kepler offers workplace learning and professional practice classes that include teacher training and work-study positions as teaching, technology and operations assistants within the programme. More specifically, Kepler's programme implementation strategies include:

- maintaining close collaboration and communication with UNHCR, relevant government bodies, and other humanitarian organizations in the refugee camp;

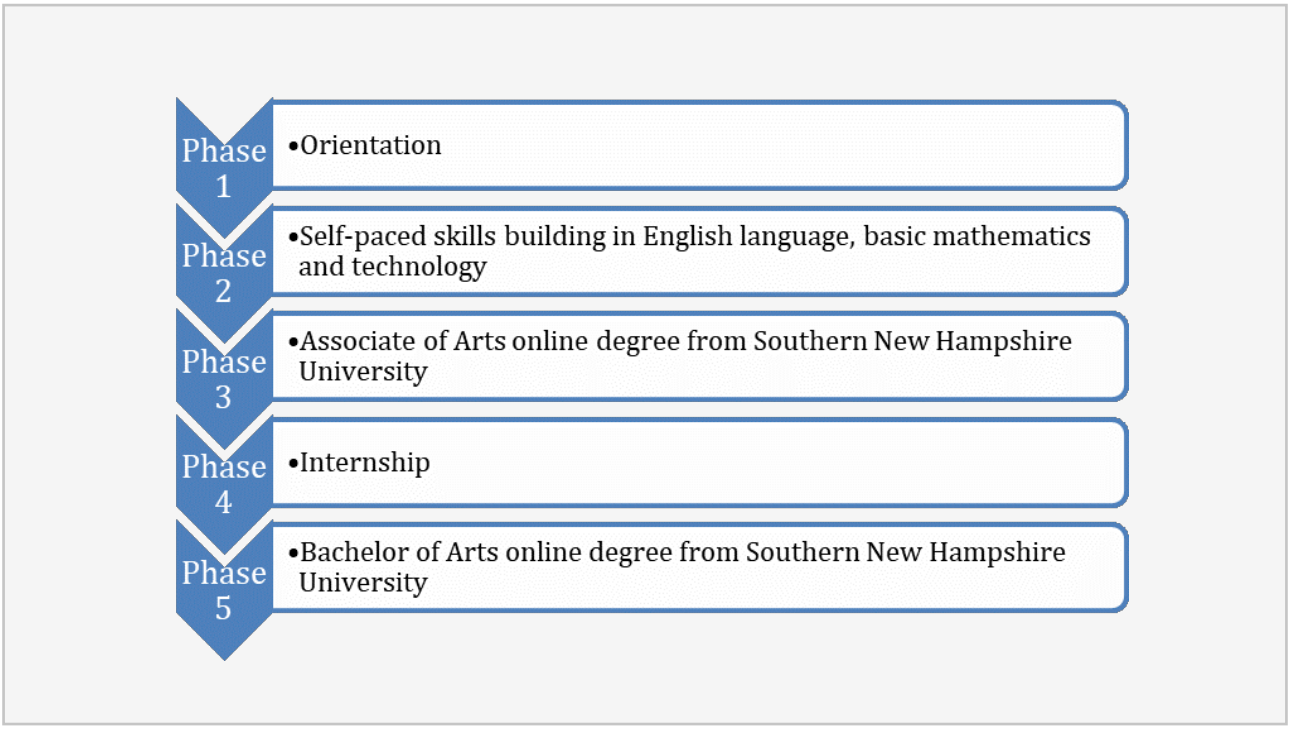

Figure 8.1: Summary of the Kepler programme phases. *Source:* UNHCR

- using learners who are further along in the programme to support the implementation process through academic and operational work-study positions;
- creating a fellowship for recent Kepler graduates to work for one year in academia or operations;
- collaborating with SNHU on remote internship opportunities and preparing students for employment.

The Kepler Kiziba programme aims to achieve its objectives in five phases, which are summarized in **Figure 8.1** and described in detail in the later section on teaching and learning approaches. All phases except the first are self-paced. In this phased model, students are promoted to the next level based on their abilities rather than on their year of enrolment.

PROGRAMME OBJECTIVES

The programme pursues three primary objectives: (1) 90 per cent of learners should complete their bachelor's degree within four years; (2) 100 per cent of learners should participate in a professional internship; and (3) 90 per cent of learners should be employed in the formal sector within six months of graduating.

LEARNERS

Initially, the Kiziba refugee camp hosted refugees from the DRC; Kepler's students were thus primarily Congolese. In 2015, Kepler opened a second campus in Kiziba and began serving students from Burundi. In 2016, Kepler expanded still further to include students from Kenya and Uganda.

Kiziba is a long-term refugee camp. Most learners in the camp are familiar with the Rwandan curriculum and have completed secondary school in English. The programme therefore delivers learning in English. However, since the Kigali campus recruits refugee learners from all over Rwanda, some learners completed secondary school in French. To support them, Kepler organizes preparatory programmes that prospective students attend before they are enrolled in the English language learning programme.

A group of learners enrolled in the Kepler programme.

Kepler reaches out to learners in the community by word of mouth and through presentations given in secondary schools. Cohorts range in number from 25 to 50 learners. Since its creation in 2013, Kepler has expanded tenfold, and as of December 2020, 1,271 learners had successfully completed a bachelor's degree on one of the Kepler programmes.

During the COVID-19 pandemic, the 2021 cohort comprised just 31 students, as this was the number that could be accommodated in the existing space in accordance with physical distancing regulations.

ENROLMENT OF LEARNERS

Kepler requires prospective learners to apply online. Those with limited access to technology or infrastructure are given access to laptops and the internet to complete their applications. Kepler's staff then evaluates applicants' responses and selects candidates for the entrance exam, which consists of cognitive tests and a Cambridge Michigan Language Assessment (CaMLA) test to assess their English proficiency.[8.1] Candidates who score highly on the test are invited for an interview, which is used to select candidates for enrolment.

Successful candidates then go through Phase 1 of the programme, an orientation phase that lays the groundwork for them to complete the required coursework and obtain their degrees. The orientation phase includes courses in professional competences and digital literacy. Learners are required to attend a minimum of 90 per cent of classes, and to complete 90 per cent of assignments on time. Those who complete the orientation phase successfully are given enrolment contracts and identification badges.

[8.1] CaMLA is designed to measure English language ability. It evaluates four different skills: listening comprehension, grammar, vocabulary and reading comprehension. For more information, see **https://creative.umich.edu/work/camla-website/**.

ASSESSMENT OF LEARNERS

Kepler and SNHU work together to track and assess learners in detail at every stage of the programme. Monthly reports monitor learners with regard to progress, attendance, participation, employment, graduation and attrition. Other information pertinent to the administration of the programme, such as internet use, is also gathered.

In Phase 2 of the programme, Kepler assesses language skills using internally created tests. All learners must complete a specific self-paced course and pass the tests before they can move on to Phase 3, during which they will study for a degree. If learners complete the course but fail the test, facilitators provide them with additional support to help them retake the test.

Since career and workforce development is such a strong component of Kepler's educational services, it employs a 'careers director' to respond to data and feedback from learners and employers. Among the many outcomes tracked by Kepler, priority is given to graduation and employment rates (the latter defined as full-time employment on a living wage). The programme can easily monitor graduation rates as it has direct access to learners' academic records from SNHU and other internal sources. After students graduate, Kepler mobilizes its careers department to track their employment outcomes, e.g. through follow-up surveys and phone calls.

TEACHING AND LEARNING APPROACHES

Kepler's approach to teaching and learning comprises the five programme phases outlined in **Figure 8.1**:

1. Orientation (Phase 1): Learners are given a six-week intensive orientation course introducing them to professional competences and technology. To continue in the programme, learners must demonstrate their commitment through 90 per cent attendance and 90 per cent punctual completion of assignments.
2. Self-paced skills-building in English, basic mathematics and technology (Phase 2): This phase begins with a 'do-it-yourself' learning module during which students learn how to manage their time, identify resources, use technology effectively, develop self-awareness, and reflect on their learning. Learners then move through individualized learning pathways based on pre-assessments. Online programmes such as IXL[8.2] and Khan Academy[8.3] are utilized in one-on-one and/or small group settings, targeting areas in which learners may be struggling. Learners can independently access news articles via Newsela, a platform offering a wide variety of news articles and related reading comprehension questions for various levels of reading proficiency. Kepler's course facilitators then engage learners in discussions of these questions, thus building their speaking, listening and critical thinking skills. Once learners have completed their individual pathways and passed a final assessment, they move on to the next phase of the programme.
3. Online Associate of Arts degree from SNHU (Phase 3): This competency-based, self-paced degree is easily accessible to learners, whose progress is further supported by Kepler academic advisors through one-to-one meetings and small group advisory sessions. Learners also complete in-person modules designed

[8.2] IXL is a subscription-based learning site for K–12. For more information, visit: **https://www.ixl.com/**.

[8.3] Khan Academy is an American non-profit educational organization created in 2006 by Sal Khan with the goal of creating a set of online tools to help educate students. For more information, visit: **https://www.khanacademy.org/**.

to build their professional competences and career readiness, and to help them connect US-based degree content with their local context. Learners must complete a panel review in order to move on to the next phase.

4. Internship (Phase 4): The Kepler careers team helps connect learners with both remote and in-person internship opportunities, each lasting between one and three months. Learners have the option of either pausing or continuing their studies during this phase.
5. Online bachelor of arts degree from SNHU (Phase 5): Like Phase 4, this phase includes advisory sessions with facilitators and Kepler-created modules. Once learners have mastered two-thirds of the required competencies, they may begin seeking internship and employment opportunities. Some learners finish their degree while working full-time. To graduate, learners must also complete a community service project and pass a panel review.

The teaching and learning model combines accredited online learning from SNHU with Kepler's in-person support services. The aim is to provide learners with an academic experience that prepares them for the workforce. Kepler's website describes its academic approach as follows (Kepler, 2021b):

> ***The innovative model of blended learning and competency-based education ensures students have the skills they need to succeed.***

The curriculum is designed to be delivered through a combination of blended learning, self-paced learning and in-person instruction. Facilitators manage the learning process, providing learners with the opportunity to discover things for themselves. Instruction can take place in small peer-to-peer groups, individually or online.

Curriculum decisions are made at two levels. First, an academic model is constructed at the senior leadership level. A decision is then taken at the campus level regarding which lessons to teach and which modules to offer. A curriculum development team works closely with academic and career teams to identify which module content is relevant and necessary. As the provider of the online degree content, SNHU is jointly responsible for developing and managing programme curricula.

Kepler-created modules cover a range and sequence of skills, individual lesson plans/resources, assessments and rubrics. The programme maintains a resource bank for each target skill. All instruction is competency-based, including assessments. Learners receive consistent feedback and revise their work continually until they have mastered a target competency.

While the initial Kiziba programme curriculum was highly structured, Kepler subsequently decided to transition to a self-paced model in which learners can take different amounts of time to finish their studies. This decision was reached at the ground level in response to Kizeba learners' needs: faculty had noticed that learners were progressing at different speeds and thus decided to promote them according to skill level rather than enrolment year.

Kepler sees its preparation programmes as key to its learners' success. Learners demonstrate high rates of attendance and submission of assignments, particularly at the start of the programme. Moreover, Kepler Kiziba considers its core strength to be its dual focus on academic achievement and workplace preparation. Key elements are the work-study programme and the mandatory professional internship. Learners furthermore particularly value the parental leave support, culturally sensitive follow-ups, and one-to-one mentoring offered by the programme.

RECRUITMENT AND TRAINING OF FACILITATORS

Kepler reports that it meets the appropriate standards for a professional educational delivery programme as regards to human resources and the recruitment and hiring of facilitators. In addition to fulfilling standard expectations with regard to communication and interpersonal competences, problem-solving skills and critical thinking, facilitators are required to hold a bachelor's degree, and to demonstrate proficiency in English and the use of technology.

The facilitator recruitment process starts by creating a job description, which is then advertised via the Kepler website and other online recruitment portals in Rwanda. The programme uses the BambooHR software[8.4] to manage applications and shortlist qualified candidates for phone interviews. After the interview phase, shortlisted candidates are invited to take written and practical exams, and are interviewed again on site. Successful candidates then receive a job offer and, upon acceptance, start the onboarding process.

As a rule, each facilitator serves 30 learners. Facilitators begin by co-teaching with an established facilitator for at least one term. Professional development sessions are provided weekly and quarterly depending on facilitators' needs. All facilitators are full-time paid employees. Remuneration varies according to their individual level of expertise. Kepler believes in active pedagogical approaches in which teachers act as learning enablers rather than content experts. It also strives to maintain a professional workplace environment at all times.

TECHNOLOGY INFRASTRUCTURE, MANAGEMENT AND USE

Kepler ensures that its learners have access to the technology they need to complete their degrees. This includes not only electronic devices and access to electricity but also access to Wi-Fi. According to a Humanitarian Education Accelerator (HEA) evaluation of the programme, Kepler provides learners with 'laptops, internet access, electricity, lunch, supplemental healthcare and counselling, and course materials to ensure adequate preparation for its programme' (UNHCR, 2019b, p. 16). Other devices, such as televisions, projectors, Remote Area Community Hotspots for Education and Learning/Network Attached Storage (RACHEL/NAS) and telephones, are available on campus. Learners and faculty also use a learning management system (LMS) to conduct operations.

Since April 2020, Kepler has provided learners with a stipend so that they can equip their phones with an internet connection; this enables them to use these phones as hot spots and access programme materials from home. The laptops provided to learners at school can also be taken home. This has allowed students to continue their studies remotely during the COVID-19 pandemic.

As mentioned above, each learner uses a laptop to access academic materials, work on assignments, browse the internet, and communicate with peers and facilitators. TV screens and projectors are available in each classroom for presentations by learners or staff. Local storage devices, such as RACHEL/NAS, are used by learners to access and/or share large files, such as videos, which would otherwise require a high-speed internet connection. While on campus, learners need the internet to

[8.4] BambooHR is an American technology company that provides human resources software as a service. For more information, see **https://www.bamboohr.com/**.

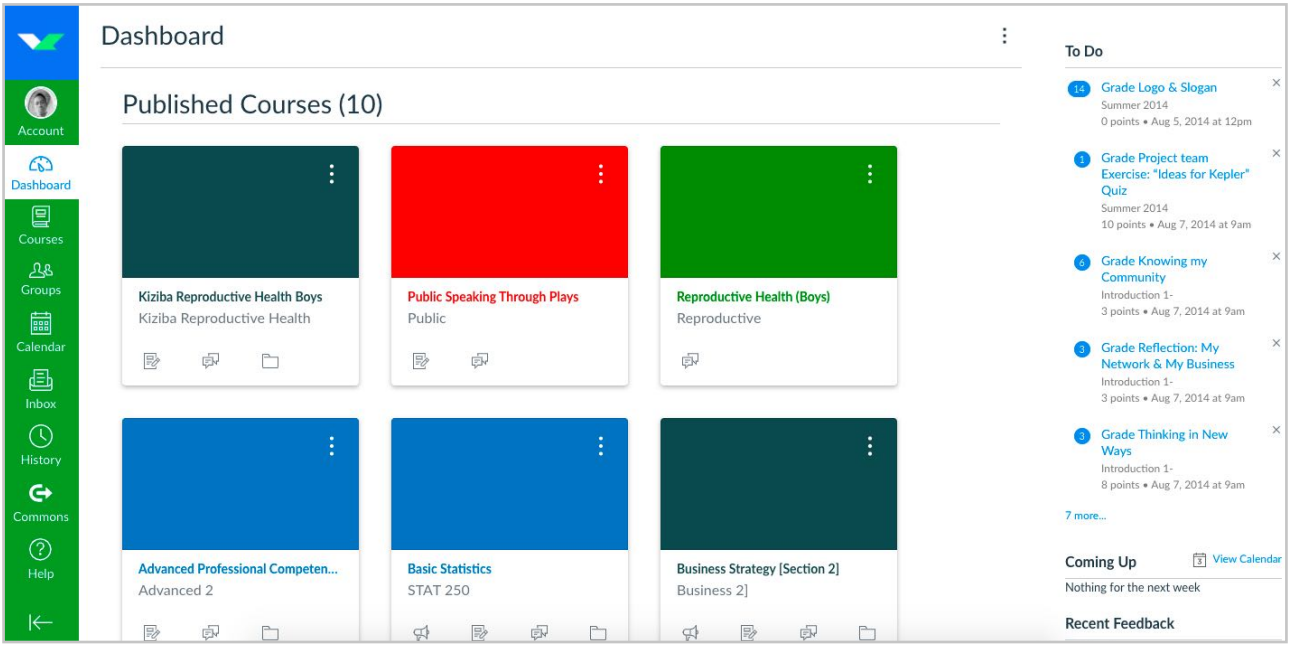

Figure 8.2: The Canvas LMS learner dashboard. *Source:* Kepler

complete their assignments. Kepler has therefore set up a Wi-Fi system that enables internet access to be shared and managed across the campus.

The LMS mentioned above are used by learners and teachers alike to communicate and record performance data, and to share feedback and academic materials; they include Google Classroom,[8.5] Canvas (see **Figure 8.2**),[8.6] Colibri[8.7] and IXL.[8.8] The programme also provides a telephone on campus that learners can use to access support from SNHU if they are having difficulty accessing their online degree platform.

Moreover, learners are encouraged to practise reading and critical thinking through the Newsela app,[8.9] which allows them to access a wide range of news articles at different reading levels.

At the outset of the programme, learners are required to participate in a digital literacy course to help build their digital skills and introduce them to the technology that they will use during the course. Learners spend the first few months learning to use this technology in an educational and work environment. On-site staff focus particularly on teaching students to use laptops to navigate the programme's various LMS and communication tools.

[8.5] Google Classroom is a free web service developed by Google that allows schools to create, distribute and grade assignments. For more information, see **https://edu.google.com/products/classroom/**.

[8.6] Canvas is a course management system that supports online learning and teaching. For more information, see **https://www.instructure.com/canvas**.

[8.7] Colibri is a group learning platform that can be used in schools. For more information, see **https://www.colibrigroup.com/learning-platform/**.

[8.8] IXL is a personalized, subscription-based K-12 learning platform used by more than 12 million students worldwide. For more information, see **https://uk.ixl.com/**.

[8.9] See **https://newsela.com/**.

Learners on the Kepler Kiziba campus develop their technical skills using laptops.[8.10]

PROGRAMME IMPACT

Kepler and SNHU track programme impact and achievements continually and use this data to guide their operations in the longer term.

The programme's impact on learners with regard to employment opportunities is significant. Kepler states that when learners begin their studies, they are either unemployed or underemployed in incentive/volunteer positions in the camps. The programme works closely with these learners to place them in internships that will improve their job prospects and secure employment following graduation that will enable them to support themselves and their families financially.

The general and specific benefits of the Kepler programme to learners, facilitators and the community at large are summarized in **Table 8.1**.

The Kepler Kiziba programme summarizes its

	Benefits to participants	Benefits to facilitators	Benefits to community
General	High-quality education Career guidance Recognition of learning achievements	Employment Opportunity for professional growth Strong professional network	Increase in the number of educated members of the community Employment Jobs for more than 25 community members monthly
Specific	Participants get a healthy daily lunch when classes are in session Healthcare (including mental health) Each participant receives a laptop that he/she owns upon completion of the programme	Transportation to and from work Housing stipend	

Table 8.1: Summary of the general and specific benefits of the Kepler Kibiza programme to participants, facilitators and the community. *Source:* Kepler

[8.10] The video can be viewed at **https://www.youtube.com/watch?v=dgcsWLuMdQU**.

main achievements as follows:

- Since 2015, 180 learners have enrolled in the programme;
- Approximately 66 students have graduated with a bachelor's degree;
- 100 per cent of graduates have completed a professional internship;
- Most graduates are currently employed or pursuing further studies;
- A 50/50 gender ratio has been maintained since 2016.

© Alex Buisse
Students celebrate at their degree ceremony.

TESTIMONIALS

Available learner testimonials reflect the ambitions of the Kepler programme. Niyonkuru Egide, a recent Kepler/SNHU graduate, shared his story in a blog post detailing how Kepler's career team supported him through the COVID-19 pandemic by helping him gain an online internship that paved the way to his current full-time job with Siriforce as a Quality Assurance Officer.[8.11]

© Alex Buisse
Kepler/SNHU graduate Niyonkuru Egide.

Gentille Dusenge, another recent Kepler/SNHU graduate, similarly shares her story in a Kepler blog post.[8.12] Because of her refugee status, Gentille thought she had no chance of receiving a decent education until she found Kepler:

> ***With Kepler, my refugee status didn't matter. They just considered my commitment and performance. They believed in refugees. My dreams were reborn.***

Today, Gentille is a successful graduate in healthcare management and is employed in the humanitarian sector as a Community-based Protection Intern with UNHCR, working primarily with youth from Rwandan refugee camps.

[8.11] The blog post, entitled 'The Value of Gaining Professional Experience before Graduation', is available on the Kepler website at **https://www.kepler.org/the-value-of-gaining-professional-experience-before-graduation/**.

[8.12] The blog post, entitled 'Daring to Dream: How Kepler grad Gentille Dusenge is building a better future', is available online at **https://www.kepler.org/daring-to-dream-how-kepler-grad-gentille-dusenge-is-building-a-better-future/**.

© Alex Buisse
Kepler/SNHU graduate Gentille Dusenge.

Another learner, Tujiza Uwituze, praises the programme's self-paced design:

> ***[It] allows students to learn by themselves. The teacher is not a teacher; he/she is a facilitator of discussions so that you have multiple perspectives on an idea.***

In a video produced by Kepler, Tujiza expands on her experience as a learner in the programme, which she credits with developing her critical thinking skills.[8.13]

Kepler student Tujiza Uwitze.[8.14]

In another blog post, student Clarisse Uwamahoro discusses the many challenges that came with the COVID-19 pandemic, such as a lack of electricity and internet connectivity.[8.15] She highlights how supportive the Kepler programme has been throughout:

> ***Kepler provided an internet stipend every month. We work on projects collaboratively and help each other understand feedback. Kepler also provided online courses, like a negotiation module that helped me grow professionally.***

© Alex Buisse
Kepler student Clarisse Uwamahoro.

Further video testimonials from Kepler learners are available on the programme's YouTube channel.[8.16]

[8.13] The video can be viewed online at **https://youtu.be/tAuf9LrLtmA**.

[8.14] The video can be viewed at **https://www.youtube.com/embed/tAuf9LrLtmA?feature=oembed**

[8.15] The blog post, 'Study with me: A snapshot of Kepler Kiziba with star student Clarisse Uwamahoro', is available at **https://www.kepler.org/study-with-me-a-snapshot-of-kepler-kiziba-with-star-student-clarisse-uwamahoro/**.

[8.16] See **https://www.youtube.com/channel/UCg3PqnRku-nXD4cRu2USksw**.

CHALLENGES

Various challenges have made it difficult for the Kepler programme to achieve its aim of enabling refugees in a remote area to attain a higher education qualification. Limited access to electricity and the internet posed a particular problem. This was resolved by purchasing and installing a large solar energy system, and commissioning internet providers to install special access points on the Kepler campus.

Learners also have varied educational backgrounds and do not always have similar amounts of time to study, making it challenging to offer a highly structured programme. As a result, Kepler has developed and implemented a self-paced and self-sufficient model that allows learners to work during the day and study in the late afternoon or evening.

Another challenge was the recruitment of qualified female candidates. Some found it difficult to balance their home responsibilities with their studies, and consequently considered dropping out halfway through the programme (Nyirakageme, 2019). Kepler therefore introduced a parental leave option, making it easier for women to remain in the programme. Kepler also offers a preparatory programme that focuses on achieving gender equity and preparing young women to be more competitive during the admissions process.

© Alex Buisse
Female learners using laptops in class.

Lastly, the COVID-19 pandemic interrupted the delivery of Kepler's educational services. As previously noted, Kepler responded by providing internet stipends and allowing learners to take their laptops home. They also offer academic and career support remotely when the campus is forced to close. Most recently, it has become increasingly difficult for programme graduates to find employment after completing the programme. Rising unemployment, the financial crisis in Rwanda, and the restrictions on movement contingent upon the COVID-19 pandemic have prevented many Kiziba students from attending job interviews, accepting positions, and so on. This issue has yet to be resolved.

STAKEHOLDERS AND PARTNERSHIPS

The Kiziba programme benefits from being part of the larger Kepler and SNHU network. Contrary to other Kepler campuses, learners at Kiziba study for free. The IKEA Foundation is one key source of financial support and Kepler is constantly seeking new funding and funders to support its work. Kepler has also established extensive career/employer partnerships in its project areas, in keeping with its emphasis on providing learners with internships and directing them towards employment opportunities.

FUTURE PLANS

Kepler is in the process of finalizing an accreditation process prior to launching its first blended bachelor's degree in Rwanda. This will allow Kepler to serve a larger number of students on the Kigali campus. Moreover, in late 2020, Kepler partnered with two public polytechnics in Addis Ababa, Ethiopia, to launch a pilot graduate employment programme that focuses on filling critical gaps in recent graduates' soft skills with regard to communication, problem solving and professionalism. Kepler hopes to

expand this programme while continuing to pilot new pathways to employment for youth in East Africa. At the same time, the success of the Kiziba programme has led SNHU to request that Kepler replicate their partnership model in other regions. As a member of the Global Education Movement, Kepler currently collaborates with several partners in Kenya, Malawi, South Africa and Lebanon, and plans to continue expanding its partnerships in future.

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Kiron Campus, Germany

9

Programme title	Kiron Campus
Implementing organization	Kiron Open Higher Education GmbH
Location	Germany, Jordan, Lebanon
Language of instruction	Multiple languages including learner's first language
Date of inception	2015
Programme partners	50-plus higher education institutions in Germany, Jordan and Lebanon
Funding	Government, private sector, international and national foundations, individual donors
Annual programme costs	Approx. USD 3,521,000
Annual programme cost per learner	Undisclosed
Annual cost of the digital tool	Undisclosed
Digital tool(s) used	MOOCs, Google Play
Target population	Refugees seeking higher education, access to labour market, and life-long learning opportunities
Learner age	18+, with the majority aged 26–40
Learner to instructor ratio	20:1
Target skill(s)	Business and economics, university prep, English language courses, literacy for economic self-sufficiency, literacy and vocational education and training, job-related skills and higher education opportunities
Impact	14,000 learners globally; over 73,000 course enrolments; over 21,000 course completions; 100 learners to university.
Programme website	**https://kiron.ngo/en/**

BACKGROUND

In Germany, an estimated 1.77 million refugees live among the general population of 83 million people (World Bank, 2020a). In 2016, Germany emerged as the largest European recipient of asylum applications, mostly from the Syrian Arab Republic, Iraq and Afghanistan (Unangst, 2017). There are currently over 6 million adults in Germany with low literacy skills, 50 per cent of whom speak German as a second language.

As the country with the highest GDP in Europe (IMF, 2020), Germany has the fourth-largest ICT market in the world. According to 2017 data, 92 per cent of German households have access to a computer and internet connection (World Bank, 2020b). However, high-speed internet is still a challenge in the country's rural areas (Franz, 2020), and even in urban areas, a digital divide exists for users speaking languages that are underrepresented online (Wiggers, 2017).

Refugees in Germany are mostly concentrated in urban areas (Katz et al., 2016) and rely on ICT as a path to social inclusion and community building, financial well-being via access to mobile banking and labour markets, education and health information (Patil, 2019). Refugees typically work in lower-paid roles, which have been hit hardest by the COVID-19 pandemic, leading to a large increase in unemployment and higher demand for education and skills training (Keita and Dempster, 2020).

The Kiron Campus programme was launched in Germany in 2015. Its founders were aware at the outset that, according to the United Nations High Commissioner for Refugees (UNHCR), 'less than 3% of refugees, asylum seekers and internally displaced people globally have access to higher education' (UNHCR, 2019). They sought to address the needs of this population by delivering education services in ways available to them. The Kiron programme was formed to address the education needs of refugees, seeking to provide access to higher education and identifying its mission as enhancing the academic, professional and personal growth of its learners (Kiron, 2019).

While primarily an online educational services provider, Kiron has expanded (pre-COVID) to limited in-person offerings in Germany, Jordan and Lebanon, and partners with 50 higher education institutions. Its website, **Kiron NGO**, illustrates its educational services in a robust, professional format which appeals to young adult learners.

OVERVIEW OF THE PROGRAMME

Intended for adult learners, Kiron's learning programmes are mostly massive open online courses (MOOCs).[9.1] MOOCs became popular in the 2010s as more universities began to offer classes online to anyone who wanted to take them. Generally, MOOCs are free, but some require payment if the user desires certification.

Kiron offers free MOOCs not only to learners who are interested in higher education but also to learners interested in lifelong learning, as well as job market readiness. Language learning is also available to allow learners to build the skills required for higher education or the jobs market. Through Kiron, learners can earn certificates in digital literacy and twenty-first skills, professional skills, and a range of academic topics, among many others.

Kiron's classes are for both beginner and advanced tech users. They occur in synchronous (virtual live lessons) and asynchronous (self-study) formats, and include an onboarding module to address tech readiness and online

[9.1] MOOCs are courses delivered online and accessible to all for free. For more information, visit: **https://www.mooc.org/**.

learning for those who may need an extra step before beginning their coursework.

On its website, Kiron (2020a) identifies itself as:

> ***[R]edefining the way refugees and underserved communities access high quality education. Our team is international, agile and dedicated to our mission of making quality education accessible for all.***

Kiron has an international reach and brings together a large group of people from various walks of life, including education experts, technical experts, designers, project managers, communicators, grant writers, researchers and innovators, all of whom work together to fulfil Kiron's mission.

PROGRAMME OBJECTIVES

With the primary aim of empowering refugees and ensuring a strong future workforce, Kiron lists several programme objectives. The common thread among these objectives is the provision of equal and easy access to quality education for all.

The specific programme objectives listed by Kiron are as follows:

- To empower refugees and underserved communities by providing them with barrier-free educational opportunities. By equipping refugees with access to academic, professional and language learning courses, they develop skill sets that ultimately lead to increased prospects of building a better future;
- To deliver high-quality learning opportunities to the most marginalized user, i.e. those with limited or no internet access, outdated devices, and challenging living situations;
- To expand digital literacy skills. Ongoing dialogue with policy-makers is therefore part of Kiron's perpetual field of action.

LEARNERS

Kiron takes into account the unique characteristics of its learners in terms of their first language and educational interests. It currently provides instruction in multiple languages, including English, Arabic, Spanish and Turkish, since most of its learners currently reside in Germany, the Syrian Arab Republic, Jordan, and Turkey.

Realizing that most refugees do not have access to advanced or state-of-the-art technology, Kiron's services are designed for low-bandwidth conditions and for smartphone users. It also recognizes that the majority of its users are in the 26–40 age range. Only 23 per cent of learners are female; Kiron has identified this as an issue that needs to be addressed.

Kiron offers an inclusive and low-threshold programme entrance (ibid.):

> ***We provide access to education for refugees who lack the documents and/or language skills to participate in educational opportunities in the host country, or specific study skills to enter a university or find a job.***

Kiron is particularly committed to promoting UN Sustainable Goal (SDG) 4, which calls on countries to ensure 'inclusive and quality education for all' (UN DESA, 2022). An example of this commitment can be found in a short promotional video developed by Kiron of programme alumnus Mohamad, who went on to a career in IT after earning his Google IT Support Professional Certificate with Kiron Campus.[9.2]

[9.2] Mohamad's story can be viewed at **https://youtu.be/IWxfF9K1eS0**.

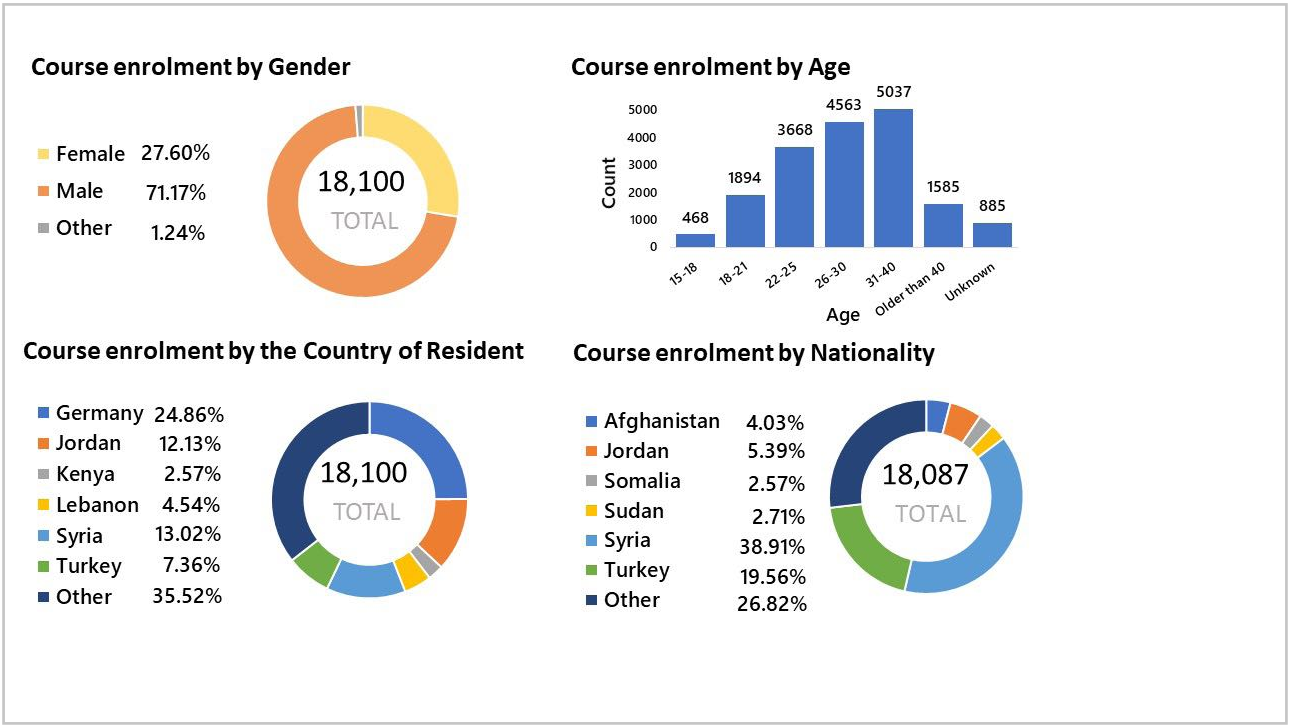


Figure 9.1: Overall course enrolment by gender, age, country of residence and nationality. *Source:* Kiron, 2019.

© Kiron Open Higher Education
Mohamad, who comes from the Syrian Arab Republic, credits Kiron with his new career in IT.

LEARNER ENROLMENT

Learners are recruited via social media platforms such as Facebook and Instagram. Kiron relies on personal recommendations as well as the input of its organizational partners to identify learners who would benefit from its services. Kiron cites this selectivity as a contributing factor to its higher completion rates (24%–25%) in comparison to other online MOOCs (2%–10%). An English language assessment is not required for enrolment. **Figure 9.1** provides a more detailed breakdown of Kiron's cohorts by gender, age, nationality and country of residency..

The enrolment process at Kiron is easy and straightforward. Interested learners are required to provide their first name, last name, current country of residence, nationality and email address. Date of birth is also required, as students must be aged 18+ to register. The remainder of the questionnaire is optional.

Kiron's registration process takes place online on their **website**. For registrants in Jordan and Lebanon, the website informs learners that the only documentation needed for successful registration is proof that the learner is a refugee, asylum-seeker, internally displaced person, Jordanian or Lebanese.

The Kiron website guides potential new learners through registration and beyond via a five-step process that is easy to follow and to understand. The registration process includes the following:

1	Apply (with the click of a button)
2	Choose a goal (skill booster programmes, business and economic study tracks, university preparation, English language)
3	Get started and learn at your own pace
4	Be part of a community
5	Gain new skills and advance to the next level

Kiron has its own YouTube channel which lists information and videos for prospective learners. The YouTube channel also offers a glance into the journey of Kiron Campus and profiles of some of its learners: **Kiron Open Higher Education**.

LEARNER ASSESSMENT

Kiron has set up various support structures to encourage learners to deepen their knowledge, develop critical thinking, and enhance their communication skills. These include language classes, personalized guidance and ongoing feedback measures such as assessments, quizzes, and ratings. Kiron reports that such structures not only help learners build their knowledge and skills, but also provide Kiron with opportunities to reflect on their progress and consider ways to improve.

Additionally, all learners are given the opportunity to take an optional course in online learning if they feel they need it. The course also includes an introduction to the Kiron learning management system (LMS) for learners who may be unfamiliar with using one.

Each MOOC has its own assessments built into the course by the instructor. These assessments are based on quizzes and other graded activities. Although Kiron's educational services are primarily intended for self-study, some courses do provide the opportunity for live lectures, including individual tutoring.

Learners can manage their educational journey with the help of Kiron's 'Achievement Page'.

On this page, learners can get an overview of their educational goals and progress by viewing data such as number of days using the LMS, number of courses taken and/or completed, and certificates received.

Kiron is adept at data collection and monitoring. It can provide data on topics such as:

- overall course enrolments: 73,568
- all-time course completions: 21,067
- average course completion time: 33 days
- course length in weeks: 5.48

Kiron closely monitors its learners and the work they are doing. The digital format allows Kiron to analyse metrics such as how many times a learner has used the app, how many courses they have started, and so on. For instance, Kiron reports that learners tend to participate in multiple courses simultaneously.

> ***More than 40 per cent of learners study computer science, 26 per cent business and economics, 15 per cent social work, and 55 per cent participate in additional skill booster or language learning courses (Kiron, 2019).***

TEACHING AND LEARNING APPROACHES

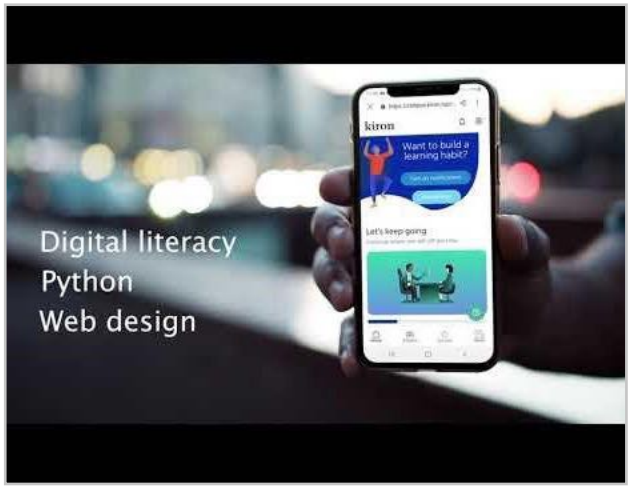
Although Kiron offers a wide range of courses, its overall purpose is to focus actively on learning outcomes by providing flexibility and allowing for learner ownership. Kiron also helps its learners to achieve their full potential by motivating them to develop effective knowledge and skills. Refugee and migrant learners are encouraged to develop 'visual, auditory, and social learning styles' (ibid.).

The LMS instructional design of Kiron Campus takes its users' unique circumstances into account. Due to their situation as refugees, most learners have little bandwidth available for study,

and do not necessarily have access to modern technological devices. Courses are therefore designed to be taken online using smartphones and can occur in both synchronous and asynchronous formats. Kiron provides round-the-clock support for its learners, who can be beginners, intermediate, or advanced learners in terms of content and/or technology skills.

Kiron seeks to offer learners instruction that is self-paced and free from 'hard deadlines', occurring in small, meaningful chunks. Courses are optimized for mobile learning and supplemented with any additional tools or support required. Learner engagement is ensured through self-regulated learning, microlearning and mobile learning.

Kiron has a Learning Experience team to lead its instructional decisions, working in conjunction with other departments across the organization. It uses the ADDIE[9.3] framework for instructional design. Its focus is currently driven by learner demand: language learning, digital learning, entry-level professional skills and higher education. The Kiron programme offers MOOCs, self-developed (and taught) courses, as well as live sessions and tutorials.



© Chiquita Clarissa
Kiron Campus produced a YouTube video, Skill Booster Programs for the Future Workforce, to promote digital literacy skills development.[9.4]

RECRUITMENT AND TRAINING OF FACILITATORS

Kiron traditionally offers blended learning services in Jordan and Lebanon (a combination of online and in-person learning) and an online-only format globally. However, during the COVID-19 pandemic, all blended learning courses in Jordan and Lebanon moved online. For the online courses offered internationally, the ratio of facilitators to learners is 1:20. Kiron hires and trains part-time paid staff who are required to have a high level of technological skill and English language proficiency. Teachers are given a month-long training, which is available via MOOC and in person. As part-time paid employees of Kiron, facilitators deliver the content designed by Kiron itself (not the MOOCs) and are paid according to the programme or project for which they work.

Kiron selects local individuals to teach its courses and makes every attempt to hire teachers who are already familiar with the programme. As well as high digital literacy skills and English

[9.3] ADDIE is a conceptual framework that helps educators and trainers build a course or training programme. For more information, visit: **https://www.digitalhrtech.com/addie-model/**.
[9.4] The video can be viewed at **https://youtu.be/yBbaUrUeDT4**.

language proficiency, all facilitators are required to demonstrate knowledge of the subject matter they will teach, and must be available to work in the afternoons.

TECHNOLOGY INFRASTRUCTURE, MANAGEMENT AND USE

Kiron labels itself an ed-tech non-governmental organization (NGO). Its method of education delivery utilizes ICT almost exclusively, providing 40 learning modules to over 11,000 learners virtually. Kiron has developed its own LMS, the Kiron Campus, to provide virtual classroom space and academic support, while fostering an online community among learners. In addition to the support structures (see the section 'Learner assessment') in place for its learners in ICT format, Kiron offers both asynchronous courses available 24/7, and scheduled live sessions.

Kiron's services can be accessed with a software app available on Google Play. This enables learners to use a smartphone to register and start their learning journey.

Kiron appeals to younger adult users by highlighting its platform in a visually interesting way. The 'rewards' category is gamified to encourage learners to use the site. Kiron has live support available through its website, Kiron Campus (Kiron, 2020a), for learners when they need it.

PROGRAMME IMPACT

Kiron seeks to break down the barriers faced by groups such as refugees, asylum seekers and internally displaced persons by focusing on technology access, legal documentation and overcoming language barriers.

The Kiron programme has served more than 14,000 learners in Germany, Lebanon and Jordan to date. More specifically, the programme has more than 73,000 course enrolments and more than 21,000 course completions. Kiron boasts higher-than-average MOOC completion rates (24–25% versus 2–10% average MOOC completion). It has sent 100 learners to university, with its first graduates in 2018. Kiron hopes in future to provide potential new funders with online assessment scores, such as pre- and post-course tests, to show that learners on their programme make educational progress as a result of their services.

Kiron monitors its users to determine their needs and makes adaptations accordingly. This kind of user information has caused Kiron to move from an original emphasis on higher education to its current focus on job skills and workforce readiness. To track this data, Kiron should ask incoming learners about their English language skill levels and employment status and/or availability. Being able to show potential funders gains in these areas would help Kiron secure additional funding.

TESTIMONIALS

In the words of Kiron learner Abdullah:

> ***Back in Syria, I had always dreamt about studying computer science. Kiron gave me the opportunity to finally fulfill this dream.***

Abdullah's testimony reveals the need for online courses and shows how Kiron is part of a global effort to make the dreams of learners such as Abdullah become reality.

	Benefits to participants	Benefits to facilitators	Benefits to community
General	• Access to educational resources on a professional and academic level • Access to English and German language courses • Access to psychosocial support • Access to Kiron Campus in low connectivity areas (via the development of the Kiron app)	• Ability to expand and improve on the digital literacy skills required for successful teaching online	• Better equipped professionals and future university learners with the right academic and non-academic skills • Greater digital literacy of all participants
Specific	• Increased digital literacy skills • Increased self- confidence • Increased time management, organization, and learning skills	• Increased competences in working in multicultural environments with sensitive issues	• Increased integration of learners within their new communities and host countries

Table 9.1: Kiron's general and specific benefits to participants, facilitators and the community.

Learner testimonials are easy to access on **Kiron's YouTube channel**. One such testimonial is by a learner named Asmaa who speaks about the singular opportunity that allowed her access to the world of computer science.

© Anne Parsons for Kiron Open Higher Education
Learner Asmaa discusses the impact the programme has had on her in a YouTube video produced for Kiron Campus.

Another testimonial that showcases Kiron's effectiveness is the story of a learner named Enes:

© Anne Parsons
Kiron details Enes's academic journey in **Story of Change: Enes** *(Kiron, 2020b)*

CHALLENGES

Kiron currently relies on outside funding so that its learners can study for free. Fundraising is a top priority. Since it does not require assessment for enrolment, Kiron is unable to demonstrate learning gains in terms of examination scores. Instead, it uses learner self-reporting and other qualitative research in its documentation. Kiron acknowledges the need to provide tangible data on learning outcomes in order to secure future funding.

Another challenge facing the programme in an imbalance in enrolment in terms of gender: only 23 per cent of Kiron's learners are women. It has targeted recruitment as an area that needs improvement. Kiron relies on word of mouth and partner organization recommendations for learner enrolment.

Kiron also acknowledges that it needs to better promote a universal design for learning (UDL) approach so that its courses are accessible to the widest possible group of people. Although the majority of Kiron's learners come from non-Western countries, its MOOCs and other classes are primarily based on a Western educational design.

STAKEHOLDERS AND PARTNERSHIPS

Kiron was the beneficiary of a EUR 2 million startup donation by the **Schöpflin Foundation**. It lists among its partners international NGOs, governments, private sector and foreign donors.

The higher education component of Kiron's mission requires partnerships with educational providers such as Coursera and Salyor Academy, well-known MOOC platforms that provide educational content at university level. Kiron also maintains relationships with universities and other institutions of education in Germany, Jordan and Lebanon, so that Kiron learners who have completed their coursework can transfer to these institutions to continue their higher education.

FUTURE PLANS

Kiron seeks to address several challenges in the coming years; for example, plans to procure data that will assist in multiple pathways: instructional design, methodology and assessment, enrolment, and funding. Kiron also seeks to expand its presence geographically to Latin America, primarily Colombia, and Kenya. Colombia has been chosen due to the large influx of Venezuelans fleeing their country and taking refuge there, while Kenya is the location of the largest refugee camp on the African continent.

Kiron views its for-profit LMS as a funding source and plans to expand its development and distribution to supplement financial gaps. The LMS is intended to be adaptable to context, which requires considerable resources in terms of development and design as well as customer service. By sharing its LMS model with other organizations for a fee, Kiron hopes to fund its own pro-bono work.

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Learning Coin, Thailand

10

Programme title	Learning Coin
Implementing organization	UNESCO Bangkok
Location	Thailand
Language of instruction	A combination of first and second languages, including Thai, Burmese and Malay
Date of inception	2018
Programme partners	Ministry of Education Thailand, True Corporation, Foundation for Rural Youth, Chulalongkorn University
Funding	POSCO 1% Foundation, Equitable Education Fund
Annual programme costs	USD 324,000
Annual programme cost per learner	USD 270 (tablet = USD 150; internet = USD 120)
Annual cost of the digital tool	USD 5,150
Digital tool(s) used	Tablets with internet SIM cards, LearnBig digital library app
Target population	Migrant children and youth
Learner age	7–25 years
Learner to instructor ratio	1:1 – 1:10
Target skill(s)	Multilingual literacy
Impact	605 learners so far
Programme website	**https://bangkok.unesco.org/content/learning-coin-project**

BACKGROUND

Today, an estimated 4 to 5 million migrants from Cambodia, Lao People's Democratic Republic (Lao PDR), Myanmar and Viet Nam are living and working in Thailand (IOM Thailand, 2021). In addition, according to the United Nations High Commissioner for Refugees (UNHCR), there are some 97,000 refugees living in Thailand, the majority of whom come from the neighbouring country of Myanmar (UNHCR, 2021). To date, Thailand is not a signatory of the 1951 Refugee Convention and thus neither recognizes refugees' rights nor provides them with specific support. This picture is made starker by the 2021 military coup in Myanmar that has caused further unrest and displacement of people in the region. The impact of the coup and its long-term effects on Myanmar's society, culture and education remain to be seen. It is in this context that the literacy needs of migrants and refugees must be understood and addressed.

More than 200,000 migrant children are estimated to be out of school in Thailand and deprived of any form of education (IOM Thailand, 2019). Many migrant families are stateless and have no relevant official documents or legal status to access public school education in Thailand. Moreover, many of them have low levels of literacy, in both their mother tongue and Thai. For those who do attend school, there is a lack of support services and quality learning materials for multilingual learners, especially in remote rural locations. Textbooks are often the main teaching and learning tool at community learning centres (CLCs) and schools in low-income areas, yet many learners do not own copies of these textbooks (Chabbott and Sinclair, 2020). During the COVID-19 pandemic, this left many learners at home without access to learning materials.

Family poverty is a particularly grave challenge, causing children and youth to drop out of school in order to support their families financially. About 8 per cent of the migrant and Thai population in Thailand lives below the poverty line, working in low-paid agricultural and construction jobs (SOS Children's Villages, 2021). This economic deprivation is a leading cause of child labour (Praphornkul, 2019). According to UNICEF, the official survey data from Thailand's National Statistical Office (NSO) in 2015 indicated that 312,675 children and youth aged 5–17 are engaged in child labour in Thailand. (UNICEF, 2017). After dropping out of school, it is rare for these children to return and complete their basic education.

OVERVIEW OF THE PROGRAMME

The Learning Coin project promotes literacy and reading among ethnic minority, stateless and marginalized migrant children and youth in Thailand by incentivizing the use of the LearnBig mobile app through conditional cash transfers (CCTs).[10.1] LearnBig is a multilingual, open digital library containing over 1,400 textbooks, reading books and teaching materials for use by learners and educators. These are available in a variety of scripts in Thai, Burmese, Malay and ethnic minority languages, including Karen, a Sino-Tibetan language spoken by populations in southeast Myanmar and western Thailand. Learners are recruited from CLCs and schools in Thailand, provided with tablets pre-loaded with the LearnBig app, and equipped with a SIM card to enable access to the internet. Learners' app usage and reading progress is monitored by both tracking technology and teachers, and is rewarded through monthly cash stipends to parents (see **Figure 10.1**).

[10.1] Conditional cash transfers provide funds to individuals or families who, in return, fulfil specific behavioural conditions.

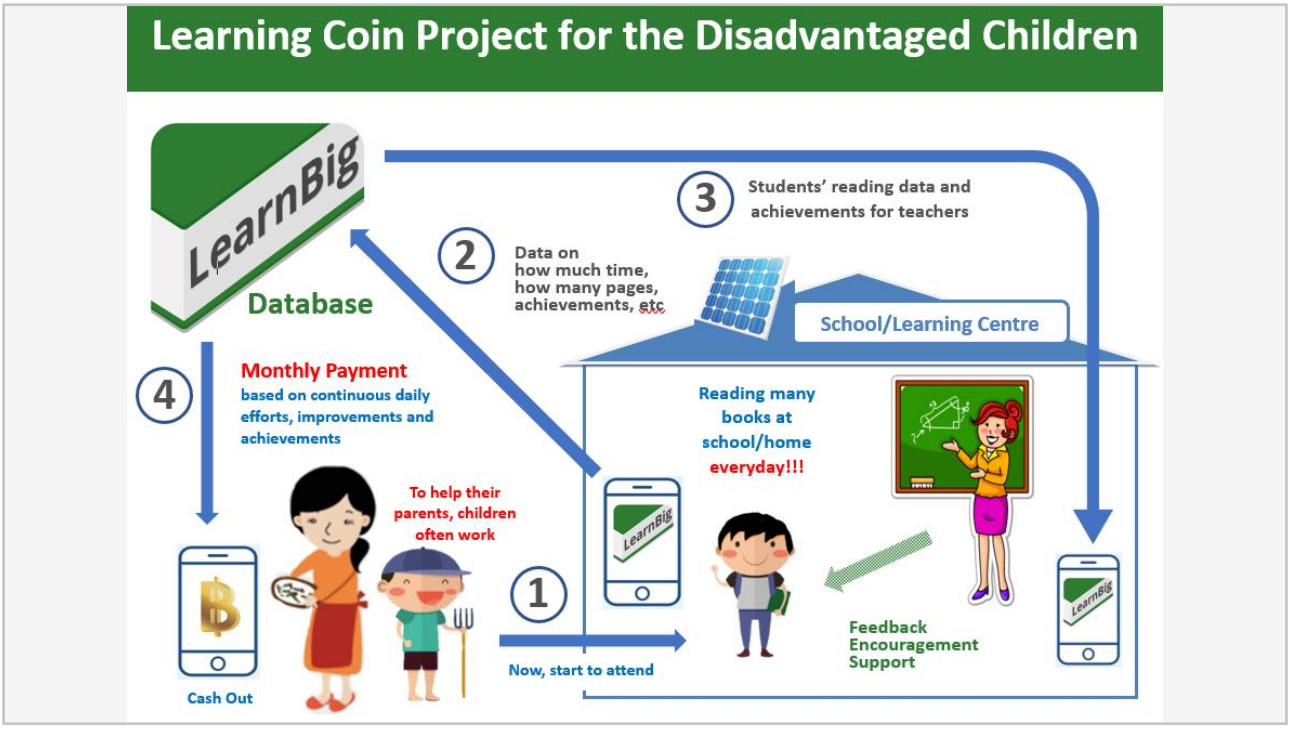

Figure 10.1: Programme overview: Learning Coin's LearnBig app and CCT incentive. *Source:* Ichiro Miyazawa, UNESCO Bangkok

The LearnBig digital library and the Learning Coin project are run by UNESCO Bangkok, in collaboration with various partners, as part of its work towards the achievement of Sustainable Development Goal (SDG) 4: Inclusive quality education and lifelong learning for all by 2030.[10.2] A regional bureau since 1961, UNESCO Bangkok provides UNESCO Member States and antenna offices in the Asia-Pacific region with technical expertise and assistance, knowledge sharing opportunities, and monitoring and evaluation support.

PROGRAMME OBJECTIVES

Learning Coin is designed to promote literacy, non-formal education and lifelong learning for disadvantaged children, youth and adults under the guiding principle of a human rights-based approach to education. More specifically, the aims of the project are to:

- promote learning and reading habits by providing educational support and multilingual reading content to out-of-school and marginalized migrant children and youth in Thailand;
- reduce the number of learners dropping out of school for financial reasons by providing cash incentives to parents;
- provide training and professional development for educators through ICT-integrated lesson plans.

LEARNERS

In 2018, an initial pilot programme was conducted with support from the POSCO 1% Foundation. This pilot served 150 migrant learners from Myanmar aged between 7 and 16 living in urban and suburban areas of Bangkok and the province of Pathum Thani. While some were still learning the basics of their mother tongue through non-formal education

[10.2] For more information on SDG 4, see UNESCO, 2019.

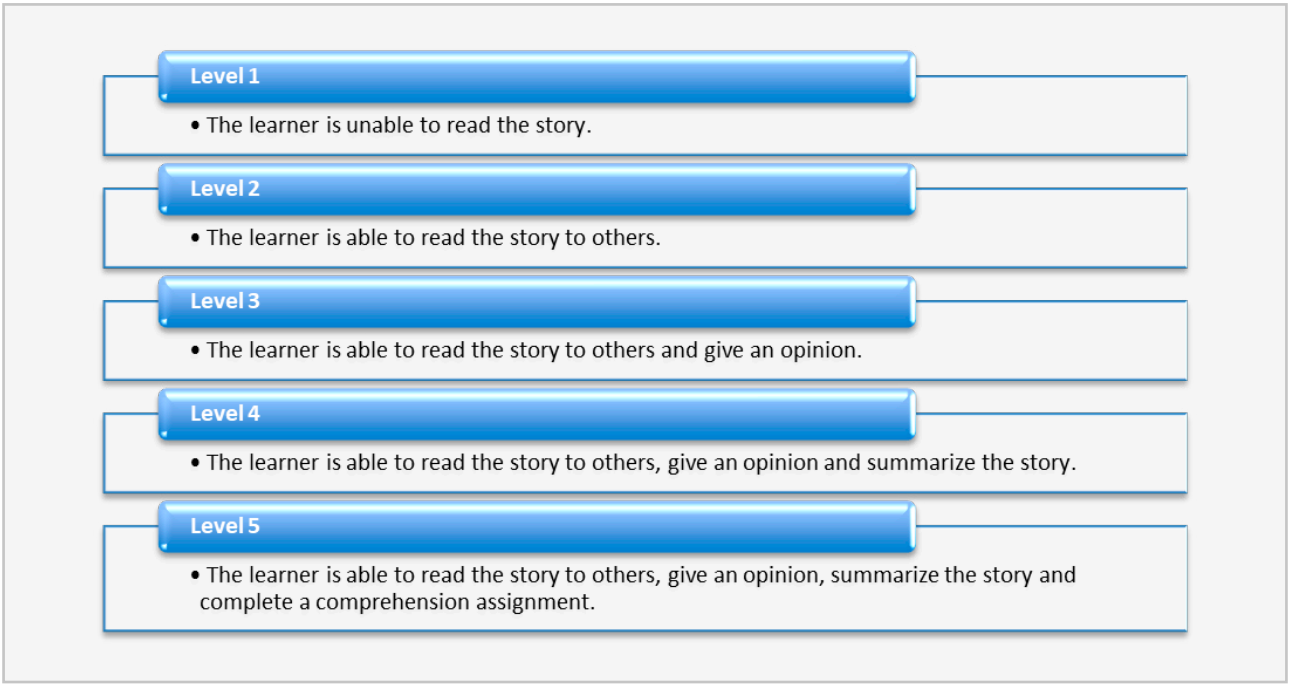

Figure 10.2: The five levels of reading proficiency. *Source:* UNESCO Bangkok

programmes for Burmese children offered through CLCs, others were enrolled in Thai non-formal education programmes, and were starting to learn the language of their host country.

In 2020, a second, larger pilot was conducted with support from the Equitable Education Fund to serve 454 learners, including migrant learners in rural Thailand and marginalized Thai children. Learners participating in the second pilot were older (aged 7–25) and all were enrolled in Thai non-formal education programmes at CLCs. They were distributed across four provinces in Thailand: Mae Hong Son (125 learners), Nakhon Nayok (125 learners), Yala (125 learners) and Bangkok (79 learners). Male learners (264) were slightly more highly represented in the programme than female learners (190).

For both pilots, parents who benefited from CCTs were mostly daily-wage workers with an average income of 8,000–9,000 Thai Baht (or approximately USD 270) per month.

LEARNER ENROLMENT

In order to enrol in the Learning Coin project, learners must have basic literacy skills in one of the languages offered. The programme targets learners at risk of dropping out of the non-formal education programme that they are attending at their local CLC, or who need supplementary tools to improve their literacy. The Learning Coin project works closely with teachers at CLCs to identify learners who fit one or both of these criteria.

An initial assessment is conducted to determine learners' literacy level and learning needs. In groups of between three and five, learners read a Thai-language book together. They then complete exercises and present the story to a larger group of learners. Based on the reading comprehension skills that they demonstrate during these activities, learners are sorted into one of five levels (**Figure 10.2**).

Around 20–30 learners were assigned to each level following the first pilot assessment. This determines which LearnBig reading level each learner should select initially, and also serves as a useful point of reference when assessing learners' progress during the programme.

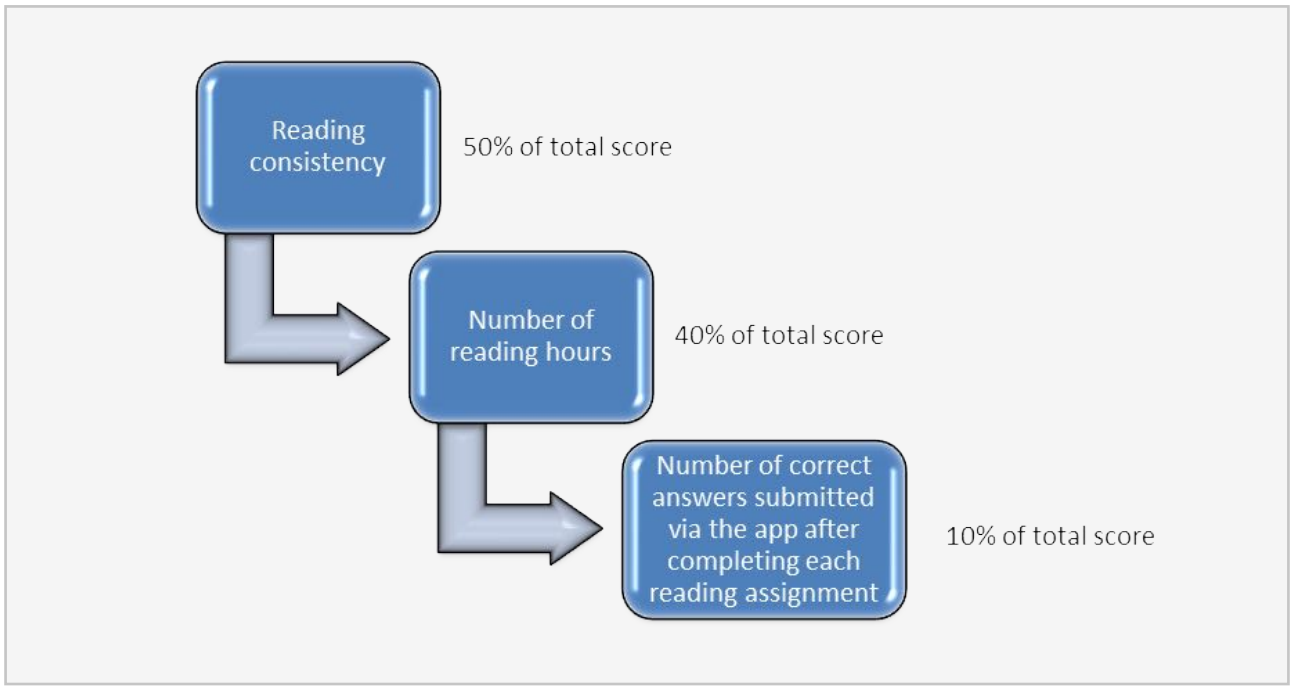

Figure 10.3: The three criteria for calculating learners' monthly reading scores.
Source: UNESCO Bangkok

Learners and their families are provided with an orientation session at the start of the programme.[10.3] They also receive a tablet preloaded with the LearnBig app, and equipped with a SIM card to enable internet access. A survey of learners enrolled in the first pilot programme indicated that all were willing to utilize mobile devices, even though most of them were first-time users with limited digital skills.

© Pornpilin Smithveja, UNESCO Bangkok
Learning Coin learners using tablets to access the LearnBig app.

Reading materials can be accessed from anywhere provided that a stable internet connection is available. Some learners find it motivating to attend CLCs in person to read alongside their peers, while others prefer to access reading materials from home where they can manage their time more flexibly, and can encourage family members to read along with them.

LEARNER ASSESSMENT

Learners who engage with reading materials on the LearnBig app are given a monthly score based on three criteria: (1) how often they read materials on the LearnBig app (i.e. reading consistency); (2) how many hours they spend reading materials on the LearnBig app; and (3) the number of correct answers (evaluated by teachers) they submit via the app after completing each reading assignment. These criteria are measured through LearnBig's online monitoring system and used to generate one overall score each month (**Figure 10.3**). When

[10.3] The LearnBig orientation video is available on YouTube at **https://www.youtube.com/watch?v=CJpOxVccHqE**.

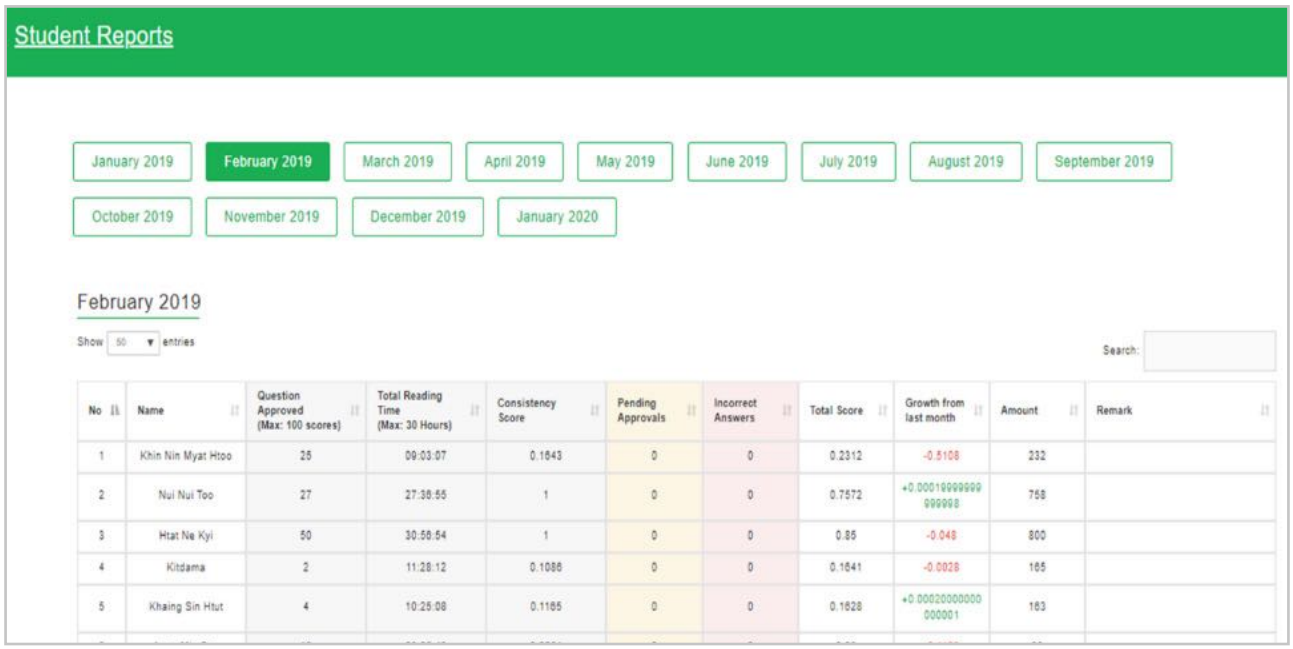

Figure 10.4: Monthly learner reports generated via the LearnBig app. *Source:* UNESCO Bangkok

calculating this score, reading consistency is weighted the heaviest, as the programme's aim is to encourage and develop strong reading habits in learners.

Learning Coin does not have the capacity to create unique comprehension questions for each of the 1,000+ books available on the LearnBig app. Instead, the same two general, open-ended questions are used for each book: (1) What did you learn from the book? and (2) Come up with five questions about the book. These questions should all begin with the word 'why'.

To motivate learners to improve their reading continuously, learners who obtain a higher score than the previous month earn bonus points for positive progress, which are then added to their score. Learners can earn up to 800 Thai Baht (approximately USD 26) per month, which equates to almost 10 per cent of their parents' average monthly income. Although very few learners in the pilot group achieved this total (15 out of 455), this extra money can then be used to purchase food, clothes and other essential items, thus serving as an additional motivation.

The LearnBig app generates monthly reports that details each learner's score and lists his or her correct and incorrect answers to the post-reading comprehension questions, as shown in **Figure 10.4**.

For each learner, the report lists the number of comprehension questions marked as correct by a teacher, the total reading time in hours, the reading consistency score, questions pending review by a teacher, the number of incorrect answers, bonus points for progress achieved since the previous month, the overall score, and the amount of cash earned.

TEACHING AND LEARNING APPROACHES

Prior to the launch of the Learning Coin project, CLCs had no ICT equipment or adequate learning materials for multilingual learners. Now, the LearnBig digital library enables teachers and learners to access more high-quality digital teaching and learning materials instead of relying on costly printed materials. Educators teaching the Myanmar population non-formal primary education and Thai learners non-formal basic education curricula at CLCs can access the textbooks they need via the LearnBig app.

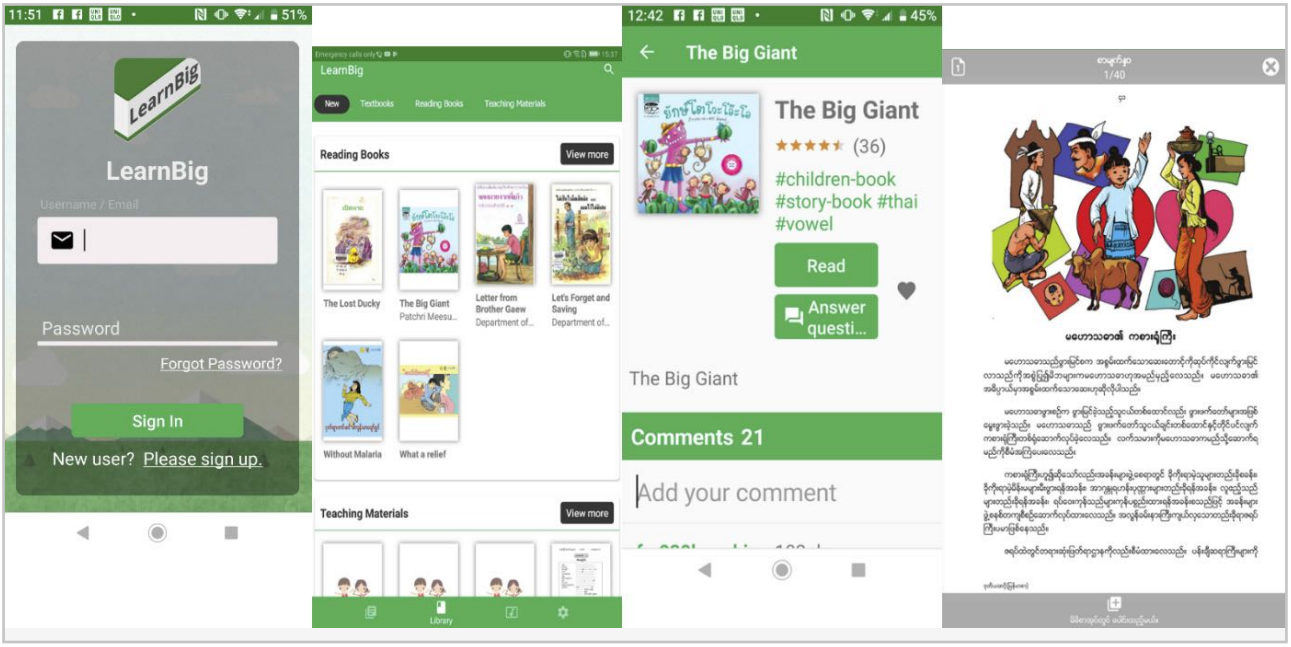

Figure 10.5: LearnBig page views.[10.4] *Source:* UNESCO Bangkok

As noted previously, the LearnBig app provides access to more than 1,000 materials. These materials were contributed by 17 different organizations, including the ministries of education in Thailand and Myanmar, publishers, companies, NGOs, UN agencies, universities and individuals. They include:

- textbooks from the ministries of education in Thailand and Myanmar;
- storybooks (some with pictures) and comics in mother tongue and national languages (Thai, Burmese and Malay), classified according to difficulty from Level A (beginner) to Level D (advanced, including poetry and novels);
- teaching materials (teaching guides, lesson plans, worksheets and exercises for use in the classroom);
- information about COVID-19;
- educational videos for children and youth that support the auditory and visual aspects of language learning.

CLC teachers help learners to select LearnBig books that match their level of reading comprehension. Research shows that learners with limited literacy skills in their first language struggle to gain literacy in a second language (UNESCO Bangkok, 2019, p. 178). Consequently, migrant learners with low literacy levels typically begin reading in their mother tongue before progressing to Thai-language books. Learners are encouraged to spend at least 30 minutes a day reading books on the LearnBig app. After finishing a book, learners are required to answer comprehension questions on the app. Teachers then check the answers submitted by the learners.

RECRUITMENT AND TRAINING OF FACILITATORS

During the 2018 pilot, about 10–15 CLC teachers opted to help monitor the 150 learners enrolled in the Learning Coin programme. During the second pilot in 2020, 70 teachers from 53 Thai

[10.4] From left to right: (1) the LearnBig sign-in page; (2) a list of books to choose from; (3) the landing page of a book called The Big Giant with options to read or answer comprehension questions; and (4) the text of the downloaded book in Thai.

public schools and CLCs, and 200+ student volunteers from Chulalongkorn University's School of Education supported the 454 registered learners (see **Table 10.1**). The main requirement for Learning Coin teachers and volunteers is proficiency in either Thai or Burmese so that they can properly evaluate learners' answers to reading comprehension questions and serve as the main point of contact for learners' parents. In addition to their full-time teaching responsibilities at the CLCs, teachers receive a monthly stipend of 3,000 Thai Baht (USD 100). Student volunteers from Chulalongkorn University do not receive any monetary stipend.

Province	Number of teachers
Mae Hong Son	29 teachers from 18 schools and CLCs
Nakhon Nayok	27 teachers from 16 schools and CLCs
Yala	23 teachers from 16 schools and CLCs
Bangkok	268 student volunteers from Chulalongkorn University

Table 10.1: Breakdown of Learning Coin teaching staff according to province.
Source: UNESCO Bangkok

Learning Coin teachers complete in-service training organized by UNESCO Bangkok, which aims to provide and enhance knowledge of the LearnBig app. Many CLC teachers lack digital skills and experience, and need to be taught how to operate the app, their tablet or computer, and the Learning Coin Project's web-based monitoring system. This online monitoring system allows teachers to view and evaluate learners' responses to reading comprehension questions, and access graphs that track learners' reading consistency and reading times. Refresher courses for teachers are provided following changes and improvements to the app.

The provision of virtual ICT training proved a particular challenge at the height of the COVID-19 pandemic. Between 2020 and 2021, Learning Coin hosted more than 20 online training sessions for teachers. In addition, teacher learning communities were formed on LINE, a popular social media platform in Thailand, so that teachers could communicate with one another across CLCs and share best practices based on their experiences with the programme.

© Mae Hong Son, Office of the Non-Formal and Informal Education, Ministry of Education Thailand
Participants in the Learning Coin programme.

TECHNOLOGY INFRASTRUCTURE, MANAGEMENT AND USE

The Learning Coin project provides learners with tablets that are preloaded with the LearnBig app (**Figure 10.6**). They are also equipped with a SIM card enabling users to access the internet. Learners who are not enrolled in the Learning Coin programme can download the LearnBig app for free from Google Play and the Apple App Store. To access the app, users must register with a username and password. Some of the app content is also available on the LearnBig website, where materials can be downloaded for printing.

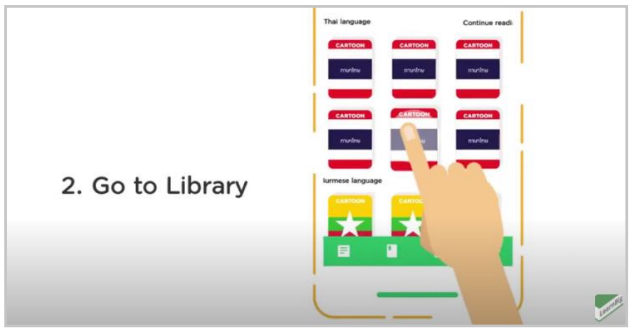

Figure 10.6: Screenshot from a LearnBig promotional video introducing the app.[10.5]
Source: UNESCO Bangkok

Once learners log in to the LearnBig app, they can download books to read. The app comes with a real-time data tracking function that charts learners' progress. It also tracks how long the learners keep the book open on the app. After five minutes of inactivity (no clicks or scrolls), a pop-up appears asking the user confirm that they are still reading. If they do not click to confirm, the system will automatically log them out and stop tracking their reading time.

Although internet connectivity is required to download reading materials, they can be read offline once the materials have been downloaded. The app will still record reading data offline and save it to be sent to the Learning Coin server once the learner's device reconnects to the internet. Real-time data tracking generates charts showing individual learners' daily reading times and reading consistency (see **Figure 10.7**), as well as graphs comparing reading performance across learner groups over time (**Figure 10.8**). Furthermore, the LearnBig data tracking system represents the learners' daily reading time trends (**Figure 10.9**).

PROGRAMME IMPACT

To date, 30,000 people have downloaded the LearnBig app, including more than 230 teachers. In addition, 400,000 people have accessed reading materials on the LearnBig website. Moreover, not a single one of the 454 learners enrolled on the programme has dropped out thus far. They continue to participate in non-formal education and are on track to receive a completion certificate from the Thai Ministry of Education. This certificate can subsequently be used to enrol in formal education or to apply for jobs.

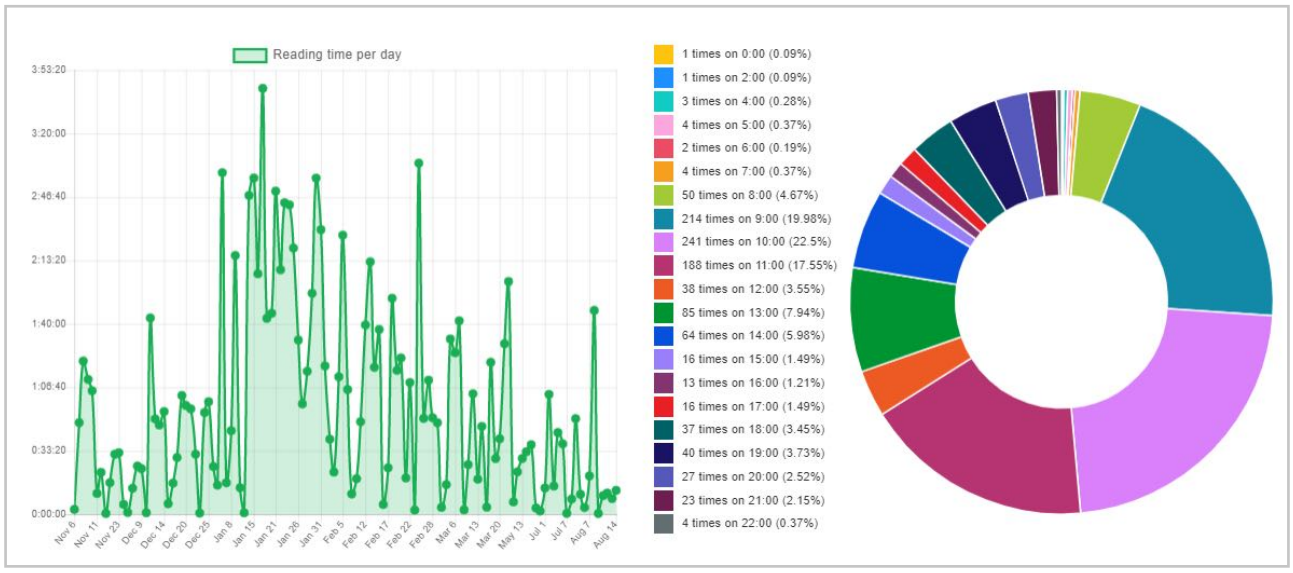

Figure 10.7: LearnBig tracking functionality: graph charting reading hours per day and reading consistency. *Source:* UNESCO Bangkok

[10.5] The video (in English) can be viewed at **https://www.youtube.com/watch?v=JGFxsrT-4e4**.

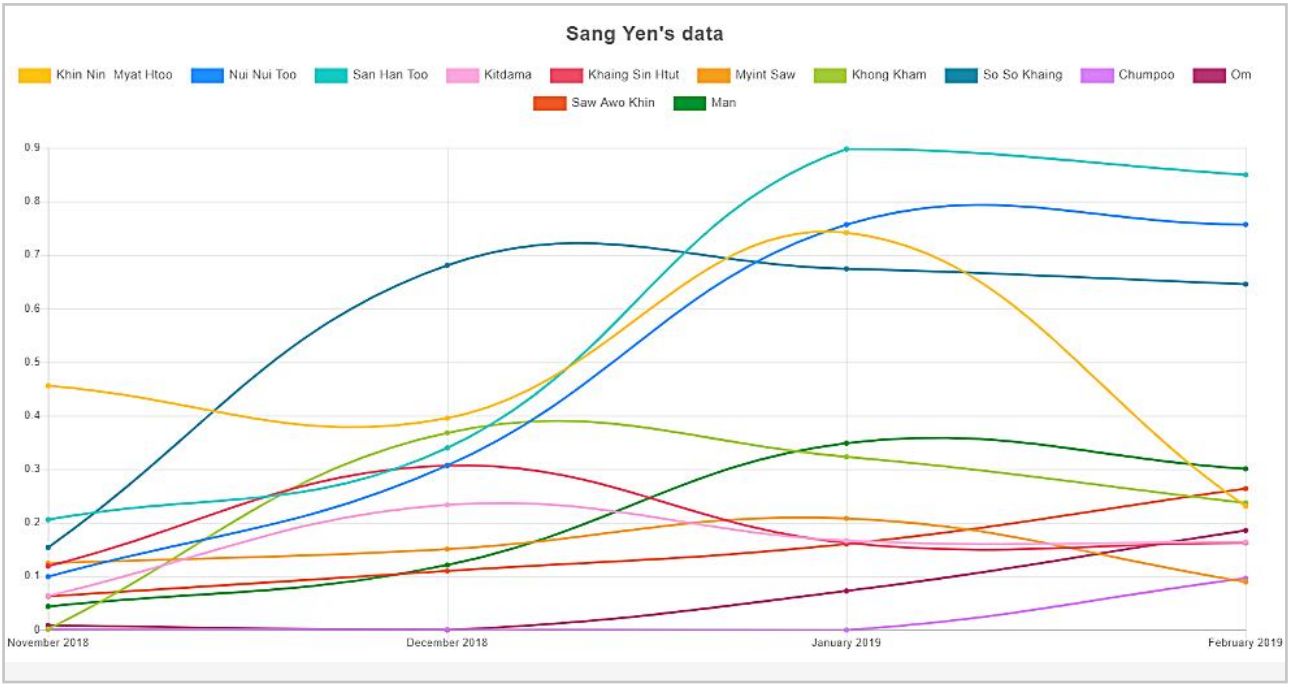

Figure 10.8: Graph comparing the performance of 12 learners over a three-month period. *Source:* UNESCO Bangkok

During programme evaluations, learners have reported that reading with LearnBig helps them to increase their reading speed and fluency. During the initial pilot programme serving 150 learners, 86 per cent passed Myanmar non-formal primary examinations and 92 per cent passed lower-secondary exams. The outcomes from the second group of 454 learners have yet to be determined; however, preliminary data show that their examination scores have improved since enrolling in the Learning Coin project.

About half of the Learning Coin learners have improved their reading comprehension scores. Female learners tend to obtain higher reading scores than male learners. Although it is not formally measured, anecdotal evidence suggests that learners' family members also improve their literacy skills by accessing reading materials through LearnBig and, in the case of parents, helping their children with reading activities.

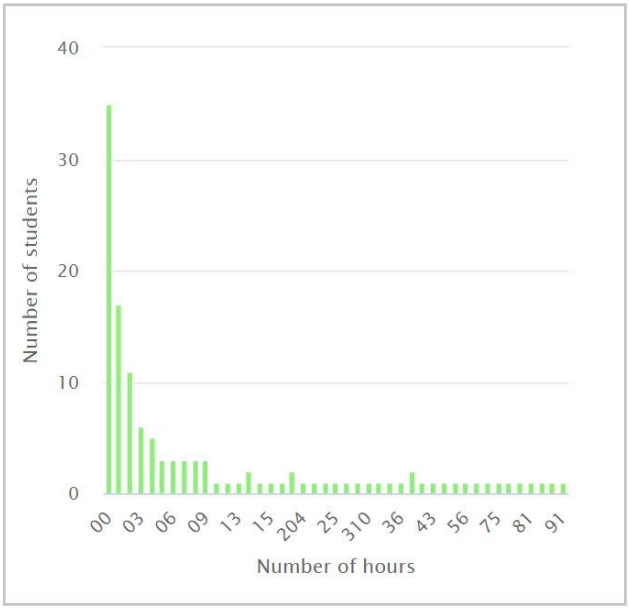

Figure 10.9: Learner reading time trends per hour in Yala province from July 2020 – June 2021. *Source:* UNESCO Bangkok

TESTIMONIALS

Kyaw Naing Thun's mother and siblings work in the evenings and have little time to take care of him. He was not keen to attend school or read, but after joining the Learning Coin project, he has made significant progress. He spends more time

reading books in both Thai and Burmese, and is far more engaged in classes than before. He is currently enrolled in the Level 1 Myanmar Non-Formal Primary Education programme.

Pyo Ma Ma Soe migrated from Myanmar to Thailand with her family when she was nine years old. Her parents struggled to keep their sewing jobs, and Pyo Ma Ma Soe was often at home alone during the day. When her father learned about the Learning Coin project at the local CLC, Pyo Ma Ma Soe began reading books on the LearnBig app. Today, Pyo Ma Ma Soe is 14 and enjoys reading with her peers at the CLC and in the evenings before going to bed. She reads Burmese books to improve her literacy in her mother tongue, and has started exploring Thai books, too. Her reading times and consistency continue to improve, earning additional stipends that help support her family.

© UNESCO Bangkok
Pyo Ma Ma Soe, an avid reader on LearnBig.

Jai Kham has also benefited from these stipends: the savings she has accumulated from reading books will help her reopen her food stall after it was closed due to the COVID-19 pandemic:

> ***My dream is to own a restaurant. I want to study culinary [arts] in order to do this business. I'm learning a lot from YouTube and also from on-the-job learning. I've been saving the scholarships from reading books.***
>
> ***— Jai Kham, 17, a non-formal education student in Mae Hong Son province***

© Pornpilin Smithveja, UNESCO Bangkok
Jai Kham at her re-opened food stall.

Other students speak of the pleasure and inspiration they derive from reading:

> ***We enjoyed reading books in the app, especially comic books.***
>
> ***— Arisa (below), 17, a non-formal education student in Mae Hong Son province***

© Pornpilin Smithveja, UNESCO Bangkok
Arisa, a stateless youth of Ban Nai Soi village on the Thai-Myanmar border is learning Thai so she can become a tour guide for her village.

Reading helps me become more knowledgeable. I was inspired [by Learning Coin] and wanted to continue seeking new knowledge.

— ***Sofuwan (below), 16, a non-formal education student in Yala province (and one of the programme's highest scholarship earners)***

© Pornpilin Smithveja, UNESCO Bangkok
Sofuwan and Farhan, two twin brothers who joined the programme to support their parents.

Further learner stories, with photographs, are available online.[10.6] Facilitators, meanwhile, report finding the programme equally inspiring:

When I helped the children read, they made my day complete.

— ***Duangrutai, a student volunteer from Chulalongkorn University, Bangkok***

Being stateless deprives these young people of learning opportunities. Because of their status, they were not confident in attending school. They came to start studying in the non-formal education programme and I saw them trying hard to learn. I wanted to improve their Thai literacy through reading.

— ***Chaisri (below), a non-formal education teacher in Mae Hong Son province***

© Pornpilin Smithveja, UNESCO Bangkok
Chaisri, centre, a former stateless person and a non-formal education teacher for Learning Coin.

CHALLENGES

Many learners have poor writing skills in both their mother tongue and their second language. As a result, reading comprehension questions that require learners to type their answers can prove difficult. Ensuring that students' writing and reading skills are at a comparable level remains a challenge for the Learning Coin project. The programme also faces challenges in retaining both learners and teachers. Learners who are behind in their education require extra instructional support, while teachers – many of whom already work full-time at a CLC – often lack the capacity or time to provide such additional support. Moreover, Learning Coin has

[10.6] See https://drive.google.com/file/d/1FKrcaGDQqoPfTOfjLBpOZ4H86Yzz0KvX/view.

experienced technological challenges with regard to unreliable internet connections and electricity supplies in remote rural areas. This in turn prevents learners from accessing the LearnBig app without interruption.

STAKEHOLDERS AND PARTNERSHIPS

The programme has multiple partners and stakeholders, all coordinated by UNESCO Bangkok:

- POSCO 1% Foundation (the philanthropic arm of the POSCO steel conglomerate, Republic of Korea) and the Equitable Education Fund, Thailand (the primary source of funding for the programme);
- True Corporation (provides SIM cards for tablets);
- Foundation for Rural Youth (identifies target migrant learners and provides teacher support);
- The Faculty of Education, Chulalongkorn University (identifies university students to act as mentors of the Learning Coin learners in Bangkok and coordinates with the non-governmental organizations)
- Ministries of education in Myanmar and Thailand, book publishers, NGOs, and international organizations (contribute books and learning content to the LearnBig platform);
- UNESCO Bangkok (develops the LearnBig app and website as well as the online data tracking system, provides capacity-building training for teachers and parents, works with teachers to monitor reading progress, and coordinates the programme).

FUTURE PLANS

Following the completion of the second pilot in July 2021, UNESCO Bangkok is closely analysing learning outcomes; collecting testimonies from learners, parents and teachers; and evaluating the impact of the programme. In order to identify areas for continued improvement, it is:

- working with literacy experts to improve the accuracy of the proficiency level descriptors (Levels A through D) of the books in the LearnBig app;
- increasing stipends and incentives for teachers in order to improve teacher retention rates;
- improving the accessibility of the LearnBig app for learners with intermittent access to internet connections and electricity;
- developing an algorithm in the LearnBig app that will automatically recommend books based on learners' reading skills and interests;
- adding audiobooks to the LearnBig library.

Learning Coin is currently seeking a funding partner for the next phase of the programme. It hopes to launch a programme serving larger numbers of learners in 2022.

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Learning French Through Film, United Republic of Tanzania

11

Programme title	Learning French Through Film
Implementing organization	Cellule de la francophonie – Le Club RFI Kigoma
Location	United Republic of Tanzania
Language of instruction	Combination of first and second languages
Date of inception	2017
Programme partners	RFI, Les Écrans de la Paix (Screens of Peace), Consulate of the Democratic Republic of Congo, TV5Monde, World Bank
Funding	Local contributions, donations
Annual programme costs	USD 10,200
Annual programme cost per learner	Less than USD 3
Annual cost of the digital tool	USD 600
Digital tool(s) used	Computers, projectors, sound systems, TV receiver, antenna, DVDs, USBs, internet modem
Target population	Teachers, students, refugees who wish to learn French
Learner age	12–70
Learner to instructor ratio	140:1
Target skill(s)	Literacy, with a particular focus on digital skills, rural development, gender awareness and women's rights, family literacy and intergenerational learning, human rights, health (preventive health and HIV/AIDS, nutrition and hygiene, mental health), economic self-sufficiency, multilingual contexts, lifelong learning
Impact	230–560 viewers per week
Programme website	http://marfi.rfi.fr/entrevous/clubs?club=613

BACKGROUND

The United Republic of Tanzania is one of the largest host countries for refugees. Most of the over 350,000 people who have sought refuge in the country are fleeing violence in the neighbouring countries of Burundi and the Democratic Republic of the Congo (DRC), resettling in the Tanzanian lake port city of Kigoma (IRC, 2021). Three major refugee camps operate in Kigoma: Nyarugusu, Nduta and Mtendeli. The first, Nyarugusu, opened in 1996 to accept refugees escaping the civil war in the DRC; it is now one of the largest refugee camps in the world and home to around 150,000 refugees. Nduta opened in 2015 in response to an influx of refugees escaping civil unrest in Burundi, followed in 2016 by Mtendeli, a second overflow camp. All three camps have between three and 20 primary schools, between two and six secondary schools, and between two and five youth or women's centres offering non-formal learning opportunities.

The school system in Tanzania struggles with high drop-out rates. In 2020, the net enrolment rate fell more than 50 per cent between primary school (83.3 per cent) and secondary school (28.3 per cent) (UIS, 2021). These challenges are exacerbated for refugee children, who experience a significant shortage of classrooms in the camps (Romtveit, 2019). Of those students who do continue to secondary school, many lack English-language proficiency (Uwezo, 2017, p. 11). And while Swahili is the official language of the United Republic of Tanzania, English is used in classrooms and French is the only foreign language other than English to be offered through the national curriculum (Kamagi, 2020). French is also an official language of Burundi and the DRC, and it is the fourth most-used language on the internet, creating opportunities for connection between local Tanzanians, resettled refugees, francophone Africa and the rest of the world (ibid.).

To promote French-language learning, the Consulate of the DRC founded the Congolese School Centre in 2012 to support refugee learners in Kigoma. The school's Cellule de la francophonie – Le Club RFI Kigoma (hereafter 'the Francophone Unit') targets refugees from Burundi and the DRC who speak another language at home and have never mastered French. In both the DRC and the United Republic of Tanzania, French is spoken among the educated elite; however, most of the population speaks national and local languages such as Kituba, Lingala and Kirundi. Some refugees in Kigoma may have studied French at school in their home country but lost it when they were forced to abandon their education to resettle in Tanzania; others may have never attended school and therefore never studied French.

The Francophone Unit hosts a wide range of French language-learning programmes, including the Learning French Through Film programme, which introduces French films to marginalized learners. In 2019, only 20 per cent of Tanzania's population used the internet (World Bank, 2021), meaning that it is unlikely that people in Tanzania are accessing film and other media online. Film is an effective audio-visual language-learning tool, however: in fact, research shows that subtitled films increase viewers' vocabulary and reading speed in a foreign language (Shinyaka, 2020, p. 35). Providing refugees and other vulnerable populations in Tanzania with screenings of films to which they would not otherwise have ready access can therefore help develop their language proficiency, thus increasing their communication skills and supporting their integration into the community.

OVERVIEW OF THE PROGRAMME

The Learning French Through Film programme was created in 2017 by the Francophone Unit at the Congolese School Centre in Kigoma, which is also an official RFI (Radio France International) Club. With approximately 100,000 members globally, RFI clubs adhere to an RFI charter

to 'contribute to the cultural and educational enrichment of its members, excluding any personal financial gain.'[11.1] The Francophone Unit seeks to improve the French-language skills of students at the Congolese School Centre, and of child, youth and adult learners (both in and out of school) lacking literacy skills in the Nyarugusu, Nduta and Mtendeli refugee camps of the Kigoma region.

The Francophone Unit also provides supplemental French-languages services to Tanzanian schools in the Kigoma region. In addition, it provides training services to French teachers at these schools to enhance their language-teaching methodologies in the classroom and administers numerous resources, programmes and events to promote the French language, including a library of French literature in the Nyarugusu camp designed to increase inhabitants' access to printed materials. The unit's aim is to promote greater communication between refugees and native Tanzanians.

Each year, the unit hosts a French-language competition among schools and classes, during which learners demonstrate their skills in spelling, dictation, conversation, poetry, writing and drawing. The competition coincides with celebrations to mark International Francophonie Day on 20 March.

Through the Learning French Through Film programme, students are provided with audio-visual content to enhance both their mastery of the French language and their awareness of francophone culture. Film screenings also serve as a way of reaching new learners who are not enrolled in formal schooling, giving them an opportunity to join the learning community, and promoting social cohesion among low-literacy adults. The programme furthermore brings refugee and Tanzanian learners together, and thus aids social integration.

The films are chosen by the Congolese School Centre's education committee and screened up to four times per week to an audience of 58–140 viewers per screening. Tools used during delivery include a computer, a large screen, a projector, a sound system, DVDs, USBs and an internet modem.

PROGRAMME OBJECTIVES

The programme seeks to encourage proficiency in the French language by showing films in French, thus strengthening the vocabulary and oral communication skills of non-French-speaking viewers in a supervised yet relaxed and informal environment. An additional emphasis is placed on community-building: refugees, a marginalized community, gain French language skills through exposure to films alongside an audience of Tanzanians. The programme thus enables newcomers to the country to overcome language barriers and integrate into the Kigoma region by learning to express themselves in French.

LEARNERS

Although all are welcome to participate in the programme, Learning French Through Film prioritizes out-of-school learners from the United Republic of Tanzania's population of refugees from the DRC and Burundi. Some intend to settle in the country permanently; others wish to relocate to another country or return to their home country. In order to prevent further social divisions within an already diverse group of learners, the programme intentionally avoids requesting further demographic data from its students.

[11.1] See https://www.rfi.fr/en/general/20150709-rfi-club-charter.

LEARNER ENROLMENT

The Francophone Unit recruits learners at local markets, churches, hospitals and other public spaces, who then attend an open day to find out more about the programme and ask questions. Those interested in enrolling complete an initial test to assess their language level, administered by the Francophone Unit. Learners typically require a basic understanding of French in order to benefit fully from the programme. They are then allocated to classes that match their age, language level and availability, and are expected to attend one screening per week for as many weeks as they wish. Participation is free of charge to learners, and all learning materials are provided by the programme.

LEARNER ASSESSMENT

Each screening is followed by an informal group discussion of the film designed to assess students' oral and listening skills, vocabulary and critical thinking. Rather than monitor individual progress, facilitators complete weekly reports to document attendance, participation and language skills among the group as a whole. Learners are furthermore encouraged to participate in annual French-language competitions. Spelling bees and contests in dictation, conversation, poetry and writing serve as an informal way of assessing students' progress in the language.

TEACHING AND LEARNING APPROACHES

Film screenings are coordinated by age group. The Francophone Unit's education committee meets weekly to choose and vet films for different age groups based on their content and language level, starting with children's cartoons and increasing in complexity for more advanced learners. The committee also takes into account feedback provided by programme facilitators, who share insights into the kinds of films that resonate with their audiences. As a rule, four French-language screenings are held each week – two for adults and two for children – and are aimed at beginners. One facilitator is present during each screening.

The Learning French Through Film programme emphasizes collective learning, discovery through observation and active communication among participants. The facilitator begins each screening by summarizing the themes from the previous session and introducing the current film. After viewing the film, learners break into small groups and spend 20 minutes practising pronunciation and new vocabulary from the film, forming sentences and discussing the storyline. Facilitators use chalkboards to guide instruction and learners are equipped with a French dictionary.

The post-viewing exercises are inspired by *Le Talisman Brisé* (The Broken Talisman), a radio soap created by RFI Savoirs, the RFI wing focusing on French-language teaching methodologies. The bilingual radio drama introduces listeners with low levels of education to the French language. Over 25 episodes, it tells the story of Kwamé, a humble gardener who sets forth on a suspenseful adventure to solve the mystery of his teacher's kidnapping. The radio drama is supplemented by a booklet with pictures that guides the reader through the story, as well as comprehension exercises that help students identify keywords, analyse what they are hearing and decipher its meaning, use their newly acquired French vocabulary to discuss the plot, and re-enact the storyline through roleplay.

Teachers working with *Le Talisman Brisé* use prompts to foster group discussions and improve students' French-language comprehension. Examples include:

- Who did Kwamé and other characters speak with in the episode?
- When did they speak, where and how?

- Why did they speak to one another and what was the purpose of their conversation?
- What do we know from this conversation?
- What actions did Kwamé and the other characters take as a result of the conversation?

This arts-based learning approach makes it easy for learners to engage in active listening, and keeps the learning process light and playful, something the programme designers believe is important for learners who have experienced the traumas of severe violence and displacement from their home countries. As well as strengthening students' speaking and listening skills, the accompanying booklet also introduces them to the basics of writing. The RFI website provides additional materials, including brief summaries and transcripts, as well as a database of key vocabulary words that students can access if they have an internet connection. Both the booklet and the website can be used independently by learners or under the guidance of a teacher in a classroom.

Similarly, Learning French Through Film trains programme facilitators to empower learners and encourage them to summarize what they have seen and heard. They integrate scenarios and simulations for students to practise the French that they have learned. As well as providing exposure to French vocabulary and pronunciation, the films allow students to learn the non-verbal gestures that accompany certain words, thus preparing them for everyday interactions with French speakers (e.g. greetings, introductions, and socially accepted expressions).

Each session (comprising the film screening and post-viewing language exercises) lasts about two hours. To encourage regular attendance, the Learning French Through Film programme provides small gifts to learners who participate actively and/or show significant improvement. The curriculum is evaluated on an ongoing basis. Facilitators are asked to provide feedback on the strengths and weaknesses of the sessions after each screening. This feedback then determines whether the film will be screened at other sites or removed from the curriculum.

RECRUITMENT AND TRAINING OF FACILITATORS

Each film screening is led by one facilitator. The programme has approximately 50 volunteer facilitators, who receive a monthly stipend. In addition, the Learning French Through Film programme employs paid staff (see **Table 11.1**).

Manager	Oversees the programme	USD 300
Trainer	Facilitates lessons before and after the film screenings	USD 200
IT secretary	Manages the technology needed to screen the films	USD 150
Security guard	Safeguards the programme's technical equipment	USD 100
Curriculum developer	Designs teaching methods to improve literacy in French	USD 100

Table 11.1: Paid programme staff and their respective monthly salaries. *Source:* RFI

The programme also provides professional development training for facilitators and other local French teachers, of whom there are more than 120 in Nyarungusu camp. During the training, educators learn how to:

- teach language through play and theatre/storytelling;
- use *Le Talisman Brisé* in their teaching; and
- utilize online learning materials provided by RFI Savoirs and the French television network TV5Monde.

TECHNOLOGY INFRASTRUCTURE, MANAGEMENT AND USE

The Learning French Through Film programme's ICT equipment typically includes a computer, a sound system, a large screen, a video projector, a TV receiver, DVDs, USBs, an internet modem and a VSAT antenna (to send and receive satellite data). In locations lacking a reliable electricity supply, the programme also uses fuel-powered generators. These crucial infrastructural resources are funded primarily by donor partners and is used exclusively to screen films – it is not required during the learning exercises that follow each screening. Moreover, students are not required to possess digital skills, since they do not use the technology themselves; instead, an IT secretary monitors the set-up and deals with any technical issues that may arise. When the equipment is not being used, it is stored in a facility protected by a security guard employed by the programme.

PROGRAMME IMPACT

The programme prides itself on reaching large numbers of learners. While screenings attract 140 viewers on average, as many as 267 people have attended a single screening in Nyaragusu.

TESTIMONIALS

I began learning French when I started kindergarten, aged five. We spoke French in kindergarten and, until now, I have been speaking French at school and even at home. I am used to it because I watch Francophone TV: France-Monde, France 24. We also listen to RFI. I like speaking French because I find it an inspiring language. … My dad is a French language teacher, and his professional journey is inspiring for me. Thanks to French, my father developed his network, travelling to France, Belgium and other places. He has created a lot of resources for learning French: more than 100,000 students and 800 teachers benefit from his work. In my opinion, French is a language of culture and solidarity and social cohesion.

— Angélique, programme learner

CHALLENGES

Weather events, scheduling difficulties and a lack of public transport continue to present logistical challenges. Film screenings are sometimes held outdoors in order to accommodate more viewers; however, inclement weather can disrupt these events. Moreover, many refugees have no access to transportation, and even within a single refugee camp, a learner may have to walk five miles to attend a screening. This limits the regularity with which a student can attend screenings. The programme has made some adjustments to alleviate challenges relating to accessibility, such as hosting screenings on Saturdays to accommodate schoolchildren who are unable to attend sessions during the week. However, reaching all areas of often vast refugee camps remains a challenge.

A further challenge faced by the programme involves training learners to read and write in

French. To date, the programme has focused mainly on listening and speaking skills. Plans to incorporate a writing component overseen by two additional staff members have been delayed due to the COVID-19 pandemic. Indeed, the pandemic has had a serious impact on all of the Francophone Unit's education programmes. Without infrastructure in place to support online learning from home, many students fell behind in their French-language education. The Learning French Through Film programme also came to a halt when public viewings were prohibited under strict, country-wide lockdown measures. After restrictions were lifted, screenings resumed but were limited to a maximum of 15 viewers per session. This has severely affected the programme since it relies on reaching a large number of viewers.

STAKEHOLDERS AND PARTNERSHIPS

In addition to RFI, Learning French Through Film partners with Les Écrans de la Paix (Screens of Peace, a non-profit organization that shows films to displaced populations), the Consulate of the DRC, TV5Monde, the World Bank, and the French Ministry of Education's International Centre for Pedagogical Studies (CIEP). These partners share the goals of promoting the French language through film, and of using film as a source of both entertainment and education for marginalized learners.

FUTURE PLANS

The programme is currently seeking funding to expand its services with regard to teaching approaches and content that fosters reading and writing skills, and, geographically, by screening films in further locations outside the United Republic of Tanzania, including refugee camps in Gatumba (Burundi), Lusenda (DRC), Kiziba (Rwanda) and Nakivale (Uganda); the Panzi Hospital (DRC); and children's shelters in Goma (DRC).

Furthermore, in response to the COVID-19 pandemic and in an attempt to reach teachers remotely, the Francophone Unit is intensifying efforts to advertise its online French lessons and teaching approaches more widely through RFI Savoirs[11.2] and TV5Monde.[11.3]

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[11.2] See **https://savoirs.rfi.fr/en/our-mission-to-promote-french-learning-and-teaching**.

[11.3] See **http://www.tv5monde.com/cms/-/--/p-5854-lg3-Learn-and-Teach-French.htm**.

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Migrant Liter@cies, European Union

12

Programme title	Migrant Liter@cies
Implementing organization	Centro Zaffiria
Location	Belgium, Estonia, Italy, Germany, the Netherlands, Poland, Slovakia, Spain
Language of instruction	Host country's language
Date of inception	2017
Programme partners	One in each country: Mediawijs (Belgium), Tartu Folk High School (Estonia), Fo.Co. Network (Italy), JFF (Germany), Tilburg University (the Netherlands), Polis (Poland), Proacademy (Slovenia), Solidaridad Sin Fronteras (Spain)
Funding	European Union Erasmus+ programme
Annual programme costs	USD 442,571 (EUR 391,448) in grants provided by the Erasmus+ programme for three years of project implementation
Annual programme cost per learner	Undisclosed
Annual cost of the digital tool	Undisclosed
Digital tool(s) used	Mobile phones, tablets, computers, Wi-Fi, video projectors, apps and software (LoMaps, Google Maps, Calepino), Moodle
Target population	Educators and teachers working with migrant adults; refugees and migrants
Learner age	Adults
Learner to instructor ratio	~2 instructors per class/group
Target skill(s)	Literacy; digital literacy skills
Impact	Around 600 migrants equipped with literacy and digital literacy skills Around 200 teachers and educators trained within the project; 300 through the Migrant Liter@cies MOOC
Programme website	**https://www.migrantliteracies.eu/**

BACKGROUND

In its 2020 report, the International Organization for Migration (IOM) estimated that there were almost 272 million migrants globally (IOM, 2020, p. 2). Of these, 74 per cent of adult migrants are of working age (20–64), while over half of international migrants (141 million) live in Europe and North America (ibid., pp. 3–4). It has been widely reported in the media that Europe has faced overwhelming challenges in recent years in relation to the influx of refugees, particularly with regard to helping migrants to integrate through local language acquisition and cultural experiences. These problems are exacerbated by the multifaceted nature of the migrants arriving in Europe. Some come as refugees and asylum seekers; others as economic migrants seeking a better life. Nor are these 141 million migrants distributed evenly across the European Union. There are therefore significant challenges at both the national and the European level concerning where and by whom the cost of housing and supporting migrants should be borne (Karolewski and Benedikter, 2018) and regarding the Dublin Convention (which stipulates that migrants must register in the first country in which they arrive).

International efforts are underway to assist adult migrants with language and literacy skills, in the hope that this will lead to positive employment outcomes. The Migrant Liter@cies project, a multinational European project to aid adult migrants through the provision of educational services, was one such endeavour. It provided teachers and their students with a blueprint for using technology to enhance literacy skills.

The project, co-funded by the European Union's Erasmus+ programme, coordinated adult and media education providers in eight European countries: Italy, Belgium, Estonia, Germany, the Netherlands, Poland, Slovakia and Spain. It was led by Zaffiria, an Italian educational provider that specializes in media education and teacher training. The Migrant Liter@cies project ran from 2017–2020, aiming to provide services to migrant adults using innovative practices, participatory approaches and open-source teaching resources.

Zaffiria (whose name was invented by children during an initial brainstorming session) has worked in the field of media education since 1998. Applying the Bruno Munari method (a hands-on, experiential learning method), Zaffiria has partnered with a wide variety of local, national (Italian) and European projects in the areas of media education, creative technology, toolkit production, pedagogical experimentation and teacher training. Zaffiria creates applications for mobile devices, such as the Calepino app for the Migrant Liter@cies project, and videos that focus learners on technology. Zaffiria typically works with pupils in schools, supporting them in their development and improving their knowledge of digital media and technology.

OVERVIEW OF THE PROGRAMME

The project goals centred on areas such as media education, creativity and teacher training. The consortium of eight countries sought to produce learning materials for instructors/facilitators to use in classes for adult migrant learners, stating that 'teachers need to extend their own media and digital literacy competences before they can instruct their students' ((Migrant Liter@cies, 2021).

The instructional design was a collaborative effort, which was careful to maintain 'a low threshold of technology, free software and use of mobile devices' (ibid.), so that adult migrants were able to participate. The project produced a

total of 45 workshops, eight national toolkits[12.1] and one Massive Open Online Course (MOOC)[12.2] for use by adult educators across Europe, adaptable to local contexts.

The first year of the project focused on training staff. Over 200 instructors in eight countries were selected to participate. Time was spent building a common methodological background for instructors to optimize their work with the adult migrant population.

The second year focused on developing programme content and planning the instructional design of over 45 workshops that would be delivered to more than 600 students in classes taught by participating instructors. All eight participating country organizations produced workshops, which were made available on the project website.

In the final year of the project, eight national toolkits (one per participating country) were designed and implemented. Migrant Liter@cies also produced and implemented a free MOOC on the theme of 'Media Literacies' for 'educators working with adult migrants with the objective of developing media and digital literacy competences of the former, while addressing the needs and challenges of the latter' (ibid.). The year 2020 was also dedicated to evaluating the project's objectives and organizing a European conference to discuss its impact and draw conclusions. A short trailer developed by Migrant Liter@cies to promote the project can be seen on YouTube.[12.3]

Trailer for the Migrant Liter@cies project.[12.3]

PROGRAMME OBJECTIVES

The objectives of the Migrant Liter@cies project are as follows:

- to develop innovative practices, including the creative use of ICT for language learning, e.g. using mobile devices and social media (apps, WhatsApp, video games, etc.);
- to develop innovative ways of integrating digital and media literacy into migrant adult education; and
- to train educators working in adult education, developing their media and digital literacy competences while addressing the needs of their learning groups (illiterate or low-literate adult migrants) through project activities and eLearning modules (MOOC).

LEARNERS

The 600 students who took part in the workshops were adult migrants already enrolled in adult education centres in the participating countries. No demographic data is available, but based on partners' records, participants were aged between 18 and 62, and covered 46 nationalities. The

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[12.1] See the **Annex** for links to toolkits.

[12.2] A MOOC is an online course aimed at unlimited participation and open access via the web. See **https://www.mooc.org/**.

[12.3] The video can be accessed at: **https://www.youtube.com/watch?v=BWPXyRE1uLA**

facilitators' reports also note that a large number of participants lacked basic literacy skills in their own languages. In some countries, such as Italy, Estonia, Slovakia and the Netherlands, participants were already employed by or taking classes with the partner organizations. In other countries, the organizations worked with their own partners to reach students from different schools and refugee centres. Group sizes also varied by country, ranging from 20 in Italy to just four in Estonia, depending on the respective country's refugee population and the area of focus of the partner institution.

© Proacademy, Slovakia / Migrant Liter@cies
Learners attend a course entitled 'Working with News(papers)' provided by Proacademy, Slovakia

Participating students were given a short needs assessment at the outset of the programme to determine their media usage and access to ICT tools. This consisted of questions on: students' access to and ownership of a mobile device, the specific applications that students used on their devices, and whether they were capable of using learning applications.

© Polis, Poland / Migrant Liter@cies
Learners in Poland participating in a course entitled '**First steps in Poland with a smartphone's help**'

Meanwhile, any individual could register online to take the MOOC.[12.4] The online registration form collected information on potential learners' age and location, and provided instructions via e-mail on how to register for the course.

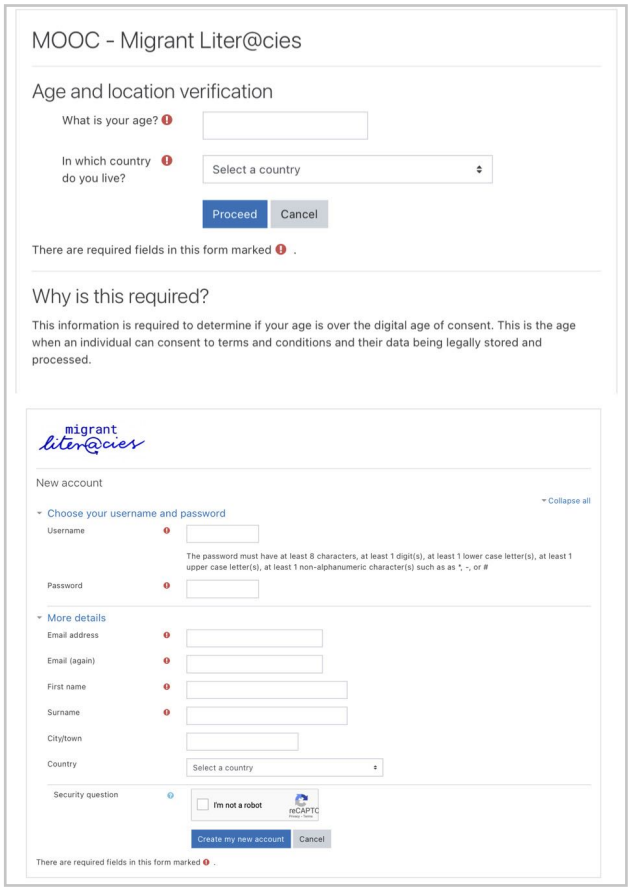
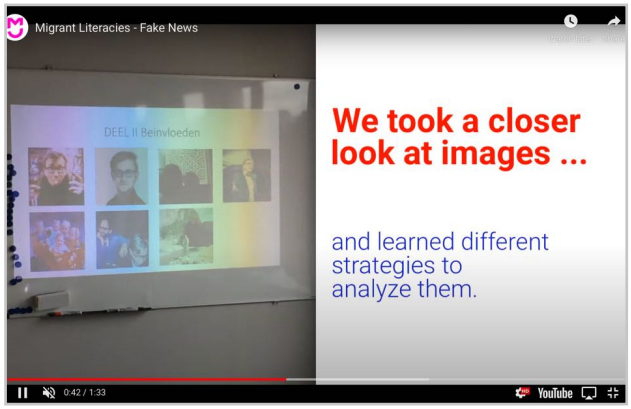


Figure 12.1: The online registration form for the Migrant Liter@cies MOOC. *Source:* Migrant Liter@cies

[12.4] The registration form can be accessed at **https://mooc.migrantliteracies.eu/login/verify_age_location.php**.

ASSESSMENT OF LEARNERS

Workshops produced by the learners at the end of the project constituted a major output of the course. These took the form of short videos detailing a class activity, along with a lesson plan describing how to carry out the work. All of the workshops can be accessed on the Migrant Liter@cies website.[12.5]



© Migrant Literacies
A sample workshop from Belgium on recognizing fake news.

© Migrant Literacies
A sample workshop from Poland on introducing oneself using photos and other images.

There were no standardized assessments for learners, as the workshops themselves were seen as part of a much longer-term language-learning project. The objectives of the workshops were to allow learners to produce their own output based on what they had learned, and to create additional materials that could be used by others.

Assessment of the Migrant Liter@cies project is based on the 45 workshops and eight toolkits produced. While no summative assessment was carried out, the coursework included assignments and other formative assessments that were linked to the Migrant Liter@cies' regular curriculum.

TEACHING AND LEARNING APPROACHES

As the lead partner in the project, Zaffiria adopted a communicative approach to instructional design, emphasizing the creative use of ICT. First, project partners conducted a study to ascertain the literacy skill levels of potential learners and identify their specific literacy needs. The workshops' thematic content was selected and developed during two meetings comprising learning, teaching and training activities (LTTA) held in Italy, wherein partners also exchanged views on the project. Many participants in the meeting remarked on the dearth of quality teaching materials for adult literacy programmes. The materials used for adult education are inadequate, especially for migrants with low literacy who have little or no language competence in either their mother tongue or in the language of the host country. For example, some of the materials used are designed for children, and would require significant effort to adapt them for adult learners.

The project partners decided on the content of the MOOC based on feedback provided by facilitators who had participated in the initial stages of the project (Migrant Liter@cies, 2020), and taking into account the areas identified in the *European Framework for the Digital Competence of Educators* (EU Science Hub, 2021) and the *European Qualifications Framework* (Cedefop, 2021).

[12.5] See **https://www.migrantliteracies.eu/workshops/**.

The project provided professional development for teachers using the 'inductive method',[12.6] i.e. students were invited to discover the subject matter for themselves during the learning process. The Manzi method,[12.7] which highlights 'dialogues and discussions more than frontal lessons' (Migrant Liter@cies, 2021), was also adopted. Flipped classroom and blended learning approaches were used in combination with ICT. These methods require a mixture of technology use and in-person teaching. For example, students may be asked to watch a video for homework, so that the next class can focus on comprehension questions and other related work. The project also initiated a project-based learning approach, whereby students were assessed on output they had created based on what they had learned. This will be discussed further, with examples, in the section on learner assessment.

The toolkits (see **Annex**), one produced by each participating country, represented significant contributions to the teaching and learning process, especially since they were published in the vernacular. These toolkits focus on the 'effective and creative use of [...] new media and apps in literacy learning and development of innovative methodologies' in order to support the use integrated media and digital literacies in education provision for migrant adults (Migrant Liter@cies, 2021).

Each toolkit was adapted to the context and needs of the relevant country, with a special focus on the creative use of ICT and low threshold technology (i.e. mobile devices) to assist migrants and refugees in learning new languages and skills. Toolkit content was diverse and practical enough to be easily applied and adapted by professionals working with migrants day-to-day, and transferred to other users and working contexts. This type of approach is particularly useful in difficult learning environments, for example when confronted with a pandemic like COVID-19 or, in a more general sense, with learners in precarious living situations.

© JFF, Germany / Migrant Liter@cies
A group of learners participating in a workshop in Germany, using technology to create stop-motion videos.

The objective of the MOOC teacher training centre was to 'develop media and digital literacy competencies of educators, while addressing the needs and challenges of their learners – adult migrants with low literacy levels' (Migrant Liter@cies, 2020). The nine-week course comprised nine modules, each hosted by a project partner and containing three videos in the vernacular, with English subtitles, and activities and information in English. This resulted in eight hours of study per week (**Figure 12.2**).

RECRUITMENT AND TRAINING OF FACILITATORS

Facilitators were staff of the project's partner organizations and were selected based on the following criteria:

1. Experience of working with migrant adults;
2. Expertise in media and/or literacy;
3. Good knowledge of the English language.

[12.6] For more information, see **https://www.scribbr.com/methodology/inductive-deductive-reasoning/**.
[12.7] For more information, see **http://www.appyourschool.eu/wp-content/uploads/2016/10/Biography-Alberto-Manzi.pdf**.

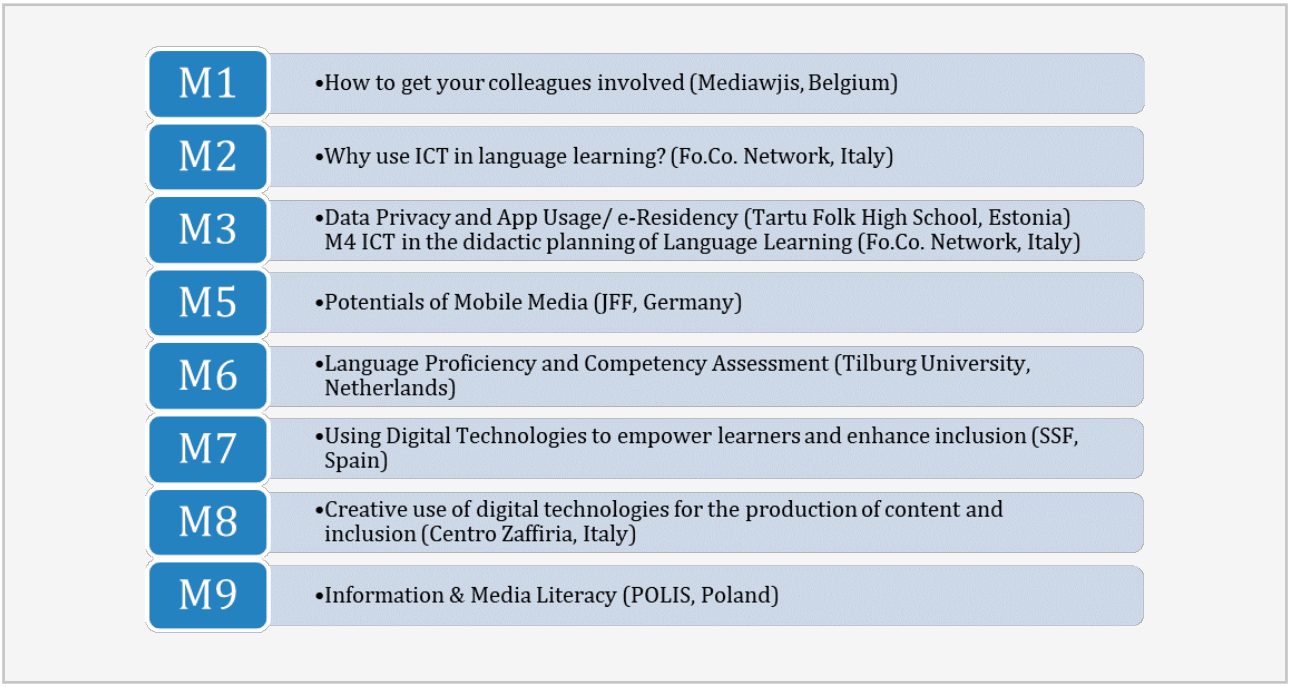


Figure 12.2: List of project modules. *Source:* Migrant Liter@cies

Approximately 200 facilitators were selected for the programme.

During the first phase of the project, instructional training was provided to facilitators during the LTTA in Italy and the Netherlands, respectively. Eight national training sessions were held in each of the participating countries, in which 197 teachers and educators took part. Throughout the project, teachers worked in their native languages and in English.

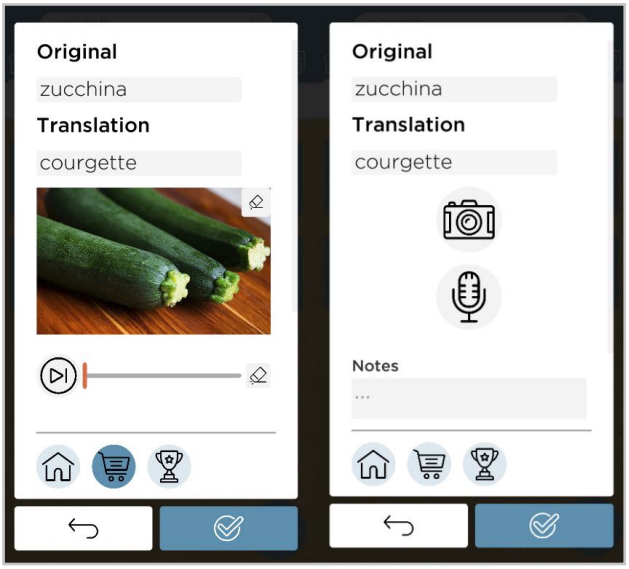
© Migrant Liter@cies
National facilitator training by Mediawijs, Belgium

TECHNOLOGY INFRASTRUCTURE, MANAGEMENT AND USE

The programme focused on mobile technologies such as smartphones, since almost all migrant learners had these devices at their disposal. WhatsApp in particular was heavily used, as many of the students were already familiar with it from personal use. Tablets, laptops, WiFi and video projectors were also used to conduct workshops.

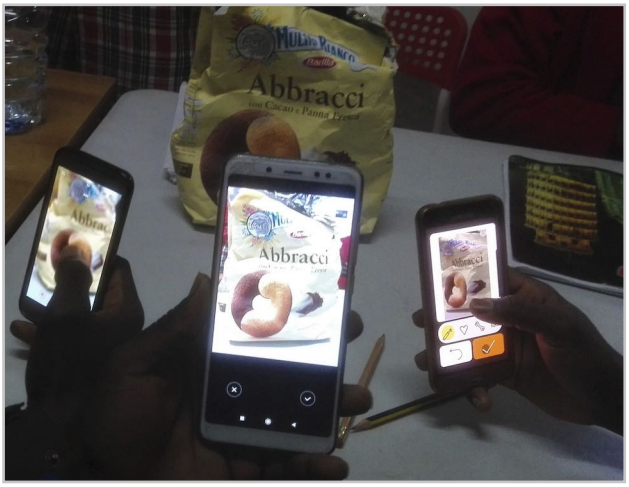
Zaffiria also created its own application, Calepino, for the project. The app comes with a dictionary created by users, which includes audio and video vocabularies and is available to download free of charge. The project produced video tutorials to help students use the apps and its resources effectively.[12.8]

[12.8] The video can be accessed at **https://www.youtube.com/watch?v=D7S4clj9o70&t=13s**.



© Migrant Liter@cies
Calepino app interface

Students learned to use Calepino's content and tools in three sessions, each lasting two hours. In addition to its use in class, the app could be used at any time of day, since it could be downloaded to learners' personal mobile phones.



© Zaffiria and **Fo.Co**. Network / Migrant Liter@cies
Learners using the Calepino app to create and practise new vocabulary.

The teacher training course, Media Liter@cies, is a MOOC that uses the learning management system Moodle, which provides virtual classroom spaces for video lectures, student interaction, etc. Media Liter@cies covered a variety of topics, such as the importance of multiple literacies; the 'why' behind using ICT in language learning; data privacy and app usage; the potential of mobile media; and the use of digital technologies to empower learners. Module content was enhanced through videos, activities and background information. During the week, participants could use the online discussion forum to share feedback, ask questions and consult with tutors, who were also available during streaming sessions at the end of each module.

The 46 experimental workshops, whose content was developed by all of the participating countries, focused on the innovative use of ICTs in the classroom. Each workshop consisted of a six-hour curriculum with activities on topics such as the use of technology in daily life; social media and its pros and cons; art and music; recognizing fake news; reading; and preparing for a job interview.

Each activity was designed to give learners tools to help their social integration, in line with the EU scheme for the integration of migrants. A European Commission report on the use of ICT to improve employability and integration among EU migrants notes that, '[a]s regards newly arrived migrants, it is suggested that digital literacy courses should be part of integration courses' and 'go hand-in-hand with language learning courses, including e-learning tools, as knowledge of the host country language is a key driver for social, economic and digital integration' (Reichel, Siegel and Andreo, 2015, p. 6). Migrant Liter@cies took this advice into account by developing a range of workshops demonstrating the importance of ICT. These included:

- Stop Motion, Let's Make a Movie;
- Parenting in Digital Times;
- Food, Nutrition and E-Shops;
- How to Be Safe on the Internet;
- It's Never Too Late: Digital Literacy for Elderly Migrant Adults.

Another example of the innovative use of technology in the classroom is Platformcraft. This is a workshop during which learners can create a video game to test their language skills. Combining analogue and digital

activities, learners enrich their vocabulary while strengthening their IT skills through interactive and creative activities.

PROGRAMME IMPACT

In total, the project produced one MOOC, 45 workshops and eight national toolkits. The workshops constituted a series of projects generated by adult migrants as part of their classwork. They were shared on the website, along with a lesson plan, and each workshop includes a video illustrating various stages of the work process and the final results of the student-led project. The toolkits provided a broader curriculum in the eight languages of each country. Lessons in the toolkits comprised objectives, materials needed and useful instructions. Videos were also included. In some cases, student output in English was modelled.[12.9]

The MOOC was a nine-module unit for teachers that included instruction on digital privacy, ICT in language teaching, and assessment. It lasted for three months and was available free of charge to teachers who register to use the Migrant Liter@cies MOOC.[12.10]

All of the project outputs (MOOC, workshops and toolkits) are available on the Migrant Liter@cies webpage.

TESTIMONIALS

The project documented both the tangible educational materials developed and the training received by instructors to deliver these materials. It thus received direct and indirect feedback from both learners and facilitators.

Learners who participated in the workshops were able to develop and improve their literacy and digital literacy skills using ICT. Facilitators agreed that the feedback they had received from participants during the workshops was generally positive. Following a volunteer-led workshop to train older migrant and non-migrant adults in the use of basic tools to improve their digital skills,[12.11] a facilitator from Spain said:

> ***All the students were motivated to do the workshop. … They felt satisfied, not only because of the help given to the elderly, but also for sharing experiences between different generations and cultures. Especially positive was the case of the young migrant students recently arrived in Spain, who had little contact with young people of the same age.***

Meanwhile, a facilitator from Germany who managed a workshop on creating stop-motion videos[12.12] admired the teamwork that participants displayed:

> ***They all learnt very quickly. They worked together as a team for all the stories, so one of them was taking pictures with the iPad and the others taking care of the set. It was very nice how they helped each other building the sets, imagining the stories or using the media.***

CHALLENGES

The project faced two main challenges. The first was to coordinate the work carried out by participating countries. These were located

[12.9] The toolkits are available online at **https://www.migrantliteracies.eu/national-toolkits/**.

[12.10] See **https://mooc.migrantliteracies.eu/**.

[12.11] See **https://www.migrantliteracies.eu/its-never-too-late-digital-literacy-for-migrant-elderly-adults/**.

[12.12] See **https://www.migrantliteracies.eu/my-story/**.

across three time zones, making it difficult to schedule the programme's five international in-person meetings and numerous virtual meetings, particularly since the countries in question all have different national languages.

The second challenge concerned the outreach of the project and the enrolment of learners. In its report, the project indicated that a number of partner organizations did not have enough migrant adult students to hold a class and complete the work according to the project parameters. For example, media education organizations that did not usually work with refugees experienced difficulties recruiting learners. With administrative support, however, these organizations were able to deliver instruction to the intended students.

	Benefits to participants	Benefits to facilitators	Benefits to community
General	• Increased participation, self-efficacy, orientation, creativity and self-esteem • Increased integration • Higher level of democratic and civic education through the use of media	• Renewal of teaching methods through new ideas and materials for use in classroom activities • Increased digital competences to support the teaching and learning process • Adoption of innovative pedagogies • Better understanding of the competences learners acquire in their everyday lives • Increased understanding of and responsiveness to social, ethnic, linguistic and cultural diversity • Greater openness to new didactic models and innovative approaches • Increased motivation and satisfaction in daily work • New materials for work and training • A sense of initiative, entrepreneurship and the ability to communicate constructively in different contexts and environments	• Migrants who are better integrated and participate more actively in society
Specific	• Better digital competences and more qualified use of ICT • Increased motivation to attend classes due to materials that are respectful and tailored to the participant's age	• Greater knowledge of media education methodologies • Increased ability to use participatory approaches to create a more collaborative and interactive experience for learners • Improved competence in a foreign language (all communication during the project was carried out in English) • Increased integration of ICT in adult education curricula, with a focus on digital creativity and understanding how to apply ICT in a practical and creative way in order to have a greater impact on learners • Greater knowledge of innovative methodologies in literacy teaching and how these relate to ICT and digital literacy	

STAKEHOLDERS AND PARTNERSHIPS

The project was a partnership between numerous adult education service providers and media education organizations in Italy, Belgium, Estonia, Germany, the Netherlands, Poland, Slovakia and Spain. Working together, the consortium was able to bundle instructional materials and learning modules that could be put into use in any and all of the countries (with adaptations for local contexts). The project was entirely funded by the EU's Erasmus+ programme,[12.13] whose stated objective for the period 2014–2020 was 'to contribute to the Europe 2020 strategy for growth, jobs, social equity and inclusion, as well as the aims of ET2020, the EU's strategic framework for education and training'.[12.14]

FUTURE PLANS

One of the project's long-term objectives was to develop a strategic sustainability plan supported by adult and media education institutions in order to create knowledge and expertise that would be embedded in national educational systems, with a particular focus on teacher training programmes for the education of migrants, refugees and internally displaced persons (IDPs). However, the final project report listed no future plans. It is not clear whether the programme will be replicated in other parts of the EU. The materials and curricula continue to be available for use and can be downloaded from the programme website and via the Erasmus+ Project Results Platform.[12.15]

The project has been evaluated and the final report approved by the European Commission. The full evaluations are internal documents and are not shared with the public. However, the Erasmus+ platform has tagged the project as a 'good practice example'.[12.16]

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[12.13] See **https://ec.europa.eu/info/education/set-projects-education-and-training/erasmus-funding-programme_en**.

[12.14] See **https://www.eacea.ec.europa.eu/grants/2014-2020/erasmus_en**.

[12.15] The Erasmus+ Project Results Platform (search interface) can be accessed at **https://ec.europa.eu/programmes/erasmus-plus/projects_en**.

[12.16] Erasmus+ project card, Migrant Liter@cies: **https://ec.europa.eu/programmes/erasmus-plus/projects/eplus-project-details/#project/2017-1-IT02-KA204-036607**

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ANNEX: LINKS TO NATIONAL TOOLKITS

Country	Link
Belgium	https://www.migrantliteracies.eu/wp-content/uploads/2020/10/ML-Toolkit-Mediawijs-Belgium.pdf
Estonia	https://www.migrantliteracies.eu/wp-content/uploads/2020/07/ML-Toolkit-TartuFolkHigh-School-Estonia.pdf
Germany	https://www.migrantliteracies.eu/wp-content/uploads/2019/01/ML-Toolkit-JFF-Germany.pdf
Italy	https://www.migrantliteracies.eu/wp-content/uploads/2020/06/ML_toolkit-italiano.pdf
The Netherlands	https://www.migrantliteracies.eu/wp-content/uploads/2020/06/ML-Toolkit-TILBURGUNI-BABYLON-TheNetherlands.pdf
Poland	https://www.migrantliteracies.eu/wp-content/uploads/2020/06/ML-Toolkit-POLIS-Poland.pdf
Slovakia	https://www.migrantliteracies.eu/wp-content/uploads/2020/06/ML-Toolkit-PROACADEMY-Slovakia.pdf
Spain	https://www.migrantliteracies.eu/wp-content/uploads/2020/06/MigrantLiteracies-Toolkit-Spain_Caja-Herramientas.pdf

M-Shule SMS Learning & Training, Kenya

13

Programme title	M-Shule SMS Learning & Training
Implementing organization	M-Shule
Location	Kenya
Language of instruction	Host country's language; second/foreign language
Date of inception	2017
Programme partners	Tusome, Xavier Project, Aga Khan Foundation, Education Design Unlimited, Oxfam, VSO International, Danish Refugee Council
Funding	Private sector, national NGO, international NGO
Annual programme costs	Project-dependent
Annual programme cost per learner	USD 2–5 per learner per month
Annual cost of the digital tool	USD 2–5 per learner per month
Digital tool(s) used	Mobile phone, SMS text messaging, chatbot over messenger app, web app
Target population	Refugees
Learner age	5–75 years
Learner to instructor ratio	Undisclosed
Target skill(s)	Literacy, numeracy, financial literacy, life skills
Impact	23,000 learners
Programme website	https://m-shule.com/

BACKGROUND

Education in Kenya faces multiple challenges. The Kenyan Ministry of Education reports that more than 40 per cent of children who begin Grade 1 are no longer in school by Grade 4 (Kenyan Ministry of Education, 2019, p. 12). Such high dropout rates occur because many poor families are unable to pay indirect schooling costs, which remain prohibitive even though Kenya eliminated fees for public schools in the early 2000s. There are also 'wide disparities in access to education, based on gender, location and region' (ibid.). For example, in the capital city of Nairobi, 250,000 people live in Kibera, one of the largest urban slums in Africa (Owino, 2020). Kenya also hosts over 500,000 refugees and asylum seekers from the neighbouring countries of South Sudan and Somalia, many of whom live in the rural Dadaab camp in east Kenya (UNHCR, 2021). In these rural areas, schools are few and far between, and require difficult and dangerous commutes, leading to families keeping children at home. Additionally, female students in all regions experience high rates of child marriage and discriminatory gender norms that prevent them from completing school (EFA GMR, 2013).

For students who are able to complete secondary school, there remains a wide skills gap. Many students do not graduate with strong maths or literacy skills, leaving them unprepared for university or the workforce (ibid.). In 2018, 18.5 per cent of Kenya's adult population (aged 15 and older) was reported to be illiterate (World Bank, 2021a). The Kenyan Ministry of Education (2019, p. 12) states that only 20 per cent of students who finish secondary school are prepared for university. This gap in learning is partly due to a gap in teaching. Teachers and schools lack access to ongoing high-quality training and resources (World Bank, 2019).

To address some of these issues, M-Shule – 'mobile school' in Swahili (the primary language of Kenya) – was developed to provide educational services to those who need them in a way that they can access. Accessibility was of particular important in the Kenyan context because 25 per cent of Kenyans have no electricity, while 77.5 per cent have no internet connectivity (World Bank, 2021b). However, mobile phones are widely used: there are an estimated 54.5 mobile phone subscriptions for every 100 people. M-Shule therefore sought to capitalize on this high penetration rate by developing 'the first personalized, mobile learning platform in Africa to connect any learner with tailored training, capacity-building, critical information and analytics through SMS' (M-Shule, 2021). SMS, or short message service, is what is popularly referred to as text messaging. M-Shule's platform 'was designed to equitably reach low-income and vulnerable populations from urban slum to rural areas – even if they do not have smartphones or internet connectivity' (M-Shule, 2021).

SMS services are practical and accessible, maximizing impact for the country's most vulnerable learners. By providing education services that are accessible beyond the confines of school buildings, M-Shule furthermore allows adult learners (parents and community members who did not complete formal education) to engage in literacy learning alongside their children. By making school mobile, families can take a holistic approach to education. When the adults around them value and participate in education, children are more likely to stay in school and remain engaged in training and professional development opportunities. Parents who learn with their children and gain competency in the language of the school are more likely to collaborate with school leadership to advocate for high-quality education for their children (UIL, 2017).

OVERVIEW OF THE PROGRAMME

As stated on its website, M-Shule is a mobile learning management platform (M-Shule, 2021). It uses the technology most readily available in Kenya and sub-Saharan Africa and syncs it with

primary school curricula, providing learning support for student users. It also uses 'artificial intelligence to deliver personalized learning support, skills development, and data collection tools over text message and chatbots' (ibid.).

M-Shule content developers and staff access the curriculum from local schools, and design lessons and activities based on its content. Work is delivered to student users through SMS on mobile phones. In what could be understood as a 'smart programme', M-Shule uses data generated by student users (individually) to create more challenging content (or review difficult content if necessary) so that students can progress through the curriculum. In this way, M-Shule delivers personalized content based on each student's needs. For example, if a student needs help with multiplication tables in their maths class, M-Shule will send activities to the student's phone so that he or she can practise multiplication and increase his or her knowledge. By providing crucial educational content via technology that is readily available to a large percentage of the community, M-Shule is able to provide educational services to marginalized communities that would otherwise have no access to them. As M-Shule cannot rely on students or even schools having an internet connection and/or computers, it uses SMS via mobile phones to maximize its outreach to students who need its services. Since its inception in 2017, the learning platform has delivered educational services to more than 23,000 students.

PROGRAMME OBJECTIVES

The founders of M-Schule recognized that, without accessible technology, there were few or no affordable options for low-income communities in sub-Saharan Africa to continue their education. It was imperative that existing resources be leveraged in order to serve African communities in situ. The M-Shule programme objectives were to establish a platform providing:

- equitable access: by offering digital content via SMS, the platform takes advantage of existing resources (e.g. learners' phones);
- robustness: the platform combines in-service training, data collection and data management into one, making it easy for learners to track their own progress, and for programme teams to gain insight into learners' performance;
- personalized content: tailor-made content for each learner, delivering training of varying complexity and allowing different learners to enrol in courses covering the topics they need the most;
- data-driven: real-time, integrated data and analytics allow organizations instant insight into individual learners' performance.

LEARNERS

M-Shule users can be of any age and from any socio-economic background. All they need to participate in the programme is a device that can send and receive SMS messages. M-Shule particularly encourages learners from low-income and marginalized communities to participate. The primary beneficiaries of the programme are refugees from the Democratic Republic of the Congo, Rwanda, Ethiopia, Somalia and Uganda who presently live in Kenya. Of these, 35 per cent (approx. 8 ,000) are aged 15 or over, while the remaining 65 per cent are primary school children aged 6–11. Gender representation is almost equal, with slightly fewer female learners.

Learners can use M-Shule in both Swahili and English. Students can take more than one course at a time, for example a maths class and a science class during the same term.

M-Shule's YouTube channel features a young boy, Jobson, who studies at the **Tenderfeet Education Centre** in Nairobi, Kenya. The young man speaks in English and is an excellent example of how students can use M-Shule content to supplement their education.

© M-Schule
Young learner Jobson talks about his M-Schule experience.

ENROLMENT OF LEARNERS

Learners register for M-Shule either by themselves or through a school or other educational or training institution. Using their phones, students send a text message to M-Shule and receive an SMS with registration instructions. They are required to provide demographic information, such as their name, age, gender and most recent grades, and to indicate which course(s) they are interested in (ibid.). M-Shule uses the information provided to enrol the student in a course that matches their age and educational or training needs. After completing an entrance survey and prior to enrolment, students may be asked to take a short diagnostic assessment.

Figure 13.1 showcases the enrolment process via SMS as outlined above.

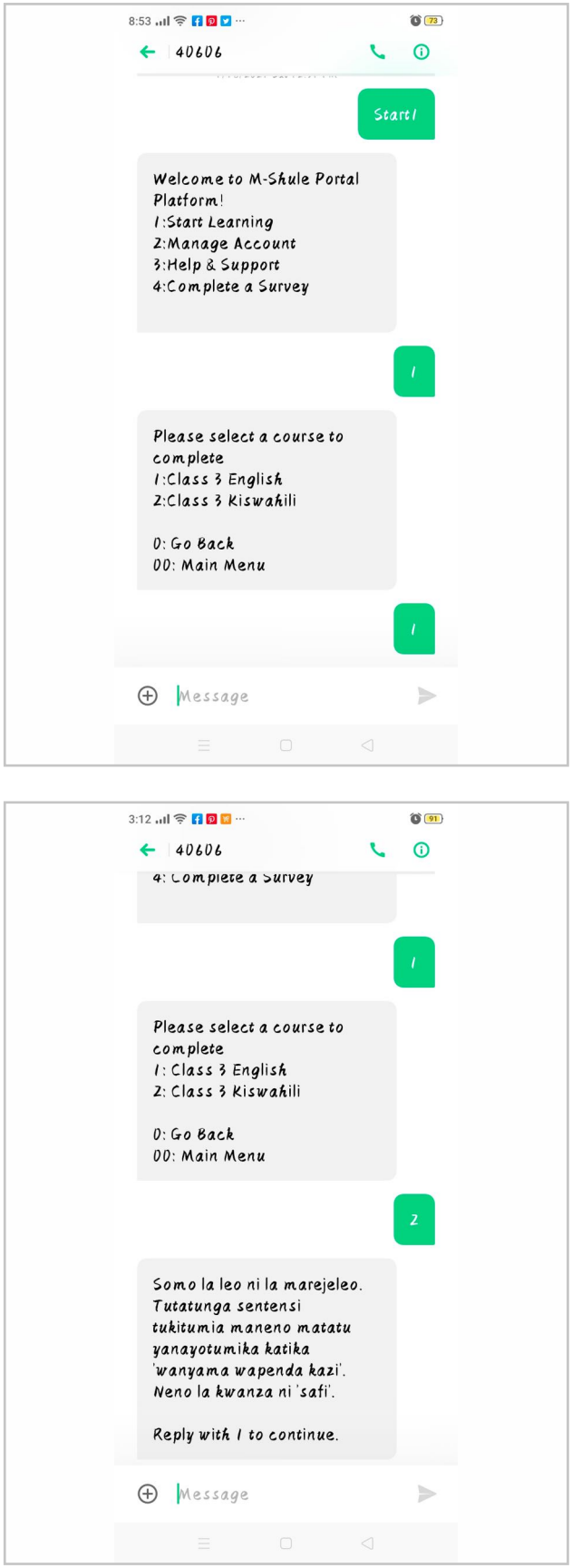

Figure 13.1: Screenshots of a learner initiating learning with M-Shule. *Source:* M-Shule

© M-Schule
Programme representative Claudia explains M-Schule's registration process.

ASSESSMENT OF LEARNERS

M-Shule uses a robust system of data tracking to assess students. The curriculum uses 'adaptive learning technology', meaning that the system creates more challenging content as the student progresses through the curriculum. This will be discussed further in the section on technology.

Moreover, the programme 'continuously tracks each learner's proficiency, performance, and areas of strengths and weakness in order to deliver reports to teachers, trainers, schools, and supporting organizations' (ibid.). There is a dashboard that students, parents, teachers and administrators can access at any time.

M-Shule can point not only to increased numeracy and literacy skills among its users, but also to improved skills in digital literacy. It can document improvements in overall school attendance, lowering drop-out rates, and increases in secondary school enrolment by users of its services. M-Shule takes pride in acknowledging a positive impact on parents, teachers, children and schools.

TEACHING AND LEARNING APPROACHES

M-Shule reports that it has created more than 60,000 content items. Designing content for this kind of programme entails planning that involves many educational stakeholders, including users, teachers, administrators and curriculum developers.

> ***M-Shule learners work at a self-study pace … with bite-sized lessons and micro-courses … that support mastery of academic and vocational skills (M-Schule, 2021).***

Curriculum designers are careful to align content with the national curricular standards while upholding pedagogical principles. Curriculum development involves the following three major processes:

1. curriculum reviews, skill mapping and proficiency analysis;
2. creation of robust content databases designed to help students practise target topics and objectives;
3. maximally efficient learning pathways to support a set amount of learning or training per student per week.

Once the programme content has been mapped out, created and uploaded, the learning content is deployed via SMS to reach students. This step ensures that every student participates, even those in remote and/or low-income areas lacking strong computer infrastructure. To date, more than 1 million learning messages have been sent out. **Figure 13.2** shows three SMS messages containing learning content.

Both literacy and numeracy courses are offered in the programme. The curriculum is presented via imagined scenarios, with practical maths and/or writing tasks embedded in the story. Learners are required to provide answers to the tasks they have been allocated.

Figure 13.2: Learning content in the form of SMS. *Source:* M-Shule

For youth and adult learners with a particular interest in income generation, M-Shule offers courses in financial literacy, entrepreneurship, marketing, leadership and community-building.

RECRUITMENT AND TRAINING OF FACILITATORS

The M-Shule programme does not employ teachers to deliver its educational services. While its literature refers to curriculum developers, M-Shule also works with a team of learning designers, trained teachers and content developers to build a database of content in line with curriculum expectations, training guidelines and student needs.

TECHNOLOGY INFRASTRUCTURE, MANAGEMENT AND USE

The M-Shule programme delivers educational services through low-stakes technological means, with the aim of reaching as many users as possible. By combining the power of artificial intelligence (AI) and adaptive learning with the accessibility of SMS, the programme can tailor relevant and engaging content to the needs of each learner. This fosters learners' skill acquisition, facilitates collaboration, and makes data available to all stakeholders, making innovation affordable even for low-income learners.

Student users of M-Shule do not require any technology other than a phone that can send and receive text messages and a SIM card. Programme content and design emphasizes that users do not require airtime, data plans and/or connectivity, smartphones or computers to participate. While 23 per cent of Kenyans have internet access, M-Shule has identified that 80 per cent of households own or have access to a phone (M-Schule, 2021, p. 3). Multiple courses, surveys and tools are delivered to users simultaneously, making it easy to provide several services to the same user(s) in one place. The platform can easily be tailored to particular targets by designing unique content or data collection methods, by reporting to multiple stakeholders, by adapting analytics dashboards, and so on.

M-Shule school and partner dashboards feature analytics and insights that are updated in real time. This feature is designed to help teachers

differentiate instruction in the classroom, and allows schools and organizations to make better resource investment decisions. The online reporting dashboard also tracks key performance indicators (KPIs) related to student interactions, learning rates, lesson outcomes and question responses. Student progress information can be delivered at learner, class and school level. In addition, school heads and teachers can log in to their respective dashboards to receive updates. **Figure 13.3** presents two dashboards: one for a teacher and the other for a student. The teacher's dashboard shows the number of active learners, new registrations and overall learners, while the student's dashboard shows the course title, course progress and summarized content.

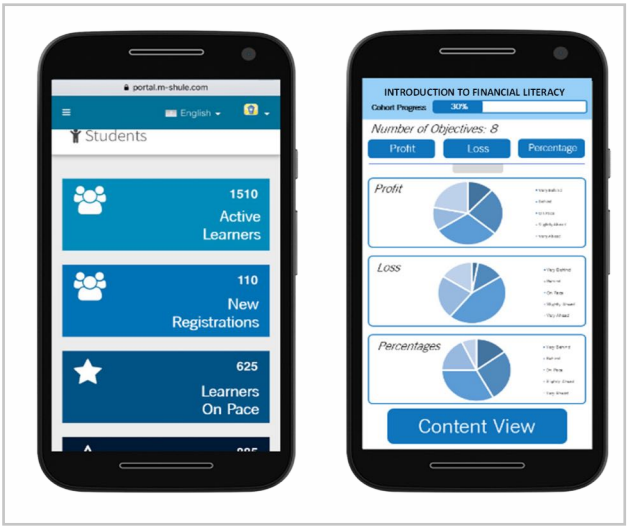

Figure 13.3: Teacher and student dashboards in M-Shule SMS. *Source:* M-Shule

The AI is designed based on item response theory that tracks and updates each learner's learning profile according to their responses. For example, a medium-level question is asked, and the performance of the learner is evaluated based on whether he or she provided the correct answer. Learners are then automatically assigned to either the same or the next level. The programme designers are currently working on integrating more machine learning and natural language processing into the programme. This will allow it to better track different types of information and understand the way people respond to questions.

PROGRAMME IMPACT

In the early stages of the programme, M-Shule reported that users' exam scores improved by 7 per cent compared to non-users after using its services for more than one hour per week. Since then, it has reported many further improvements (see **Table 13.1**).

Moreover, 82 per cent of parents reported that M-Shule had had a strong positive impact on their children's lives. Teachers stated that the reporting system had improved their own classroom planning and confidence in their decision-making, while reducing time spent on administrative tasks.

TESTIMONIALS

As previously noted, M-Shule reaches whole households, not just the student. A testimonial, **M-Shule Yangu: Isaac's story**, highlights M-Shule's work from a parent's perspective. Isaac, an M-Shule student, speaks of his dream of becoming a pilot, and his mother shares how happy she is that M-Shule is helping him achieve this dream by improving his performance in school.

Clara, a student in Class 7, attests to the effective use of mobile phones:

> ***Learning through the phone has helped me in maths revision. I used to get around 48% in maths but in the end of year exam I got 80%. It has motivated me and I can't wait for next year.***

Similarly, Mathew, a Class 8 graduate and a refugee from Sudan, proudly shares his 'great grades with M-Shule's assistance', which for him means attending a good high school. The help he received from M-Shule has made him 'very confident and it has boosted my morale'.

	Benefits to participants	Benefits to community
General	• Improved literacy and numeracy in the classroom, and in national and international exams. • Increase in twenty-first-century skills (digital literacy, self-efficacy, communication, problem-solving, etc.), based on qualitative reports. • Reduction in absenteeism and dropout rates, and higher rates of primary school graduation. • Increase in secondary school enrolment, secondary school graduation, and future employment prospects.	• Students build learning skills, allowing them to adapt, set and achieve their own pathways to success. • Parents change their mindsets from passive to active, participating in their children's learning, and dedicating themselves to their children´s long-term education. • Teachers and schools change their classrooms from curriculum-driven to student-driven learning centres, with diverse approaches for different learning needs, paying particular attention to issues of gender.

Table 13.1: Summary of benefits to M-Schule participants and their communities

A similar sentiment is expressed by Mercy, a Class 8 graduate, who claims to have 'a better understanding of maths and the formulas used to solve problems. It has helped me improve and so I will go to a better high school and university thereafter'. Finally, Dennis (Class 5) shares that M-Shule 'helped me revise and get good marks. I improved from the last position in my class, 28, to number 7'.

Learner A: 'Thanks to the financial literacy course I have managed to come up with a saving plan and a long-term goal.'

Learner B: '[I] have tried a small saving plan and I'm progressing well. … [I] am about to reach my target.'

— Anonymous testimonials from adult learners who participated in M-Shule's Financial Literacy courses

A local teacher's perspective adds to the positive testimonials by students and their parents. Headteacher Vincent's institution, Kwa Watoto Centre and School, seeks to provide education to the needy and marginalized in his community. He describes how M-Shule's services are a support to him and his learning community.

© M-Schule

Headteacher Vincent attests to the positive impact M-Schule has had on his community.

CHALLENGES

M-Shule reaches at least 20,000 of the 8 million-plus children of primary school age currently living in Kenya (UIS, 2021). While not all of those children attend schools, there is potential to increase the number using M-Shule's services. To reach these children, however, M-Shule cites two major challenges that it must overcome:

1. Content contextualization and digital literacy: curriculum content and digital literacy levels vary widely across communities and markets. This variation necessitates a flexible approach to learning design, training, onboarding and user experience, among other factors. M-Shule's digital platform must therefore continue to adapt to local curriculum timelines and requirements.
2. Mobile networks and connectivity: M-Schule has scaling potential because of its accessibility on even very basic mobile phones. Nevertheless, some level of phone penetration is required to ensure learner access and requires the support of telecommunication companies. M-Shule recognizes that lower levels of feature phone penetration and mobile network operator (MNO) restrictions may be a barrier to growth.

STAKEHOLDERS AND PARTNERSHIPS

In 2020, M-Shule provided educational services via mobile technology to Oxfam, VSO International, Jacaranda Health and the Danish Refugee Council, providing training programmes for over 2,000 users.

As a for-profit social enterprise, M-Shule targets non-profit organizations, multinationals and corporations that need to reach more users in order to provide better learning and training products at scale. As well as offering tutoring and training courses to young learners, it provides surveys and assessments, data, insights and analytics, and learner management systems to be used in diverse contexts.

FUTURE PLANS

M-Shule plans to work with governments and content partners to increase the usability of its platform by identifying curriculum needs and conducting market-responsive training in local languages. In order to address the challenges mentioned above, M-Shule aims to scale in markets with higher mobile penetration rates. As organic penetration grows with time, M-Shule intends to work with governments and partners to promote device access. Finally, M-Shule intends to work directly with mobile network operators as well as through partners and governments to ensure that its partnerships are sustainable.

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Norwegian Refugee Council Youth Programme, Norway

14

Programme title	Norwegian Refugee Council Youth Programme
Implementing organization	Norwegian Refugee Council
Location	Jordan
Language of instruction	L1
Date of inception	2012
Programme partners	European Union, British Council, UNICEF, UNHCR, Turquoise Mountain, Specto, Arizona State University, Technical and Vocational Skills Development Commission (TVSDC)
Funding	UNICEF, SIDA, Enabel, Norwegian Ministry of Foreign Affairs
Annual programme costs	USD 1,120,000
Annual programme cost per learner	USD 490
Annual cost of the digital tool	Undisclosed
Digital tool(s) used	Computer, mobile phone
Target population	Refugees; women and girls; learners with disabilities; youth not in education, employment or training (NEETs); youth out of formal schooling for more than three years
Learner age	15–32 years
Learner to instructor ratio	1:6
Target skill(s)	Basic literacy and numeracy, technical skills, interpersonal and communications skills, socio-emotional skills
Impact	Approximately 3,200 young people trained during the period 2012–2016, and an additional 1,815 in 2018
Programme website	https://www.nrc.no/what-we-do/activities-in-the-field/education/

BACKGROUND

According to the United Nations High Commissioner for Refugees (UNHCR), there are currently 752,416 refugees living in Jordan: 83 per cent reside in urban settings and 17 per cent in refugee camps. Almost half of the refugee population is made up of children (46.7 per cent), while the other half comprises older people (4.8 per cent) and adults (48.5 per cent). At 88 per cent (663,210), Syrians make up much of this population. While most of these refugees live in urban areas across the country, 127,373 are housed in three refugee camps: Za'atari, Azraq and the Emirati Jordanian Camp (EJC). Most of the Syrians who are registered as refugees come from southern Daraa (39.9 per cent), Homs (16.2 per cent), Aleppo (11.4 per cent) and Rural Damascus (11.3 per cent) (UNHCR, 2021a).

The Jordanian Ministry of Education works to ensure that Syrian refugee students enrol in pre-school, primary and secondary education (Jordanian Ministry of Education, 2018). However, the older a child is, the more difficult it is for him or her to remain in school. There are currently more than 27,000 Syrian refugee children aged 16–18 in Jordan, fewer than 7,000 of whom attend school (25 per cent). During the 2017/18 school year, only 15 per cent of Syrian refugees aged 16 were enrolled in secondary school, compared to more than 80 per cent of Jordanian children of the same age (HRW, 2017).

About 50 per cent of young Syrian refugees do not have access to the type of secondary education that they would have received in the Syrian Arab Republic. Moreover, about 25 per cent of young Syrian refugees who were formerly enrolled in university have no access to higher or tertiary education opportunities. The situation is worse for girls, who often face gender-related barriers, such as the security risk they might experience on their way to school (NRC, 2016).

Jordanian national regulations stipulate that, while Syrian refugees should have access to government schools until the age of 16, they have limited rights to work. Those who live in refugee camps are not allowed to leave the camps and look for work opportunities unless granted permission to do so by the Jordanian authorities. In fact, only the Za'atari camp offers incentive-based labour opportunities through NGOs, and some refugees are allowed to run their own informal businesses. In Azraq and Emirati, no such activities are allowed, even on an informal basis, and work permits are rare (ibid.).

Between 2014 and 2018, ICT-related activities grew by 11.64 per cent in Jordan. In 2018, mobile and internet penetration rates reached 85 per cent and 88.8 per cent, respectively (World Bank, 2020). During the pandemic, the Jordanian Ministry of Education worked with the Ministry of Digital Economy and Entrepreneurship and private sector providers to develop remote education services. They created a number of platforms, including 'Darsak', an official e-learning portal offering short video courses for Grades 1 to 12, and 'Teachers', a 90-hour training programme. One of the country's TV sports channels also became a learning channel (ibid.).

In 2012, the Norwegian Refugee Council (NRC) began implementing a youth programme in Jordan. The programme is modelled on its Youth Education Pack, a programme that aims to respond to the education and training needs of conflict-affected youth in different countries. NRC is a humanitarian organization with a particular focus on refugees and internally displaced people (IDPs). It provides support during different phases of displacement, from emergencies to durable solutions, and assists 'populations or people affected by displacement', as its mission mandates. With a country office in the Jordanian capital, Amman, and additional field offices in the cities of Irbid, Mafraq, and Zarqa, as well as in the Za'atari and Azraq camps, NRC delivers programmes that respond to basic needs; provide shelter, livelihood, information, counselling and legal assistance; and assist children and youth through educational and vocational activities.

OVERVIEW OF THE PROGRAMME

NRC provides access to structured and certified learning opportunities for youth in refugee camps in order to develop their skills, enhance their well-being and prepare them – economically, socially and educationally – for the transition to adulthood. Education and training for young people aged 15–32 is offered over a three-month period, with courses including:

- literacy and numeracy (offered in the Za'atari and Azraq camp) as support subjects for learners who need them;
- post-basic skills training in a wide range of subjects, such as mechanics, tailoring, hairdressing and computer maintenance, as well as literacy and numeracy;
- life skills (currently using course content based on International Youth Foundation [IYF] – Passport to Success curriculum)[14.1]
- distance learning courses offered through a partnership with Edraak, the online platform of the Queen Rania Foundation; these online courses cover a wide range of subjects, including English as a foreign language (provided by the British Council) and soft skills such as CV writing, child mental health, nutrition and health, entrepreneurship, job searching, career development and self-marketing.

The NRC's literacy and numeracy courses take different approaches to supporting young people with low literacy skills, depending on the context and stage of the course. To avoid duplication, courses are offered in collaboration with other agencies that have already offered literacy classes. NRC also provides its own targeted literacy (in Arabic) and (basic) numeracy classes for young people who are identified through either self-assessment or facilitator observation during the first few days of the training course.

Literacy and numeracy skills are prerequisites for courses such as information technology because learners are required to operate computer software. Other courses, such as hairdressing/beauty and tailoring, allow learners to participate even if they are unable to read and write. In such cases, learners have the opportunity to attend supplementary literacy and numeracy classes. In situations where the need for targeted literacy training is low, learners requiring additional support in literacy and numeracy receive tutorials from facilitators once they have completed their skills training course.

In Za'atari District 8,[14.2] an additional three-month follow-up programme has been implemented (soon to be available in Azraq) to provide graduates and other skilled young people with opportunities to practise their skills and contribute to community development in the camp. This follow-up programme has enjoyed high retention rates and received positive responses, both from participants and from the community. NRC has been approached by a number of agencies requesting that the participants conduct community projects, such as making wooden beds for people with disabilities in Za'atari camp, and repurposing desks for Ministry of Education schools.

An important feature of the programme is that it strives to change course offerings periodically in order to adapt to the needs of young people as well as to the country context. Another key feature is the programme's focus on advocacy for youth empowerment, which can take several

[14.1] Learn more about the International Youth Foundation (IYF) – Passport to Success curriculum at : **https://www.passporttosuccess.org/**

[14.2] The Za'atari camp has 12 districts.

forms and involve a variety of stakeholders (UNFPA[14.3], UNESCO[14.4], UNHCR and other NGOs).

PROGRAMME OBJECTIVES

The overall objective of the NRC Youth Programme in Jordan is to enhance young people's well-being and resilience. By establishing youth centres and providing learning opportunities and advocacy and coordination activities, the programme aims to:

- increase the transferable and technical skills of young people living in refugee camps;
- educate professionals who have the knowledge and skills to provide training and support;
- address young people's psychological and social well-being in a safe and protective environment;
- provide an opportunity for young people to apply newly gained skills by engaging in social and economic activities;
- advocate for the recognition of young people's needs and potential among communities and stakeholders.

LEARNERS

According to UNHCR data, as of October 2021 approximately 76 per cent of Syrian refugees in Jordan are under 35 years of age (UNHCR, 2021b); yet, the well-being of both Syrian and Jordanian youth is gravely affected by inequality in access to education and employment (ibid.; OECD, 2018). Syrian and Jordanian youth place a strong emphasis on community service and civic participation and are motivated to effect change (USAID, 2015); however, overall youth participation in civil society in Jordan remains low (OECD, 2018). To address this, the programme's target beneficiaries are adolescents and youth aged 15–32 in refugee camps who are not enrolled in any form of education, employment or training (NEETs) or have been out of formal schooling for more than three years.

ENROLMENT OF LEARNERS

Programme participants are identified through mass outreach and via word of mouth. Many locations in both Za'atari and Azraq camps have hubs that young people can visit to learn about the programme, such as youth clubs in other NGOs in camps, youth working groups, or youth gatherings within their communities. Learners also get to know about the programme through referrals from organizations that work with young women and youth with disabilities (YWDs) in Jordan. Before the COVID-19 pandemic, young people living in refugee centres registered for courses in person; now, registration is conducted mainly by phone.

Most programme participants are self-motivated. Each class usually has between 15 and 20 participants (the maximum number being 25). The Za'atari and Azraq centres offer childcare facilities to support facilitators and learners (particularly female learners) with children aged between two and five.

ASSESSMENT OF LEARNERS

During the courses, learners are assessed differently depending on the duration and accreditation of the course in which they are enrolled. For example, learners on ICT courses are assessed by an accredited ICT course provider based in Jordan, such as the International Computer

[14.3] UNFPA : United Nations Population Fund

[14.4] UNESCO : The United Nations Educational, Scientific and Cultural Organization

Driving Licence (IDCL) Foundation.[14.5] To ensure quality, internal and external assessments are also conducted. Technical and vocational education and training (TVET) courses are accredited by the Jordanian Technical and Vocational Skills Development Centre (TVSDC)[14.6] and Qualifi, a UK-based vocational accreditation provider.[14.7] Learners enrolled in these courses are subject to periodic assessment throughout the intake, along with a final assessment to grant graduation upon success.

The International Youth Foundation (IYF)[14.8] assesses learners' soft skills immediately after enrolment and throughout the course via a written test managed by a facilitator. This test is aligned with all of the courses provided in the youth centres. Upon completing the course, learners receive a certificate issued by the programme, although in most cases it is not officially accredited.

TEACHING AND LEARNING APPROACHES

In general, the programme implements a competency-based, hands-on approach to teaching and learning. Content is adapted to meet the learning level and needs of youth and adolescents, and learners apply the skills that they have learned in a safe and supportive learning environment, both during the course and in their subsequent internships. Courses also meet the criteria laid down in NRC's framework for youth well-being in displacement (NRC, 2021).

The programme provides certified learning pathways for youth in the Za'atari and Azraq camps. Each pathway comprises three complementary levels: (1) certified vocational training courses, (2) structured paid internships, and (3) income-generating opportunities through a youth production line that NRC operates in the camps.[14.9]

NRC enrols four cohorts each year. Over a period of around three months, each attends the following courses:

- English language;
- tailoring;
- general maintenance (carpentry, welding and painting);
- air-conditioning maintenance and repair;
- electrical wiring and maintenance;
- jewellery making;
- mobile maintenance;
- ICDL, Advanced Excel, web editing.

Life skills are also mainstreamed across courses to ensure a holistic approach that balances technical skills with personal, social and emotional development.

The programme implements an integrated approach, whereby literacy and numeracy classes are provided to students as needed. When enrolling, learners can sign up for any of the technical courses, and are given pre-tests in literacy and numeracy. If tests show that their literacy and numeracy levels are low, they are given additional classes in parallel.

The programme makes use of a variety of materials to help learners through the studying process, including handouts, books, worksheets,

[14.5] The IDCL Foundation is an international organization that offers IT skills certification programmes worldwide, based on its globally recognized IDCL standard. For more information, see **https://icdl.org**.

[14.6] For more information on TVSDC, see **https://tvsdc.gov.jo/en/**.

[14.7] For more information on Qualifi, see **https://qualifi.net/**.

[14.8] For more information on IYF, see **https://iyfglobal.org/**.

[14.9] In 2018, the NRC Youth Programme conducted workshops in the Za'atari and Azraq camps that enabled graduates of vocational training courses to gain more experience through on-the-job training.

screenshots, voice notes, videos, educational videos and massive open online courses (MOOCs). NRC also monitors job market trends to identify the skills that young people need to develop in order to be retained in the job market.

© NRC Communication.
An ICDL lab session for youth learners at the Za'atari camp.

RECRUITMENT AND TRAINING OF FACILITATORS

NRC enlists various types of facilitators, from full- and part-time paid workers to volunteers and short-term consultants from the camp community. Flyers are distributed in camp districts and mosques to announce vacancies. Interested candidates fill out a form with questions about their education and relevant experience. The recruitment process takes place in phases. After the announcements and submission of forms, NRC human resources (HR) personnel produce a shortlist of candidates who are invited to take a written or practical exam and then an interview.

Those who pass the interview round are requested to prepare and deliver a demonstration class to show their potential as facilitators. Facilitators are required to have proven technical experience of delivering course content as well as facilitation, mentoring/coaching and interpersonal skills. The recruitment process prioritizes applicants' knowledge, skills and experience over their educational qualifications.

Once accepted, facilitators receive an NRC induction. Through technical workshops prepared by the specialist NRC youth team, they learn how to enhance the quality of the educational experience for learners. They are then integrated into NRC's HR system and are accorded different grades based on their skills so that they can receive a monthly wage that is aligned with the requirements and scale of the refugee camp to which they are allocated.

TECHNOLOGY INFRASTRUCTURE, MANAGEMENT AND USE

The programme integrates and adapts different learning approaches and course content – e.g. teaching participants how to use digital devices and online platforms in their learning – to ensure that it remains aligned with relevant trends and to leverage meaningful opportunities for young people,

In 2015, for example, the ICT training team collaborated with the nationally recognized MOOC provider Edraak and other platforms to create more options for young people to learn about different technologies. Edraak works with ICDL in the Arab States to offer modules designed for a wider audience (see **Figures 14.1** and **14.2**).[14.10]

[14.10] For more information on the Edraak in Arabic, see: **https://www.edraak.org/specialization/specialization/icdlsp-vv1/** ; for more information on Edraak in English, see: **https://www.edraak.org/en/**

Figures 14.1 and **14.2**: The Edraak homepage is available in both Arabic and English. *Source:* NRC Communication team.

To counter the disruption to learning caused by the COVID-19 pandemic, NRC developed guidelines for remote teaching in 2020 to equip trainers with the skills needed to transition smoothly from face-to-face to online lessons in a limited-resource environment. For example, trainers would record the steps required to perform certain course activities and share these recordings with learners via WhatsApp groups.

To ensure that learners benefit fully from the NRC's IT-related courses, the programme assesses their current digital literacy level prior to enrolment. Learners' skills are evaluated by the ICT facilitator via an assessment process approved by the youth team, which covers the main features of all of the ICT courses on offer. Learners who fail the assessment test are offered a backup computer basics course so that they can develop their computer literacy skills before registering for another course.

Preparatory classes are also provided to familiarize learners with the digital infrastructure of the course before it starts. During classroom

Core items	Specifications		No. of items in Azraq	No. of items in Za'atari
Personal computers	Processor	Intel Dual-Core (i3 – i5 – i7)	91	122
	Minimum RAM	4 GB		
	Hard drive	50 GB		
	Operating system and version (licensed)	Windows 10		
	Software required (licensed)	Office 2016		
Internal network	-	-		
Internet	Minimum internet speed	4 MBps		
Data show/ Projector	-	-		
Office desks	-	-		
Chairs	-	-		

Table 14.1: Technical requirements for accredited ICDL centres.

sessions, learners have access to a computer and practise their skills by completing course activities and online exercises. To maintain the physical distancing required by pandemic restrictions, computers are situated about two metres apart. When COVID-19 forced classrooms to close, facilitators sent screen recordings of the various course exercises to their students. When the centres reopened, learners returned to the classroom to apply what they had learned through these screen recordings.

In order to become an accredited ICDL centre and meet the minimum requirements for Specto accreditation,[14.11] NRC ensures that several technical requirements are met (see **Table 14.1**).

PROGRAMME IMPACT

In addition to evaluations conducted by NRC, an external evaluation of the programme was performed by the Women's Refugee Commission (WRC) in 2014 (NRC, 2016). While NRC has assessed the needs of affected populations as well as of current learners and facilitators, the report by WRC assessed the overall programme implementation. An ongoing evaluation was planned for release in the third quarter of 2021, including consultations with youth, trainers and the wider community on the appropriateness, relevance and impact of the youth programme before and during the COVID-19 pandemic. It will also provide additional recommendations on the sustainability of the programme and the way forward.

The 2014 WRC evaluation concluded that the youth programme was 'overwhelmingly perceived as relevant to the needs of Syrian refugee youth, by participants and non-participant camp residents, as well as by NRC's partners' (ibid., p. 9). Young women who were interviewed for the evaluation noted its positive social impact, while young men reported economic empowerment. Yet, despite this positive feedback, the programme also experienced a high drop-out rate. The reasons for this were varied and gendered: many males aged between 27 and 32 years found jobs, while women cited family issues and marriage. The evaluation also determined that participants found the age range 'too restrictive' (ibid., p. 31).

In 2018, NRC continued to provide a comprehensive range of education and skills training courses to young people aged 16 to 32. Courses covered a variety of technical and vocational subjects, as well as online, ICT and language education. According to 2017 programme follow-up data, all graduating youth reported having acquired technical skills relevant to the training they had received, and 91 per cent reported having gained valuable interpersonal skills, including enhanced communication skills and increased self-confidence. Overall, 1,815 young Syrian refugees (610 women and 1,205 men) benefited from post-basic education and life skills training in 2018.

All facilitators and community staff have been trained in the use of the remote learning guidelines described previously, with refresher sessions scheduled for 2021. Lesson plans and outlines have been revised to allow for online delivery. A blended model of accredited vocational training was implemented between June and December 2020. In total, around 739 young learners graduated from the programme in 2020. **Table 14.2** summarizes the benefits to various stakeholders.

[14.11] Specto is a company specializing in software development and professional training. It has been responsible for bringing the ICDL programme to Jordan since 2001. For more information, see **https://www.specto.co**.

TESTIMONIALS

Before the programme, my friends looked at me like, 'Where are you going, what are you doing [with your life]?' Now they see me wearing new clothes that I made myself [in the tailoring course] […] learning new things, getting a little stronger and better.

— ***From a focus group discussion with male programme participants aged 19–32***

ICDL [is] enough to turn an uneducated refugee into someone confident enough to deal with everyone in the camp. Also, I was able to make more friends than I ever thought I would have. The staff support the participants, making me more confident in myself, more creative. Also, they have a daycare [facility] so any parent can bring their child here while they learn new skills. [The programme has] brought a lot of change to a lot of participants here. I cannot describe in words the change we have been through.

— ***From a focus group discussion with male graduates aged 19–32 in Za'atari***

At the personal level, I gained knowledge. Like, I used to know the names of software, but I couldn't tell you what they were for. Now I know something about these software packages and I can put it on my CV. Speaking of which, I used to have to pay someone to make my CV for me, but after the course I can now do all that myself.

— ***From a focus group discussion with male programme participants aged 19–32***

I learned how to deal with people, how to absorb anger, I learned about myself. I learned how to stay calm and [figure out] what is the matter with me, to act instead of react. I learned how to deal with people. […] It also helped the children. They are calmer now than before. This reduced the problems in the family. I consider the programme a caretaker, a guide, a shepherd, like a mother. […] Here, you are able to break the daily routine, meet new people, and see your friends. It is another kind of life.

— ***Female graduate from Za'atari, District 8***

	Benefits to participants	Benefits to facilitators	Benefits to community
General	Young people report that they are engaging in their communities more as a result of the programme.	Syrian facilitators have a chance to connect with the community and feel that they are contributing to the development of those most in need.	Community needs are highlighted through consultations with local stakeholders.
Specific	Young women are more likely to report positive social effects and male youth more often report economic empowerment.	Syrian facilitators are more motivated as they feel a sense of ownership over curriculum activities.	Economic resilience: young people are better able to support their families as a result of the programme.

Table 14.2: Benefits of the youth programme for NRC stakeholders.

CHALLENGES

- **Policies restricting the right to work:** Despite having acquired additional skills and knowledge after completing the NRC Youth Programme, young Syrians' opportunities to work or engage in economic activities are restricted by existing policies in camps.
- **Unaccredited certificates:** As previously noted, the certificates provided by NRC are not accredited by the Jordanian authorities, which potentially reduces demand for NRC courses among young people.
- **Various barriers to participation:** Several factors prevent young people from participating, including the restrictive age range of 15 to 32 years, the long distance participants must travel to reach the centres, and class schedules that do not fit well with learners' work schedules or efforts to find work. Gender-related barriers were also identified, such as mixed-sex classes resulting in families refusing to let girls attend, or a lack of what is perceived to be adequate or appropriate clothing in which to leave the house.
- **High drop-out rate:** Completion rates from 2016 varied between the genders and across the camps. According to an internal survey conducted by the NRC, more males than females dropped out of the programme. The highest drop-out rate for males is in Azraq (52 per cent), followed by Za'atari, District 10 (44 per cent). The drop-out rate for females is also highest in Azraq (34 per cent), followed by Za'atari, District 10 (32 per cent)). Reasons for this include young people finding work or returning to Syria, and family pressure on female learners to drop out of class when they get married.

To counter these challenges, the programme strives to be sustainable in a variety of ways:

- **Community ownership:** The NRC Youth Programme is working towards transferring full ownership and management responsibilities to the camp community. In recent years, NRC has decreased its managerial role in centres. Today, all trainers and managers of trainers work side-by-side with community staff members. NRC plans in 2021 included strengthening community staff capacities by offering training in project-cycle management, leadership and management, and email correspondence. NRC will also pilot a system whereby community staff are mentored by NRC managers. In 2022, NRC plans to further expand the role and decision-making capacities of community staff with regard to centre management and operations.
- **Durable solutions:** Where possible, course certification is provided and international transferability secured. This enables youth to continue their education, regardless of whether they choose to stay in Jordan, return to Syria, or resettle in a third country. NRC is currently finalizing a research project to identify the skills that are most in demand in the private sector in Syria. The results of the research project will be reflected in both technical and transferable skills offerings.
- **Financial sustainability:** The production workshops component of the programme is based on a non-profit cost-recovery model whereby young people receive a wage and all operational and production costs are covered by the requester. Dedicated resources are invested in developing this model, as it is likely that a portion of the training and operational costs of the programme will be recouped through the income generated from production in future.
- **Institutional sustainability:** The NRC uses national-level coordination groups to advocate for the rights of refugee youth, and to push for changes in policy that will grant young refugees the right to quality education and decent work.

STAKEHOLDERS AND PARTNERSHIPS

NRC partners with national and international actors to ensure better quality of learning in refugee camps. These include, among others:

- Turquoise Mountain, an organization that works to preserve heritage and create income for artisans in countries around the world.
- Specto, a market leader in the use of ICT in learning, capacity-building and quality assurance.
- Arizona State University, which offers accredited English-learning programmes.
- UNICEF, the Swedish International Development Agency (SIDA), and the Norwegian Ministry of Foreign Affairs, acting as long-term partners and donors.

Furthermore, the NRC works with the Jordanian Government, engaging in relevant Jordan Response Plan taskforces,[14.12] and with the Ministry of Youth. It also co-chairs the national-level Education Sector Working Group and Youth Task Force, as well as co-leading the Compact for Young People in Humanitarian Action.[14.13] The NRC Youth Programme has been accredited by the Jordanian Centre for Accreditation and Quality Control since 2018[14.14] and by the country's Technical and Vocational Skills Development Commission (TVSDC) since December 2020. Furthermore, the NRC's technical work-based learning programme has been accredited by Qualifi (NRC's UK partner for international vocational skills accreditation) since early 2020.

FUTURE PLANS

There are plans to expand the programme to other countries and contexts. For example, the NRC has been approached to support projects in Lebanon. The NRC Youth Programme in Jordan has developed operational guidelines that provide practical, macro-level guidance on managing and operating ICT training for capacity-building programmes in refugee contexts. It is derived from experiences in the Za'atari and Azraq camps, and focuses on sharing the NRC's processes, scale, capacities and partnerships systems so that they can be adapted for use by other youth programmes.

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[14.12] For more information on the Jordan Response Plan for the Syria Crisis, see **http://www.jrp.gov.jo/**.

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Paper Airplanes Languages and Skills, United States of America

15

Programme title	Paper Airplanes Languages and Skills
Implementing organization	Paper Airplanes, Inc.
Location	United States of America
Language of instruction	Host country's language or L2; foreign language; combination of L1 (mother tongue) and L2
Date of inception	2014
Programme partners	Karam Foundation, MIT Refugee Action Hub, Na'amal, Workaround, NeTakallam (We.Speak), Jusoor, Collateral Repair Project, School of Leadership Afghanistan, Save Youth Future Society, Reclaim Childhood, Talent Beyond Boundaries, Syrian Youth Empowerment, Nexford University, Duolingo, International TEFL Academy, Monash University, Jesuit Refugee Service, Gaza Sky Geeks, University of Georgia, Amideast, FIU Online
Funding	US Government grant, private sector, national NGO, international NGO, private donors
Annual programme costs	USD 100,000
Annual programme cost per learner	Approx. USD 500
Annual cost of the digital tool	USD 15,000
Digital tool(s) used	Video-conferencing, cloud-sharing platforms, LMS based in Kiron Campus (2021), websites, videos
Target population	Refugees and internally displaced people (IDPs) in the Syrian Arab Republic, Jordan, Turkey, Lebanon, Saudi Arabia, Germany, Egypt, Iraq, Gaza, United States and Afghanistan
Learner age	13+
Learner to instructor ratio	English programme: individual tutoring 1:1; conversation classes 1:2–2:5
Target skill(s)	English literacy and digital skills
Impact	2,411 students. 85.6 per cent of students used the programme for at least one semester; 89 per cent noticed a significant improvement in their skills.
Programme website	https://www.paper-airplanes.org/

BACKGROUND

Worldwide, 71 million people have fled their homes due to violence and persecution (UNHCR, 2019). More than 21 million of them are located in the Middle East and North Africa, and over half are Syrian (ibid.). Nearly 20 per cent of Syrians are aged between 15 and 24, and more than 200,000 university-qualified Syrian students are not enrolled because of ongoing conflict (IIE, 2021). As a result, an entire generation of youth faces barriers to education and employment. These include a lack of language fluency, technical skills or credentials, and financial constraints. Existing language and skills training programmes are rarely free of charge, and often remain inaccessible to those in highly insecure areas or with family and work commitments. Meanwhile, programmes are unable to provide adequate services due to the vast number of people in need.

Paper Airplanes is a non-profit organization incorporated in the United States that facilitates language learning for refugees and internally displaced people (IDPs) through personal tutoring in 12- to 18-week sessions. Founded in 2014, Paper Airplanes provides online English language instruction to university-aged Syrian refugees in Turkey who were displaced due to the conflict in Syria. Paper Airplanes has grown to offer four different programmes: a Turkish programme, a Youth Exchange programme for young people aged 13–18, a Women in Tech programme, and a Student Advising programme.

According to UNHCR, only 1 per cent of young refugees attend university compared with 34 per cent globally (UNHCR, 2016). Paper Airplanes supports young refugees not only by giving them the opportunity to learn the languages and skills they need to make the transition to higher education, but also by equipping them with the confidence and opportunities they need to find meaningful employment.

OVERVIEW OF THE PROGRAMME

The programme prides itself on its sensitivity towards its student population, using virtual platforms to provide educational experiences to students who are unable to take advantage of in-person learning opportunities. Trained volunteer tutors are paired up with learners (see **Figure 15.1**, Step 1), and together they progress through a curriculum that corresponds to the learners' English language proficiency. The volunteer tutors are provided with both educational resources and counselling on trauma-informed behaviour so that they can work effectively with their students (see Step 2).

Paper Airplane's programmes are run entirely remotely using video-conference technology, allowing them to reach refugee and IDP students in locations that traditional teachers might

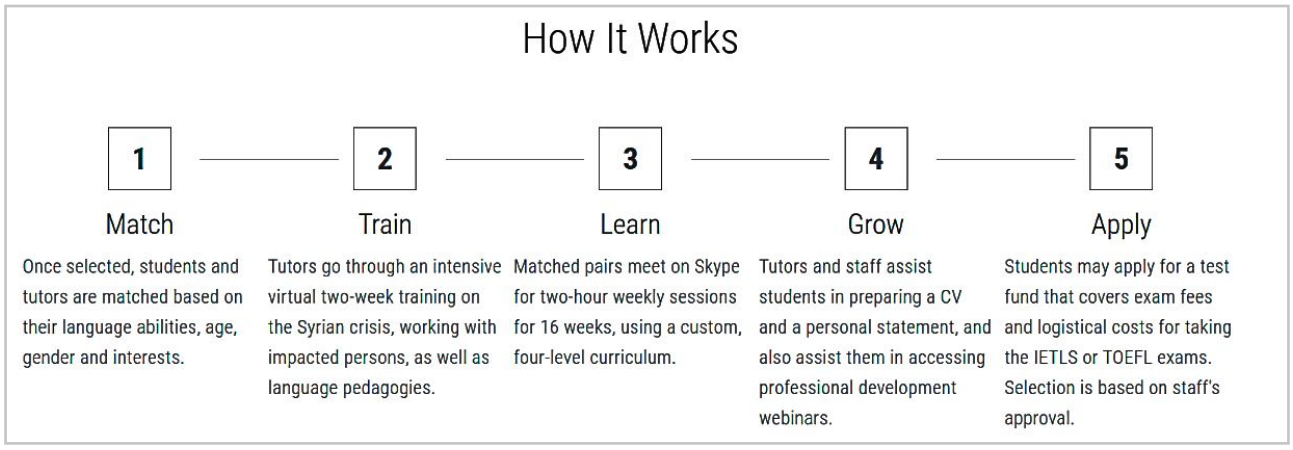

Figure 15.1: Paper Airplanes' five-step process. *Source:* Paper Airplanes

normally struggle to reach. The virtual modality also allows Paper Airplanes to keep costs low. By recruiting volunteer tutors, the programmes provide a cost-effective, scalable education solution that is free of charge to users.

Paper Airplanes has a professionally written curriculum designed to reach students with levels of English language proficiency ranging from beginner to advanced. Learners meet with their tutors for two hours a week (**Figure 15.1**, Step 3). They also have the opportunity to participate in group conversation classes to improve their speaking and listening skills. Learners receive help writing personal statements and résumés if needed for employment or further learning opportunities (see Step 4). Paper Airplanes also supports learners who want to take accredited English proficiency exams by offering a test fund for which learners can apply (see Step 5).

Although university partners offer programmes for displaced people, systemic barriers continue to hinder educational participation and achievement among refugees compared to non-displaced persons. Paper Airplanes is uniquely positioned to redress this injustice: its model allows it to help learners access learning, career connections and communities in circumstances where such opportunities are scarce.

The Paper Airplanes programme used virtual instruction to deliver its educational services even before the COVID-19 pandemic made this a necessity. Since its inception in 2014, the programme has provided free instruction to individuals via video chat in a one-to-one format. In 2020, while the rest of the educational world was forced to learn how to teach virtually, Paper Airplanes had already been using this method successfully for several years, providing refugees with educational services that fill in the gaps created by socio-political unrest in the Middle East and North Africa.

Paper Airplanes' planning and operations are led by an executive team consisting primarily of the executive director and the managing director. It has a volunteer board of directors, which oversees general strategy, annual planning and fundraising activities.

Figure 15.2: Paper Airplanes produced a short promotional video, which can be viewed on YouTube.[15.1]

PROGRAMME OBJECTIVES

According to its website, the Paper Airplanes programme's mission is 'to enable learning continuity' (Paper Airplanes, 2021). By connecting volunteer tutors with refugee learners, the programme 'helps these learners complete their education, while also empowering them with skills for gainful employment' (ibid.).

More specifically, through its work, the Paper Airplanes programme seeks to:

- improve learners' English language and literacy through one-to-one and group lessons;
- support learners' acquisition of digital literacy skills;
- provide pathways to employment and higher education.

[15.1] The video can be accessed at **https://youtu.be/L1igL0e_an8**.

LEARNERS

In 2019, Paper Airlines enrolled just over 1,000 learners in its programmes, of whom approximately 550 were returning learners and the remainder were new learners. About 47 per cent of learners were women, while 53 per cent were men (Paper Airplanes, 2021). Location data provided by learners revealed that some 30 per cent were based in the Syrian Arab Republic, while 25 per cent were located in Jordan, 23 per cent in Turkey, and the remainder distributed around the Middle East and North Africa.

LEARNER ENROLMENT

Learners can enrol in the programme in two different ways: either individually or on the recommendation of a partner organization. Learners referred by partners are guaranteed a place in the English programme. Individuals who apply through the Paper Airplanes Facebook page are evaluated by English programme staff who look at a variety of criteria including gender, location, nationality, migration status and motivation for learning English to determine who will be accepted.

Figure 15.3, shows an example of an advertisement for Paper Airplanes from the programme's Facebook page.

Every ending is a new beginning.

As we approach the end of 2020, we're excited to announce the beginning of our English program for 2021! Our program matches learners with tutors and provides personalised training to ensure success.

Interested? Application for learners is open on December 4th and 5th, so mark your calendar and be sure to let anyone who is interested know about it, too!

Application link:

https://www.facebook.com/PaperAirplanes

Figure 15.3: Paper Airplanes Facebook advertisement. *Source:* Paper Airplanes

Since technology is used to deliver services, learners take part in a remote training module using the platforms and applications that Paper Airplanes uses to carry out its activities. Learners provide or procure a Gmail[15.2] address in order to

[15.2] Gmail is a free email service provided by Google. For more information, see **https://www.google.com/gmail/about/**.

access the programme curriculum materials on Google Workspace.[15.3]

LEARNER ASSESSMENT

The programme's enrolment process includes a pre-diagnostic assessment of language proficiency. Individuals may self-assess and request an easy or difficult placement test, which will determine their English proficiency in line with the levels (A1, A2, B1, B2, C1 or C2) defined in the Common European Framework of Reference for Languages (CEFR).[15.4]

Following the placement test, students can be put forward to attend further Paper Airplane programmes. For example, women who achieve a B2 level of English proficiency can enrol in the Women in Tech programme and learn IT skills such as coding, web design and business analytics. Students who show high proficiency in the English language programme can receive support from the Student Advising programme to help them identify and apply for universities or jobs.

Paper Airplanes sends surveys to students at the beginning and end of each programme in order to obtain information on their learning progress and to assess the impact of the programme. Paper Airplanes' annual survey furthermore collects feedback and testimonials from past learners regarding their progress in achieving their educational and employment goals.

TEACHING AND LEARNING APPROACHES

The Paper Airplanes English language programme curriculum is designed to promote intercultural dialogue, foster understanding, build bridges and break down barriers. By focusing on goal-setting and contemporary, student-centred topics, the curriculum incorporates language skills in a contextualized environment.

Learners and tutors begin by identifying goals. These are closely monitored and discussed on an ongoing basis. Learners conclude each semester by taking a final exam. Throughout the semester, they are encouraged to express their feelings openly and engage in thoughtful discussion as they explore topics such as racial disparity, environmental laws, and non-fiction storytelling. All learners and tutors participate in dynamic online interactive activities during which they present personal perspectives and develop a greater understanding of other peoples and cultures at a level that suits them. For example, learners at beginner level learn how to make medical appointments. Through this exercise, they use the interrogative mode, learn key vocabulary, and speak with cultural sensitivity about identifying illness, defining self-care and identifying important services. The tutor engages thoughtfully with the students and guides them through these exchanges.

Tutors and learners communicate as equals who use modern media to learn from one another and enhance their soft skills. Learning progress is monitored at each level through weekly activities, midterm assessments and final exams.

Learners and tutors contribute regularly to the curriculum through one-to-one communication with the curriculum director. This allows the curriculum to be adapted to the cultural, demographic and language needs of the learners it serves.

[15.3] Google Workspace is a collection of cloud computing, productivity and collaboration tools, software and products developed and marketed by Google. For more information, see **https://workspace.google.com/**.

[15.4] CEFR: **https://www.coe.int/en/web/common-european-framework-reference-languages/level-descriptions**

To ensure a high level of engagement, personalization according to each learner's needs and flexibility in scheduling, the programme maintains a learner-facilitator ratio of 1:1 for the individual tutoring component of the English programme and 1:2–2:5 for the group conversation classes.

RECRUITMENT AND TRAINING OF FACILITATORS

The programme team comprises 30 paid and volunteer staff, who are located all around the world. Volunteers must be advanced or fluent English speakers, 18 years or older, and demonstrate a commitment to serving conflict-affected communities. While there is high demand for participation from learners, volunteer tutors must be recruited by staff who conduct outreach that targets universities and other groups that can refer individuals looking for volunteer opportunities.

The programme requires its volunteer tutors to attend a training module that is facilitated through Google Classroom and takes 6–8 hours to complete. The training module is asynchronous, which means that volunteers can complete it at their own pace. It is moderated by tutor coordinators. The programme also provides the volunteers with professional development webinars and social activities that promote a sense of community. Topics covered include pedagogical techniques, trauma-sensitive approaches, socio-cultural issues, and information about the programme and its mission. Once tutors have completed the training, they are matched with a learner based on age, gender, language proficiency, academic interests and availability (since time zone differences may be significant).

Each tutor-learner pair is then supported by a tutor coordinator and learner coordinator. Tutor coordinators check in with tutors on a weekly basis in order to keep track of attendance and help tutors tailor lessons to their learners' specific needs. Learner coordinators support students' learning and help them with any communication issues they may be experiencing.

TECHNOLOGY INFRASTRUCTURE, MANAGEMENT AND USE

Paper Airplanes primarily uses free online cloud-based options such as Google applications to ensure low operational costs and widespread accessibility in the countries in which its learners are located. Learners must have an internet connection and usually access Paper Airplanes' content on their mobile phones. Google applications were chosen as they are mobile-friendly and can easily be shared with new learners, with no limits on the number of users accessing content. Video-call platforms such as Skype,[15.5] WhatsApp,[15.6] Facebook Messenger,[15.7] Google

[15.5] Skype is a proprietary telecommunications application. For more information, see **https://www.skype.com/en/**.

[15.6] WhatsApp Messenger is a US freeware, cross-platform, centralized messaging and Voice over Internet Protocol (VoIP) service owned by Facebook, Inc. For more information, see **https://www.whatsapp.com/?lang=en**.

[15.7] Facebook Messenger is a US messaging app and platform developed by Facebook, Inc. For more information, see **https://www.facebook.com/messenger/**.

Meets[15.8] and Zoom[15.9] are also used to allow volunteers and learners to interact during the one-to-one tutoring sessions. Volunteers and learners can choose their preferred platform for video calls.

Google Drive is used to host curriculum content, such as lesson plans for tutors and assignments for learners. At the same time, tutors are at liberty to supplement the provided content with online materials of their choice. Tutor-learner pairs are free to use any platform they choose for their video sessions, as some platforms are more popular or more user-friendly depending on the equipment available locally for use by the learner or tutor. The programme indicates that many of its learners access its virtual learning provision using mobile phones.

Paper Airplanes provides separate online training interfaces for learners (**Figure 15.4**) and tutors (**Figure 15.5**).

Figure 15.4: Learner training page. *Source:* Paper Airplanes

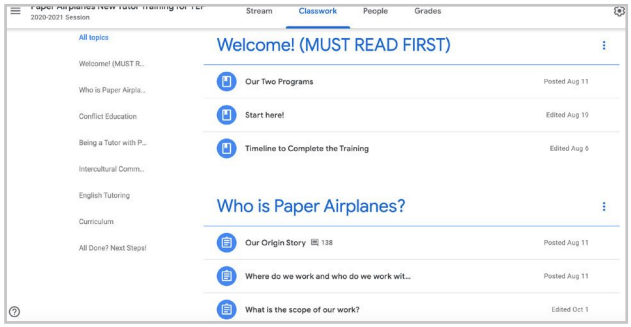

Figure 15.5: Tutor training page. *Source:* Paper Airplanes

From 2021, Paper Airplanes plans to partner with Kiron Campus (see section on stakeholders and partnerships) to provide all of its educational services on a single platform.

PROGRAMME IMPACT

Since its inception in 2014, the Paper Airplanes programme has served 2,087 learners. It has:

> ***'Directly connected 52 learners to university scholarships, and [...] connected 18 learners to training programmes to improve their employability' (Paper Airplanes, 2021).***

In 2020, the programme served 600 learners during the autumn term, almost doubling its average of 350 in previous semesters. Its 2019 Annual Report lists the following achievements:

- 85.5 per cent learner retention rate;
- 89 per cent learner satisfaction rate;
- 82 per cent of English language learners felt prepared to use English in a work or university setting;
- 15 per cent increase in the number of female learners (Paper Airplanes, 2019a).

Further benefits to participants, facilitators and the community are summarized in **Table 15.1**.

[15.8] Google Meet is a video communications service developed by Google. For more information, see **https://meet.google.com/**.

[15.9] Zoom Video Communications, Inc. is a US communication technology company. For more information, see **https://zoom.us/**.

	Benefits to participants	Benefits to facilitators	Benefits to community
General	Improved English language skills	Participation in a meaningful volunteer opportunity	Greater cross-cultural understanding
Specific	Improved prospects for higher education Improved employability Improved intercultural communication	Improved intercultural communication Increased knowledge of the challenges facing conflict-affected individuals	

Table 15.1: General and specific programme benefits. *Source:* Paper Airplanes

TESTIMONIALS

The Paper Airplanes website includes a blog page describing a learner's experience of the programme in detail. Ahmad is a Syrian refugee who had struggled to access education. 'Paper Airplanes helped him by offering a range of courses and ultimately the possibility to become a staff member. But most of all, PA has given him the hope and the strength [to pursue] his goals' (Alawia, 2020).

Mahmoud Alsteif is another example of a learner who has been empowered by the Paper Airplanes programme. Eager to improve his English in order to widen his educational and career prospects, Mahmoud, from Idlib, Syria, joined the organization shortly before his nineteenth birthday. His story features in the online publication, *@dolescent* (Rimawi, 2021).

Further inspiration can be found on the Paper Airplanes programme's YouTube channel, which features a brief video of Sara and Wafaa, a learner and tutor pair, talking about the benefits of the programme to them and their community (Paper Airplanes, 2019b).[15.10]

© Paper Airplanes
Tutor Sara (left) and student Wafaa talk about their positive Paper Airplanes experience in a video for YouTube.

CHALLENGES

One challenge that must be addressed is the availability of technology. All stakeholders must have access to technological equipment in order to use the programme's educational services. Refugee populations, however, may not have access to technology or even electricity.

The programme also cites retention of both learners and volunteer tutors as an area of concern. It has addressed this by improving training, creating a community and providing support through tutor and learner coordinators

[15.10] The video can be viewed at: **https://www.youtube.com/watch?v=ZsWdsN1yGYk**

who check in regularly with both parties to answer questions and offer guidance.

Fundraising has proven to be a further challenge, due to increasing competition for philanthropic grants and other donor funds.

STAKEHOLDERS AND PARTNERSHIPS

The Paper Airplanes programme has partnerships with 18 different organizations, including Nexford University, the University of Georgia, Monash University, the Jesuit Refugee Service, Talent Without Boundaries and Duolingo. As previously noted, Kiron Campus will support the consolidation of Paper Airplanes learning content on a single platform in 2021.

FUTURE PLANS

The programme indicates a need to actively develop the Paper Airplanes brand and communication strategies across its stakeholders, partners, and supporters primarily in order to strengthen financial support and further expand the existing programme. The programme also reports that it may seek accreditation or similar certification in future.

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Rising on Air, West Africa

16

Programme title	Rising on Air
Implementing organization	Rising Academy Network
Location	20-plus countries Headquarters in Sierra Leone
Language of instruction	Multiple languages (mother tongue, host country's dominant language, combination of first and second languages)
Date of inception	March 2020
Programme partners	Creative Commons, Liberia Ministry of Education, We Can Lead, University of Oxford, Global Giving, UBS Optimus Foundation, Save the Children, Innovation Unit, Ark, Results for Development, The Solon Foundation
Funding	International NGO; foreign donor
Annual programme costs	USD 400,000
Annual programme cost per learner	USD 0.03
Annual cost of the digital tool	USD 500
Digital tool(s) used	Radio, podcasts, WhatsApp, SMS, Slack, social media, phone.
Target population	Refugees, migrants, out-of-school youth, women and girls
Learner age	3–23
Learner to instructor ratio	N/A
Target skill(s)	Literacy Literacy and rural development Literacy and gender Literacy for health Literacy to lifelong learning
Impact	Over 50,000 learners in three countries (Sierra Leone, Liberia and Ghana)
Programme website	**https://www.risingacademies.com/**

BACKGROUND

The COVID-19 pandemic has left more than 1.5 billion children out of school globally (Strauss, 2020). In March 2020, the Rising on Air (ROA) radio programme[16.1] was created by the Rising Academy Network (RAN)[16.2] in response to the COVID-19 pandemic. In an attempt to prevent the disruption of education services caused by the pivot to remote learning in Sierra Leone, Liberia and Ghana, and drawing on similar educational challenges faced during the Ebola crisis, the ROA programme was designed as a distance learning solution that could strengthen and build students foundational skills even when they are out of school.

RAN provides educational services to students with low literacy skills and limited access to the internet. Radio is the primary means of contact due to its 'higher penetration levels' (Ho and Thukral, 2009; Wittels and Maybanks, 2016), along with alternative methods of outreach such as podcasts, WhatsApp, text messaging (SMS) and other platforms.

Most ROA material is intended for students in the K–12 environment. Curricula are written by local design teams who tailor the material according to the target audience's language and available information and communication technology (ICT). This helps to expand access to the programme for learners beyond the formal system.

Several countries around the world have adopted the ROA programme in the wake of the COVID-19 pandemic. Distance learning is especially important in countries such as Sierra Leone and Burkina Faso, which have experienced a history of civil unrest. Sierra Leone is making up for gaps in ICT capacities as it recovers from a devastating civil war that destroyed its infrastructure (World Bank, 2007).

Burkina Faso continues to face terrorist groups that target the education sector, causing schools to close and families to withdraw their children from school in fear for their safety. Over the past three years, 350,000 children in Burkina Faso were forced to drop out of school due to terrorist violence. These children long for a way to continue their education (Mackinnon, 2020).

Another consequence of this violence is an increasing number of refugees and internally displaced people (IDPs). Countries such as Uganda and Liberia host millions of refugees from neighbouring nations (UNHCR, 2020). Although Liberia has a national ICT policy plan that aims to significantly develop the technology sector over the next five years (Lumeh, 2019), refugee settlements continue to face unreliable electricity and internet connections (UNHCR, 2020), increasing the demand for a distance learning tool that is accessible in low connectivity settings.

Countries such as India and Ghana have made impressive progress in developing and integrating ICT into national curricula in recent years (Mangesi, 2007). However, the COVID-19 pandemic revealed a vast digital divide that exacerbates inequalities, excluding female learners in particular. Recent progress in female school enrolment is threatened, as girls who are out of school for an extended period are unlikely to return (Amporo and Nabbuye, 2020). Distance learning is therefore crucial to maintaining the education of the world's most vulnerable learners.

OVERVIEW OF THE PROGRAMME

Rising on Air is a free distance learning solution licensed under the Creative Commons.[16.3]

[16.1] Rising on Air: **https://www.risingacademies.com/onair#block-b9b94103823c2d898d55**.

[16.2] Rising Academy Network: **https://www.risingacademies.com/**.

[16.3] Creative Commons is an American non-profit organization and international network devoted to educational access and expanding the range of creative works available for others to build upon legally and to share. To find out more, see: **https://creativecommons.org/**.

The programme uses RAN's curriculum, which is 'high-quality and structured' (RAN, 2020) in nature, redesigned for delivery via radio and SMS. The programme aims to assist several governments and partners around the world by providing high-quality teaching and learning to millions of children who are out of school due to the COVID-19 pandemic. To achieve its aim, ROA provides lesson scripts and pre-recorded audio content to be delivered via radio and SMS. ROA prides itself on having 'early years, lower primary, upper primary, and secondary content' (ibid.) already available, with new resources being added on a weekly basis.

On its website, RAN (ibid.) states:

> ***Rising on Air is a free distance learning solution reaching over 12 million children globally and licensed under the Creative Commons.***

ROA provides curricula that include literacy/language, arts and numeracy/maths for five different levels, from early childhood to senior secondary. All content is available primarily via radio, with printable worksheets and SMS options available as enhancements. The programme is delivered in 20-week units designed to reach refugees, migrants, out-of-school youth, and women and girls. It is provided free of charge to partner organizations worldwide.

There is currently no initial diagnostic assessment for the programme, but ROA is working on its development. Users can choose which content to address. Likewise, at this time there is no formal assessment to measure educational gains during the last few years' remote learning period.

PROGRAMME OBJECTIVES

Aiming to serve an increasing number of refugees, migrants and out-of-school youth, especially women and girls, the objectives of ROA are to:

- raise the quality of education for refugee students in camps and schools by implmenting ROA content into the educational provision by local and international organizations;
- quickly reach students in emergency and crisis situations (including health crises; natural disasters and human conflict) with quality learning content by embedding ROA into crisis-response networks;
- use ROA to reach marginalized children in non-crisis settings who are nevertheless unable to attend school, e.g. because they have to work.

LEARNERS

The wide reach of the ROA material ensures free distance learning for learners of various ages, languages, and access to technology. In total, it reaches more than 10 million children in 25 countries across Africa and Asia. ROA has content available for five different levels (early childhood education [ECE], lower primary, upper primary, lower secondary, upper secondary), catering to the needs of learners aged 3–23. Learners at different starting points can therefore find their level within the programme.

Curricula are designed with specific groups of learners in mind. Written in English, French and Arabic, lessons are formatted for change of language, and made to be adaptable to formats other than radio. The lessons are designed to be applicable to students in multiple grade levels and are easily accessible. Moreover, the content of the lessons varies in difficulty in order to engage students with a wide range of abilities.

As mentioned, the radio format was selected due to its broad availability to students in the countries served by RAN: Sierra Leone, Liberia and Ghana. With limited access to the internet in these areas and little turnaround time at the outset of the

COVID-19 pandemic, these regions also drew on their experience during the Ebola outbreak to provide instruction to learners quickly and with minimal disruption.

The structured framework of the curricula is used by 35 partner organizations and has even been adapted for student populations outside of the traditional K-12 range. One group uses the material for a programme titled MyAgro,[16.4] reaching 400,000 farmers in Senegal and Mali.

A unique aspect of the programme is that the curriculum does not ignore teachers' own learning needs. It provides professional development training to teachers in radio format.

© RAN
Student taking notes during a lesson.

LEARNER ENROLMENT

Since ROA is a radio-based programme made available to local education providers, the enrolment process varies according to the practices of the individual users. Any student with access to national radio can be an ROA learner.

LEARNER ASSESSMENT

As with enrolment, assessment also varies according to the practices of the individuals that use the material. There are no tests or other traditional assessment markers included in the ROA curriculum. A typical assessment approach consists of a survey that targets students and their parents for their feedback on ROA programming, primarily via telephone or SMS. This is done after the lessons are provided via radio. The ROA team and teachers also call parents for feedback periodically or receive calls from the beneficiaries regarding the content of the programme.

Programme providers use this feedback to develop and refine the ROA model through schools in their network. The learning gained from such experiences then informs work with governments and other partners in order to improve the overall quality of schools. This work is carried out at scale throughout the wide range of schools targeted by the programme 'at a third of the unit cost of other leading networks' (RAN, 2020).

TEACHING AND LEARNING APPROACHES

ROA was designed to be highly structured yet adaptable. It reports that roughly one-third of its partner/user organizations used the lessons exactly as written, while another third adapted them slightly and the final third adapted the lessons considerably. It planned for the contingency that local design teams would adapt the curriculum[16.5] to fit their contexts.

ROA was built for rapid replication and deployment. RAN (ibid.) explains, 'We support

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[16.4] MyAgro is a mobile 'layaway' platform that allows farmers to use their mobile phones to purchase seeds and fertilizer in small increments. For more information, visit: **https://www.myagro.org/**.
[16.5] ROA English curriculum web page: **https://www.risingacademies.com/on-air-english**.

implementation with toolkits, how-to guides and webinars, while our Collaborators on Air online community has connected 127 experts and practitioners from 45 countries, a huge source of intangible capital for scaling.' The instructional design includes direct instruction, deliberative practice, teacher modelling, multisensory activities, and think-aloud exercises. Health and safety messages specifically addressing COVID-19 are worked into most lessons.

ROA identified the need to provide educational opportunities as well as opportunities for outreach to teachers through the process of delivery. it realized that delivering lessons via radio could result in the exclusion of teachers as active participants in the learning process. ROA therefore created a subset of materials specifically for the professional development of teachers.

ROA follows a three-step process for content development (see **Figure 16.1**). If an organization is interested in using materials produced by ROA, the programme makes it simple for them to do so. According to the ROA website (ibid.), an organization can simply:

- download radio-ready scripts,
- edit scripts to meet local needs,
- re-record the adapted scripts in a local voice.

ROA provides curricula structured as Radio ECE, Radio Reading and Radio Maths. Radio ECE targets children ages 3–5, providing instruction to address foundational skills including phonics, phonemic awareness, reading comprehension and 'early language'. Introducing each lesson with a health and safety message, Radio ECE 'integrates play, song, and movement through socio-emotional activities and fine and gross motor skills practice' (ibid.).

Radio ECE also addresses numeracy for children in the same age range, again starting each lesson with a health and safety message. Instruction covers counting fluency, number recognition and manipulation of numbers up to 20.

Radio Maths continues to address numeracy and mathematical skills for students at lower primary, upper primary, junior secondary, senior secondary and high school level. The lower levels explore place value, addition, subtraction, mathematical vocabulary and fluency, while the upper levels build on these foundations, continuing with larger numbers as well as multiplication, division, powers, etc. Like Radio ECE, lessons in Radio Maths start out with a health and safety message, and also integrate play and movement for the listener-learners.

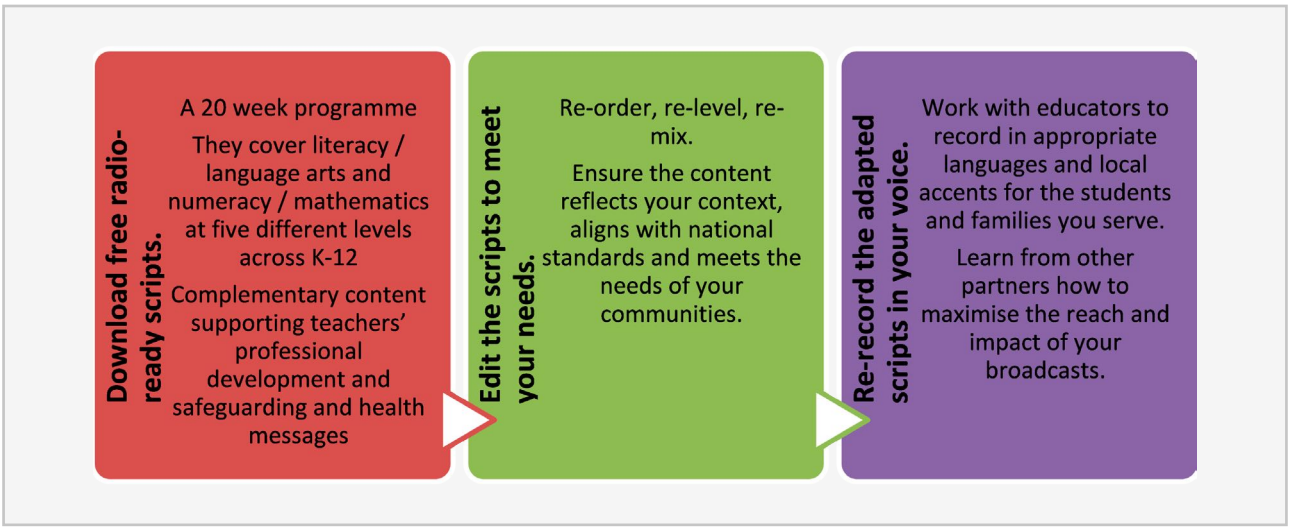

Figure 16.1: Three-step process to create and record content (adapted from RAN, 2020).

Radio Reading has a similar reach to Radio Maths: lower primary (grades 1–3), upper primary (grades 4–6), four ranges of (junior) secondary school and three ranges of (senior) secondary school. The primary levels build phonological and phonemic awareness, phonics knowledge, basic listening and vocabulary. Secondary levels continue to build on these skills and also help to develop a breadth of comprehension skills that progress in complexity. Like its counterparts, this series of radio lessons includes additional support for students via SMS. Each lesson in Radio Reading begins with a mindfulness activity and ends with a health and safety message. Additionally, the lessons in this series are designed to practise skills that will be assessed on national exams. Summaries of ROA curricula such as Radio ECE,[16.6] Radio Maths[16.7] and Radio Reading[16.8] can be accessed online.

The site also has a Partner Portal,[16.9] through which an organization can access everything needed to use ROA, including lessons that are broken down by week and links to summaries and scripts for all curriculum levels. Their website has extensive information about the use of SMS for contacting students and parents, including guidance on technology[16.10] with step-by-step instructions.

RECRUITMENT AND TRAINING OF FACILITATORS

Since ROA is a radio-based programme to which local education providers are given access, the recruitment and training of facilitators varies according to the practices of the individual programmes that use the material. Theoretically, since ROA's materials are freely available under Creative Commons licensing rules, anyone can access and utilize them.

As explained by ROA, since the lessons are aired on the radio, they are designed to be used without a facilitator. However, some of ROA's global partners are implementing the lessons in small 'listening groups' with facilitators. This 'depends on a partner's chosen delivery mechanism' (ibid.).

Teachers can also use the website described above as an extensive resource. It features directions and (in some cases) scripts for making phone calls to students. ROA provides information on professional development for teachers,[16.11] with scripts and audio to help teachers hone their craft.

ROA has a Teacher Professional Development (ROA Teacher PD) lesson called 'Do Now',[16.12], which presents a commonly used classroom activity for primary and secondary levels. The lesson lists the topic, introduction and rationale for the activity and explains what makes it

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[16.6] See more here: **https://drive.google.com/file/d/1L5xaCmejY9KHBOpofNs9P6MlgwyiZ1oB/view?usp=sharing**.

[16.7] See more here: **https://drive.google.com/file/d/18yu1YObDm7Is7QpZZYSDnu3rnG8HPOGH/view?usp=sharing**.

[16.8] See more here: **https://drive.google.com/file/d/1ciT8GivNAcYunm1ysjrtL7dvmb31FsKv/view?usp=sharing**.

[16.9] ROA Partner Portal. Please go to: **https://www.risingacademies.com/rising-onair**.

[16.10] Rising Academy: Technical and General Tips – SMS: **https://static1.squarespace.com/static/5555e7a7e4b01769086660e5/t/5f062357bd6cfa7c6b83955c/1594237784494/Technical%2BSide%2Band%2BTips%2BSMS.pdf**.

[16.11] For more information on teacher professional development, visit: **https://www.risingacademies.com/on-air-teacher-professional-development**.

[16.12] For more information on ROA Teacher PD: Do Now, visit: **https://drive.google.com/file/d/1DsL7bnKPCqQWqKrHV1Lq_YCj9-1Mz6q_/view**.

effective. This is followed by a summary of the lesson, space and directions for teacher reflection, and instructions for teacher well-being and mindfulness.

© RAN
Teachers recording their lessons

TECHNOLOGY INFRASTRUCTURE, MANAGEMENT AND USE

The greatest challenge presented to RAN is the absence of information and communication technologies in the countries where it provides in-person instruction: Sierra Leone, Liberia and Ghana. It is therefore designed to work without a reliable internet connection, instead using technologies which are more widely available: radio and phone.

Instruction and materials are provided in many formats, including radio, WhatsApp, SMS, social media such as YouTube and Facebook, phone calls and recordings. The instructional designers maintained a low level of technology access so that students in rural and remote locations could participate. End users can listen to the content on radios in their home or community, or on a phone. They can also download pre-recorded audio from the RAN website or on podcast platforms such as iTunes.

Recording equipment and studios and the ability to broadcast via radio are incredibly important to any organization using ROA to deliver remote education services. **Figure 16.2** provides a breakdown of distribution channels utilized by various ROA partners. Radio is the most common and widely used tool. WhatsApp is the second most commonly used tool, but is used by less than half of partners across the globe.

SMS technology was introduced to complement the radio-based lessons. The SMS campaign causal chain (**Figure 16.3**) indicates how the SMS campaign changes the behaviour of the in-home listener. A draft SMS was developed with local staff and later modified based on learners' parents' feedback. SMS content follows a specific schedule to remind, reinforce and encourage parent recipients to motivate their children or learners themselves to learn (**Figure 16.4**). On

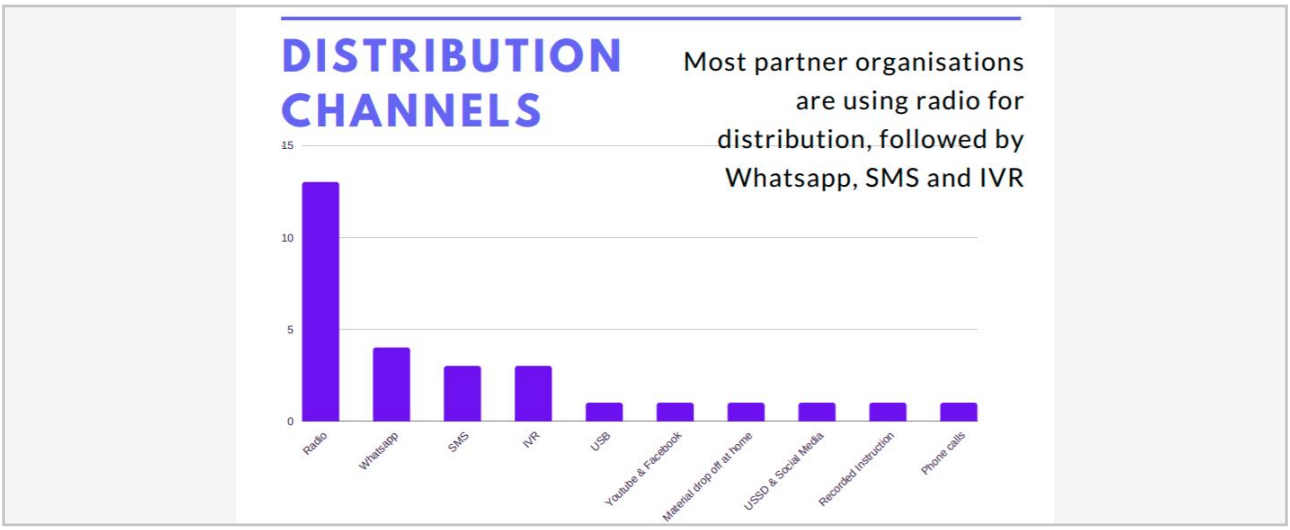


Figure 16.2: Distribution channels used by ROA partners. *Source:* ROA, 2020

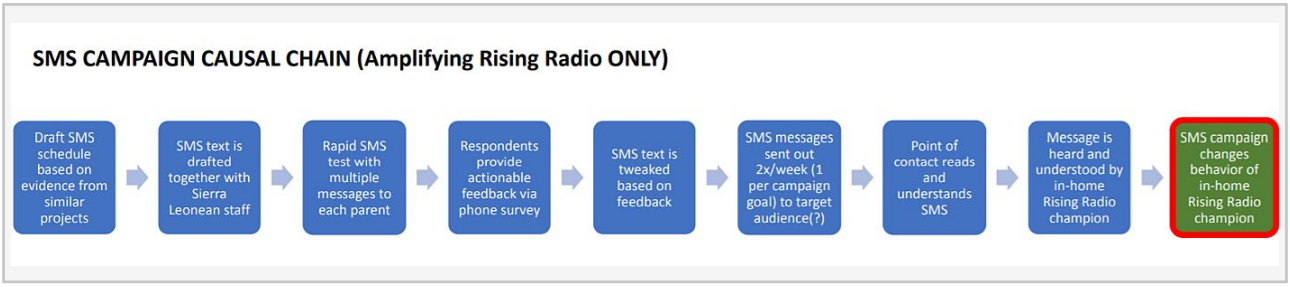
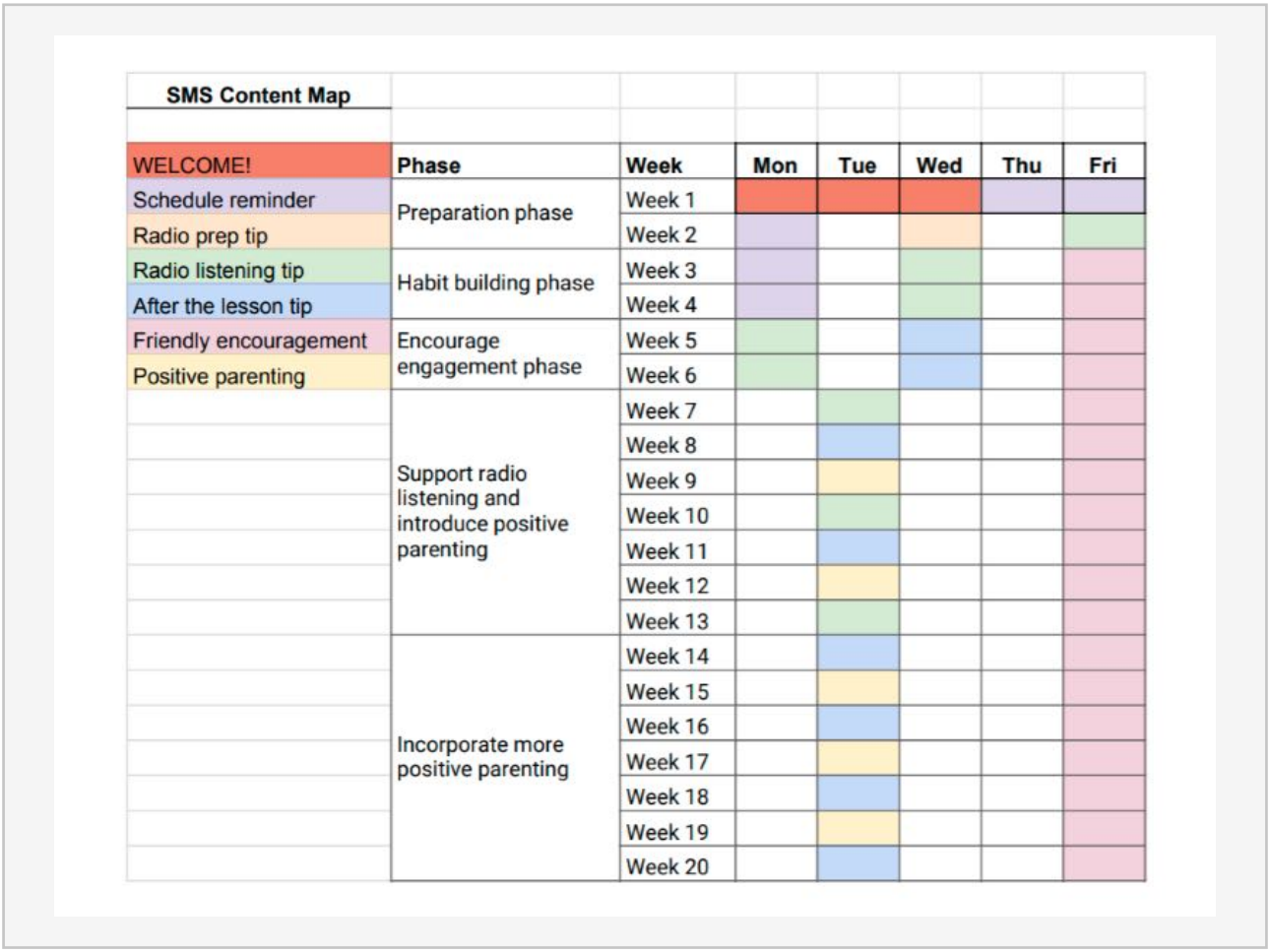


Figure 16.3: SMS campaign causal chain. *Source:* RAN, 2020

the first three days of the first week, the preparation phase, a welcome message was sent to learners. Subsequently, reminders of upcoming lessons and learnings tips complemented radio lessons. Moreover, friendly encouragement and positive parenting content were also delivered through the SMS at regular timeframes in later weeks.

ROA's podcasts and audio lessons are compatible with any standard podcasting app. However, it is recommended that users install the open source AntennaPod app, as it does not require much memory to run and is therefore ideal for low-memory phones. The availability of apps such as AntennaPod allowed ROA to transfer the audio lessons to a podcast form without investing in building the necessary infrastructure.

Besides using these digital tools for teaching and learning, the programme also utilizes these tools as feedback loops. The practice of feedback



SMS Content Map

WELCOME!	Phase	Week	Mon	Tue	Wed	Thu	Fri
Schedule reminder	Preparation phase	Week 1					
Radio prep tip		Week 2					
Radio listening tip	Habit building phase	Week 3					
After the lesson tip		Week 4					
Friendly encouragement	Encourage engagement phase	Week 5					
Positive parenting		Week 6					
	Support radio listening and introduce positive parenting	Week 7					
		Week 8					
		Week 9					
		Week 10					
		Week 11					
		Week 12					
		Week 13					
	Incorporate more positive parenting	Week 14					
		Week 15					
		Week 16					
		Week 17					
		Week 18					
		Week 19					
		Week 20					

Figure 16.4: The SMS content map. *Source:* RAN, 2020

loops came into existence at the start of the programme when ROA had groups of children listen to the lessons and provide feedback on their experience. In addition to radio lessons, learners were also provided with contact numbers where listeners could simply call in with questions or send comments via text message. Through these practices, ROA reports that their partner organizations using the lessons in different countries are able to provide feedback and ideas for improvement.

PROGRAMME IMPACT

According to the ROA survey results (ROA, 2020), 25 countries spanning three continents are currently using ROA. With 35 partners around the globe, the programme is especially widespread in Africa and Asia. Such a wide reach means that the programme currently serves over 10 million children, making it one of the largest technology-based programmes in these regions.

Speaking about the importance of the programme, Former Minister of Education for Liberia George K. Werner said that it provided a crucial anchor to the education system when schools were closed during the pandemic. He believes that programmes such as ROA are especially important because the longer schools remain closed, the higher the chances of children not returning.

> ***Rising on Air allows partners and governments to mobilize quality radio and SMS content quickly and, importantly, in their own voice. I am impressed by the growing community working together on this project.***
>
> ***— George K. Werner, Former Minister of Education, Liberia***

RAN has been able to produce learning materials with a large reach (20 countries across Africa and Asia) at a minimal cost (USD 0.03 per learner). Funding is provided by philanthropic means, which has allowed RAN to share its materials free of charge.

RAN has commissioned an external randomized control trial by the Centre for Global Development[16.13] in order to demonstrate tangible educational outcomes. However, the trial is not complete at this time, nor is the internal data collected by ROA via phone on parent engagement ready for interpretation.

For more local impact and achievements, data for in-person schooling in Liberia showed that students made more than twice the improvement in reading and mathematics annually, compared to their counterparts in other schools.

Another singular case is presented by one of the members of ROA's growing community in Pakistan called Innovate Educate and Inspire (IEI).[16.14] Marvi Soomro, the founder of IEI, reiterates the uniqueness of the programme in the context of Pakistan:

> ***For IEI Pakistan, this programme is a unique opportunity to take learning to students facing the digital divide in this pandemic. We were able to take the first lesson script, translate it and record it in two days!***
>
> ***The team at Rising is very supportive and the connections this partnership is creating are valuable during and post-corona.***
>
> ***— Marvi Soomro, Founder of IEI***

[16.13] For more information on Centre for Global Development, visit: **https://www.cgdev.org/**.

[16.14] For more information on IEI, visit: **https://ieipakistan.org/**.

Soomro states that the lesson scripts not only encourage student engagement but are also structured in a way that supports modifications and adaptations required for specific regional contexts.

Further testimonials about the ROA programme highlight the innovative approach of the programme, not just in its approach to teaching and learning but also its scalability.[16.15]

CHALLENGES

ROA had only a short turnaround time to make the pivot to remote learning. Its prior experience during the Ebola crisis highlighted the need to make participation in remote education available as quickly as possible in order to prevent students from simply abandoning school altogether.

The challenge was to provide learning opportunities remotely to students who had little or no access to the internet and to written materials such as textbooks and handouts. A curriculum was therefore created to require nothing more than pen, paper, and items such as beans or rocks that can be used for counting.

In addition, while planning its curriculum and delivery, ROA was aware that many parents are not able to take an active role in their children's education. Another challenge identified early in the switch to remote learning was how to inform communities about the programme.

STAKEHOLDERS AND PARTNERSHIPS

ROA prides itself on its ability to connect with partner organizations and provide a framework for those organizations to tailor curricula to local needs. ROA has partner organizations that utilize its curricula in 25 countries throughout Africa and Asia, reaching over 10 million children. ROA surveys partner organizations one month after they begin using materials. They provide a collaborative workspace on the software application Slack for partners to exchange information and ideas.

By utilizing an 'engaging, highly structured curriculum, intensive teacher coaching and rapid data and feedback loops', the programme claims to bring cutting-edge quality to every classroom and every student (ROA, 2020). In terms of scalability, ROA develops and refines the programme through schools owned and operated by ROA, which follow a low-cost USD 1-a-day private school model. On the second level, the programme then involves local governments and other partners to improve the quality of participating schools. All this development takes place at an estimated third of the unit cost of other leading networks.

FUTURE PLANS

ROA points to the high demand for its work as proof of its success, but is also building a body of evidence by creating new evaluations and partnerships to assess its associated programmes. For example, RAN is currently testing the efficacy of ROA's audio content and teacher professional development materials through an interactive voice-response pilot programme in Sierra Leone and Ghana, supported by EdTech Hub. Similarly, ROA partners in Bangladesh and Pakistan have also been evaluating the efficacy of their interventions.

RAN has also partnered with McKinsey to provide Arabic, maths and language arts lessons to Syrian refugees in Lebanon with the literacy and numeracy outcomes to be assessed in the coming months.

[16.15] Visit here for testimonials: **https://www.risingacademies.com/onair**.

Finally, ROA has launched a new tool which is the next evolution of the ROA innovation: Rising on Air Interactive, or 'Rori', for short. Rori is a chatbot tutor harnessing AI and engaging audio to deliver personalized learning to any student on any phone.

Rori has been backed by Schmidt Futures, the Learning Agency, the Jacobs Foundation and MIT Solve. It utilizes ROA's unique library of structured curriculum content, including 500 hours of audio content covering language, arts and maths for five different age groups across K-12. Delivered via SMS or WhatsApp so all students can access it, Rori will be able to pull text and audio clips from this library, personalized to the learning needs of each individual student.

ROA is building Rori for the 617 million school-age children around the world who finish primary school without having attained basic mastery of literacy and numeracy.

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Sistema Interactivo Transformemos Educando, Colombia

17

Programme title	Sistema Interactivo Transformemos Educando
Implementing organization	Fundación para el Desarrollo Social Transformemos (Transformemos Foundation for Social Development)
Location	Colombia
Language of instruction	Spanish, five Indigenous languages (Nasa-Yuwe, Sikuani, Curripaco, Piapoco and Puinave), Palenquero
Date of inception	2006
Programme partners	National ministry of education, private donors (e.g. Ecopetrol and Petrobras)
Funding	Government, private sector, international NGOs, foreign donors, self-financed
Annual programme costs	USD 1,714,480
Annual programme cost per learner	USD 290 (plus teachers' salaries of USD 5 per hour)
Annual cost of the digital tool	USD 833 for each group of 25 students
Digital tool(s) used	Computer, tablet or smartphone
Target population	Indigenous peoples, IDPs, marginalized learners, migrants, minority groups, refugees, women and girls
Learner age	Youth and adult (15–60)
Learner to instructor ratio	Undisclosed
Target skill(s)	Literacy, digital skills, second-language acquisition
Impact	Over 400,000 youth and adults reached; 14,000 teachers trained; Transformemos Interactive System software implemented in 3,200 educational institutions
Programme website	**www.transformemos.com**

BACKGROUND

In the past two decades, Colombia has made great progress towards improving access to primary and secondary schooling and making its educational system more efficient. In recent years, the duration of formal education has been increased by two years, and enrolment in early childhood education has doubled (OECD, 2016). However, there are still significant opportunity gaps in several domains, including education and access to the internet: gross enrolment ratio in the upper grades of secondary education is notably lower than in the earlier grades: 82.19 per cent and 110.71 per cent lower, respectively (UIS, 2019a), and only 65.01 per cent of the population has access to the internet (ITU, 2019). Moreover, during the COVID-19 learning crisis, only 62 per cent of students in Colombia claimed to have a computer for studying at home, which is significantly lower than the OECD average of 78 per cent (OECD, 2020). Out of this group, 23 per cent of students belong to the bottom quartile of socio-economic distribution.

In addition, the armed conflict and four decade-long civil war in Colombia has resulted in a number of internally displaced persons (IDPs). As of 2021, more than 9 million people in Colombia are recognized as victims of armed conflict; 89 per cent of these are considered to be internally displaced. In 2020 alone, more than 20,000 people were internally displaced, of whom 53 per cent were Afro-Colombian, 23 per cent were small-scale farmers, and 22 per cent were Indigenous people (UNHCR, 2021).

Violent conflicts in neighbouring countries have also resulted in refugees seeking asylum in Colombia. The country hosts the second largest number of refugees in South America, with 1.8 million people, including Venezuelans, displaced abroad (ibid.). There are currently around 1.7 million Venezuelan migrants in Colombia: 51 per cent are men, 49 per cent women, 24 per cent children, and 37 per cent young people. In 2020, the number of recognized refugees in Colombia was around 1,000, of whom 30 per cent were from Venezuela, 22 per cent from Cuba, 5 per cent from Ethiopia, 4 per cent from Nicaragua, and 3 per cent from El Salvador (ibid.).

These challenges are compounded by marked social and income inequality caused by the civil war between governmental military forces and anti-government guerrillas, which is largely funded by the kidnapping of civilians and drug trafficking. Moreover, there is a strong connection between illicit substance abuse and low levels of education in Colombia: substance abuse is reported to be common in children as young as eight. As a result, there has been an increase in the number of out-of-school children and youth: according to the latest figures, the country has approximately 106,186 out-of-school adolescents (UIS, 2019b).

The literacy rate among recent migrants is 86 per cent, which is lower than that of Colombians in general (92 per cent) (UNESCO, 2020). For example, of the 460,000 Venezuelan children under 18 in Colombia, 260,000 are out of school (ibid.). These children are deprived not only of their right to education, but also of the other social and material benefits that come with school, such as school meals. While there are no school fees, the costs of transportation and school materials still pose a challenge for some migrants. To address these issues, the Colombian Government developed an integrated registration system to assess which sectors of the migrant population are not being served by the educational system (ibid.).

Despite recent economic and educational growth and the decline in the intensity of armed conflict, there is still great demand for programmes to develop Colombia's human resources in order to bring youths and adults affected by poverty, violence and other unfavourable circumstances back into the formal education system. Consequently, in 2009, the non-profit organization Fundación Transformemos launched an interactive learning system, Sistema

Interactivo Transformemos Educando (SITE), to promote the social and digital inclusion of illiterate and underserved youths and adults from the poorest regions of the country by providing them with quality education.

OVERVIEW OF THE PROGRAMME

SITE is a programme developed by Fundación Transformemos for young people and adults between 15 and 60 years of age who are illiterate or have been excluded from the formal school system. The foundation works in partnership with the Colombian National Ministry of Education (NME) to improve access to educational opportunities in the formal system for vulnerable groups. It employs an innovative approach that combines traditional teaching methodologies with modern technologies such as interactive multimedia and the internet.

Although SITE follows a general pedagogical model that guides the implementation of the programme throughout the country, its curriculum, resources, timetables and course venues are flexible and differ in each region. Before developing the implementation plan in a given area, Fundación Transformemos carries out a qualitative and quantitative assessment of participants' needs and cultural characteristics in order to design an intervention that is specifically tailored to the requirements of the target population. The aim of SITE is not just to improve individuals' literacy and digital abilities: activities and resources are also designed to strengthen community ties through more than 500 projects, such as community kitchens and vaccination campaigns.

PROGRAMME OBJECTIVES

The foundation believes that education is the best and most efficient means of defeating poverty, inequality and exclusion. It aims to deliver education through new technologies and SITE. It also aims to provide students from vulnerable communities, including refugees and migrants, with access to better quality education and to improve completion rates. The programme's objectives are, however, not limited to increasing literacy rates or expanding coverage of educational services for vulnerable groups. It also aims to:

- promote sustainable human and social development among vulnerable groups and underserved regions by empowering participants and communities with the skills to overcome poverty and exclusion;
- promote teacher training and professional development in the field of youth and adult education;
- research relevant, adaptable and flexible curriculum design;
- improve the quality, efficiency and relevance of youth and adult education for underserved groups;
- incorporate learners into the formal educational system;
- improve retention rates through to the end of secondary school.

LEARNERS

Since 2006, Fundación Transformemos has helped more than 400,000 people progress from basic literacy to completing secondary education. It has trained 14,000 teachers to implement SITE software in 3,200 educational institutions. Learners comprise youth and adults between 15 and 60 years of age who are either illiterate or excluded from the formal school system. Most of them are socially marginalized, i.e. refugees, migrants, persons in situations of forced displacement, former combatants in the process of reintegrating into civil society, ethnic minorities, African descendants, female heads of households, and groups from rural zones and marginalized urban areas. The majority of learners (about 67 per cent) are women aged between 20 and 45 years. Most of those who are employed work in informal jobs or agriculture; of

these, 90 per cent live on no more than USD 200 per month for the entire family.

ENROLMENT OF LEARNERS

Prior to establishing the programme in a given community, the foundation carries out a needs assessment in order to evaluate the requirements and characteristics of the group it will serve. The foundation also searches for potential candidates using SIMAT (a government database of enrolment data provided by educational institutions nationwide), and organizes door-to-door visits by trained facilitators to recruit prospective learners. During these home visits, facilitators explain the programme and benefits of re-entering the formal education system. Furthermore, the foundation advertises on local radio and partners with local educational institutions in order to increase its outreach. Potential learners then need to register with an educational institution and SIMAT by completing a registration form. They are subsequently assigned to different classes and levels. The average number of learners in each class is 25.

Learners' primary reasons for enrolling in classes include the relevance of the programme to their needs; the flexibility of its location and timetable; and the opportunity it offers them to improve their standard of living, enhance their knowledge and socialize with other members of the community. In order to participate, learners must be at last 15 years of age and outside the formal education system, either due to dropping out or because they never joined it in the first place.

ASSESSMENT OF LEARNERS

All individuals are registered in both the foundation's database and SIMAT. After registration, a baseline survey is conducted to measure learners' current proficiency in mathematics, languages, science and the social sciences. At the end of the programme, another survey is carried out to assess learners' progress in these subjects compared to the initial survey. Educators also collect data at various stages of the programme, which they obtain from group meetings (held at least three times a year), surveys, follow-ups by telephone and email, monthly reports, classroom visits and student assessments.

TEACHING AND LEARNING APPROACHES

Colombia's Ministry of Education established the Programa Nacional de Alfabetización y Educación Básica de Jóvenes y Adultos (National literacy and basic education programme for youth and adults) in order to increase the provision of flexible learning opportunities for this social group. The initiative cultivates partnerships between the federal government and public, private and civil society organizations, such as the Fundación Transformemos, based on a national framework known as the Special Integrated Academic Cycle. This framework structures the delivery of services into six stages, or 'cycles', which are equivalent to certain levels of formal education. The cycles are designed to be completed one after the other until the secondary level has been completed, as illustrated in **Figure 17.1**.

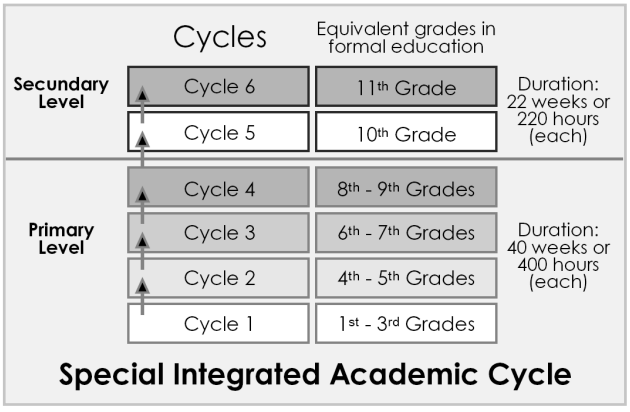

Figure 17.1: Special Integrated Academic Cycle. *Source:* Decree 3011 of the Ministry of National Education of Colombia

In 2009, Fundación Transformemos launched SITE, an interactive learning system incorporating ICT. SITE provides both basic and secondary level education for young people and adults through the following Special Integrated Academic Cycles (see **Figure 17.1**):

- Cycle 1: Grades 1, 2 and 3 (literacy). Duration: six months;
- Cycle 2: Grades 4 and 5. Duration: six months;
- Cycle 3: Grades 6 and 7 (basic secondary education). Duration: nine months;
- Cycle 4: Grades 8 and 9. Duration: nine months;
- Cycle 5: Grade 10. Duration: five months;
- Cycle 6: Grade 11. Duration: six months.

SITE comprises a set of technological tools, such as an educational platform; applications; interactive activities, strategies and educational content; multimedia; and community development projects, that are designed so that young students or vulnerable adults anywhere in the world can learn in their own language and in accordance with their particular culture, interests and needs. SITE components are conceived as a series of relationships, namely:

- pedagogical relationships: didactic interventions understood as relationships that trigger the process of learning;
- virtual relationships: interactive relationships where communication is mediated by ICT in order to support teaching and learning environments;
- interactional relationships: motor, perceptual, cognitive and operational interactions and human relationships (between teachers and students, and between students and teaching materials);
- contextual relationships: a network of social, economic and personal relationships surrounding the interactive learning system.

SITE is a blended study model that covers the content and skills corresponding to Grades 1 to 11 of the standard education system. It is designed to be completed over a period of approximately five years. Each of these cycles lasts 800 hours and participation is partly in-person, which means that work can be done either in or outside school depending on the activity in question. Learners do not need to start from scratch; they can enrol in the cycle that follows the last grade for which they have official certification. Class timetables are flexible, varying from one community to the next, but most classes take place in the evenings and at weekends in educational institutions that are located close to participants' homes, such as primary schools or community learning centres. The curriculum was developed through a process comprising five stages:

- Baseline investigation: At the outset, facilitators investigate the context, interests and motivations of the beneficiary population.
- Curricular design: This preliminary research guides the design of a relevant, up-to-date curriculum.
- Elaboration of didactic interventions: Structured interactive teaching interventions are designed based on the curriculum.
- Follow-up and supervision: During the implementation process, feedback is gathered.
- Adjustments: Curricular design and didactic interventions are adjusted based on the feedback process.

The curriculum consists of different modules in four integrated areas of knowledge – social sciences, mathematics, natural sciences, and language and communication – each of which covers different subjects, some of them in depth. **Table 17.1** reflects the four integrated areas in primary education.

Basic education includes the four thematic areas shown in Table 17.1, complemented with English and computer systems. Secondary education

Thematic areas	Social sciences	Mathematics	Natural sciences	Language and communication
Integrated subjects	Social sciences History Geography Ethical and human values Religious education ICT Social sciences, politics and democracy Philosophy	Mathematics Geometry Data systems ICT Ethics and human values	Natural sciences and environmental education ICT Ethics and human values Chemistry Physics	Humanities Spanish language Artistic education ICT Ethics and human values
Emphasis on the thematic area	Re-examining daily practices Oral history Recovery of historical memory Re-examining the role of women Strengthening community ties Citizenship and community education Human rights	Ethnomathematics Contextualized application of mathematical systems	Sustainable Development Goals Ecological awareness Preventive healthcare	Production of written and oral texts Writing to 'tell your own story' (Paulo Freire) Recovery of literary and musical memory Language of hope and ontology of language

Table 17.1: The four integrated areas in primary education. *Source:* Fundación Transformemos

also covers these four thematic areas alongside English, computer systems, physics, chemistry, philosophy, and democracy and citizenship.

In addition, curriculum modules feature interactive multimedia exercises, images and videos that deepen students' knowledge by referring them to printed materials and information in other media. Sub-group work further strengthens interactions between peers and teachers. Students can develop their digital skills both through the courses and by using the computers, tablets and software provided.

© Fundación Transformemos
A class facilitator demonstrates the SITE learning system.

SITE learning materials were developed by an interdisciplinary team of pedagogical professionals whose areas of expertise included mathematics, natural and social sciences, language and communication, sociology, psychology, chemistry, physics and history. The multimedia and audio-visual components of the software were developed by a team of audio, visual and digital production experts, including programmers, audio-visual producers, software engineers, photographers and multimedia editors.

RECRUITMENT AND TRAINING OF FACILITATORS

Transformemos owes its success to the recruitment of highly qualified educators. Facilitators must hold a degree in education from a certified university. They must have a teaching licence and be willing to participate in ongoing professional development opportunities. These include six-month virtual classes on youth and adult education; a minimum of three group meetings per academic year during which facilitators learn from one another by sharing their experiences, challenges and good practices; and continuous follow-up and support from facilitators trained in managing SITE. Fundación Transformemos also offers a virtual teacher training diploma lasting 160 hours.

The teacher training system includes the development of pedagogical networks. A network is created via an initial meeting during which participants are trained in the SITE methodology and use of interactive materials. Follow-up work is then carried out in the classroom. Later, a second network is created whose main objective is to develop teaching practices based on classroom observations. In addition, a space is offered for trainee teachers to share their experiences and good practices and learn from experts selected by the programme or the teachers themselves. Finally, trainee teachers receive further classroom supervision and attend a closing workshop during which feedback is gathered.

The vast majority of facilitators are women aged between 25 and 45. Candidates are initially recruited through public announcements issued in each region, followed by a written examination and an interview. Facilitators earn a stipend of about USD 5 per hour and are required to work for 400 or 220 hours per academic year (depending on the level they teach). They have a threefold role, which includes:

- planning lessons, implementing teaching strategies and evaluating learning achievements;
- teaching the curriculum and guiding learners throughout the learning process by facilitating reflections in class;
- connecting classroom learning to learners' lived experience.

Teachers can present their classes in two different ways: (1) virtually, wherein they introduce and explain the multimedia exercises and activities in the software using hypertexts; or (2) as face-to-face teachers, trained to use SITE, who direct sessions and make adjustments that they deem necessary.

TECHNOLOGY INFRASTRUCTURE, MANAGEMENT AND USE

ICT was embedded into SITE in order to address the digital divide in vulnerable communities in Colombia, and to help students from vulnerable communities continue their basic and mid-level education. SITE allows educators to base their compulsory didactic interventions on the language, context, culture, social environment, needs and potential of each population. Each class session, curriculum area and grade incorporates hypertexts, videos, photographs, virtual teachers, evaluations and multimedia, all of which are accessible with or without an internet connection as the requisite software can be installed on any tablet or computer. In addition to Spanish, SITE has been implemented in five Indigenous languages (Nasa-Yuwe, Sikuani,

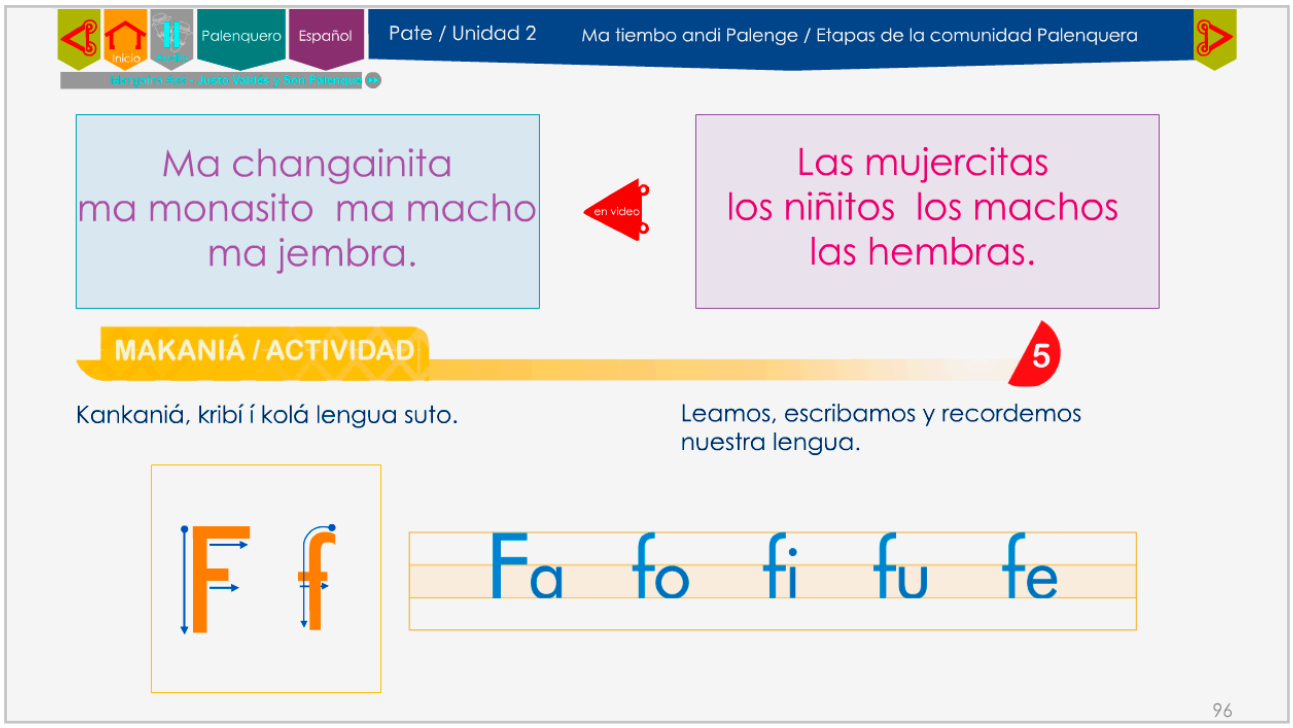

Figure 17.2: SITE graphic user interface in Palenquero for learners in the Colombian village of San Basilio de Palenque. *Source:* Fundación Transformemos

Curripaco, Piapoco and Puinave) as well as Palenquero (see **Figure 17.2**).

PROGRAMME USAGE

ICT plays a key role in enabling SITE to support educators, learners and communities, and comprises the following basic components:

- Educational software that develops the curriculum session by session, focusing on building the skills required by the national curriculum. It covers each subject area in line with the goals defined for each cycle and grade of basic education. The educational software provides teachers with video tutorials that allow them to plan their lessons in a precise and self-regulated manner, and to prepare the resources and classroom strategies they need in order to carry out face-to-face sessions and extra-curricular activities.
- Printed texts that are included in the educational software, support the curriculum and are divided into thematic work units, each of which contains work guides, relevant reading materials, tasks and evaluations that have been adjusted to meet national criteria.
- Digital tablets for each student with pre-installed software and a battery capacity of six hours. These do not require internet access.
- Interactive classrooms featuring a tablet, accompanying educational software for teachers, and a video projector.

PROGRAMME IMPACT

In 2012, Fundación Transformemos was awarded the UNESCO Confucius Prize for Literacy.[17.1] In 2018, the US Library of Congress recognized it as one of the organizations that has

[17.1] To find out more about the UNESCO Confucius Prize for Literacy, visit **https://en.unesco.org/themes/literacy/prizes**

	Benefits to participants	Benefits to facilitators	Benefits to community
General	Inclusion in the educational community.	Improved ICT skills and teaching strategies. Promoting meaningful learning for migrant and displaced populations.	Increase in educational coverage with relevant and quality education.
Specific	Inclusion in digital cultures from the classroom. Increase in educational attainment as a means to overcome poverty.	Disciplinary strength supported by contextualized educational software. Access to active methodologies with a constructivist perspective. Decrease in planning time for teaching practice.	Real possibilities of including your family and neighbours in the educational system. Access to ICT through students' educational tablets and software. Increased educational achievement in the community.

Table 17.2: A summary of the benefits of SITE. *Source:* Fundación Transformemos

contributed most to the development of literacy worldwide.[17.2] Between 2015 and 2018, the foundation's pedagogical director and creator of the Transformemos model, Maria Aurora Carrillo Gullo, was a member of the International Jury for the UNESCO Literacy Awards.[17.3]

The programme's benefits to participants, facilitators and the wider community are summarized in **Table 17.2**.

TESTIMONIALS

The following testimonials illustrate the benefits that learners have gained from the programme:

> ***I have found the studies at Transformemos to be very good because we see issues related to our department in the North of Santander. I identify with them because [the programme] teaches topics as they are, practical and applicable to real life.***
>
> ***— S.C.T.***

[17.2] See **https://www.read.gov/documents/BestPractices2018.pdf**

[17.3] For more information, visit: **https://transformemos.com/reconocimientos-obtenidos/**

> ***I only completed first grade [of primary school] and I left school because studying seemed boring and I quickly started to work to get what I needed. When Transformemos' pedagogical model arrived at Camp Giles, friends encouraged me to study. I spoke with the teacher, Andrew, and I got excited about studying. As I saw he was a very good teacher I registered and came to class. Now I wish that the weekends and school days would not go by so fast because I am happy to study and learn very good things. I have learned reading, writing, reading comprehension, maths, human values, rules of citizenship and much more.***
>
> ***— J.I.V.A.***

Further testimonials can be viewed on the Transformemos YouTube channel.[17.4]

CHALLENGES

Fundación Transformemos targets underserved groups from rural areas that often lack technological resources and internet access. Providing this technological infrastructure constitutes the foundation's greatest challenge to date. For communities without internet access, the foundation provides televisions so that, even if learners cannot use online resources, they can at least watch video classes. However, there are still many communities with no electricity, which prevents the use of any technology other than textbooks.

Additional challenges include the significant proportion of learners (around 10 to 30 per cent) who do not progress to the next level of the programme, either because they fail the national exam or because they fear assessment and therefore drop out before completion. Another reason for this high drop-out rate is that many students have competing priorities, such as earning a living.

STAKEHOLDERS AND PARTNERSHIPS

In the 15 years since its inception, Transformemos has signed 93 agreements with ministries of education, NGOs and private companies. It has secured over USD 34 million in funding to date, approximately 95 per cent of which was provided by the Colombian Ministry of Education; the remaining 5 per cent coming from donations made by private corporations such as the petroleum companies Petrobras and Ecopetrol. The annual cost of the programme per learner is around USD 290. This covers the development and publication of pedagogical resources (e.g. books and multimedia resources), infrastructure for classes (e.g. classrooms and computers), facilitators' stipends and professional development costs, and resources for special projects (e.g. the publication of a cookery book).

FUTURE PLANS

SITE serves a wide, growing and every-changing community of students, teachers and educational institutions using a combination of printed and interactive teaching materials. The Fundación Transformemos is thus keen to continue to build teaching capacity, and to recruit and retain more learners. In order to respond swiftly to the needs of the dynamic and constantly changing groups it serves, it is currently working to develop an

[17.4] The Transformemos YouTube channel can be accessed at **https://www.youtube.com/user/FUNTRANSFORMEMOS/videos**. It includes learner and teacher testimonials from San Basilio de Palenque, Boyacá, Norte de Santander, Guainía and Duitama, among others.

expanded interactive system, featuring a new operational structure.

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SpråkPlay, Sweden

18

Programme title	SpråkPlay
Implementing organization	Språkkraft, non-profit organization
Location	Sweden
Language of instruction	Combination of first and second languages
Date of inception	2015
Programme partners	Government: Vinnova Innovation Agency Private sector: TNG Group AB National NGOs: Internetstiftelsen, Axfoundation Public service media corporations: Sveriges Television AB (SVT), Swedish Educational Broadcasting Company (UR), Finnish Broadcasting Company (Yle), Swiss National Broadcaster (SRG SSR)
Funding	Government: Vinnova Innovation Agency Private sector: TNG Group AB Public service media corporations: SVT, UR, Yle, SRG SSR
Annual programme costs	USD 150,000–1,000,000
Annual programme cost per learner	USD 1–5
Annual cost of the digital tool	Undisclosed
Digital tool(s) used	Digital app
Target population	Refugees and migrants
Learner age	Undisclosed
Learner to instructor ratio	Undisclosed
Target skill(s)	Swedish language acquisition
Impact	590,000 users, 1 million hours of language learning over a five-year period
Programme website	http://www.sprakkraft.org/svt-sprakplay/

BACKGROUND

Founded in 2015, Språkkraft launched with the aim of supporting the large influx of refugees into Sweden for whom the local language acted as barrier to socio-economic and cultural integration. Duolingo's 2020 data report shows that Swedish continues to be the most studied language in Sweden, implying that there are many refugees who not only consider the language to be a necessity, but are also highly motivated to learn it (Blanco, 2020). Sweden regularly tops the list of European countries in terms of refugee numbers. In 2019, it hosted over 260,000 refugees, who made up 16.7 per cent of its total population (World Bank, 2020).

The founder of Språkkraft, Niss Jonas Carlsson, has many years of experience in developing digital language learning solutions. He has seen the organization grow substantially since its inception in 2015; this has been made possible through a number of collaborations. In 2016, for example, a cooperation agreement was signed between Språkkraft and Sveriges Television AB (SVT), Sweden's largest public service media corporation, to launch SVT SpråkPlay. This application went on to win the 2018 European Broadcasting Union's Prix Europa in the category 'Best European Online Project'. In 2020, Finland's broadcasting giant, Yle, launched a SpråkPlay service called 'Yle Kielikoulu'.

Language immersion through mass media is an important means of supporting local-language acquisition (Morgan-Short et al., 2012). Hence, Språkkraft aims to increase the pace of refugees' and migrants' integration into host countries through media-integrated language learning. It does this by licensing the SpråkPlay format, providing associated services and developing new digital solutions with the same aim in other countries. The mass-media approach has a twofold effect: not only does it support local-language acquisition, but it also offers refugees sociocultural insights into their host countries as they become more familiar with the local language.

In a digitized world, mass media consumption is easier and more portable than ever before. Refugees and other migrants can continue to consume mass media from their native countries alongside the media of their host countries, which may initially seem inaccessible due to language barriers. If refugees struggle to acquire the local language, their process of integration can be prolonged and their sense of social exclusion intensified.

OVERVIEW OF THE PROGRAMME

Språkkraft seeks to expand refugee and migrant access to media as a means of integration into Swedish society. By providing educational services that direct newcomers to resources that are available through television and other media, the programme seeks to help communities while at the same time benefiting media providers by connecting them to new audiences.

Using the Common European Framework of Reference for Languages (CEFR),[18.1] Språkkraft partners with public service media corporations like **SVT** (Sweden), **Utbildningsradion** (Sweden), **Yle** (Finland) and **SRG SSR** (Switzerland) to provide learning materials to its user-learners. The curriculum uses translations of videos, TV programmes, articles, etc. to teach vocabulary at CEFR levels A1–C2.

PROGRAMME OBJECTIVES

The objective of Språkkraft is to provide refugee and migrant learners with tools, such as its SVT SpråkPlay software app, to help them become familiar with the language of their host country.

[18.1] CEFR: **https://www.coe.int/en/web/common-european-framework-reference-languages/level-descriptions**

The SVT SpråkPlay app is freely available on the internet and can thus be accessed by tens of thousands of users. In fact, in the five years since its launch, Språkkraft has served 1,000,000 hours of cultural and language learning.

LEARNERS

Learners can enrol in the programme at any time and from any internet accessible device. Most users appear to access the app from their smartphones. Although it is largely intended for single-learner use and self-study, language instructors can also use it as a teaching tool. It is unclear whether teachers are required to register with the app using a different method to regular individual (student) users.

The programme website introduces users to the **Språkkraft Reading Coach** on its landing page. New users can learn about the app and download it from the link provided. **Figure 18.1** shows selected content from the landing page that illustrates the main components of the app.

LEARNER ASSESSMENT

Users of the SVT SpråkPlay app in large part self-assess. An initial placement test provides a baseline for users, and a learner profile manages user data. Since learners utilize the app to complete tasks such as watching a popular television show, the attainment levels used in the app do not mirror those used in a traditional classroom.

TEACHING AND LEARNING APPROACHES

The SVT SpråkPlay app is not a traditional teaching tool in the sense that it does not follow any specific pedagogical method. Learners themselves decide how they would best like to use the app to learn Swedish, e.g. by watching a television show, listening to a song, reading a news article, and so on.

Instructors who use the app as a teaching tool can use the 'flipped classroom' approach,[18.2] assigning learners a task to work on before they attend class and subsequently examining it during class time. If learners only have intermittent or no access to the internet outside of the classroom, instructors can also use the app during in-person instruction.

Instructors are able to use filters in the app in order to select materials according to length and/or complexity. In this way, they can cater for a wide range of language skills. The current format does not allow learners using the app individually to practise their grammar or pronunciation. However, it does provide ample opportunities for individual learners to build their vocabulary and improve their listening comprehension.

Språkkraft also provides suggestions for how students can use the app to learn Swedish. Learners can either be assigned an item (e.g. a video clip) by an instructor or choose one themselves. They then have the option of launching the video immediately, with or without closed captions. A 'ProActive Personal Dictionary' feature allows learners to tap on a word at any time to access translations or contextual grammar explanations.

[18.2] The flipped classroom approach reverses the standard model of teaching, i.e. students receive instruction at home through self-study materials, while 'homework' is instead carried out in the classroom via group discussions and activities. For more information, see: **https://learnjam.com/the-flipped-classroom-in-elt/**.

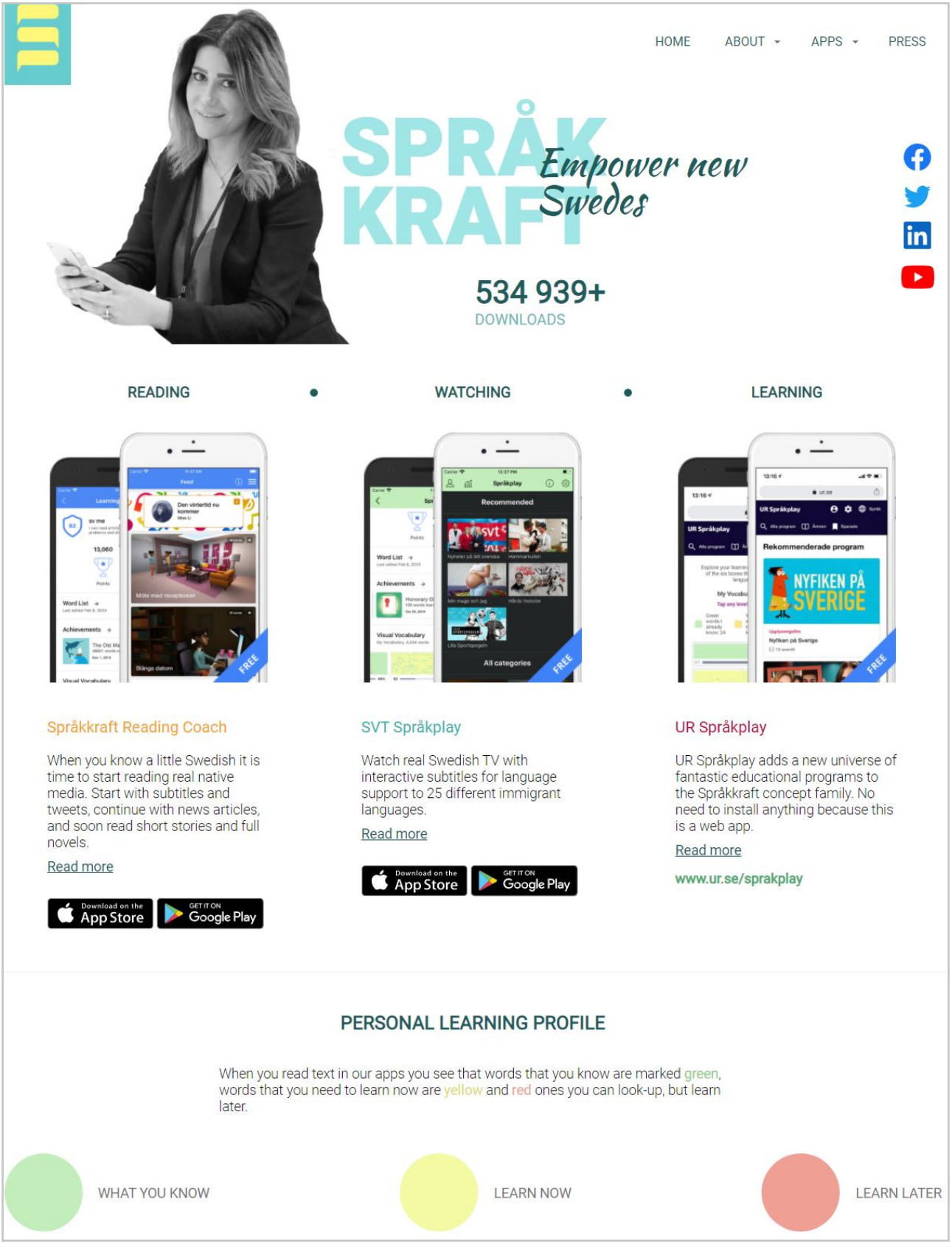

Figure 18.1: The Språkkraft landing page. *Source:* Språkkraft

RECRUITMENT AND TRAINING OF FACILITATORS

The current iteration of the SVT SråkPlay app does not require facilitators. Språkkraft acknowledges that it has not been able to work directly with formal educators and learning communities, citing a lack of resources as the main obstacle to such collaborations.

TECHNOLOGY INFRASTRUCTURE, MANAGEMENT, AND USE

Språkkraft uses technology in the form of the SråkPlay apps as its method of delivery. Learners can use mobile phones (Android, iOS, and mobile web browsers), desktop/laptop computers (all major web browsers) and Chromecast support via televisions and other external screens (**Figure 18.2**).

Users take a placement test in order to create a learning profile. The app then allows users to access songs, videos, texts and other media supported by translation and other language-learning tools. Språkkraft states that, with practice, app users will attain a level of reading and listening fluency that makes Språkkraft's solutions superfluous; users can migrate to tools intended for native speakers.

Figure 18.3 is taken from the programme website and models the student experience of using the app. Learners start by choosing an item from a range of available – for example, songs. The app includes a user profile that can be developed over time, and a menu that learners can use to select learning content.

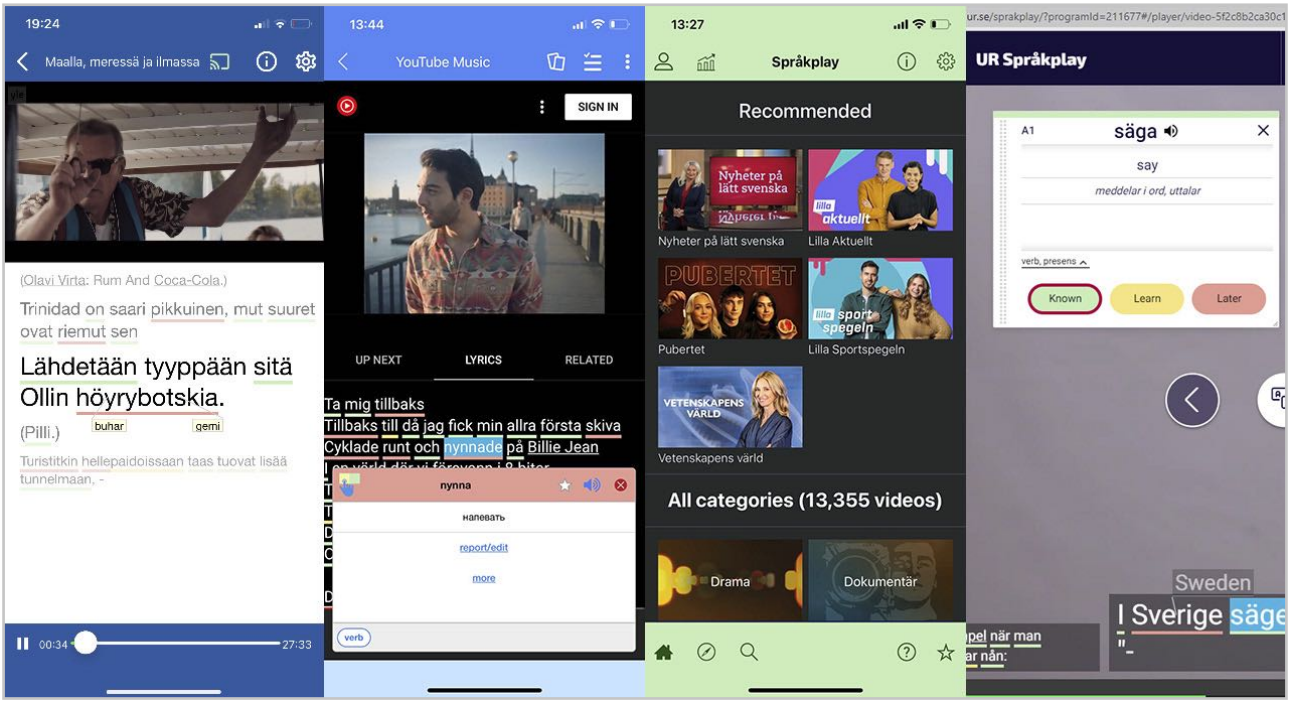

Figure 18.2: Screenshots of the apps being used by different language learners in different Språkkraft partner organizations (from left): Yle Språkskolan iOS app, Språkkkraft/Lingvis Reading Coach app, SVT Språkplay app, and UR Språkplay web app. *Source:* Språkkraft

Figure 18.3: Video screen capture. *Source:* YouTube, 2020a

Figure 18.4: A scene taken from a promotional video produced by Språkkraft. *Source:* YouTube, 2020b

PROGRAMME IMPACT

Språkkraft prides itself on the socio-cultural impact that its app has on users (**Table 18.1**). It states that '[m]ass media not only carry the language, but also the culture, the values and norms [of the new society] and a general understanding of how [it] works' (Språkkraft, 2021).

Figure 18.4 is taken from a YouTube video highlighting the positive impact that the app (and thus the language learned) can have on society as a whole, demonstrating the programme's 'aim to increase the pace of integration of refugees and migrants through media-integrated language learning' (ibid.).

TESTIMONIALS

The Språkkraft website features a professionally designed interface and clearly details the programme's mission (Språkkraft, 2021). Its YouTube channel (YouTube, 2022) provides numerous videos, including learner testimonials. The programme has also provided the following written testimonials from learners:

> ***Best app in the world. Everything in one app. You don't need to switch between apps to translate. I read the text, I understand it, I then listen and repeat. The best way to learn. Thank you everyone!***
>
> ***— Nash Az, Språkplay user***

	Benefits to participants	Benefits to community
General	Increased sense of inclusion in society	Better informed population improves the democratic system
Specific	Increased language skills	Migrants with language skills are more easily employable

Table 18.1: General and specific benefits of the app. *Source:* Språkkraft, 2021

> *I have no words to express how great [an] idea and [what a] useful app this is. Good work!*
>
> — ***Konstantinos Chatziangelidis, Språkplay user***

> *I just moved to Sweden and tried to learn the language. This is one of the best tools I have seen!*
>
> — ***Latif Amars, Språkplay user***

CHALLENGES

The programme feels that it has the potential to expand its educational services but cites a lack of funding as an obstacle to progress. It plans to use future funding for research and development purposes. Some of the other challenges it references relate to planning, implementation, the recruitment of local partners, and user retention.

In terms of funding, the programme has experienced difficulties in aligning with the budgeting processes of public service media corporations. As to planning, the programme identifies challenges pertaining to inadequate access to public service media corporations. Implementation, meanwhile, has been hampered by a lack of experience with and knowledge of target groups among public service media corporations. Språkkraft itself currently provides corporations with information about its target groups. The lack of awareness highlighted above makes it more difficult for Språkkraft to recruit local NGO partners and to utilize existing networks and expertise. Finally, as with all language apps and programmes, user retention remains a challenge.

It should be noted that, since its app is an internet-based learning tool, the Språkkraft programme has not faced some of the practical challenges that have affected in-person providers following the outbreak of the COVID-19 pandemic.

STAKEHOLDERS AND PARTNERSHIPS

Språkkraft serves as a bridge between the media and language learners in Sweden. It succeeds in bringing stakeholders together to integrate migrant and refugee communities into Swedish society.

The programme receives funding from the government, the private sector and NGOs, and through partnerships with public entities.

FUTURE PLANS

The programme has been replicated in Finland and it is being piloted for use in Switzerland. With additional funding, the programme could expand into other geographic and/or linguistic regions. The programme has indicated its willingness to assist future programmes that have secured funding.

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Thabyay eLearning Platform, Myanmar

19

Programme title	Thabyay eLearning Platform (TeP)
Implementing organization	Thabyay Education Foundation (TEF)
Location	Myanmar
Language of instruction	Combination of first and second languages (English, Burmese and Karen)
Date of inception	2009; upgraded in 2018
Programme partners	Various community partners across Myanmar
Funding	TEF and Bread for the World (for a pilot project called EPLI)
Annual programme costs	USD 20,000
Annual programme cost per learner	USD 23
Annual cost of the digital tool	USD 1,500
Digital tool(s) used	Moodle, Educasia, mobile phones, tablets, YouTube, Zoom
Target population	All
Learner age	14+
Learner to instructor ratio	50:1
Target skill(s)	University preparation English language courses Literacy and work-related skills
Impact	Over 3,000 students have successfully completed TeP online courses since 2009
Programme website	**https://www.tepedu.org/**

BACKGROUND

The Thabyay eLearning Programme (TeP) was established in 2009 by the Thabyay Education Foundation (TEF), which was founded in Myanmar in 1996. TEF's mission is to 'empower communities and civil society in Myanmar through higher education and professional development' (TEF, 2020).

Myanmar is a country of 54 million people, about half aged 24 and younger (UNFPA, 2020). Students in Myanmar face many barriers to education, including low literacy rates. Education is compulsory from ages 5–9 only (UIS, 2020), leading to high drop-out rates between primary and secondary school. Moreover, an estimated 69 per cent of the country's population lives in rural areas that severely lack qualified teachers (ibid.). Universities in Myanmar were closed for many years in the late 1980s and 1990s when the country was under militarized government control, which slowed the growth of higher education nationwide.

Marginalized groups, such as the Rohingya, are not recognized as citizens by the government of Myanmar, and face laws that deny them equal access to education and other rights. Tens of thousands of Rohingya people have been forcibly displaced from Myanmar, and many remain internally displaced and ostracized within the country (UNHCR, 2019).

The World Bank estimates that roughly 30 per cent of the population has internet access and that there are over 60 million subscriptions to cellular phone services in Myanmar (World Bank, 2020a). Internet penetration in Myanmar has expanded at a rapid pace in recent years. While under military rule in the early 2000s, less than 1 per cent of the population had access to the internet (World Bank, 2020b). As the country experienced new leadership in 2011 and began to loosen censorship, the number of people using the internet, and Facebook in particular, skyrocketed (Asher, 2021).

Myanmar's history of political unrest has had grim consequences for the country's progress with regard to education, technology and human rights. Today, the nation continues to face violence between protesting citizens and the military; the latter has restricted internet access and detained elected officials.

TEF seeks to provide students with quality education and educational opportunities as a means of enabling them to have a positive impact on their community and society at large. TeP was launched by TEF to serve as a bridge to educational opportunities for Myanmar youth by linking them to a multitude of community partners, including faith-based and community-based organizations, public and private institutions, and ethnic organizations. TEF hopes to extend the educational opportunities on offer to refugees, migrants, internally displaced persons (IDPs), out-of-school youth, women and girls, and minorities. TeP is particularly keen to use information and communication technology (ICT) formats that are accessible to these physically and socially marginalized student groups in order to achieve the programme's mission to 'promote social justice, foster reconciliation, alleviate marginalization and support sustainable development in Myanmar/Burma' (TEF, 2020).

OVERVIEW OF THE PROGRAMME

TeP was established in 2009 and received a significant technological upgrade as recently as 2018. TeP has used online learning as a foundation of its delivery for over a decade. For marginalized communities that are deprived of educational opportunities, TeP seeks to level the playing field by providing access to education via the internet.

Students have a choice of TeP educational services, represented by two main programmes: EPOP (Exam Preparation Outreach Programme) and EPPD (eLearning Professional and Personal Development). In 2020, academic test preparation for the International English

Language testing System (IELTS) and Graduate Record Examinations (GRE)[19.1] was offered to students for the first time, and is set to become integral to TEF's mission.

TeP is envisioned as an intermediary that provides students with educational support so that they can continue their educational journeys into higher education or employment, thus making a positive contribution to society.

The TeP learning management system (LMS) delivers educational services through a simple, user-friendly design that caters for students with limited digital skills and/or access to technology. The TeP LMS serves as a digital classroom in which the curriculum can be implemented and classwork can take place. In 2018, the system was upgraded to a version that supports students with a slow bandwidth connection.

PROGRAMME OBJECTIVES

TEF and TeP define their programme objectives as follows:

- Improvement of higher education;
- Creation of far-reaching transformations;
- Alleviation of marginalization;
- Sustainable development;
- Professional development;
- Knowledge creation;
- Innovative learning skills.

LEARNERS

From 2009 to 2020, TEF served over 3,000 students in Myanmar. Every year, more than 1,000 people apply to participate in its programmes. To date, about 45 per cent of TEF students have won a place at university.

TEF's various programmes serve a range of learner groups, such as migrants, IDPs, refugees, out-of-school youth, women and girls, and minority groups. EPOP targets university-level students who want to study abroad. Each cohort is made up of approximately 500 learners, 155 of whom are from refugee, migrant and IDP areas, among them the Thai-Myanmar and Myanmar-Bangladesh border areas (Mae Sot), the Ranong border area (Cox's Bazar), Kachin (Mai Ja Yan, near the Chinese border), Karen, Kayah, and the Northern Shan State. EPPD learners comprise all kinds of online users of any age.

Students study for free (via scholarships) or at low cost. The enrolment fee for an EPOP Academic English class is USD 19; a self-study EPPD course costs USD 4 (**TeP Application Form**). TEF has different English proficiency requirements, from low literacy level to pre-university level, depending on which courses the students are interested in taking.

LEARNER ENROLMENT

The enrolment process differs according to the programme. For a self-paced course like EPPD, students can register throughout the year, with about 100 students active at any given time. Registration is open to all.

EPOP classes follow a biannual registration schedule; students can sign up in February and August. Students fill out a Google form in English comprising questions about their personal contacts, educational background, and which course they are interested in. Applicants are also required to provide a reference. Students are directed to the programme's **Facebook page** for further information. They subsequently take a free intermediate-level placement test to ensure that they have sufficient proficiency in English.

[19.1] To learn more about the IELTS, visit **https://www.ielts.org**; information about the GRE can be found at **https://www.ets.org/gre**.

No.	Survey questions	Strongly agree-strongly disagree Rating from 5 to 1
1	The course objectives were very clear to me.	
2	The course materials were at the correct level for me: not too high and not too low.	
3	I gained a great deal of useful knowledge from the course.	
4	The books and materials used in the course had explanations and activities that helped me improve.	
5	The amount of reading and homework was appropriate.	
6	The student portal has helpful instructions and is easy to use.	
7	I rarely had problems using the student portal because of a bad connection.	
8	The student portal is a useful tool that helps me with my self-study.	
9	I have the computer and internet skills required to use the student portal effectively.	
10	I am not used to studying on the internet, so I don't like the student portal.	
11	I was able to get clear answers to questions addressed to the EPOP administration.	
12	I could find information that I needed to study in the EPOP programme easily and effectively.	
13	The administration was available to answer my questions.	
14	The administration was able to answer my questions in a timely manner.	
15	The administration was able to provide me with what I needed to study with EPOP.	

Table 19.1: The programme outcome survey. *Source:* TEF, 2020

Suitably qualified learners are then allocated to the appropriate course.

LEARNER ASSESSMENT

TEF and TeP track learning outcomes through classwork (such as tests and quizzes) and student surveys. Students take a programme outcome survey after completing their coursework (**Table 19.1**). The programme also follows up with alumni via annual quality-of-life surveys asking students whether they are working and/or attending higher education.

TEACHING AND LEARNING APPROACHES

The key aspects of the programme curriculum are as follows:

- Elementary to advanced English proficiency;
- Academic preparation for university entrance tests (i.e. TOEFL, IELTS, GRE);
- Professional and personal development content.

The TEF curriculum uses open resources that are freely available on the internet, while others are published by **Educasia**, Thabyay's publishing arm. Curriculum development decisions are made based on the education development requirements of young people from marginalized areas. To determine relevant curriculum content, TEF consults with curriculum experts and current teachers. TEF identifies the need to review and revise textbooks as an area for improvement.

TEF describes its teaching methodologies as 'independent teaching, self-directed teaching, coaching on writing skills' (TEF, 2020). It also provides examples of materials used in the learning/teaching process, such as **Academic English 1 – Learning Materials**.

TeP organizes two main online programmes, each of which offers several online courses and diagnostic tests. In 2020, TeP created online courses for IELTS and GRE test preparation under the aegis of its academic preparation programme.

The Exam Preparation Outreach Programme (EPOP), which prepares students in Myanmar for higher education, is considered to be TeP's flagship programme. It offers courses in academic English and TOEFL (Test of English as a Foreign Language) preparation at three different skill levels, each lasting 20 weeks. Students have access to tutors who assess their writing assignments.

The eLearning Professional and Personal Development (EPPD) programme offers students self-study courses to improve their basic or intermediate English skills over a three to six-month period at low cost or free of charge. Students are admitted on a rolling basis. Upon completion of a course, students are provided with a 'workbook of resources' that remains available to them for future use. EPPD also offers literacy-related courses, such as elementary-level English courses in both Burmese and Karen. EPPD learners can also improve their work-related literacy by completing modules on career planning, CV writing, job hunting and interview preparation in English.

TEF's new academic preparation programme prepares students for the IELTS or GRE tests, which are often used for admittance to foreign universities or graduate schools. Using TeP LMS and the Zoom virtual communication platform, the programme provides flexibility for students to work at their own pace while managing their time efficiently. Students have access to videos, assignments and practice tests. Moreover, students can interact with instructors by conducting discussions or submitting feedback on the TeP LMS and participate in live interaction via Zoom Q&A sessions.

RECRUITMENT AND TRAINING OF FACILITATORS

The TeP programme works with various community partners across Myanmar, including faith-based organizations, monastic schools, community-based learning centres, private and public institutions, ethnic education organizations and government institutions/ministries. TEF organizes outreach trips to partners in order to share programme information and, in the case of the Thai-Myanmar border, to conduct teacher training.

TEF employs instructors from both Myanmar and other countries. All are highly educated, holding multiple degrees. TEF trains all of its facilitators. It acknowledges the need to hire more teachers.

The learner-to-facilitator ratio can be as high as 50:1. Volunteers are paid USD 3,000 annually for grading and tutoring. There is no data available

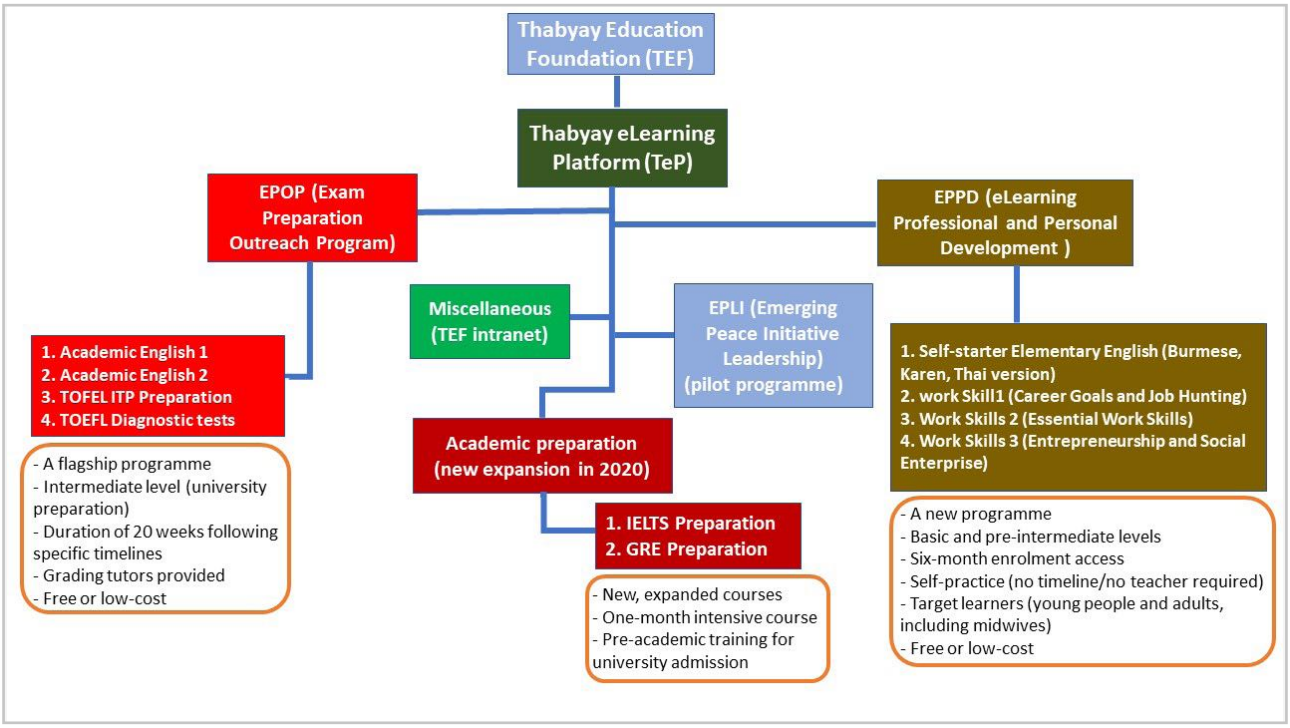

Figure 19.1: The overall structure of TEF. *Source:* TEF, 2020

on teacher salaries, but three administrative facilitators are paid USD 130,000 in total annually.

TECHNOLOGY: INFRASTRUCTURE, MANAGEMENT AND USE

ICT is an integral part of TEF's educational delivery. A technological upgrade in 2018 enabled even students with low-speed internet connections to access TeP online courses. The system is designed with mobile and tablet users in mind. It is intended to be user-friendly and easy to use for those with limited digital literacy. In sum, the programme does its best to reach as many learners as possible.

TeP uses the Moodle Learning Management System as a delivery platform. It is accessible via a range of devices, such as mobile phones, tablets and PCs. Moodle acts as an online blackboard and filing cabinet for courses. Students use it to access YouTube videos and course materials (**Work Skills Self-Study Series: Part 1**).[19.2] Educational support is provided for students new to Moodle or to online learning in general. The TeP LMS comes equipped with essential plugins featuring teaching and learning materials such as tutorial videos, discussion forums, learning textbooks and self-assessed quizzes.

Placement tests are used, for example, for courses on academic English. The academic preparation programme uses the virtual meeting platform, Zoom. Facebook groups are created to enable student discussions. A number of writing courses provide YouTube videos for students. Live tutors are also available for some courses. Through the LMS, TEF's self-paced courses offer self-assessed quizzes.

PROGRAMME IMPACT

TEF is a large organization and has a broad outreach (**Figure 19.1**). Its website states that

[19.2] YouTube videos: **www.youtube.com/channel/UCBFV6ML2aFy0FW044uLOSAQ/playlists**. Course materials (Work Skills Self-Study Series: Part 1): **curriculumproject.org/2019/07/new-books-for-you.html/ws-part-1**.

Figure 19.2: Moodle platform and the programme webpage. *Source:* TEP, 2020

'Thabyay's programmes are designed to support students and key community and civil society workers. We help people to acquire the skills, knowledge, networks and assistance to foster self-directed, sustainable development in their communities and in wider society' (TEF, 2020). The foundation strives to stabilize society through education (a mission that can prove difficult to document using tangible data).

TEF monitors its own educational progress. At the end of each course, students are asked to complete a user satisfaction survey that provides data on user friendliness, the student experience, workload, content, technical challenges and administrative responsiveness (**Table 19.1**). TEF also sends annual surveys to alumni to obtain data on their education and employment status. These two data resources could and should emerge in reporting as being key to the programme's success.

Following the technological upgrade of the LMS in 2018, TeP was able to reach a much larger number of marginalized students who were previously unable to access TeP's educational services due to technological limitations. It would be helpful to assemble data on the geographical location of the students who use TeP's digital education services.

Table 19.2 and **Figure 19.3** further illustrate the programme's impact and achievements.

	Benefits to participants	Benefits to facilitators	Benefits to community
General	Access to higher education opportunities	Ability to expand/create more innovative and effective online education systems	Ability to provide quality education across networks
Specific	Free or low-cost online learning opportunities Improved proficiency in academic English Improved professional development skills	Acquisition of skills needed to create online courses Free or low-cost online learning opportunities Acquisition of skills needed to operate teaching and learning systems via an online platform	Far-reaching transformation and alleviation of marginalization

Table 19.2: Summary of general and specific benefits to TeP participants, facilitators and the community. *Source:* TEP, 2020

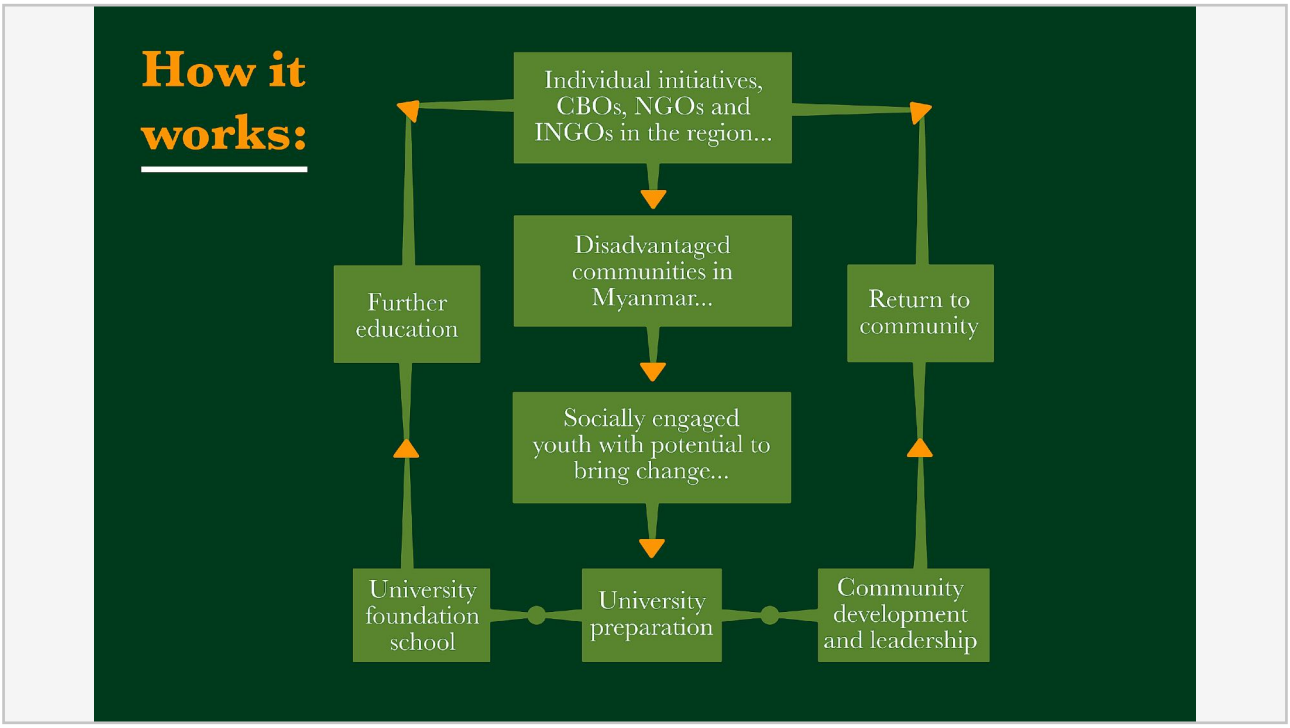

Figure 19.3: The impact, achievement and outreach of the TEF programme. *Source:* TEP, 2020

The programme reports the following educational outcomes:

- Between 2009 and 2020, 3,000 students successfully completed TeP online courses;
- About 45 per cent of these students got into university;
- Over 1,000 candidates apply to TeP courses each year;
- TeP learner numbers have increased over time due to the accessibility and flexibility of TeP online courses;
- The EPOP programme achieved a completion rate of 53 per cent.

Over the past decade, a considerable number of students have graduated from the programme; almost half were admitted to university to continue their education. More than a thousand people apply for the online courses annually. Enrolment numbers have seen a steady increase over time, which the programme attributes to the flexibility and convenience of TeP online courses. Furthermore, as the EPOP programme reports, its completion rate is higher than the **highest global completion rate**, 53 per cent (Jordan, 2015).

TEF lists the keys to its success as follows:

- Effective communication
- Partnerships and networking
- Quality of instruction
- Volunteer engagement
- Financing

TEF seeks to maintain good relationships among partners and to recruit new programme outlets. It maintains a focus on students throughout the learning process to ensure learner satisfaction. It has a healthy population of volunteers and sees value in recruiting more.

TESTIMONIALS

There are many success stories associated with the EPOP programme, including those of students Myinzu Minn and Zwe Myot Chan Moung. Both attribute the development of their language skills to the EPOP programme and believe that attending these courses enabled them to achieve a high TOEFL ITP score (**Figure 19.4**).

Figure 19.4: Testimonies from EPOP learners. *Source:* TEP, 2020

A consistent rise in enrolment rates will result in increased funding and attractiveness to funding partners. TEF recognizes that offering quality online instruction is a key factor in attracting new enrolment. Upgrading the LMS was also an important step, as it made courses available to a wider audience. While TEF acknowledges that the upgrade process was not easy, it sees it as a source of future and long-term success.

STAKEHOLDERS AND PARTNERSHIPS

TEF funds the TeP as a non-profit organization. It secures independent funding from individuals, family foundations and institutional donors. TEF works with partners for many of its programmes, which emphasize community leadership and civic issues as well as academic achievement. TEF has links to university partners across Asia who work with the foundation to provide scholarships to students who finish the programme and progress to university.

TEF provides educational services, including professional development, to local government and private sector actors. TeP also makes its curricula available to partners, and EPOP has been replicated by other institutions across Asia. Clearly, the programme's success has enabled TEF to partner with and share its practices with other providers.

TEF actively seeks new partners and contacts within its communities, recognizing that doing so increases the overall strength of the programme.

FUTURE PLANS

TEF is considering expanding its TeP programme by partnering with the public school system. TEF hopes to enter into partnerships with local schools in rural areas in order to extend tertiary enrolment opportunities to even more students in Myanmar.

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Upskilling Adults 45+ with Migrant Background, Romania

20

Programme title	Upskilling Adults 45+ with Migrant Background
Implementing organization	Romanian Institute for Adult Education
Location	Romania
Language of instruction	Romanian
Date of inception	2019
Programme partners	International Labour Association (Netherlands), Weltgewandt, Institut für interkulturelle politische Bildung e.V. (Germany), ACTION SYNERGY SA (Greece), Emprende Empleo European Network (Spain)
Funding	Erasmus + Programme of the European Union
Annual programme costs	USD 84,964.14
Annual programme cost per learner	Undisclosed
Annual cost of the digital tool	Undisclosed
Digital tool(s) used	Smartphone, computer, tablet, Moodle, Teachable, Europass, Skills Panorama
Target population	Adults with a migrant background
Learner age	45+
Learner to instructor ratio	5:1
Target skill(s)	Basic literacy skills, basic education skills, digital and soft skills for social and professional inclusion
Impact	90+ learners
Programme website	http://www.upskilling.ilabour.eu/

BACKGROUND

The European Union has received hundreds of thousands of migrants in the last few years. UN Dispatch estimates that 138,000 people migrated to Europe to escape war and poverty in the year 2018 alone (UN Dispatch, 2020). Most newcomers are legally regarded as refugees and travel across the Mediterranean Sea from countries such as the Syrian Arab Republic, Iraq and Afghanistan (Clayton et al., 2015). It has been widely reported in the media that Europe faces overwhelming challenges in relation to the influx of refugees in recent years, including addressing their educational needs and integration into the labour market. In 2014, only 56 per cent of refugees were employed across the European Union (OECD, 2016, p. 17). Even if they possess the same education levels as a native-born EU worker, it can take up to 20 years for migrants to catch up in the labour market (ibid., p. 21). Migrants face challenges such as foreign language acquisition and discriminatory hiring practices, which further their exclusion in their new communities.

For older migrants especially, gaps in digital literacy often leave them overlooked in the labour market, as jobs are given to younger adults who possess superior technological skills. Access to technology varies across the EU. In Romania, where the ICT sector is still growing, 61 per cent of households have a computer (Marica, 2015). Meanwhile, Germany has invested heavily in technology in recent years, giving computer access to 92 per cent of its residents (World Bank, 2020). Whether or not adult migrants have access to a computer, their familiarity and skills with many technologies is limited, making them unqualified for the digital demands of the modern workforce.

The **Upskilling Adults 45+** project was created for a specific group: adult migrants aged 45 and older. The Romanian Institute for Adult Education (IREA) cites a dire need to provide training and skills for this community so that they can integrate into the workforce both in Romania and across Europe, especially as the average retirement age is rising (UA, 2020).

The Upskilling Adults 45+ (UA) programme, spearheaded by the IREA in Romania, aims to train instructors and educational providers across the European Union to educate this specific learner population. By professionalizing adult educators, the overall quality of adult education is improved, increasing participation in adult education overall.

OVERVIEW OF THE PROGRAMME

The UA programme is a project of IREA that partners with several entities within both Romania and the EU at large. It is designed to train facilitators and provide services for educational providers that focus on upskilling middle-aged adult migrants of all genders so that they can thrive in the modern workforce. The project recognizes that migrant adults aged 45-plus constitute a vulnerable population. They face difficulties (re)integrating into the labour market due to (long-term) unemployment, de-skilling and a competency gap. Moreover, since society is ageing, this age group is increasing in size.

The project focuses on tackling the difficulties of (re)insertion into the labour market faced by migrant communities from both inside and outside the EU, including return migrants (individuals who return to their home country after a long stay abroad). The project aims to develop integrated solutions for adult education providers to support (re)migrants aged 45+ to acquire basic skills such as entrepreneurship, digital and soft skills, and/or to validate their competences. The overall objective of the programme is to further the integration of these adults into both the labour market and society by equipping them with basic skills, thus helping them to overcome the barriers that prevent them from participating consistently in the workforce.

The UA project has formed partnerships with the following entities:

- **Institutul Român de Educaţie a Adulţilor** (Coordinator)
- **International Labour Organization** (Netherlands)
- **weltgewandt. Institut für interkulturelle politische Bildung e.V.** (Germany)
- **Action Synergy SA** (Greece)
- **Emprende Empleo European Network** (Spain)
- **Fundatia romano-germana de pregatire si perfectionare profesionala in domeniul constructiilor** (Romania)

These stakeholders are involved in programme development, aiming to prepare learners to work throughout the EU. In order to maximize impact, the programme was integrated into an existing European Union programme, providing many more contextual benefits. The most appropriate programme for such a fusion was Erasmus+,[20.1] Key Action (2),[20.2] which supports cooperation for innovation and the exchange of good practices. Key Action (2) was regarded as the most suitable partner programme because it enables organizations to work together to improve provision for learners and share innovative practices within and beyond the participating organizations. The partnership with Erasmus+ was crucial in increasing the positive impact of European activities at all levels, ensuring benefits for the individuals, organizations and countries involved in the various projects. The UA programme recognizes that strategic partnerships offer a flexible and effective way of working with partners from different countries, helping to share, develop, transfer and/or implement innovative practices at organizational, local, regional, national and European levels.

The programme prides itself on its innovative approach, particularly as regards the choice of target group. UA is aimed at adults who face multiple barriers, including their age (45-plus), their background as migrants and/or return migrants, deficiencies in basic skills, and living in disadvantaged rural or small town areas. These barriers are addressed with a combination of services tailored to the learners' situations and interests, and with their future success in mind. The programme equips learners with a mix of digital and soft skills which allow them to access the labour market in flexible ways, including self-employment.

In terms of implementation, concrete tasks include:

- organizing and preparing programme content via focus groups and meetings with beneficiaries, stakeholders and associated partners;
- drafting administrative documents and contracts;
- making practical arrangements for multiplier events and training courses;
- selecting and training course participants;
- implementing the quality assurance plan.

PROGRAMME OBJECTIVES

The overall aim of the programme is to improve the quality of adult education by identifying ways to increase older adults' participation in learning and strengthening lifelong learning at individual and institutional levels. These objectives are aligned with the main research directions within IREA, which focus on professionalization of adult educators, the impact of new media

[20.1] Erasmus+ is the European Commission's Programme for education, training, youth, and sport for the period 2014–2020, succeeding the previous Lifelong Learning Programme. For more information, visit: Erasmus+ | EU programme for education, training, youth and sport (**europa.eu**).

[20.2] Key Action (2) or Key Actions (also referred to as Actions) is the collective name for activities and projects that can be funded under Erasmus+. For more information, visit: Key Action 2 | Erasmus+ (**erasmusplus.org.uk**).

on adult learning, intergenerational learning, active ageing, developing support services, social inclusion and active citizenship through education.

More specifically, the UA programme lists the following objectives (UA, 2020):

- To design dedicated programmes to train staff working with adults 45+, tested as part of the project by 18 educators;
- To provide tailored, holistic services for adults aged 45+ from migrant backgrounds, so that they can access the labour market and actively participate in their community. This involves creating a combination of validation services and training offers (for upskilling), together with guidance on entrepreneurial initiatives and how to find a job;
- To develop a two-pronged learning strategy: digital skills and soft skills that can be adapted to different contexts and target groups.

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The programme proposes three 'intellectual outputs' (IOs) or work packages in order to achieve the above objectives:

Although not yet realized, these IOs will be used by adult educators in six partner organizations. Each partner organization is to have three staff members, bringing the number to 18 in total. These 18 trainers will each hold four training courses in their home countries using IOs and the results will be shared in a final report, accompanied by a dissemination guide. It is important to highlight that addressing soft skills is a particularly innovative element of these IOs.

LEARNERS

The UA has piloted a programme that trained 18 instructors to deliver educational services to learner migrants aged 45 and older, with a particular emphasis on providing services to women. With a better understanding of the backgrounds and skill sets of these learners, teachers can provide better instruction. The training provided by the IREA programme prepares them accordingly.

Many migrant learners in this age category have previously held jobs as caregivers to the elderly and in construction and agriculture. These learners face the common barriers of ageism, lower access to and usage of ICT, and living in disadvantaged areas that prevent them from successful inclusion in the workforce. Moreover, they routinely face challenges in four similar sectors: insertion and reinsertion into the job market, lack of recognition of existing competences, receiving payment for work completed both in and outside Romania, and language barriers. Learners may leave home to work for a period of time, only to experience difficulties finding work when they return. Since they are considered 'older', they are passed over for certain positions, and some of the skills they possess may now be considered outdated or unnecessary. They often lack sufficient English language skills to qualify for certain jobs.

Learners often face similar difficulties as regards ICT. They may be familiar with certain programmes or applications, but do not use them. For example: they use smartphones daily, but not necessarily a computer. Most of the learners have a Facebook account and use WhatsApp to communicate with friends and family. However, their digital skills do

Upskilling 45+
Erasmus+ KA204 01.09.2019-31.08.2021
2019-1-RO01-KA204-063983

Co-funded by the Erasmus+ Programme of the European Union

IO1 Questionnaire

Draft, provided by weltgewandt e.V.

Created for adult citizens 45+ with migrant background.

Good afternoon. Our organisation takes part in a European cooperation with partners in Romania, Germany, Spain and Greece. Our aim is to help improving the integration of migrants who are older than 45 years. May we ask you some questions?

The participation is anonym. Your provided information will be used exclusively within the framework of this project. The data will not be passed on to third parties outside the partner consortium.

Adults 45+ often have a professional qualification. What is yours?

Do you have any other certificate?

How would you describe your skills and work experiences?
(Examples: organising an event, repairing cars or/and bicycles, cooking special menus, knowledge of plants and gardening, language skills, teaching experiences, management skills, writing texts, working in the field of construction, supporting elderly people, working in a hospital, etc.)

Upskilling 45+
Erasmus+ KA204 01.09.2019-31.08.2021
2019-1-RO01-KA204-063983

Co-funded by the Erasmus+ Programme of the European Union

What about your digital skills?

Please mark with a cross where applicable	1 Never	2 Once a month and less	3 Every two weeks	4 Once a week	5 Every day
How often are you using digital devices like smartphone, computer, tablets or others to gain information?					
Smartphone	o	o	o	o	o
Computer	o	o	o	o	o
Tablet	o	o	o	o	o
Others (please specify)	o	o	o	o	o
How often do you share and / or create content and communicate with digital devices on various media platforms?					
Facebook, Instagram	o	o	o	o	o
WhatsApp, Telegram, Signal	o	o	o	o	o
Google drive, dropbox, others	o	o	o	o	o
Others (please specify)	o	o	o	o	o

When you applied for an internship, a job or unemployment benefits, did you fill in an online application?

Yes ◯ No ◯

Figure 20.1: Migrant questionnaire, pages 1 and 2. *Source:* UA, 2020

not extend beyond this: they have probably never applied for a job online. They do not do online banking and have limited abilities in writing and editing documents. This low skill level can prevent them from competing for certain jobs.

LEARNER ENROLMENT

The enrolment of both teachers and learners occurs primarily through connections with the six partner organizations, since many learners in the programme were already enrolled in classes run by these organizations.

In order to be considered for enrolment, learners are required to be 45 years or older and to be a migrant to the country in which they live. A total of 90 migrant adult learners were enrolled in the programme. As an initial diagnostic tool, they were given a questionnaire to fill out by the partner organizations. The rationale for conducting a questionnaire was to help develop a concurrent research study in each country and to assess the migrant learners' existing digital skills and soft skills. The results from this and the questionnaire for trainers (see sub-section 'Recruitment and training of facilitators') were then summarized in a national research report.

The questionnaire for migrants included open-ended questions about the prospective learner's professional qualification(s) and/or certificate(s), skills, and work experience. The questionnaire also asked migrant learners about their skills in using digital devices, sharing/creating content on Web 2.0 and social media platforms (e.g. Dropbox, Google Apps, Facebook, Instagram). Questions on programming and website construction were also included. A third part of the questionnaire enquired about the applicant's learning and communication skills, confidence in his/her abilities, learning and training goals, and motivation. The questionnaire ended with questions on demographic information including age, gender, country of current residence, and country of origin. [20.3]

[20.3] Upskilling 45+ Migrants Questionnaire **https://drive.google.com/file/d/1wEi8sbfbeJP18dbX6wigE7pF2m-bkUaV/view**

The complete pre-assessment needs-analysis questionnaires and a summarizing report can be accessed as follows:

- **2020_06_12_Migrants_Questionnaire.pdf**
- **IREA_MODEL_UPAm45+_national_report __ template_ (1).pdf**

Ninety learners were enough to fill the classes of the 18 teachers in the first cohort. The learners were not surveyed to measure educational or employment gains, but the IREA acknowledges the need to do so with future cohorts.

LEARNER ASSESSMENT

Since the programme is still in the development stage, learning outcomes have not yet been assessed. The IREA has announced a longitudinal evaluation of results regarding the quality of programme development. It realizes that 'outcomes evaluation is a very important and fundamental process in any programme or project in order to ensure success' (UA, 2020).

The programme is expected to result in tangible materials and teaching guidelines that can be adapted and used throughout the EU. The programme intends to improve the quality of adult education and participation of migrant learners aged over 45 years by ensuring that instructors are trained to meet and understand their needs. It also intends to familiarize the learners with ICT so as to secure them a solid place in the workforce.

TEACHING AND LEARNING APPROACHES

As part of its educational delivery services to adult learner migrants, the UA programme seeks to professionalize the instructors who educate them. Three categories of intellectual output (IO) have been provided for instructors to assist with the proper and professional delivery of educational material as a result of the work completed by the IREA and its partner organizations (**Table 20.1**).

Intellectual outputs

IO1: Manual for basic skills awareness and understanding of adults aged 45+ with migrant backgrounds.

IO2: Training package with two modules: digital skills and soft skills, with a user guide for trainers.

IO3: Updated tools for evaluation and validation of existing competences in the construction sector, and for transversal skills.

IO1 is a manual developed for teachers to familiarize them with the needs of adult learners, including basic skills awareness. Special care has been taken to acquaint instructors with the specific needs of over-45 migrants and to consider how teaching methods might need to be adapted to optimize output.

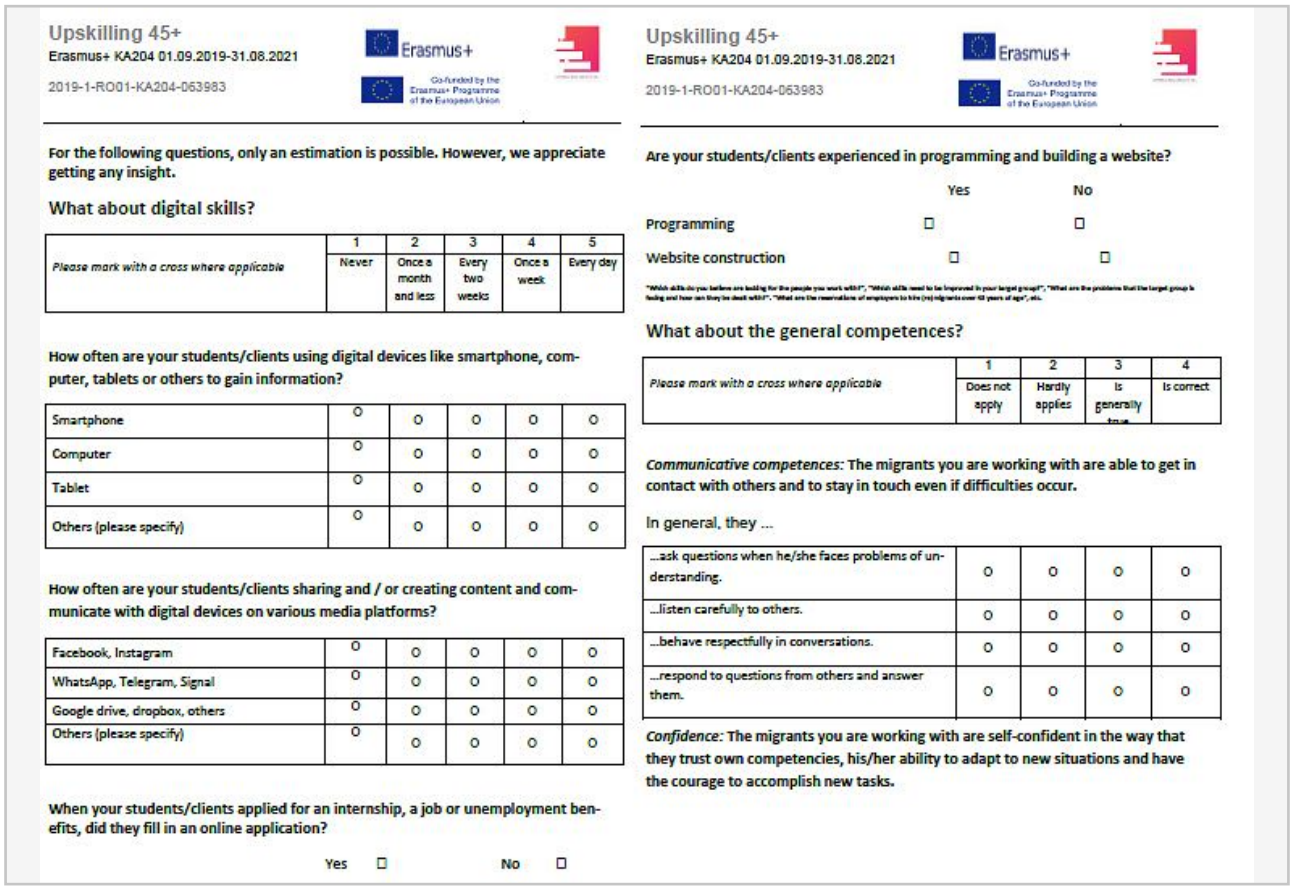
IO2 is a training package that includes two modules that cover digital skills and soft skills. The material is designed to be amended to fit local contexts and targets migrant learners aged over 45.

IO3 is a toolkit for educators that covers evaluation and validation for the learners. It will be updated according to local and EU requirements in order to provide learners with certificates and other documentation of their participation in the programme modules.

The project planners and developers included research-informed and best teaching practices in its instructional design. Needs analyses were conducted for both teachers and learners. However, the outputs and materials for the programme appear to be still in the development phase. Overall curriculum decisions are made as a

Intellectual output	Product	Purpose	Audience
A manual for basic skills awareness and understanding of adults aged 45+ with migrant backgrounds	Handbook: It will have about 120 pages, structured in chapters with specific relevance to adults 45+, on themes such as how to address the challenges of the migrant background; educational and career guidance; combining validation of competences with training courses/ modules; how to identify and evaluate transversal competence; how to help adults build their personal and professional portfolio; and how to enable active citizenship and community participation.	(Re)insertion into the labour market, identifying and validating existing competences, and addressing the skills gap.	Professionals in adult education and counsellors/trainers will be provided with helpful tools and guidance on how to identify adult migrants' strengths and weaknesses and how to address them by combining existing specialized training or validation services.
A training package to meet national regulations for certified training	A training package with two modules: digital skills and soft skills. Components include an introduction on how to use an online educational platform; how to use a mobile device and apps or programmes such as Gmail, Facebook, WhatsApp, Google Drive; and how to create an online skills portfolio. Using the internet to access various thematic sites on recruiting staff, creating a CV, e-banking, e-shopping, etc.	Flexibility of use by adult migrants. The soft skills include cultural awareness, communication skills, social skills, learning to learn, political competences, enabling active citizenship and participation. Guidelines and examples on design training.	Trainers and migrants (participants)
Evaluation and validation tools		Evaluate and validate existing competences	Development sector and transversal skills

Table 20.1: Intellectual outputs. *Source:* UA, 2020



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For the following questions, only an estimation is possible. However, we appreciate getting any insight.

What about digital skills?

Please mark with a cross where applicable	1 Never	2 Once a month and less	3 Every two weeks	4 Once a week	5 Every day
How often are your students/clients using digital devices like smartphone, computer, tablets or others to gain information?					
Smartphone	o	o	o	o	o
Computer	o	o	o	o	o
Tablet	o	o	o	o	o
Others (please specify)	o	o	o	o	o
How often are your students/clients sharing and / or creating content and communicate with digital devices on various media platforms?					
Facebook, Instagram	o	o	o	o	o
WhatsApp, Telegram, Signal	o	o	o	o	o
Google drive, dropbox, others	o	o	o	o	o
Others (please specify)	o	o	o	o	o

When your students/clients applied for an internship, a job or unemployment benefits, did they fill in an online application?

Yes ☐ No ☐

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Are your students/clients experienced in programming and building a website?

	Yes	No
Programming	☐	☐
Website construction	☐	☐

What about the general competences?

Please mark with a cross where applicable	1 Does not apply	2 Hardly applies	3 Is generally	4 Is correct
...ask questions when he/she faces problems of understanding.	o	o	o	o
...listen carefully to others.	o	o	o	o
...behave respectfully in conversations.	o	o	o	o
...respond to questions from others and answer them.	o	o	o	o

Communicative competences: The migrants you are working with are able to get in contact with others and to stay in touch even if difficulties occur.

In general, they ...

Confidence: The migrants you are working with are self-confident in the way that they trust own competencies, his/her ability to adapt to new situations and have the courage to accomplish new tasks.

Figure 20.2: Trainers' questionnaire, pages 3 and 4. *Source:* Upskilling 45+ Migrants Questionnaire, 2020[20.4]

committee, with a built-in capacity to tweak content according to local contexts and learner needs. This is important because the project encompasses five countries with different contexts. IREA states flexibility and adaptability as key aspects of the programme. For example, if a migrant has already acquired a competence or ability, she/he can move on to the next level without going through the beginner level. The courses are organized from beginner to advanced level.

RECRUITMENT AND TRAINING OF FACILITATORS

Teachers taking part in the programme were already employed by the partner organizations. The partners selected three instructors each, using a 'motivation letter' provided by teacher candidates for selection. In the letters the candidates demonstrated their prior experience in teaching adults and expressed their desire to work with the migrant learner populations. Candidates also attended an in-person interview with a programme manager.

Trainers were also given a questionnaire to be filled in before their admission to the programme (**Figure 20.2**). The questions included biographical information on the trainer's age, gender, profession, country of current residence, and country of origin. Since these trainers were already working with partner organizations, the questionnaire focused on their existing learners' professional qualifications, digital skills, and abilities in creating and sharing online content. An open-ended question on existing learners' main characteristics also formed part of the questionnaire.

[20.4] Upskilling 45+ Migrants Questionnaire: **https://drive.google.com/file/d/1wEi8sbfbeJP18dbX6wigE7pF2m-bkUaV/view**

The programme reports giving special consideration to the professional development of its instructors, with structures provided for the delivery of educational services. Instructors are encouraged to share ideas and innovative practices, so that the overall goal of the socialization and professionalization of learners can be achieved. The partners selected three participants each for a total of 18 in the first cohort. These groups came together to devise and implement the instructional design of the course.

TECHNOLOGY INFRASTRUCTURE, MANAGEMENT AND USE

The IREA programme seeks to equip teachers with methods of instruction that will enhance the digital skills of migrant learners aged 45 plus so that they can compete in the workforce. While classes are held in person in adult education centres in the countries of the partner organizations, teachers are tasked with familiarizing their learners with the various learning platforms and educational software that are used in the workforce in general. Learners will learn how to use a Learning Management System (LMS) such as Moodle[20.5] or Teachable[20.6] during their courses. Using an LMS as a part of their classwork in a virtual classroom space will enhance the learners' digital literacy skills.

Teachers will be trained to provide quality instruction to learners so that they can create a résumé that will be posted on **Europass-CV** (Europass is a European Union website that helps users manage their education and career). Moreover, learners will learn how to create their own online skills portfolio; become familiar with the use of Gmail, Skype, and other ICTs commonly used in the workforce; and learn about recruitment and job search sites on the internet.

The ICTs introduced during the courses will synergize with the support instruments available throughout the EU: ESCO (European Skills, Competences, Qualifications and Occupations), Europass, Learning Opportunities and Qualifications in Europe, and Skills Panorama, so that skills acquired during the programme are easily applicable in other locations throughout Europe.

The participating organizations also use ICT in order to coordinate the instructional design of the courses. They hold regular online meetings throughout the development process, another method of ensuring that teachers are equipped to pass on these skills to their learners.

UA also reports on the existing use of digital devices by the migrant learners. This information was collected via the questionnaire that was conducted at the time of enrolment. Although the data do not cover learners' use of technology in general or ICT in particular as a result of the programme, **Figure 20.3** provides some background on the use of technology by both instructors and learners at the outset of the programme.

Figure 20.3 shows that trainers make heavy use of smartphones, ranging from once a week to everyday use. Tablets are used to a lesser extent: between once a month and never. Meanwhile, the use of computers is more evenly distributed. Some trainers have never used a computer, while others use one every two weeks to every day. The use of computers is more constant than the use of other digital devices.

[20.5] Moodle is a learning platform designed to provide its users with an integrated system to create personalised learning environments. For more information, visit **https://moodle.org/**.

[20.6] Teachable allows to create online courses and coaching services. For more information, visit: **https://teachable.com**.

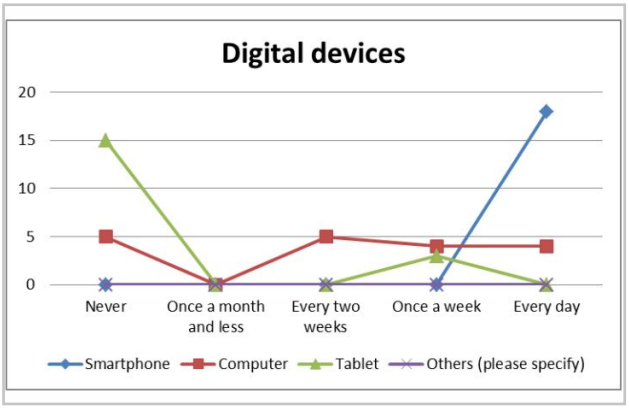

Figure 20.3: Use of digital devices by the trainers in the UA programme. *Source:* IREA and FRG, 2020

The use of digital devices by adult migrant learners is also reported by the IREA. **Figure 20.4** shows similar patterns of use by learners as by trainers. Smartphones are the most commonly used digital tool, used by most learners almost every day. Tablets remain the least used digital tool among learners, as with trainers. Lastly, the use of computers is variable, with some learners reporting use every two weeks to once a week. However, most learners report that they have never used a computer.

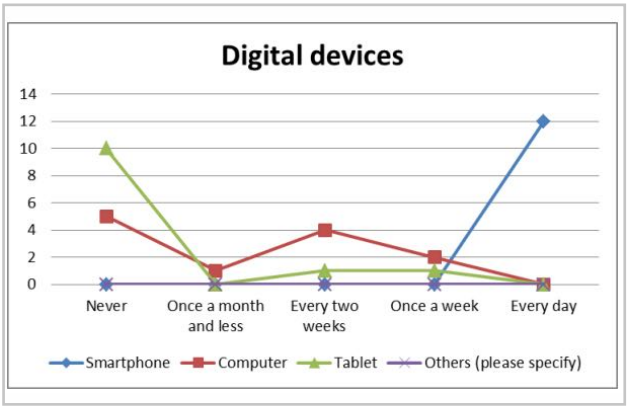

Figure 20.4: Use of digital devices by the migrant learners in the UA programme. *Source:* IREA and FRG, 2020

PROGRAMME IMPACT

The UA project has produced tangible educational materials as an open resource that can be used by educational providers. It will provide the materials developed by the project free of charge to interested parties for five years. The 18 instructors trained in the original cohort can, in turn, share their knowledge with other educational communities and train others to replicate the work. The organizational stakeholders will continue to offer instruction to this learner population for at least two years after the completion of the project.

The programme lists several general and specific benefits to beneficiaries including the learners, facilitators, and the community at large. **Table 20.2** summarizes these benefits.

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Upskilling Adults 45+ with Migrant Backgrouds: Adult Education Strategic Partnership Project kick-off meeting, Timisoara, Romania, 17–18 December 2019

CHALLENGES

At the time of writing, the COVID-19 crisis poses a challenge to the UA programme, as virtual education is a necessity in most parts of Europe. As digital skills are a primary focus of instruction, this creates difficulties as regards basic programming: teaching digital skills in a virtual format is certainly more challenging than face-to-face instruction.

Another challenge faced by the project involves the coordination of instructors and stakeholders spread throughout Europe.

	Benefits to participants	Benefits to facilitators	Benefits to community
General	• Migrants/return migrants will learn how to identify their needs related to adult learning, helping to facilitate their access to the labour market.	• An increase in their capacity to work with low-skilled individuals, particularly with migrants and return migrants.	• The quality of community life will improve through these migrants who will improve their digital and soft skills.
Specific	• They will learn how to reflect and use their prior learning experiences that before the project may have been forgotten and never used. • They will discover the importance of literacy and be able to take advantage of its benefits. • They will be part of a digital competence process that will make their skills more marketable. • They will learn how to use soft skills in their professional activities. • All 90 beneficiaries will have the opportunity to interact with the project team, with other migrants/return migrants and with other stakeholders (company representatives, employment department staff, etc.).	• They will benefit from the project as they will develop some very specific skills and competences. • They will learn skills to manage their time and professional resources. • They will learn how to coordinate with other staff members. • They will become more acquainted with international projects and international cooperation.	• The community will have more competent and socially integrated people at work. • It will be possible to create learning communities.

Table 20.2: General and specific benefits of the programme. *Source:* UA, 2020

STAKEHOLDERS AND PARTNERSHIPS

The project is a multifaceted coordination of providers, teachers and learners across Europe, overseen by the IREA. Action Synergy SA (Greece), Weltgewandt Institut für interkulturelle politische Bildung eV (Germany), the International Labour Organization (Netherlands), Emprende Empleo European Network (Spain), and the Romanian-German Foundation for professional training and improvement in the field of construction (Romania) came together on the project, whose impact reaches across the European Union. The work is intended to be adaptable to local contexts and to provide the option of EU certifications for the learners who take the courses.

The project website indicates that it receives partial funding from the EU Erasmus+ Programme. This programme 'support[s] education, training, youth and sport.... In addition to offering grants, Erasmus+ also supports teaching, research, networking, and policy debate on EU topics' (European Union, 2020).

Facilitators are volunteers who receive extensive training on working with the learner population and come from the five countries listed. They are required to have high English language proficiency and to demonstrate an ability and interest in working with the over 45 migrant population in particular. The facilitators created a community of practice to share experience and innovation throughout the project. It is expected that the pilot

facilitators will share their knowledge in their home country and context, thus improving the overall quality of instruction for this group of learners.

FUTURE PLANS

The Upskilling Adults 45+ programme was always intended to be replicated and reused by other educational providers. The training provided to facilitators results in a learner population that can seamlessly fit into the modern workforce. The IREA intends to continue to advocate for the migrant community aged 45+ across Europe, attempting to raise awareness about the needs of this community and how to address them.

In terms of assessment, the IREA reports that the impact of the course on participants was not considered at the planning stage. However, once the programme concludes, IREA plans to ask all participating migrants to answer a questionnaire about the impact the course had on their family life, career, social life, etc.

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VHS Lernportal, Germany

21

Programme title	VHS Lernportal
Implementing organization	DVV International
Location	Germany
Language of instruction	Host country's dominant language (German), combination of first and second languages
Date of inception	2018
Programme partners	Federal Office for Migration and Refugees (BAMF), vocational training centres, welfare organizations, counselling centres, private educational institutions
Funding	German Government
Annual programme costs	USD 2.3 million
Annual programme cost per learner	USD 15
Annual cost of the digital tool	approx. USD 1.1 million
Digital tool(s) used	Google Play, YouTube, VHS Lernportal, mobile devices
Target population	Migrants, refugees, women and girls
Learner age	Youth and adults
Learner to instructor ratio	30:1
Target skill(s)	Literacy, digital skills, economic self-sufficiency, vocational education and training
Impact	Over 26,000 facilitators and 500,000 learners
Programme website	**https://www.vhs-lernportal.de**

BACKGROUND

As of 2019, the World Bank estimates Germany's GDP to be USD 3.846 trillion and the population over 83 million (World Bank, 2020a). About 26 per cent of the population has a migrant background, meaning that they did not acquire German citizenship at birth (BAMF, 2019, p. 14), and there are an estimated 1.77 million refugees living in the country (Deutsche Welle, 2020). Germany was the largest European recipient of asylum applications from the Syrian Arab Republic, Iraq and Afghanistan during the refugee crisis in 2016 (Unangst, 2017) – its welcoming refugee policy making it a safe haven for many people fleeing violence and persecution around the globe.

Yet there are an estimated 6 million adults with low literacy skills living in the country, around half of whom do not speak German as a native language (Grotlüschen et al., 2019). This poses a significant challenge for refugees and migrants hoping to integrate into German society, pursue an education and find employment. Despite having one of the largest ICT markets in the world – according to 2017 data, 92 per cent of households in Germany had access to a computer (World Bank, 2020b) and an internet connection (ibid., 2020c) – Germany is afflicted by a digital divide, with users of other languages largely underrepresented online (Wiggers, 2017). Refugees in Germany rely on ICT as a path to social inclusion and community-building, financial well-being (via access to mobile banking), labour markets, education, and healthcare data (Patil, 2019). Refugees typically work in lower-paid jobs, which have been hit hardest by the COVID-19 pandemic, leading to a large increase in unemployment and higher demand for German language learning (Keita and Dempster, 2020).

In 2018, the German Adult Education Association (DVV International) created a learning portal, the VHS Lernportal, to serve Germany's 900+ adult education centres.[21.1] The VHS Lernportal provides free online German as a second language, literacy and basic skills courses for migrants. The curriculum is designed to be used either by facilitators in classrooms as a teaching tool or for self-study by individuals on a mobile device. The portal has even been made available on Facebook and social media platforms. It is optimized for a blended learning approach and can be used offline. It is also available in 18 languages[21.2] to help learners manage their own language learning process independently through the use of digital media.

OVERVIEW OF THE PROGRAMME

The VHS Lernportal enables learners to acquire literacy skills (basic, digital, family and health literacy) in a multilingual and lifelong learning context. It has a particular focus on refugees, migrants, and women and girls. Successful completion of VHS Lernportal courses can be documented, meaning that learners can show evidence of their achievements to potential employers and/or educational institutions. DVV International plans to create its own examinations in the near future.

The platform is designed to be easy to navigate and compatible with smartphones or other mobile devices. Units comprise 12 lessons, each containing up to 80 individual exercises. Learners earn 'badges' as they progress through the materials. The VHS Lernportal supports learners on a continuous basis and incorporates real-life scenarios into the programme units. Learners are guided through German language skills including reading, writing, speaking and listening.

[21.1] The VHS Lernportal homepage can be accessed at: **https://www.vhs-lernportal.de**.

[21.2] The VHS Lernportal is currently available in Albanian, Arabic, Bulgarian, Croatian, English, Farsi, French, Greek, Italian, Kurmancî, Pashto, Polish, Romanian, Russian, Serbian, Spanish, Tigrinya and Turkish, as well as in German.

Figure 21.1: Choice of German language learning options according to proficiency. *Source:* VHS Lernportal

The programme provides units tailored to various levels of German language proficiency, from A to B1, based on the levels laid down in the Common European Framework of Reference for Languages (CEFR), as illustrated in **Figure 21.1**. It also provides units designed to boost learner's professional German skills and prepare them for the job market.

PROGRAMME OBJECTIVES

The objectives of the programme are to:

- reach a large number of learners;
- enable learners to study and practise German independently and in a self-directed manner;
- introduce learners to studying via technology;
- convince educational institutions of the value of digital learning.

LEARNERS

The German Government provides free, in-person courses for all migrants wishing to learn German as a second language. However, waiting lists are long and services are not always immediately available to learners. The VHS Lernportal can serve as a stopgap measure while learners wait for these services to become available. Moreover, when learning went online due to the COVID-19 pandemic, learners and facilitators were able to use the VHS Lernportal to schedule face-to-face interactions. As of September 2020, around 500,000 learners and 26,000 facilitators were using the VHS Lernportal to study German.

ENROLMENT OF LEARNERS

Anyone can enrol in the programme from an internet-enabled device. The enrolment process is simple and user-friendly. For example, if learners prefer a language of instruction other than German, they can choose from a further 18 languages to view the website and navigate it more easily. Most of the texts on the website

also come with an audio version. Learners can register free of charge for the programme using the VHS Lernportal registration page.[21.3] They can then choose which level of German they would like to study, from beginners' to B1 level. The VHS Lernportal's YouTube channel provides a subtitled instructional video that can be automatically translated to many languages showing learners how to register correctly.[21.4]

If new learners prefer to study independently, they can simply register on the website by providing their name and email address, and creating a user name. Those who wish to attend an adult education centre in-person and participate in a state-funded course must first meet the requirements of the respective VHS.

ASSESSMENT OF LEARNERS

Learners who successfully complete a self-study task are awarded a badge or other virtual reward, thus enabling them to track their individual learning progress. Learners can attain an unofficial certificate of completion that can be used in other contexts. They can print out this certificate as proof of the time they have spent studying and the number of tests they have passed. They can also use the VHS Lernportal to prepare for state exams, as its language courses are officially accredited.

Learners who complete a set task online receive immediate automatic feedback and are shown the correct answer. In addition, all online learners are accompanied by a personal tutor provided by DVV International, who corrects texts, gives feedback, provides advice and maintains learners' motivation. In presence-based or blended learning courses, the teacher can also act as a virtual tutor by supervising activities, assigning exercises, assessing learners' progress and providing feedback online. This approach, which combines technology with the 'human factor', has been proven to increase users' commitment to learning (see the testimonials at the end of this case study). An appropriate combination of online and face-to-face learning must be established for each individual learning group. As a rule, the proportion of online teaching offered to learners is higher for those who are more proficient in German and/or possess better digital skills.

TEACHING AND LEARNING APPROACHES

The VHS Lernportal comprises 12 lessons and offers German courses at levels A1, A2 and B1. Each course starts with a specific scenario based on a short sequence of animated illustrations in which different characters successfully master everyday challenges. These characters accompany the learners throughout the lessons and across all of the courses.

Each scenario provides a snapshot of the subject matter and learning goals that will be covered in the subsequent lesson. Offering a variety of animated/gamified incentives, each lesson comprises approximately 80 different exercises. These exercises repeat the content presented in the introductory scenario in a meaningful way and include about 20 different types of task designed to develop reading and listening comprehension, writing, pronunciation, grammar and vocabulary in the target language.

When developing the course content and exercises, developers ensure that the activities are intuitive and easy to follow. Some of the courses also contain supplementary materials, such as films and tests, to enhance the learner experience and course effectiveness. Facilitators are free to use the

[21.3] See **https://abc.vhs-lernportal.de/wws/9.php#/wws/registrierung-lernende.php**.
[21.4] See **https://www.youtube.com/watch?v=y9mQ8IuYDkk**.

VHS Lernportal in their classrooms in whichever way they choose, and to adapt materials to their learners' specific needs and contexts.

RECRUITMENT AND TRAINING OF FACILITATORS

In general, course instructors (known as 'Kursleiterinnen' or 'Kursleiter' in German) are introduced to the VHS Lernportal through working for adult education centres throughout the country. They must be qualified to teach German and have language teaching experience. They also are required to be proficient in German at C1 level. The VHS Lernportal also uses online tutors (known as 'Lernbegleiterinnen' or 'Lernbegleiter') who must fulfil similar skill requirements.

DVV International reports that many instructors themselves require training to use the VHS Lernportal in a constructive way. It therefore provides them with appropriate training and support, including instructional courses, teaching materials and an online platform in which they can network and share ideas. An eight-week introductory training course (lasting a total of approx. 270 minutes) is provided so that instructors can learn how to use blended learning in the classroom. Instructor guides, worksheet handouts, videos, posters and games are provided for instructional use. A mentoring system is also available. Tutors, meanwhile, can take part in a four-week training course (180 minutes) that covers similar content. Both types of training course are scheduled provided that more than eight instructors or tutors register to attend each course. A maximum of 12 participants can attend each course. In addition to these face-to-face training courses, instructors and tutors can undertake intensive online training through the VHS Cloud, which features eight modules, each of which requires three to five learning hours.

All of these courses are conducted by DVV-qualified professional trainers. In addition, the VHS Lernportal includes a dedicated webpage for facilitators, providing them with written instructions, video tutorials, examples of best practice and other resources, such as links to webinars.[21.5]

Experience has taught DVV International that simply providing the VHS Lernportal and releasing it for use is not enough. It cites its extensive training and outreach programme for instructors as crucial to the programme's success. Continuous improvements to the VHS Lernportal that assure the quality of the programme and feed into teacher training provision are also key. DVV reports that it gathers regular feedback from instructors and has conducted a survey of around 950 instructors who use the portal to document their experiences. Furthermore, it has scheduled regular classroom visits and discussions with VHS instructors and online tutors centring on the following questions:

- What specific benefits do the German courses in the VHS Lernportal provide for language acquisition among learners?
- Which combination of face-to-face and online teaching makes sense for which groups of participants?
- What obstacles do learners and instructors face?
- Which real-life scenarios and approaches have proven successful in practice with different learner groups?

Findings are continuously used to further develop the portal and courses in terms of technology and content. They are also used to supplement resources for teachers: successful scenarios and strategies for dealing with digital learning challenges have been incorporated into teacher handbooks and training courses.

[21.5] See **https://www.vhs-lernportal.de/wws/9.php#/wws/erste-schritte-kursleitende.php**.

TECHNOLOGY INFRASTRUCTURE, MANAGEMENT AND USE

The VHS Lernportal is a learning management system (LMS) that provides a virtual learning space for learners. DVV International has been using ICT since 2004 and considers the VHS Lernportal to be an upgrade on its prior offerings. The learning portal supports multiple learning formats, such as audio, video and text, and is designed to ensure that technology can be used as much or as little as a facilitator or learner wants.

After being introduced to the programme, learners can study independently. Each learner has a personal account that charts his or her individual learning progress; as a result, learners always know which lesson they should select to continue their studies (see **Figure 21.2**). Meanwhile, facilitators can check learners' progress on a regular basis and assign them additional exercises if and as needed. Some exercises are corrected automatically, which provides learners with instant feedback. Others, such as free-writing exercises, are sent to the facilitator and corrected manually.

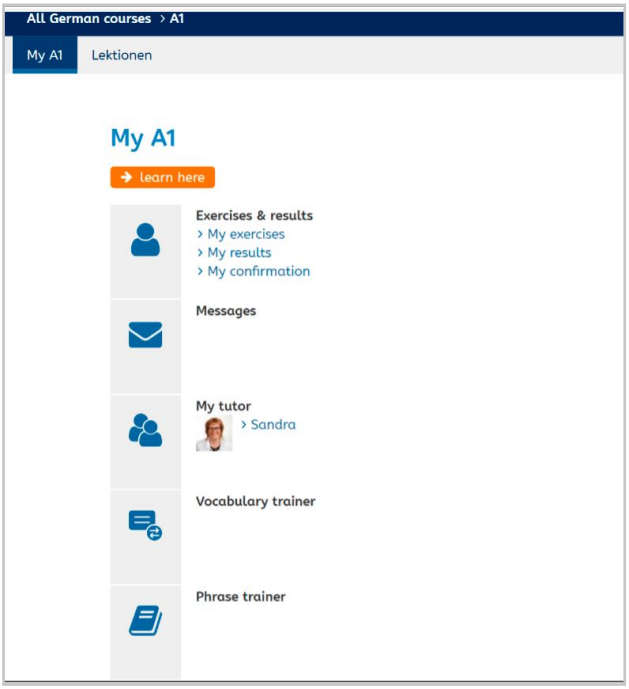

Figure 21.2: Individual user interface for an A1-level course on the VHS Lernportal. *Source:* VHS Lernportal

As shown in **Figure 21.2**, once learners have logged in to the portal they can click on a button marked 'Learn here' to access lessons and tests. **Figure 21.3** shows a sample lesson for an A2-level course.

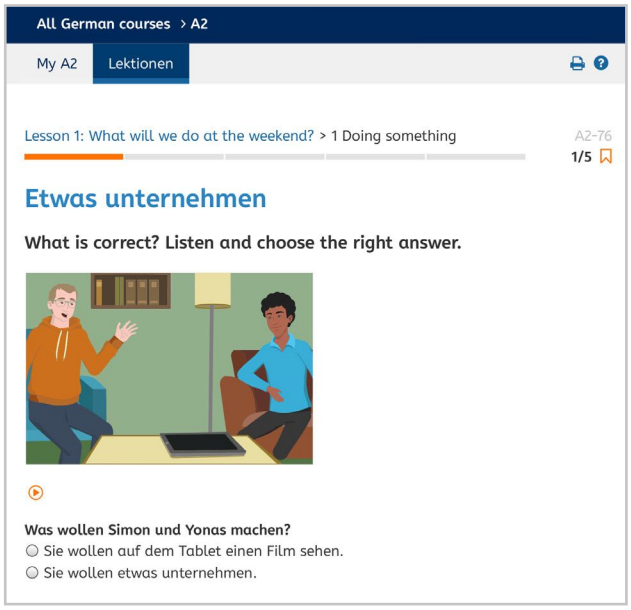

Figure 21.3: A level A2 listening comprehension exercise on the VHS Lernportal. *Source:* VHS Lernportal

The interface (**Figure 21.2**) is simple to navigate and provides links for learners to access practice exercises and tests, view their messages, contact their tutor, learn vocabulary, and practise phrases. Facilitators can monitor their students' learning activities and assign exercises, either individually or in groups. A messenger tool allows tutors to communicate directly with learners. Furthermore, a noticeboard and group chat are provided for each course.

Data collected by DVV International suggests that most learners use a smartphone to access the VHS Lernportal. The instructional design of the course ensures that learners lacking digital skills receive adequate support so that they can improve those skills before using the portal. The VHS Lernportal is inclusive and features embedded audio functionality for learners who experience difficulty reading. VHS apps for the various proficiency levels can be downloaded for online and offline use. They are available from

	Benefits to participants	Benefits to facilitators	Benefits to community
General	Improved German language skills	Improved digital skills	Increased digitization in education Major progress towards state-of-the-art teaching practices Free, quality-assured online learning materials
Specific	Improved digital skills. Introduction to a tool and strategies for self-directed learning Free content that is accessible to all	Introduction to a tool and methods for digitally supported teaching Differentiation between learners is facilitated Large pool of exercises to draw on	Networking and sharing of best practice Training that diversifies individual teachers' portfolio of teaching methods Free qualifications that boost course quality

Table 21.1: Benefits of the VHS Lernportal. *Source:* DVV

the Google Play store (for Android devices) and the Apple App store (for iOS devices).[21.6] Further information and links to the apps are provided on the VHS Lernportal website (see **Figure 21.4**).[21.7]

Figure 21.4: Screenshot of information on and links to apps, from the VHS Lernportal website. *Source:* VHS Lernportal

In addition, the programme has its own YouTube channel featuring video materials ranging from tutorials to help learners register and use the programme, to short cartoons in German for various levels of proficiency.[21.8] Most of the videos serve as supplementary resources for instructors.

PROGRAMME IMPACT

As of September 2020, approximately 26,000 teachers and 500,000 learners were using the VHS Lernportal . The curriculum can be accessed by around 900 adult education centres across Germany, as well as a number of other educational providers. In 2019 alone, 1,100 instructors attended training sessions on how to use the portal and adapt it to their own contexts. The more familiar instructors became with the technology, the more likely they were to use it in their classrooms.

The VHS Lernportal proved particularly valuable when the COVID-19 pandemic hit. Educational providers were able to use the curriculum as instruction turned to online delivery.

[21.6] The B1 German (B1-Deutsch) app, for example, is available from the Google Play store at **https://play.google.com/store/apps/details?id=de.digionline.webweaverb1&hl=en_US&gl=US** and the Apple App store at **https://apps.apple.com/us/app/b1-deutsch/id1485254913**.

[21.7] See **https://www.vhs-lernportal.de/wws/9.php#/wws/apps.php**.

[21.8] See **https://www.youtube.com/c/vhslernportal**.

The DVV recognizes that the VHS Lernportal's overall success can be attributed to the combination of different forms of support that it provides. In addition to a functional technical infrastructure and good learning content, it prioritizes high-quality teacher training and close cooperation between all of the stakeholders involved (software developers, learning content authors and teaching staff). This has resulted in a quality educational product that can expect long-term success (see **Table 21.1**).

TESTIMONIALS

Course feedback is primarily positive. One of the strengths of the VHS Lernportal is its ability to support learners individually by varying the difficulty of the tasks set, thus allowing them to learn at their own pace. In addition, learners note that it is very useful to have courses that can be accessed at any time using a smartphone and/or from home.

> ***I always have my smartphone with me wherever I go. In the train, in the car – whenever I have a little time, I can learn and repeat. I think that's very good.***
>
> ***— Kateryna Reshetnova, integration course participant***

> ***In the beginning it was new to learn with the smartphone, but now I think it's very good that I can learn anywhere and anytime, for example when I'm on the bus or waiting for the bus.***
>
> ***— Catrin Abu Shama, participant in a language course for professionals***

> ***I think blended learning is good because I can learn at home. I don't have much time to come to school, and if I can study at home comfortably, that's great.***
>
> ***— Diego Calle Giraldo, participant in a blended learning course***

The VHS language app has also received generally good reviews on Google Play (**Figure 21.5**).

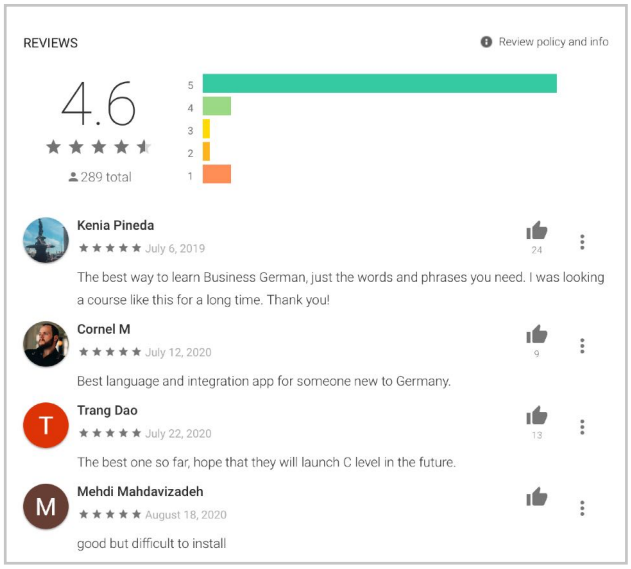

Figure 21.5: Screenshot of reviews for the B1 German app on Google Play.[21.9] *Source:* Google Play Store

Course instructors, meanwhile, praised the VHS Lernportal for allowing them to support their learners individually, for example by assigning easier tasks to weaker learners and supplementary exercises to faster learners. They particularly appreciated the fact learners can study independently, receive individual support and use the app offline:

[21.9] See **https://play.google.com/store/apps/details?id=de.digionline.webweaverb1&hl=en_US&gl=US&showAllReviews=true**.

> *Learners become more autonomous and can control their learning process. They are able to say, 'The exercise didn't work out so well, I'll do it again', and then, because it's an online programme, get the appropriate feedback.*
>
> — ***Irene Janzon-Störmer, integration course instructor***

> *In one course we have different learners and different learning speeds, some need many more exercises than others. With the learning portal I can offer participants much more individual support.*
>
> — ***Sotiria Tsakiri, instructor at an adult education centre in Karlsruhe***

> *The good thing about the VHS Lernportal is that the courses are also available as apps that run offline. If there is no WLAN at the place of teaching, you can take the participants for a little excursion, for example to the city library or to another hotspot. Then they download the content to their phones and can work offline. As soon as they are online the next time, the system synchronizes automatically.*
>
> — ***Ulrike Eichenauer, instructor at an adult education centre in Dortmund***

CHALLENGES

DVV International has identified and addressed three main challenges in designing and implementing the VHS Lernportal: the first concerns the lack of technology available at adult education centres. This has been addressed using the 'bring-your-own-device' approach. If instructors have access to technology, they can use it in the classroom; if it is lacking, learners can bring their own devices to class and instructors can integrate their use into their lesson planning. Additionally, instructors have the option of using a blended approach whereby learners access VHS Lernportal courses outside the classroom, and in-person lessons build on this learning.

The second challenge involves the self-paced nature of learning on VHS Lernportal, where progress depends largely on learner motivation. While badges and other virtual rewards are built into the programme design, DVV International recognizes that additional motivators would benefit users who are studying independently. DVV International therefore provides these learners with access to live tutors who help them with their studies and provide feedback.

The third challenge concerns learners' lack of digital skills. Programme designers have addressed this issue by including instruction for users who need to improve their learning skills using a device such as a smartphone or tablet.

STAKEHOLDERS AND PARTNERSHIPS

The VHS Lernportal aims to improve the reading and writing skills of adults in Germany as part of the country's National Decade for Literacy and Basic Education 2016–2026, and is funded by the Federal Ministry of Education and Research (BMBF). DVV International is one of a group of 17 organizations involved in the National Decade initiative, and is in regular dialogue with its partner organizations.

DVV International comprises more than 900 adult education centres in locations across Germany. BMBF will fund the project until 2025. Due to the fact that the VHS Lernportal is based on the curriculum for state-funded language courses, a number of other major government stakeholders

are involved, including the Federal Office for Migration and Refugees (BAMF) and the Federal Ministry of Labour and Social Affairs (BMAS).

FUTURE PLANS

DVV International plans to expand the VHS Lernportal by developing an English-language programme focusing on professional and/or technical language. It also intends to introduce a course on digital skills. It acknowledges the need to continue providing training for the instructors and tutors who use the VHS Lernportal programme. DVV International has secured four additional years of funding from BMBF, which will allow it to develop and operate a follow-up project until 2025.

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Poor literacy skills can result in exclusion and reduce people's capacity to participate in political, social, cultural and economic life. This is important for migrants, refugees and internally displaced persons (IDPs) who seek to live and work in a dignified, safe and fair environment and to be engaged members of their new communities. The number of refugees, migrants and IDPs has grown considerably over the past 10 years. At the end of 2021, according to United Nations figures, there were approximately 27 million refugees and 53 million IDPs globally, while 2019 figures suggest that there are in the region of 272 million international migrants around the world.

More open access to learning opportunities and high-quality learning materials can be created through the effective and meaningful use of information and communication technologies (ICTs), such as radio, television, mobile phones and personal computers, and more advanced technologies such as big data and artificial intelligence. Moreover, ICTs are already being used to improve health and intercultural understanding, language learning, literacy development, communication skills, and digital skills and competences.

This compilation of 21 case studies highlights efforts from around the globe to use ICTs in innovative and effective ways to offer literacy and educational opportunities to young and adult refugees, migrants and IDPs. It will be useful to policy-makers, programme providers, international organizations, civil society and, in fact, anybody interested in implementing the commitment to offer inclusive, high-quality education to the most vulnerable.

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