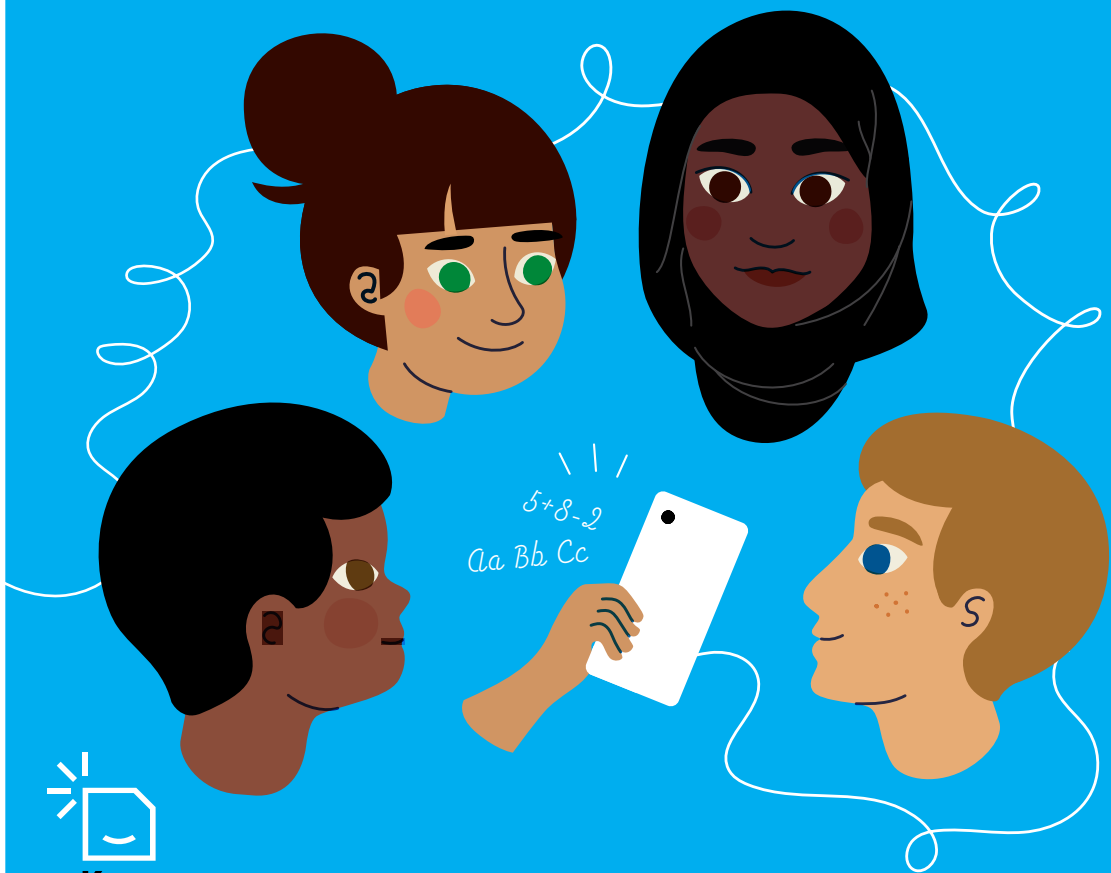


KVS 150 YEARS

Concept Model for Distance Mobile Education

A CHILD'S RIGHT TO LEARN IN FRAGILE AREAS



Kvs
Säätiö
Foundation

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Foreword

In March 2020, I received a phone call from the Ministry for Foreign Affairs of Finland. This call launched one of the most significant operations the Finnish Lifelong Learning Foundation has ever executed. There were Finnish children living in extreme conditions, without the opportunity to go to school and something had to be done quickly.

One hundred years earlier, our foundation had started distance education in Finland. The Spanish influenza pandemic had forced families to stay home and urgent help was needed to develop homeschooling. In the 1970s, we started a distance school for children of Finnish families living abroad. Today, the Distance School Kulkuri provides education to more than 500 Finnish children in over 60 countries.

The call from the State Department in March 2020 set in motion our experience of a hundred years in organizing distance education. We launched a process that has created unprecedented results. A distance school was created for children in extreme conditions whose learning outcomes exceeded everyone's expectations. The background of this is in the long-term work to develop Finnish education. The Finnish school and the teaching it offers are considered one of the best in the world. It is precisely the system that creates the best conditions for learning.

Implementing a distance school for children in extreme conditions is a vast whole – like a jigsaw puzzle where every part is important and where the common goal becomes a working whole. Cooperation between the authorities

and the education provider – in this case our foundation – is important. Only this way would conditions be created in which teaching could produce results.

The work of organizing and administering education is often forgotten, although without them the activities of the school and its teachers would not be possible. In the case of the distance school, it took countless meetings, phone calls, arranging funding, organizing, and a lot of willpower to overcome practical obstacles. With the help of our organization, we got the best teachers to implement the teaching, and for them the resources and support they needed. It is teamwork where everyone's role is important.

The pedagogical skills of Finnish teachers ultimately created the results, which can now be read in this report. My warm thanks to everyone who made this amazing project possible: our teaching team, our school management, the Ministry of Foreign Affairs, the Ministry of Education and Culture, the Finnish National Agency for Education and countless experts in administration, communication and management.

With this report, we hope that the distance learning model will be used when aiming to safeguard the right to education of children and young people living in vulnerable conditions. We will be happy to provide more information and support for the implementation of the distance school.

Helsinki 4.2.2022

Lauri Tuomi Dr., CEO,

The Finnish Lifelong Learning Foundation

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1 Introduction

The main goal of the UN Convention on the Rights of the Child (UN, 1989), ratified by Finland, is to guarantee the right to childhood to every child. Similarly, the goal 4 of the UN Agenda 2030 is to ensure inclusive and equitable quality education and to promote lifelong learning opportunities for all (UN General Assembly, 2015). The aforementioned goals adjure the states to look after the basic conditions of life and to create a safe environment for children to grow in. The right of the child to free basic education is also written in the Convention on the Rights of the Child.

Learning is a universal, non-negotiable, and indivisible fundamental right. A person who studies and learns gains a wide range of human, social, health, and economic benefits. Education reduces poverty, promotes sustainable growth, prevents inequality and injustice, and leads to better health for women and children. In addition, they promote stability and peace, protect the planet, and help build resilient crisis management (UNESCO et al, 2021).

The Finnish Lifelong Learning Foundation implemented the Distance school project 2020–2021 on the initiative of the Ministry for Foreign Affairs of Finland and with the funding of the Ministry of Education and Culture of Finland. The project responded to the UN Convention on the Rights of the Child by developing and implementing mobile distance education in accordance with the Finnish early childhood, pre-primary and comprehensive education curriculum for Finnish children who live in fragile areas in the midst of crisis. The aim of the project was to bring routines and stimuli to the daily lives of the children and youth as well as opportunities for the joy of learning. Furthermore, the project supported the repatriation and integration of the children and youth back to Finland.

The concept is suitable in situations with children living in refugee camps or children who live in remote areas and their education has been interrupted due to a pandemic, natural conditions, war, refuge, or other similar

cause. The model offers perspectives for the development of mobile distance education in early childhood education, pre-primary, and comprehensive education. The execution requires an adult, living close to a child or a young person, must have a mobile device and an Internet connection.

The concept of mobile Distance school includes:

- the pedagogical principles guiding the activities

- information on education in fragile areas and situations
- a description of the practical implementation of mobile distance learning and examples of subject specific teaching
- information on the challenges of mobile distance learning with children living in fragile areas and situations
- reflection on the importance and future of mobile distance learning.

2 Key concepts

This chapter provides the definitions for main concepts of the mobile Distance school project and mobile distance education.

2.1 Living in fragile areas

States are fragile when they lack the political will or the capacity to provide the basic functions of states needed for poverty reduction, development, the security, and human rights of the population (OECD/DAC, 2007). However, the concept of fragile states is somewhat ambiguous (Kotilainen, 2014). Nonetheless, fragile states have been found to be incapable of maintaining a good governance or proper relations with their civil society. This creates fragile areas that are highly prone to unrest and conflict. These areas also have a poor ability to respond to natural disasters, economic crises, or armed conflicts. Thus, there are humanitarian problems in the regions, as well as extremism.

Fragile areas include war zones, various large established refugee and prison camps,

remote areas in developing countries, and metropolitan slums. In addition, a person may be in a vulnerable position in the territory of fragile states while on an escape route there. Natural disasters, such as floods, earthquakes, tsunamis, and volcanic eruptions, as well as climate change, also cause fragile areas, sometimes within already fragile states.

For people living in fragile areas, the basic conditions for life may not be met. This can mean for example:

- a physical threat to the individual
- challenges in accessing food and water
- health problems and difficulties in accessing health care
- poverty
- shortage of clothing and hygiene items
- poor housing conditions and infrastructure
- a remote residential area away from schools and services
- the use of child labour
- lack of education opportunities
- non-realization of sexual rights.

2.2 Mobile distance learning

In our model, mobile distance learning refers to distance learning for children and young people living in fragile areas via a mobile device. It is not dependent on time or location, as it is flexible, and easily accessible distance learning (Tuğrul Korucu, Agah & Alkan, Ayse. 2011).

2.3 The immediate adult

The immediate adult is a key player in mobile distance learning in addition to the learner and the teacher. She or he forwards the learning materials sent by the teacher to the student, supports the learner's active learning and interacts

with the teacher. The role of the immediate adult is discussed in more detail in Chapter 4.

2.4 Partners

Mobile distance learning partners are actors who initiate and/or fund mobile distance learning and with whom learners or their immediate associates have an established relationship of interaction. These can be, for example, state or municipal authorities and employees of companies or non-governmental aid organizations. Collaborators can participate in the planning and implementation of mobile distance learning.

3 Pedagogical principles

Before starting distance education, the pedagogical starting point and principles were defined, on which the activities were based on. The mobile distance learning was based on eight pedagogical principles: individuality, voluntary participation, active learning, interactivity, flexibility, positivity and overall well-being, continuity, and equality and equity.

3.1 Equality and equity

Mobile distance learning is based on children's rights and their implementation in fragile areas. The goal is to reach every potential learner. Everyone has an equal right to participate in education, regardless of gender, age, origin, cultural background, outlook on life, living conditions, state of health or the background of their carer. Every learner is equally valuable.

3.2 Voluntary participation

Mobile distance learning is based on voluntary participation. Opportunity for learning is offered

openly. It is positively encouraged. Those who are interested can sign up for the education. Participants have their own motivation to participate in the education.

Once the teaching has started, there may be more willing learners who wish to join. Some may be encouraged after seeing how the teaching and learning work in practice. If the conditions for participation in the education improve, one can register later. Therefore, this requires flexibility from teachers and teaching providers.

On the flip side of voluntary participation is the possibility of dropping out of study for various reasons. The lives of children and youth living in fragile areas can change quickly. Unexpected changes in the living conditions and in the community can put a strain on the learner's or immediate adult's endurance, leaving no time for study. The Internet connection may be unstable or stop totally from working. In addition, the mobile device through which the teaching takes place, may be lost or broken.

3.3 Individuality

The goal of mobile distance learning is to support the individual development of each learner. This requires learner knowledge, which is built on the interaction between the teacher, the immediate adult, and the learner. The aim is to find out the prerequisites for studying for each learner, possible educational background, starting level of basic skills and student strengths. Each student is offered instruction and assignments that are essential, vital, and relevant to him or her.

Based on the gradually accumulating knowledge of learners, tasks can be then differentiated to meet the individual needs of learners. Children and youth living in fragile areas often have poor basic academic and language skills as well as traumatic experiences. The teachers therefore must have the courage to boldly differentiate tasks downwards and focus on strengthening the basic skills so that learning can happen.

3.4 Flexibility

In mobile distance learning, the schedules and the content are flexible according to the learners' specific needs and situations. The goal is to create distance learning practices for each student that meet their requirements. The wishes and living conditions expressed by the learner are considered in planning the amount and the content of teaching. It is also good to prepare for rapid, surprising, and major changes in the learner's circumstances and opportunities to participate in the learning.

Since the mobile devices used by learners and the Internet connection do not always work, distance learning is not real-time. Learners are encouraged to return assignments, but it is voluntary for them. They study at their own pace under the guidance of their immediate adult.

In the mobile Distance school model, the aims and the contents of the teaching are based on the Finnish national core curriculums of early

childhood education and care as well as that of basic education. However, they were modified, when necessary due to the communication between the teaching organisation, the teacher, and the learners and their immediate adults.

The strengthening of basic language and math skills were focused as the priority. Other subjects were taught according to the learners' needs, interests, and opportunities.

3.5 Positivity and overall well-being

The goal of mobile distance learning is to provide positive stimuli and enable children and youth living in fragile areas to enjoy learning. A positive and an encouraging atmosphere allows for failure and wonder. Positive pedagogy supports learners' strengths, building a positive self-image, and belief in the future (Waters, 2011).

The starting point for teaching is to support the holistic well-being of children and youth. Learners are offered a safe application and well-being enhancing assignments where they learn everyday skills as well as social-emotional competences.

3.6 Interactivity

Mobile distance learning is based on the confidential interaction between the teacher, the learner, and their immediate adult. Teaching is planned, implemented, and developed together. The activity is based on a meaningful relationship of trust that is gradually being built, which develops as everyday news is exchanged and the educational practices are reflected. Learning and related interactions also empower and activate the learner.

The goal is to build an educational partnership between the teacher and the immediate adult of the learner. This can also mean supporting parenting when there is no other support network. For instance, information about the child's or youth's normal development is shared with the immediate adult, and guidance is given on how to have positive

attention to the child or adolescent. Learners' relationships with their own immediate adults are supported so that each learner can experience the value of their own family.

The professional, open, and respectful attitude of teachers towards the different languages, cultures, views and religions, traditions and educational views of learners creates good conditions for interaction.

The threshold for having interaction and communication is kept low and teachers have an active role in communication. The teachers inquire about the students' wellbeing and situation, as well as feedback on learning tasks, and encourage them for interaction. Every contact with teachers is seen as meaningful and can show the learners and their immediate adult that they are cared for.

The interaction can happen in the form of text, sound, emojis, or photographs. Interaction inspires not only learners but also those close to them to learn. When the immediate adults who guide the learning realise the impact and joy that the learning creates for the child or adolescent, they are more likely to be able to support the learning process. The attitudes towards schooling and studying can become positive when the carers are involved in the activity and its planning.

3.7 Continuity

Mobile distance learning follows a routine that is co-created and agreed with the learners and their

immediate adult. Any changes in the routine are always announced in time to better prepare for them. Teaching provides an important attachment point to everyday life amid otherwise vulnerable conditions. Teachers' messages show that the students and their immediate adults are cared for and there is a will to increase their well-being.

The aim is to support children and young people also when and if they are on a move to a new environment, for example from a refugee camp to a new country of residence. Education can provide children with the knowledge and skills needed to integrate into a new country of residence.

The aim is to maintain contact with learners and their immediate adults during and after the transition. The confidential interaction that has developed between the teachers and those involved in teaching provides security in a new, foreign and perhaps even a frightening phase of life of the child or adolescent.

3.8 Active learning

Mobile distance learning utilises methods of active learning, such as the inclusion of games and play, exercise, and inquiry.

The goal is to provide the learners with learning tasks where they can concretely experiment and act. In this manner, they can develop their agency and an ownership of their own learning process. Activating tasks are designed so that they can be carried out in the learner's living environment.

4 Mobile distance education actors

4.1 The learner

Reaching learners living in fragile areas can be challenging. The target group can be best reached through partners with whom they are familiar with.

The learner's immediate adult informs the learner of the possibility of participating in the mobile distance learning. During the registration, learners' information is collected, such as the learner's name or nickname, age, language skills and previous educational background. The learner may also choose to participate in the teaching anonymously or with a pseudonym.

Learners can be grouped based on age and previous educational background into groups that study the same themes through common assignments. Even if the learners in a group are the same age, their skills and knowledge can be very different, and teaching has to be differentiated even within groups.

Learners study according to the instructions given by the teacher with the support of their immediate adult. An individual study schedule is built for each student in collaboration with their adult. Learners evaluate their learning, and this should be communicated to the teachers when and if possible.

4.2 The immediate adult / the caretaker

Mobile distance learning is based on communication and interaction between teachers, learners, and their immediate adults. In practice, the immediate adult is usually the learner's guardian, relative, family member or NGO volunteer. Collaborators pass on the invitation to the learners' contacts and network to inform the learners about the voluntary mobile distance learning. Then once the decision to join has been made, they pass on the learners'

information to the teachers.

To participate in teaching, the immediate adult needs a mobile device, an instant messaging app, and some sort of internet connection. The immediate adult passes the teaching material and the tasks to the student or another close person who supports the learner's learning. If the learner's immediate adult does not have their own phone, they can get the tasks from another adult's phone by copying them to a notebook, for example.

The immediate adult takes care of the communication with the teacher. Active, even daily interaction helps teachers assess learners' learning and the learning conditions, this also improves the meaningfulness and the fluency of teaching.

The immediate adult supports the learner's learning process. Teachers support this adult in this task and provide models on how the child or the young person can best be supported in learning.

4.3 Teachers

The teachers design, implement and develop the mobile distance learning, its implementation, and its learning materials, while considering the individual needs of learners. The work of teachers is guided by their collaborators.

Teachers are available to learners and their immediate adults at agreed times. It is important that learners and their adults know when the teacher is available. In addition to the agreed times, the teachers in the Distance school project also received messages at night and on weekends. The obligation to respond to these should be agreed separately.

In addition to being tech savvy and able to manage the use of ICT in teaching, mobile distance learning requires a teacher to have creativity and the ability to produce learning materials, as well as guide the learners' learning within the limits set by the instant messaging application. Often, the knowledge and skills of special education are also needed at work. The teacher must have the courage to differentiate

the teaching by developing familiar and safe ways, to be able to experiment with something new.

Learners' situations can change quickly, and the teacher must be able to respond flexibly to changing situations. Activities should also always be learner-centred.

In addition to his or her own teacher qualifications, the teacher needs information about the effects of living in fragile areas on the growth and knowledge on the development of children and youth. Children's traumatic experiences affect their development and learning conditions, as well as the planning and implementation of teaching. Competence in special education support and an understanding of teaching of migrants enhance the teaching. In addition, co-teaching as a team supports the teaching practice, planning, implementation, evaluation, and development of teaching.

Learners' backgrounds can be diverse, and thus the teacher needs multicultural teaching skills. Intercultural understanding and sensitivity are useful (Räsänen, Jokikokko and Lampinen, 2018). The teacher acts in a tolerant, non-judgmental, and respectful manner and with a compassionate but professional approach. In addition to the role of the educator, the teacher is a safe and reliable adult, an instructor, a communicator, and alongside a walker who creates hope in a positive future.

Research by Jokikokko (2016) and Jokikokko and Uitto (2016) have shown how teachers' emotions can play a major role in initiating and supporting their intercultural learning, and sometimes also acts as a barrier to learning. Teaching learners living in fragile areas can be stressful, and therefore taking care of the teacher's well-being at work is important. Regular discussion about the work and of one's feelings it brings should be organised. Also, the co-operation with colleagues and co-workers may support teachers to cope with stressful work. For example, writing a personal diary can help the teacher to reflect on one's work. Issues related to well-being at work can also be addressed with a work mentor.

4.4 The education provider

In addition to teachers, immediate adults, and learners, there needs to be an education provider, who organises the teaching, recruits the teachers and acts as their employer. The education provider coordinates the collaboration between

the learners and other stakeholders, procures the funding and the necessary mobile phones and the telephone subscriptions needed for teaching, as well as is responsible for communication. Ensuring the safety and well-being of teachers is also the responsibility of the education provider.

TABLE 1. Mobile distance learning actors and their roles

Education provider	Teacher
<ul style="list-style-type: none"> • Planning, organisation and development of activities • Procurement and reporting of funding • Coordination of collaboration • Employment efforts of teachers (recruitment, safety, wellbeing) and providing them with all tools • Communication 	<ul style="list-style-type: none"> • Planning and development of the activity • Planning teaching and learning according to the individual requirements of each learner • Planning, producing, and sending of learning materials and tasks • Collaboration with other teachers/ co-teaching • Developing and upkeeping interaction and communication with the learner and his/her immediate adult • Collaboration with partners
Learner	Immediate adult
<ul style="list-style-type: none"> • Registration to the activity together with the immediate adult • Active learning according to the individual instructions given by the teacher • Practising self-assessment skills • Keeping up the interaction and communication with the teacher together with one's immediate adult 	<ul style="list-style-type: none"> • Registering to the activity together with the learner • Receiving the learning materials and tasks, copying it if necessary and showing it to the learner. • Supporting the learning of the learner. • Following and observing the learning and the wellbeing of the learner. • Developing and upkeeping interaction and communication with the teacher

5 Learning environment and planning the implementation

The learning environment can be divided into physical, mental, and social environments.

5.1 Physical learning environment

The design of learning materials and teaching should consider the physical conditions and the challenges they bring to learning: the learner's living conditions, study facilities, furniture, and equipment to support learning, the necessary technical infrastructure, and other physical environments such as weather conditions.

5.1.1 Living conditions and physical conditions for learning

Learners participating in mobile distance learning may live in a slum area, remote countryside, war zone, or they may be on an escape route living in temporary accommodation in a tent, refugee camp, or even a prison camp. The physical learning environment is often

very challenging. Studying can take place, for example, in a hut, in a tent or outdoors.

The living conditions of learners can be very poor. Meeting the basic conditions and necessities of life can take up most of the active hours of everyday life. Access to clean water is often difficult: The water point can be far away, and the water must be carried for one's own use. There can also be challenges in accessing food supplies.

Taking care of the basic conditions of life is the most important thing, thus taking the attention away from the opportunity and motivation to learn. A confidential interaction relationship with the learner and those close to him or her is important to take breaks from teaching as challenges become overwhelming. After a short break, it may be easier to focus on learning again.

5.1.2 Study technological infrastructure

Participation in mobile distance learning requires regular access to a mobile device.

The device requires an instant messaging application.

Downloading and using the instant messaging application requires an internet connection or a telephone connection. Some instant messaging applications also require a telephone subscription and a user profile. The Distance school project used WhatsApp application, which requires a user profile to be created via the telephone interface.

Obtaining a functioning mobile device and telephone subscription can be difficult for people living in fragile areas, for example due to financial reasons, among other things. The mobile device must be charged regularly, which can be challenging in areas where a steady supply of energy is not guaranteed. Due to these challenges, many persons living in the area would rather share and use one mobile device. If a mobile device is used infrequently, the skills required for its smooth use may be poor.

Instant messaging applications are usually based on messages transmitted over the Internet. Depending on the application, the messages can be text, audio, video, and video messages, which can be peppered up by using emoji or application GIFs. In most cases, it is also possible to transfer videos and files via the instant messaging application. Some instant messaging applications also offer voice and video calling. In the Distance school project, video messages or phone calls were not possible due to restrictions on the telephone subscription and internet capacity.

In fragile areas, stable internet access is rarely available. Wi-Fi connection is available for a few. The use of an instant messaging application often takes place via a mobile network connection acquired through a telephone subscription. In practice, this means that one's internet connection can be slow as well as down even for long periods of time.

Using an Internet connection can also be expensive, as in many areas billing is based on usage. This must be considered when planning the teaching. Uploading files, images, and videos can be costly for the recipient. This can

impair the learner's ability to participate in teaching.

The instant messaging application limits the practical implementation of mobile distance learning. The application's text editing tools are limited. The font or size of the text usually cannot be edited. Keywords in the text can be highlighted in bold or italics, but it is not possible to layout the text or change the font colour. Many mathematical signs, such as fraction notation, square root, or power, are missing.

The emojis of the instant messaging application can be used to illustrate things to learn and, for example, to mark assignments. In the Distance school project, it was soon discovered that the emojis of the instant messaging application were not enough for distance learning. The project launched the development of new WhatsApp sticker development especially suitable for mobile distance education of people living in fragile areas.

Teachers in the Distance school project used the desktop version of the instant messaging application. The mobile application and the desktop version used on the computer do not work seamlessly together. For example, messages may look different on the mobile device and computer screen. Also, messages may not always be in the correct order when forwarded through the desktop version of one's computer. Messages can be deleted and re-sent if they are accidentally misaligned. It is therefore necessary to be careful that the learning materials are arranged in a logical, pre-planned, order.

5.1.3 Study tools and sources of information

Children and youth living in fragile areas do not always have learning resources or are deficient with them. There may not be pens, booklets, or paper. The tools needed to measure, illustrate, or study may also be lacking. Planning the teaching must be inventive and make clear what can be found in the learners' environment.

Learning to write alphabets can be practised by building forms of alphabets from different natural materials and drawing alphabets with

sand on a wooden stick, for example. Natural materials (sticks, stones, leaves, flowers, etc.) are also well suited for practising mathematical skills such as grading, comparing, and practising numbers. The learner can collect, classify, and compare a certain number of different natural materials from their environment.

Everyday items such as dishes, clothes, beads, or buttons can be used to teach both language and maths skills. Clothes and utensils can be sorted by word categories, for example, and various verbs and adjectives can be devised from them. Matches can be used to practice various reasoning tasks or to use them to illustrate calculations. You can use a string, coffee cup or your own body members and movements (finger, palm, arm, foot, step, jump, etc.) to practice the measurement.

Observing one's own physical learning environment is important and for this purpose teachers can give separate tasks, such as "look for something red in your environment," "look for three things in your environment that begin with the letter h," or "look for three things in your environment that are inanimate." Such tasks develop the learner's observational and research skills as well as critical thinking.

Books or electronic sources of information are not readily available for learners in fragile areas. Therefore, when preparing study assignments, it is important to think carefully about where the learners can get more information from. The teacher can send short pieces of text to read or encourage learners, for example, to interview close adults who may have more information about the subject. Also at the same time, the learners can practice interview techniques and understand that other people may also have valuable information.

5.1.4 Extreme conditions

When children and youth live in vulnerable extreme conditions, such as a desert, slum, refugee, or prison camp, it must be considered when designing teaching and learning materials.

Learning opportunities are affected by natural disasters and extreme weather events such as sandstorms, heavy rains, monsoons, and earthquakes. Storms can damage a learner's dwelling, and repairing it takes time. In these situations, mobile distance learning is flexible, and learners can take a break from studying.

In war zones, on an escape route, in a refugee or prison camp, learners may be exposed to security threats or other incidents that prevent them from concentrating on their studies. Despite extreme conditions, it is important to maintain an interaction with the learner and their immediate adult. The teacher can remind the learner and those close to him/her that teaching can be resumed as soon as the situation has calmed down.

In a refugee or a prison camp, the use of mobile devices may be prohibited, and one can only participate in education in secrecy. A situation like this poses its own challenges to mobile distance learning and the learner. The learning tasks must be accessed in secret and only in the presence of trusted persons, and therefore the use and study of learning materials must not attract extra attention. Documenting learning and retrieving assignments is difficult: learners and their immediate adults cannot record voice messages or photograph their assignments openly.

5.2 Social learning environment

A social learning environment refers to a social network and structure consisting of people in a learning situation and the interaction between them. It covers the learner's family and other close associates (friends, relatives, etc.) as well as actors in the wider social community, such as the school community.

The social learning environment can be very multicultural and multilingual, which affects learning and the learner's academic skills.

The social learning environment is also of great importance for the development of a learner's own agency. We will examine these perspectives in more detail in the following subsections.

5.2.1 Social interaction

The most significant factor in the social learning environment is human interaction. Children and youth living in fragile areas may have a precarious, unstable, or vulnerable social network.

Interactions within the family affect learning and the learner's own perception of themselves and their own abilities. People living in fragile areas are often very family-oriented, but their relatives and loved ones may still live far away, or they have perished violently or in other tragic circumstances.

The friendships among children and youth are important. Friends affect the learning, but also the self-esteem of the child or a young person. Children and youth of different ages from the same area can participate in mobile distance learning, in which case they can form a peer support group. They can discuss tasks with each other and be instructed in pair or group work, as well as in joint games. If the children or youth do not live close to or know each other, pair and group work can only be carried out virtually. Learning assignments can then include other types of interaction with potential family members or among their neighbours.

When mapping the social learning environment, it should be remembered that the learner may also be the guardian of a minor. Girls living in fragile areas may get married and have children at a very young age. For them, the possibility of distance learning is extremely important.

5.2.2 Multiculturalism and multilingualism

The environment of children and youth living in fragile areas is often multicultural and multilingual. Learners are likely to use two or more languages on a regular basis in their daily lives, and there might be even a situation where the language of instruction may not be one of them. Multiculturalism and multilingualism can be both a challenge and a wealth.

Multilingual learners living in multicultural communities can search for their cultural identity for a long time. Multicultural identity can cause feelings of rootlessness (Tikka, 2004). The ambiguity of identity may be due to cultural, religious, or social distance from the learner's own cultural or religious heritage. The sense of belonging may have gradually dissipated as the learner has been socially and culturally marginalised. If a learner has become separated from their own parents or their own social community, they may have a greater need to belong to a group. In this case, the vulnerable position makes it also more prone to radicalisation and extremism.

A poor knowledge of the language of instruction challenges the understanding and interaction with the learning materials and may expose them to misunderstandings. One of the main goals of the Distance school project was to practice and strengthen the language of instruction. Plain language was used for communication. Comprehension of text was supported using emoji and photographs in addition to text and voice messages.

The vocabulary of a child and adolescent develops in relation to the living environment. The vocabulary of the mother tongue for those children born in fragile areas can be limited. If, for example, there has never been a shower at home, it may not belong to the vocabulary of the child, and as thus it may hinder the comprehension of the language of instruction as there is no concrete equivalent to it. The connection between language and the environment should be considered in the planning of teaching.

When the learner has poor command of the language of instruction, the role of the learner's immediate adult should be emphasised. If the learner's caregiver masters the language of instruction better, she or he can interpret the learning materials and model the use of the language in practice. If the learner's multilingual living environment does not support learning the language of instruction,

the interaction between the teacher, the learner's immediate adult and the learner may be the only place to practice it.

5.2.3 Social structures

The social learning environment is affected by the structures in the children's and youth's living environment. Especially in fragile areas, children and young people often live below the poverty line. The risk of child labour is also high. A full-fledged focus on studying is not always possible if children and young people are in paid employment and participating in taking care of the family.

Everyday chores such as getting food and water, doing laundry and housekeeping are often laborious and time consuming. This reduces the time available for study when children and youth must participate in housekeeping. Assisting with everyday tasks or moving into the working life can be seen as more beneficial for the future of the child or adolescent. In this case, traditional gender roles may be emphasised, and the education of girls and women is not considered important. Supporting the education of girls therefore has an important role to play.

People living in fragile areas are often supported by aid organisations that are part of the social structures of the learner's learning environment. Their potential role in supporting learning should also be assessed in the design and implementation of mobile distance learning; could they act as partners?

If the learners live in a war zone or refugee camp, the role of the soldiers or camp guards in the area's ruling army in relation to the learners and their families, as well as teaching, must be clarified. Do they support or hinder education?

Mobile distance learning can prevent the radicalisation of children and young people living in fragile areas. Challenges to economic livelihoods and social exclusion can contribute to violent radicalisation. The social environment and networks are also important. If a child or a young person has had to flee their home and lives during a war or other chaos, they may have

the feeling that they have been pushed aside from society. Amid war and chaos, uncensored propaganda also spreads more easily for children and young people to read, listen to and watch. Already radicalised people also have easier access to children and young people, to attract them to their own ideology. Therefore, providing education is extremely important.

5.2.4 Learner's agency

The aim of mobile distance learning is to support the empowerment of learners living in fragile areas and to build a foundation for lifelong learning. While the goal is to develop basic academic skills and study the content of school subjects, a positive attitude and motivation towards learning are also very important. As learners learn new skills and expand their worldview, their values and attitudes evolve, as do their ability to function. The learner's self-image, sense of ability, and self-esteem develop.

Competence of agency refers to the readiness of action in the learner's community, the will to actively work for the benefit of oneself, others and the wider community, and the environment (Rajala, 2016). In the Distance school project, learners have been encouraged to learn and practice skills that are important for everyday life. They have received information about the everyday life, games, and school practices of Finnish children. They have been endowed with agency after learning about the processes of society and gaining knowledge of history and the present. In addition, learners have received information on sustainable development issues and nature conservation.

Children and their caregivers living in fragile areas may have a traditional view of learning, teaching, and school. Mobile distance learning is voluntary, which promotes self-direction and the learner's own agency. However, this may conflict with the learner's and their immediate adult's traditional notions of teaching and learning.

Mobile distance learning works independently and from time to time together

with others. At the same time, the skills of systematic and long-term work are practised. Learners are given the opportunity to suggest phenomena and themes that interest them, as well as to make their own decisions, try different things and correct their own tasks. They are given a variety of choices and influences, such as the ability to do tasks in their own way. It is important to ask the learners and those close to them if the assignments have made sense to them and what they would like to learn next. Learners are encouraged to be open to new things and are encouraged to be creative and use their imagination.

The growth and development of the learners in fragile areas can be challenged by parental depression or lack of agency. In this case, learners can adopt a model of weak agency and hopelessness. The mental health of carers, especially mothers, also affects children. Mobile distance learning can support the self-esteem of children and young people, while supporting their immediate adult's understanding of the importance of education. This creates hope for the future.

5.3 Psychological learning environment

The psychological learning environment consists of cognitive and emotional factors. The children and young people living in fragile areas might have been affected by traumatic events and experiences that need to be considered when planning and implementing teaching.

The possible lack of hope or depression of caregivers can cause challenges to the growth and development of children and youth in fragile areas. This can cause children and youth to adopt a model of weak agency and hopelessness. The mental health of caregivers, especially mothers, also affect their children. Mobile distance education can support the self efficacy and self-esteem of children and youth while supporting the understanding of their caregivers about

the importance of education. This can also create hope for the future.

5.3.1 Cognitive factors: readiness to study and academic skills

The school path of learners living in fragile areas is often very broken. There has been no opportunity for regular schooling or learners have not been able to attend any form of education for any other reason. The education provided to the children and young people may have been very conservative or ideologically coloured.

Because of the level of education, or the interruptions in or the non-existence of the school path, the learners' academic skills and learning abilities are often deficient and weak relative to their age. Knowledge of the language of instruction can also be at an elementary level. Learners should be offered an opportunity to progress in their studies at their own pace, with the help of individually designed learning materials. When planning learning tasks, one must know and dare to differentiate the tasks sufficiently downwards. In the Distance school project, young people who, by their age, should have been in secondary school also received basic education.

5.3.2 Emotional factors: emotions and motivation

The learning environment can also be viewed from the perspective of emotional factors. Children and young people living in fragile areas may have low self-esteem and experiences of failure. Motivation to study may be weak. Living conditions may increase conditions of fear and feelings of insecurity, and the state of attentiveness required for learning may be very low. The atmosphere can even be apathetic. A stressful everyday life (searching for water and food, extreme weather events, etc.) also reduces the level of vigilance.

According to the experience of the Distance school project, the learning motivation of children and youth living in fragile areas was

high, nonetheless. To maintain motivation and enthusiasm for learning and studying, teaching must be conducted in a way that does not strain the faltering well-being of learners. Teaching schedules and contents are planned and implemented in terms of the well-being of the learners and their immediate adults.

5.3.3 Mental factors: trauma, fear, and anxiety

Children and youth living in fragile areas may have fears, concerns about the fate of their relatives, or personal traumatic experiences. If a child or a young person lives or has lived in the middle of a war and/or has had to flee, he or she may even have existential worries and fears about the future and the survival of oneself and one's loved ones. These impede the resources spent on learning and studying.

Traumatic experiences and worries interfere with and prevent the child or adolescent from performing developmental tasks typical of their age. He/she may seem younger and more vulnerable than one's age. The child or adolescent may lack hope and faith in the future. The more

age-related developmental tasks are lacking, the more it affects learning and other behaviour (Peltonen, 2011).

A child or adolescent who has experienced trauma may experience psychosomatic symptoms, insomnia, post-traumatic stress, and depression. These can appear as aggressive, hostile, hopeless, or apathetic behaviour. A child or adolescent who has experienced trauma may act with extreme caution and fear new threats. It can be difficult for a child or adolescent to trust new adults, such as teachers. Confidence in one's own abilities to cope and learn can be weak.

The cognitive resources of a child or adolescent who has experienced trauma may be very weak. Focusing, learning something new and remembering is challenging. Mental factors are intertwined with learning ability and academic skills. This must be considered when planning mobile distance learning. It is necessary to dare to differentiate teaching boldly downwards so that the learner works in the zone of his or her immediate competences and has experiences of success.

6 Distance school in practice

This chapter describes the practicalities of how the distance education was executed to the Al-Hol prison camp in North-Eastern Syria. Distance education was provided between May 2020 until April 2021 for 23 Finnish children living in the prison camp. There were two classroom teachers working full-time on the project. One of them with prior experience of teaching multicultural children and from learning development, and the other from special education.

The children were reached via their mothers' mobile phones and teaching was provided by using WhatsApp mobile phone application. Due to the weak mobile and internet connections the teaching could not utilise videos nor not always even photos, but it relied mostly on text, emoji and voice messages.

6.1 Distance school student groups

The learners of the Distance school project were grouped according to their age and language skills into three groups:

- early childhood education aged children were grouped as apples
- preschool and 1st and 2nd graders of primary school learners were grouped as strawberries
- Other primary school were grouped as oranges
- Secondary education and high school were grouped as watermelons.

As the knowledge of learners was developed, the teaching was differentiated within and between student groups. Teachers designed and produced differentiated learning materials that considered the language level of each learner.

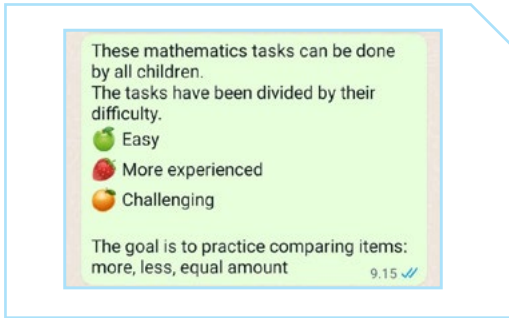


Figure 1. Student groups were marked with symbols in the learning material.

6.2 Instant messaging application for mobile distance learning

In practice, both teachers and the learner or their immediate adults must have a working mobile device with an Internet connection. In the Distance school project, the Whatsapp instant messaging application was chosen to be used for mobile distance learning, where it was possible to create groups. Teachers and one immediate adult per group were included as members of the groups.

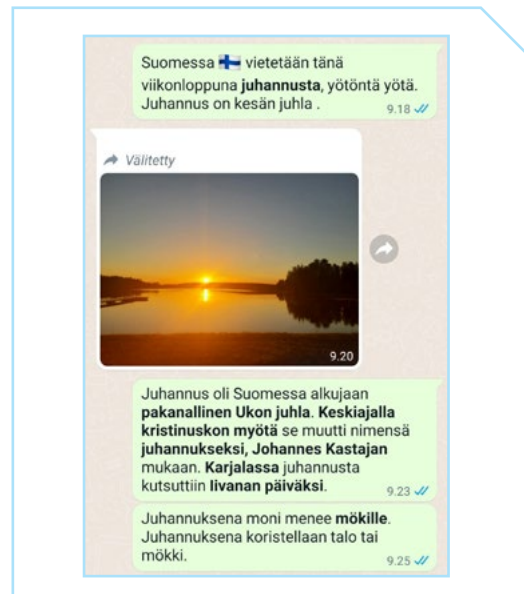
6.3 Schedule

Mobile distance learning can take place either in real time or asynchronously. In the Distance school project, teaching was mostly asynchronous: teachers' messages were read, and assignments were made when it was actually possible for learners and adults. Synchronous mobile education is challenging due to the mobile connections in fragile areas, as well as the challenging everyday life of those living there.

When planning the teaching schedule, the resources, wishes and goals of the learners and those close to them should be considered. Teaching can be offered, for example, every weekday or on some days of the week. Days when they want to receive messages from teachers can be arranged according to the wishes of the learner and their immediate adult.

In the Distance school project, instruction was initially given daily, and then later during three days of a week upon request.

The schedule of mobile distance learning is affected by the events of the calendar and the school year. These calendar and school year events are also considered and included in the teaching schedule and content, while also remembering the local celebrations and traditions of the learners' country of residence.



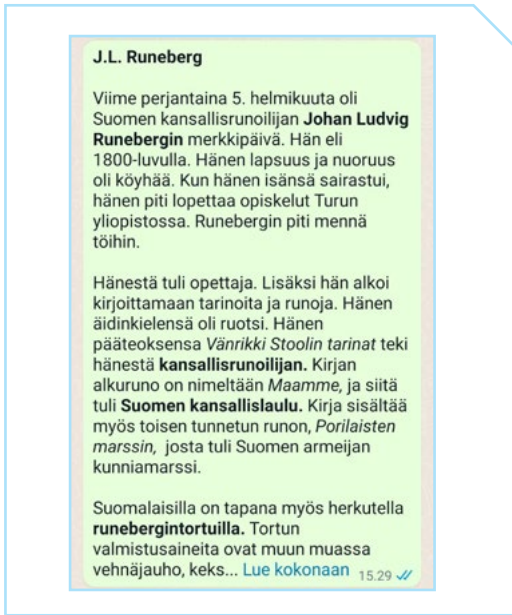


Figure 2. Students were given information about Finnish celebrations and anniversaries during the calendar year.

In the Distance school project, one subject was studied per day. Teaching was built around the study of language and mathematics. In accordance with the wishes of the learners and their immediate adults, the contents of other subjects, such as environmental studies, geography, biology, history, or social studies, were also included in the teaching or integrated into the language teaching content. In addition, learners were occasionally given English language assignments.

The school days began at the agreed time in the morning when the teachers sent the first messages to the learners. In the morning message, the teacher informed about the day of the week, the date, and the weather, inquired about the wellbeing of learners and adults, and explained the day's contents and objectives of the teaching.

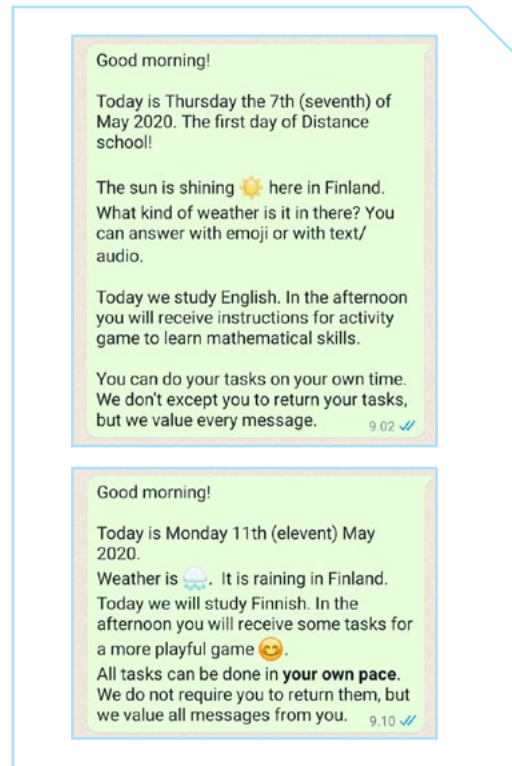


Figure 3. School days began in the Distance school project with morning messages sent by teachers.

After the morning greetings, teachers sent the pre-planned and differentiated learning material messages to each group of learners. It is a good idea to illustrate the lesson in different ways: comprehension of the text can be supported by emojis, sound and downloadable images. The learning materials produced by teachers are discussed in more detail in Chapter 6.4.

Teachers were available to learners and their immediate adults as agreed, so they were ready to answer questions and, if necessary, help and guide them in their tasks. In the Distance school project, teachers were available on weekdays from 9 am to 4 pm, but in practice they also received messages on weekends, evenings, and nights. These were answered either immediately or at least no later than the morning of the following day or the Monday after the weekend.

The school day of the Distance school project ended with messages providing stimuli to learners. Motivation messages included, for example, fairy tales and stories, rhymes and poems, craft and play tips, as well as photographs. Among other things, they were sent voice messages of Edward Uspenski's Fedja-Uncle, his dog and his cat (2008) one chapter at a time as a voice message every week. The learners also got acquainted with, for example, Kati Weiss's (2017) summary of Grimm's brothers' fairy tale Hansel and Gretel and Kari Levola's (2010) book Leevi and Leonora. In connection with the motivation messages, learners, and their immediate adults were informed about the teaching schedules and asked for feedback on previous tasks and suggestions for further development of the teaching materials and content.

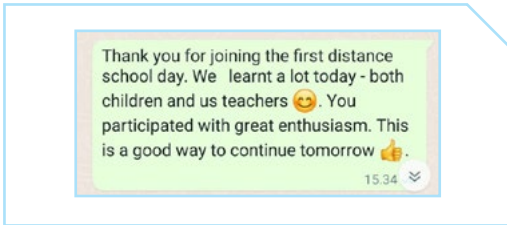


Figure 4. The school days of the Distance school project ended with motivation messages of varying content.

Mobile distance learning is flexible, and learning can be paused as needed. The initiative to take a break can come from the learners and their immediate adults or teachers. The break can be for a few days or weeks. Sometimes the life situation of learners and their immediate adults may require a break of an indefinite length of break. Even during breaks, teachers should maintain interaction with learners and their adults, for example, by inquiring about their wellbeing or sending them inspiring poems, fairy tales and stories to listen to or read. This lowers the threshold for returning to teaching and learning.

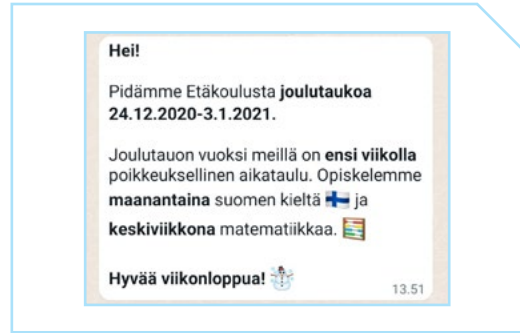


Figure 5. The Distance school project took breaks at the initiative of both teachers and learners and their immediate adults.

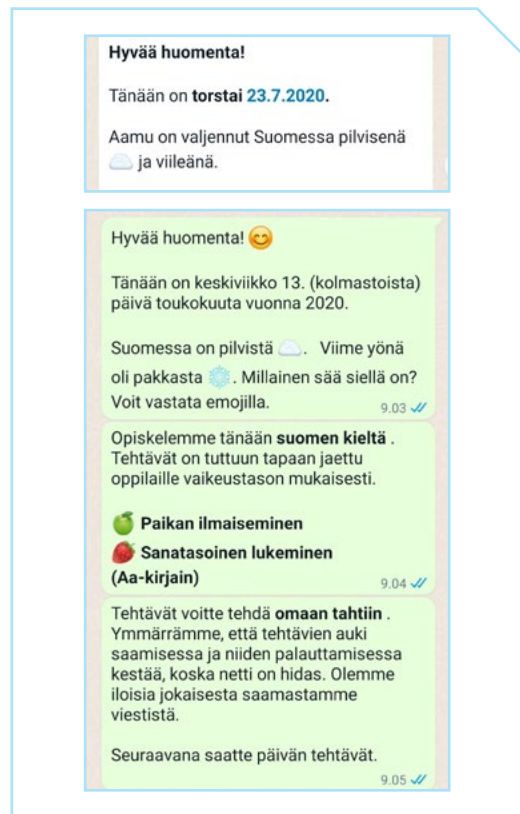


Figure 6. During the breaks due to the life situation of the learners and the recent ones, the teachers maintained the interaction.

6.4 Study material

In the Distance school project, teachers themselves produced teaching materials and

assignments for mobile distance learning. Existing learning material was used as a source and inspiration, but the contents were differentiated according to the individual needs and resources of the learners. The activating tasks were created to consider the living conditions of the learners. The contents of the teaching were built around phenomena and themes such as food, animals, everyday life, or school.

As the learners' proficiency in Finnish was not at the level of their mother tongue, the language used in the learning materials and communication was as clear and simple as possible in terms of vocabulary, structure, and layout. When the language of instruction is poor, it is advisable to favour concrete and everyday vocabulary in teaching and communication and to avoid the use of abbreviations, long words, difficult concepts, or language images. The sentences should be as short as possible and contain only one important thing.

Instant messaging applications have a variety of visualisation and highlighting options. Comprehension of the text can be supported, for example, by italics, bold, or underlining. Emojis and stickers help in the interpretation of the text. Most instant messaging applications can also transmit photos, but a weak Internet connection can make downloading slow and/or expensive.

Learning materials can also be challenging when a child or adolescent lives in an environment where he or she has never experienced or seen something to be learned. For example, winter can be a foreign concept and phenomenon for learners if they have not experienced a cold period when there is frost, and the ground is covered with white snow. Things familiar to teachers can be very abstract to learners, requiring illustrative explanations, pictures, drawings, and audio messages in teaching.

For practical reasons, one should divide the text in the messages into clear paragraphs to make it easier to understand. Teaching

material can be sent in one message, assignments in another and examples in the third.

Comprehension of learning materials can also be supported by teacher's voice messages.



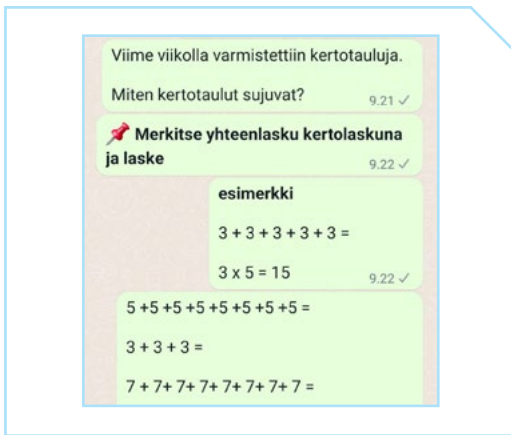


Figure 7. In the Distance school project, the learning material was clearly divided into its own messages.

7 Subjects and contents

This chapter takes a look at different subject curricula and provides examples of the teaching content sent to the children in the Al-Hol prison camp via the mobile education. The content and examples of each subject are categorised according to age levels of early childhood education and comprehensive education.

7.1 Language teaching

There may be different situations and goals in language teaching depending on the learner's relationship to the language studied.

7.1.1 Mother tongue and literature

The aim of teaching a learner's own mother tongue is to develop and maintain language

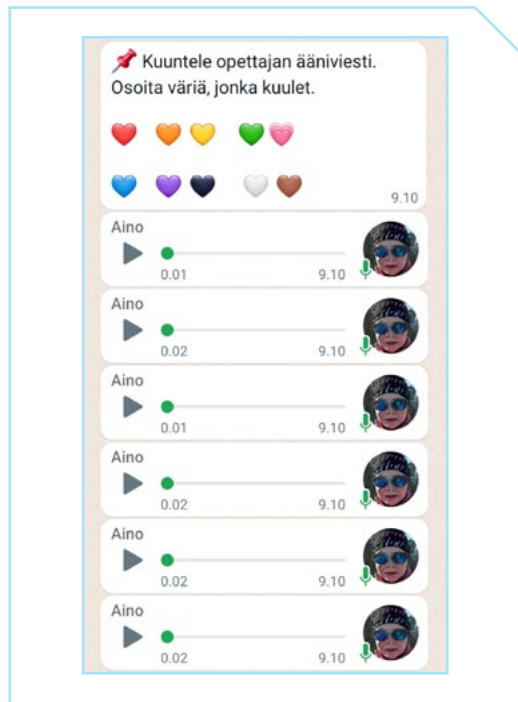
skills. The aim is to increase the learner's vocabulary and concepts and to encourage him or her to use the language in different situations. Learners become familiar with different texts and practice producing texts themselves. Literacy is practised with the goal of fluent reading and writing skills.

In the Distance school project, the language learning of early childhood aged children was based on the basics of the National Core Curriculum for Early Childhood Education and Care (Finnish National Agency for Education 2018), which emphasised the goals in Table 2, considering the individual goals of each child.

TABLE 2. Emphasised goals for language learning in early childhood education (Finnish National Agency for Education 2018).

<p>The rich world of language</p>	<ul style="list-style-type: none"> • Linguistic memory and enhancing vocabulary • Language comprehension competences • Competences to produce speech • Competences to use language
<p>Different ways to utilise expression</p>	<ul style="list-style-type: none"> • Linguistic and embodied expression

In the Distance school project, the youngest early childhood children practised vocabulary thematically and child-centred, and with a focus on his or her living environment. The exercises started with individual words and gradually expanded the speech into sentences of a few words. The exercises encouraged children to use language in everyday life and to practice storytelling skills. The assignments used pictures, emojis, and concrete objects that served as visual support for learning. An important element in the exercises was the voice messages sent by the teacher, in which he or she modelled the use of language and the production of speech. If voice messages could not be listened to, the role of the immediate adult as a model of language use was emphasised.



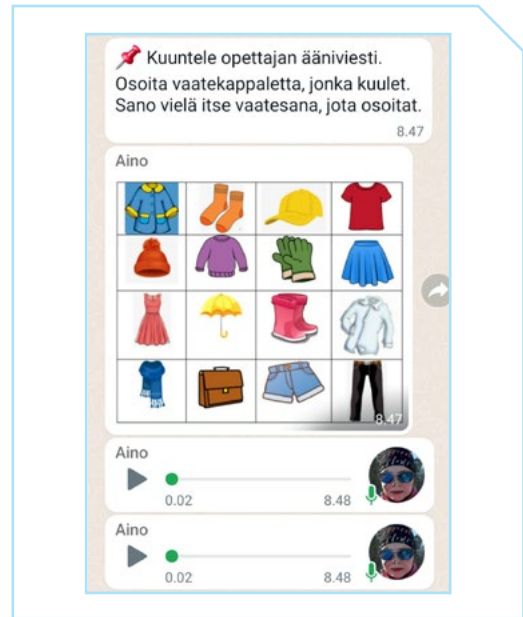


Figure 8. Vocabulary was practiced with preschool children, and they played with language.

The foundations of the Pre-primary Curriculum (National Board of Education 2016) and the National Core Curriculum for Basic Education (National Board of Education 2014) serve as the basis for planning and implementing the language teaching of pre-school and primary school pupils. The aims of Tables 3 and 4 were particularly emphasised in the teaching.

TABLE 3. Emphasised goals for language learning for preschool students (Finnish National Agency for Education 2014).

<p>The rich world of language</p>	<ul style="list-style-type: none"> • Speech sounds and syllables • Recognition and production of letters • Getting acquainted with different types of texts • Listening comprehension competences • Competence to tell a story
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TABLE 4. The highlighted goals for language learning for primary school students were built on 1. - 2. categories of subjects 1) mother tongue and literature or 2) Finnish as a second language and literature objectives (Finnish National Agency for Education 2014).

<p>Finnish language and literature</p>	<ul style="list-style-type: none"> • To guide and motivate students in learning reading skills and practising comprehension of various texts, as well as guiding learners to observe their own reading (T5) • To encourage students to get interested in children’s literature and other texts by creating positive reading experiences, as well as providing students possibilities to gain knowledge and share their readings. (T8) • To encourage and inspire students to tell stories and their opinions as well as share their experiences by speaking, writing, and drawing. (T9) • To guide students to practice their handwriting and instructing them to plan their texts as well as to recognise basics and agreements in writing and written text. (T11)
<p>Finnish and literature as a second language</p>	<ul style="list-style-type: none"> • To inspire and guide students to learn to read and enhance their vocabulary and understanding of concepts. (T4) • To encourage students to read texts and literature according to their age and linguistic competences. (T5) • To guide students to practice handwriting as well as to plan and produce text. (T7) • To encourage students to practice their basics in writing. (T8)

In the Distance school project, the interest of pre-primary and primary school students was directed to the development of writing and reading skills in accordance with the objectives. Students were offered the opportunity to become acquainted with different texts and literary genres by listening to different texts such as rhymes, poems and fairy tales as read by the teacher. Students were encouraged to produce texts independently, either orally or in writing.

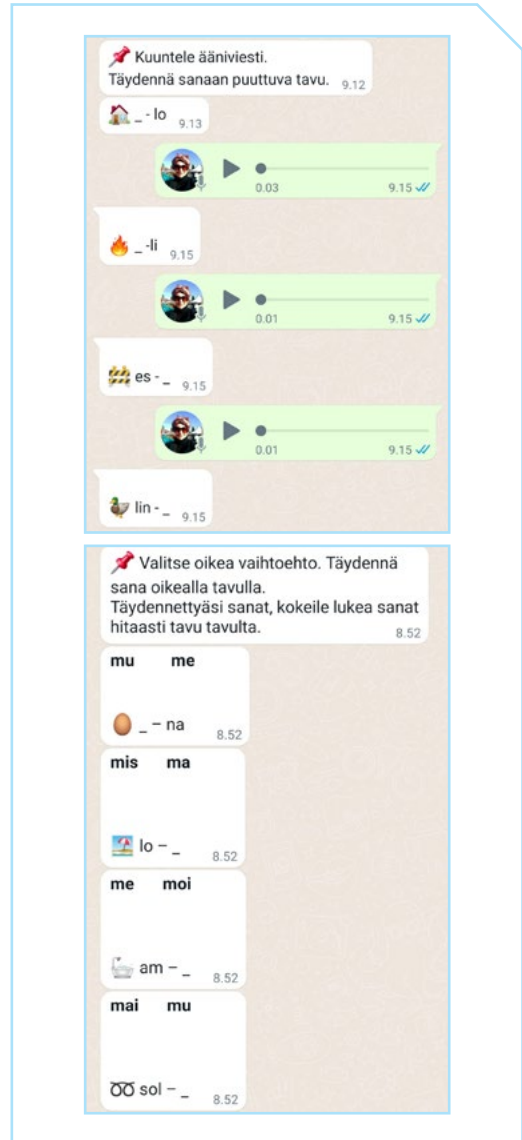


Figure 9. Preschool and primary school students became acquainted with the letters.



Figure 10. Pre-primary and primary school students practised reading and writing skills with tasks differentiated according to their competence.



Figure 11. Learners read different texts. They listened to Eduard Uspenski's (2017) book Fedja's Uncle, his dog and his cat as the teacher read. The primary school learner became acquainted with Pippa Goodhart's (2018) work Three Waggy Tales.

The mobile distance teaching of the language of parents, primary and secondary school learners was based on the basics of the National Core Curriculum for Basic Education (Finnish National Board of Education 2014), which emphasised the objectives presented in Table 5. Teaching was differentiated in the direction of goals individually for each student.

TABLE 5. The highlighted goals for language learning for primary and secondary school learners were built on 3. – 6. p. subjects 1) mother tongue and literature or 2) Finnish as a second language and literature on the objectives. (Finnish National Agency for Education 2014).

<p>Finnish language and literature (3.–6. gr.)</p>	<ul style="list-style-type: none"> • To guide students to gain more fluent reading skills, and an ability to use reading comprehension strategies, as well as to observe and evaluate one’s own reading. (T5) • To encourage and to guide students to verbalise their thoughts and to practice producing illustrative and narrative texts. (T10) • To guide students to develop their fluent handwriting and to strengthen the management of structures and spelling of their written language and texts. (T11) • To guide students to strengthen their language awareness, to inspire them to research and observe language and its variants, and to guide them to use concepts that are used to describe language and its structures, as well as to assist to understand the impact the use of language has. (T13)
<p>Finnish language and literature as a second language (3.–6. gr.)</p>	<ul style="list-style-type: none"> • To guide students to gain more fluent reading skills and to use their knowledge about different text genres to differentiate types of texts. (T4) • To inspire students to develop fluent handwriting and to produce various types of texts needed every day. (T7) • To assist students to deepen their skills to plan and produce text independently and use vocabulary and grammatical structures in texts in various ways. (T8) • To guide students to strengthen students to be linguistically aware and make observations on how language is used in different situations, and how it has different kinds of features as well as how there is regularity in spoken and written Finnish. (T10)

substantiivi Tänään harjoittemme substantiivien **yksikön ja monikon** taivutuksia.

Suomen kielen taivutukset ovat **monimutkaisia**. Tänään taivutetaan substantiivisanoja, joissa on kaksoiskonsonantti eli **KK, PP, LL, SS, MM, TT, NN** 9.24 ✓

Yksikkö sanan perään kirjoitetaan **t-kirjain** – ja näin se on **monikko**.

Esim. **kissa** - > **kissat**, **pallo** -> **pallo** 9.25 ✓

MUTTA kun sanassa on **KK, PP** tai **TT** - kaksoiskonsonantit, niin tuolloin toinen konsonantti **putoaa pois monikossa**.

Esim. **Takki** - > **takit**, **keppi** -> **kepit**, **hattu** -> **hatut** 9.25 ✓

Täydennä virkkeet adjektiivin vertailumuodoilla.

1. Abdi on nuori.
Pikkusisko on _____.
Vauva on _____.

2. Keksi on herkullinen.
Voileipä on _____.
Pizza on _____.

3. Nukke on söpö.
Pehmolelu on _____.
Kissanpentu on _____.

Figure 12. Older primary and secondary school learners practised language structures in a variety of ways.

! *Suomen yleiskieli ja puhekieli ovat erilaisia.*

Tänään harjoitellaan puhekieltä. 9.39 ✓

Opettele puhekielen sanoja. 9.39 ✓

Safka = Ruoka

Kokata = Laittaa ruokaa (tulee englannista to cook)

Hamppari = Hampurilainen

Jälkkäri = Jälkiruoka

Jätski = Jäätelö

Karkki = Karamelli, Makeinen

Purkka = Purukumi

Limu = Virvoitusjuoma

Matsi = Ottelu

Futis = Jalkapallo

Lätkä = Jääkiekko

Valitse oikea yleiskielen sana/ sana pari vastaamaan puhekieltä. 9.39 ✓

Yleiskieli: etkö sinä, menet, en ymmärrä, yhdeksän, oletteko, minä, sinun, minun, minulla on, viimeinen, tulemme, miksi, toinen,

Etsi puhekieltä vastaava yleiskielen sana(t) yläpuolelta.

mä =
mun =
sun =
mulla on =
meet =
miks =
eks =
ootteks =
tullaan =
en tajuu =
ysi =
toka =
vika = 9.39 ✓

Figure 13. Older high school students and secondary students became familiar with spoken language.

TABLE 6. The language learning objectives for older learners were built on 7. – 9. p. subjects 1) mother tongue and literature or 2) Finnish as a second language and literature on the objectives. (Finnish National Agency for Education 2014).

<p>Finnish language and literature (7.-9. gr.)</p>	<ul style="list-style-type: none"> • To guide students to develop strategies and skills required in reading comprehension and analyses. (T5) • To guide students to develop reading skills, to guide students to make observations about the texts, and widening and solidifying vocabulary and use of concepts (T7) • To encourage students to express their thoughts in writing and to produce various types of texts. (T10) • To offer students opportunities to produce narratives and illustrative texts. (T11)
<p>Finnish language and literature as a second language (7.-9. gr.)</p>	<ul style="list-style-type: none"> • To guide students to utilise their skills in analysing different genres of texts, to widen their vocabulary and use of concepts, to utilise their reading strategies effectively and to analyse the meaning of texts according to text, vocabulary, and grammar. (T4) • To guide students to strengthen their skills to plan, produce, and develop texts independently and to use different types of texts as models and as sources. (T6) • To assist students to solidify vocabulary required by the norms of language and different genres and to solidify their use of grammatical structures. (T7)

In the Distance school project, the aim of language teaching for primary and secondary school learners were to establish fluent reading and writing skills. Attention was also paid to

the structure and spelling of the language. The assignments practised language structures such as word classes and word inflection.

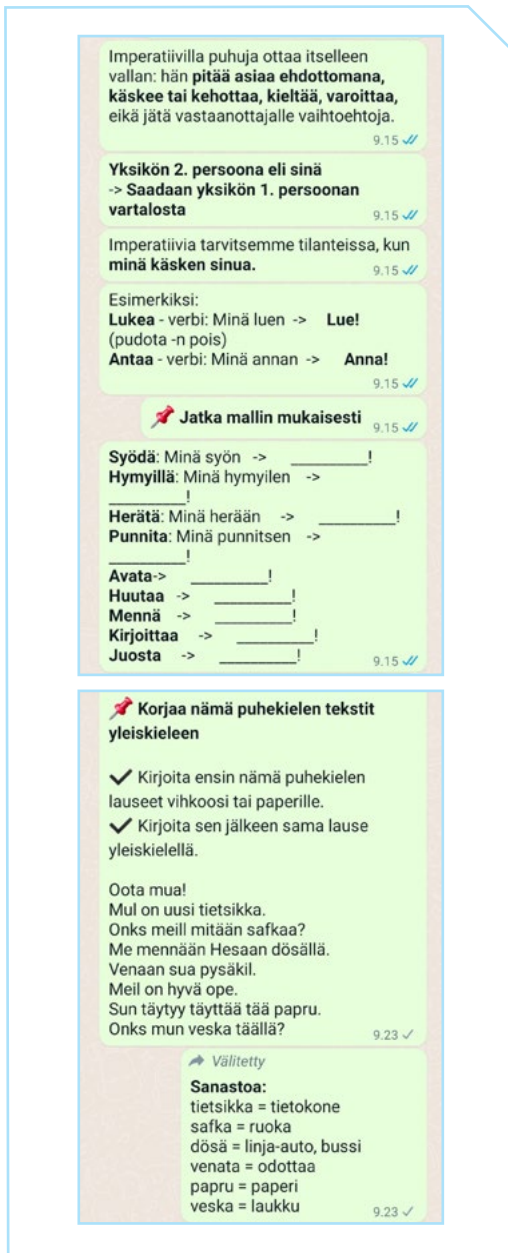


Figure 14. Language structures were practised with parents, primary and secondary school learners.

Learners became acquainted with different types of text, such as poems, fiction, and factual texts, and the learners also practised producing them. Learners' different interests were respected in the selection of texts. They were guided to perceive the difference between

fact, opinion, and fiction. Older learners were instructed to analyse different types of text.

Learners were introduced to the differences between spoken language (including dialects and slang) and written language. Study skills were developed by practising, for example, compiling a mind map and a list of support words.

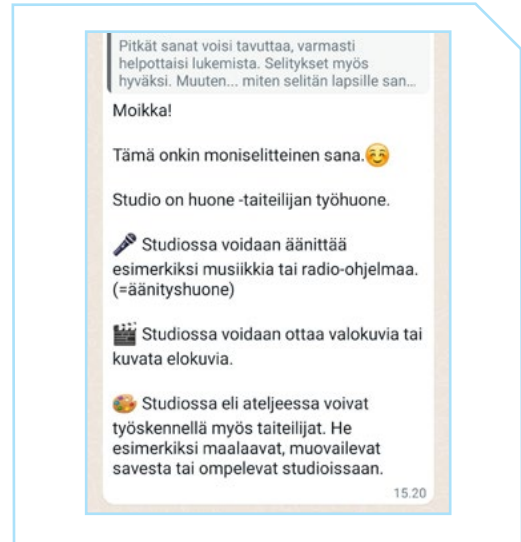


Figure 15. Sometimes teachers explained the meaning of words to learners.

7.1.2 Teaching a foreign language

Learners can choose to study a foreign language, such as English. Motives for learning a foreign language are diverse; the foreign language studied may be, for example, the official language or the school language of the host country of the learner with refugee status.

Learning a foreign language promotes the formation and tolerance of a multilingual and multicultural identity. It is important for the teacher to find out the learner's starting level and to discuss with them the motives for learning a foreign language.

In the Distance school project, some students studied English. They progressed at their own pace and received support for their learning as needed. Mobile distance education

is based on the National Core Curriculum for Basic Education (Finnish National Agency for Education 2014), which emphasised the

objectives presented in Table 7. Teaching was differentiated individually for each student.

TABLE 7. Objectives of the basics of the National Core Curriculum for Basic Education highlighted in the study of English in the Distance school project (Finnish National Agency for Education 2014).

<p>English as a foreign language (3rd -6th gr.)</p>	<ul style="list-style-type: none"> • To guide students to observe phenomena that separates or unites languages (T3) • To guide students to practice interaction in various situations and to encourage them to continue communication even if there are interruptions. (T7) • To guide students to work on various levels of spoken and written texts. (T10) • To offer students possibilities to produce speech and text of various topics and themes, as well as to focus on central structures and rules of speech. (T11)
<p>English as a foreign language (7th-9th gr.)</p>	<ul style="list-style-type: none"> • To guide students to identify the regularities of English, how to express the same things in other languages and to use the concepts of language knowledge to support their learning (T3) • Encourage students to engage in discussions on a wide range of topics relevant to learners' age levels and life experiences (T6) • To guide students to produce both spoken and written text for different purposes on general and self-relevant topics, paying attention to the diversity of structures and guiding good pronunciation (T10)

In the Distance school project, learners studied foreign language vocabulary thematically. The teaching emphasised vocabulary related to the learner's everyday life. Themes included family, home, everyday chores, and leisure. Tasks dealing with language structures were modelled

using several examples. The use of a foreign language was modelled with recordings and texts attached to the learning materials. Examples of how a native speaker speaks the language were given as voice messages.

Harjoitellaan kysymysten tekemistä.
Jatka kysymystä ja vastaa kysymykseen.

Who is _____?

The woman is my mother.

Where is _____?

My shirt is in the wash.

_____ time is it?

It is 3 o'clock.

Why did you _____?

I don't know.

When did you _____?

I ate it yesterday.

How are you?

_____.

Which one do you take?

I will _____.

How many do you want?

I want _____.

How often do you read a book?

I _____ 9.14 ✓

Create **5-10 new questions** and ask them from your sister, brother, mother...
You can also try to write the answer.

9.15 ✓

You can **also make questions** for us teachers in English, if you wish. And we will answer them.

9.15 ✓

To be + run

I am running. = Juoksen

You _____ juokset

He _____ juoksee

We _____ juoksemme

You _____ juoksette

They _____ juoksevat

Create 3 sentences using **to be** verb.

9.21 ✓

To Have + to come

I have come home.

You _____

She _____

We _____

You _____

They _____

Create 3 sentences using **to have** verb

9.21 ✓

To do + to work

I do work

You _____

He _____

We _____

You _____

They _____

*Nouns *

A noun names a **person, a place, an animal, a thing, or an idea.**

Nouns can be **plural or singular** and can be the **subject or object of a verb.**

For example:

The books are on **the table.**

Love is all you need.

John is in **the garden.**

London is lovely in **the summer.** 9.18 ✓

🔪 Circle the nouns in the sentences.

1. I love red cars.
2. John and Mary went to the supermarket and bought eggs and cheese.
3. We had pizza for lunch.
4. They never told me that they had so much money.
5. She's writing an essay on democracy.
6. He had a brilliant idea.
7. The British Library is near King's Cross Station.
8. He has three brothers and ten nieces and nephews.
9. Could you pass the salt?
10. She travelled to Tokyo and Shanghai.

9.19 ✓

Figure 16. Problems related to English language structures

The screenshot displays a mobile application interface for English learning. At the top, there are five audio player controls, each with a play button, a progress bar, and a duration of 0.03 or 0.04 seconds, and a score of 9.23 with a checkmark. Below these is a task instruction: "Listen and write the words. 9.24 ✓".

The main task is titled "Listen to the story and answer the questions. 13.52 ✓". It includes a sub-instruction: "You can also try to read the story." Below this is a short story titled "The lucky envelope".

Short story: The lucky envelope
 A golden envelope ✉️ fell through the letterbox 📧. On the front it said, 'You've won!'
 'Open it!' shouted Mum, Dalia and Ahmed. Dad opened it. They had won a free holiday.
 'I hope it's to the seaside,' said Dalia. 'I can swim in the sea and make sandcastles.'
 'No, I hope it's a camping holiday,' said Dad. 'I can sleep in a tent and get lots of fresh air.'
 'No, I'd like to go on a cruise,' said Ahmed. 'I can watch the dolphins and eat lots of nice food.'
 'Well, I'd like to go to a big city,' said Mum. 'I can go shopping and go to the theatre.'
 Then they started to argue. They couldn't decide.
 'Beach!' 🏖️
 'Camping!' 🏕️
 'Cruise!' 🚢
 'City!' 🏙️
 They argued until it was dark. Then the phone 📞 rang. Dalia answered it.

The screenshot shows an English lesson page. At the top, it says "English". Below that, it says "Today let's learn adjectives. Adjectives describe what is something alike." and "Enhancing your vocabulary. Learn new words. Words starting with different letters. 10.45 ✓".

A list of adjectives is provided:

- A Ancient, able, angry, active, athletic
- B basic, blind, blond, brilliant, busy
- C calm, cold, cloudy, clever, crazy, cute
- D deep, dark, dirty, delicious, dry
- E easy, early, equal, excited, energetic

Below the list, it says "10.46 ✓".

The task instruction says: "Take a paper and pen and answer the questions. Try to use the adjective in a sentence. Answer the question with a full sentence. 10.47 ✓".

Figure 17. Listening and reading comprehension as well as vocabulary were practised in English.

In the Distance school project, learners were instructed to be aware of the multi-layered nature of both their own and other linguistic and cultural identities. Teaching supported learners' multilingualism by also making use of the languages used by learners in their free time. This strengthened learners' confidence in their own ability to learn languages and to use even a small amount of language skills boldly.

7.2 Mathematics

The goal of studying mathematics in mobile distance education is to guide and support the learner in learning mathematical thinking and maths skills and to create a foundation for fluent, hands-on calculation skills.

In the Distance school project, the study of mathematics by early childhood and pre-school learners was based on the foundations of the National Core Curriculum for Early Childhood Education and Care (Finnish National Agency for Education 2018) and the foundations of the Pre-primary Education Curriculum (Finnish National Agency for Education 2014). Table 8 presents the objectives that were highlighted in the teaching.

TABLE 8. Objectives of mathematics studies for early childhood and pre-school children

<p>Researching and acting in environment <i>(Opetushallitus 2018)</i></p>	<ul style="list-style-type: none"> • observation of shapes, amounts, and changes • classification, comparison, and ranking • appending a reading concept, word, and number to a digit • concept of time (day and seasons)
<p>Researching and acting in environment <i>(Opetushallitus 2014)</i></p>	<ul style="list-style-type: none"> • classification, comparison and ordering, and observation of regularities • the development of the concept of reading and the change in the number • Reading skills and comparing numbers • measuring with the body and various instruments • perception of level and space (concepts of position and relationship and plane patterns)

In the Distance school project, the tasks of early childhood and pre-school learners supported the development of mathematical thinking. In the assignments, learners categorised, compared, and ranked things according to rules provided by the teacher or invented by the learner himself. They anchored the numbers, observed the numbers, and practised associating them with the word and number.

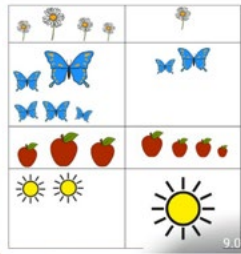


📌 Katso kuvaa.

Osoita, kummassako laatikossa on vähemmän.

9.03

Aino



9.03

Aino



9.03

📌 Kuinka monta eläintä näet?

Näytä sormilla ja kerro sitten tulos ääneen.

9.02



9.02



9.02



9.02



9.02



9.02



9.02



9.02



9.02



9.02

Tänään harjoittelemme lukua **kuusi**. 8.47

Tässä on **kuusi** palloa.



8.47

📌 Kerää **kuusi** kiveä.

8.47

📌 Kerää **kuusi** kenkää.

8.47

📌 Kerää **kuusi** lego-palikkaa.

8.47

📌 Näytä nyt sormillasi luku **kuusi**.
Tarvitset nyt kaksi kättä.



8.48

Numero kuusi näyttää tältä **6**.

8.48

📌 Ympyröi kaikki numerot **6**.

3 6 2

1 4 6

6 6 5

8.48

📌 Mikä ei kuulu joukkoon?

Osoita.

Osaatko kertoa, mitä emojeita näet?

8.57 ✓✓

➔ Välitetty



8.57 ✓✓

➔ Välitetty



8.57 ✓✓

➔ Välitetty



8.57 ✓✓

➔ Välitetty



8.57 ✓✓

➔ Välitetty



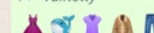
8.57 ✓✓

➔ Välitetty



8.57 ✓✓

➔ Välitetty



8.57 ✓✓

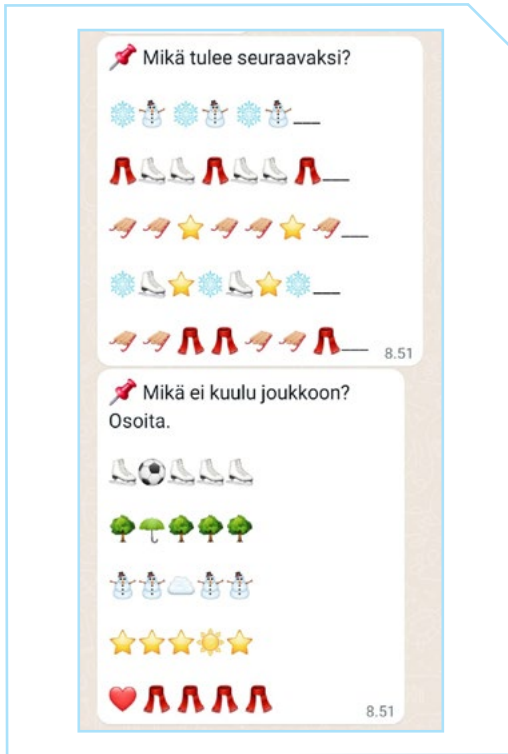


Figure 18. The tasks of early childhood and pre-school learners supported the development of mathematical thinking.

Mathematics assignments also developed reading skills and guided learners to observe the environment by naming, for example, geometric shapes and searching for them in their own immediate environment. Preschool learners also practised simple basic calculations using pictures, emojis, or concrete tools.

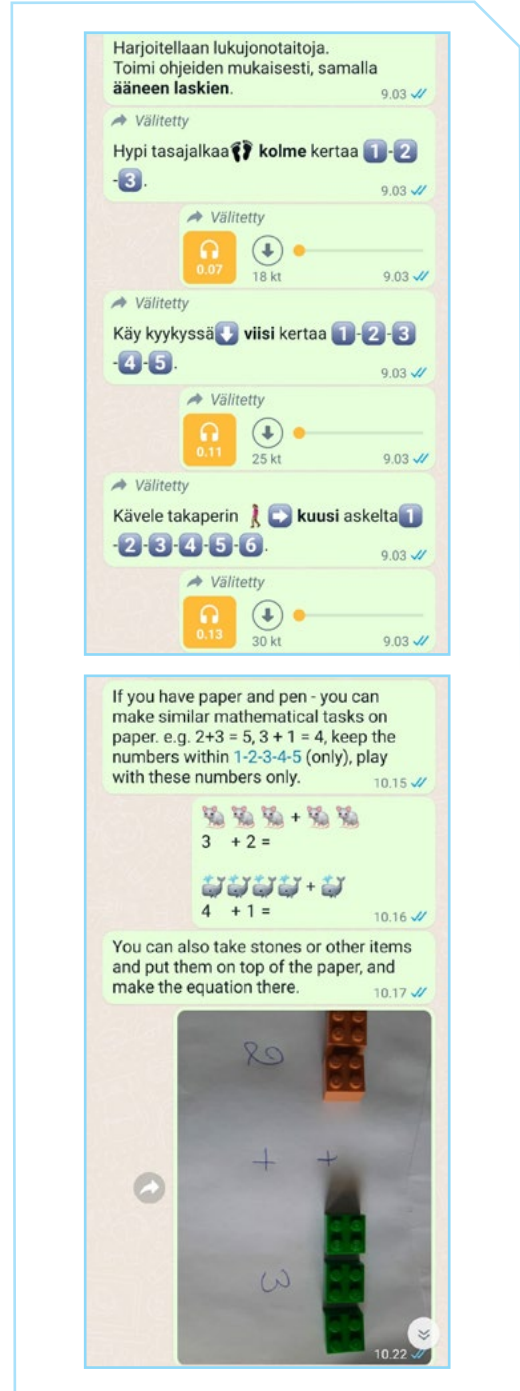




Figure 19. Early childhood and preschool learners practise maths in a variety of ways.

The teaching of mathematics to primary school learners was based on the basics of the National Core Curriculum for Basic Education (Finnish National Agency for Education 2014), of which the Distance school project particularly emphasised the objectives presented in Table 9.

TABLE 9. Objectives of mathematics studies for primary school students (Finnish National Agency for Education 2014)

<p>Mathematics (1.-2. gr.)</p>	<ul style="list-style-type: none"> • to guide the student to understand mathematical concepts and notation (T5) • to support the student in developing the concept of reading and understanding the principle of the decimal system (T6) • to get students acquainted with the principles of basic calculations and acquaint them with their properties (T7) • to introduce the student to geometric shapes and guide them to observe their properties (T9) • to guide the student to understand the principle of measurement (T10)
--	--

Primary school students practised number sequence skills, comparing numbers, and placing numbers in order. They practised addition and subtraction first in the reading range 0–20 and then in the reading range 0–100. Students became acquainted with the principle of the decimal numeral system through pictures and functional teaching methods. In geometry, planar patterns and their properties were introduced by constructing and drawing them. Students practised measuring mass, length, and volume, as well as comprehension of time.

Laske yhteenlaskut. 9.04

Huom.
Joskus piirtäminen helpottaa laskemista. 9.04

Esimerkki
 $13 + 4 = 17$




9.04

Myös lukusuoran (0-20) piirtäminen voi olla apuna laskemisessa. 9.04

10+2= 12+4=
13+2= 10+4=
14+4= 16+2=
11+1= 13+3=
17+2= 19+1=
16+3= 13+6=
18+1= 11+4=
15+4= 15+1=
11+5= 16+2=
10+10= 17+2= 9.05

Esimerkki 9.09

Välitetty



9.09

Välitetty

Yhteenlaskun vastaus on **summa**. 9.09

Välitetty

Laske summa. 9.09

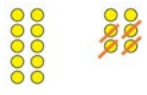
Välitetty

5 + 5 + 4 =
2 + 8 + 3 =
4 + 7 + 3 =
7 + 9 + 1 =
6 + 4 + 2 = 9.09

Laske vähennyslasku.
Käytä tarvittaessa apunasi emojeita. 8.59

Aino

Esimerkki



16 - 4 = 12 8.59

15-5=
16-3=
12-1=
14-2=
15-3=

18-3=
17-5=
19-4=
16-4=
20-5=

Figure 20. Primary school students practised basic arithmetic and geometry.

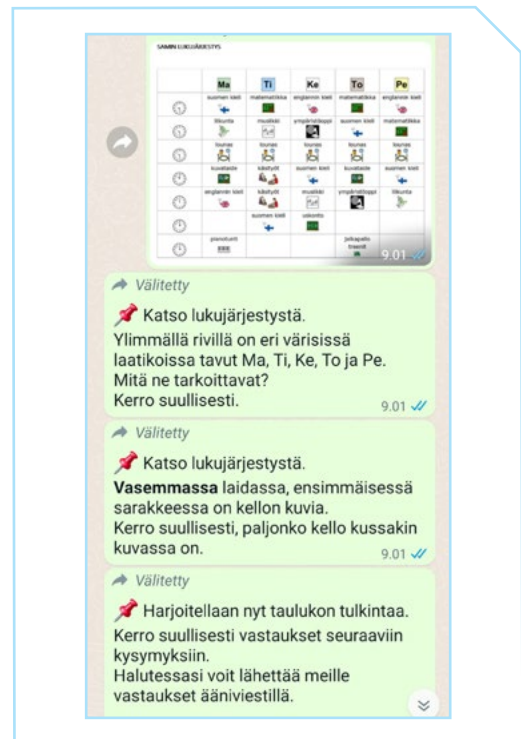
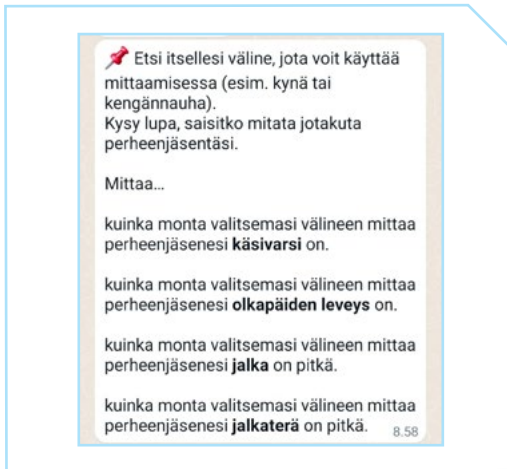


Figure 21. Pre-primary and primary school learners practised measurement as well as table interpretation.

TABLE 10. Emphasised goals of older primary school learners in mathematics (Finnish National Agency for Education 2014)

<p>Mathematics (3rd–6th gr.)</p>	<ul style="list-style-type: none"> • To encourage students to present their reasoning and solutions with concrete tools, drawings, orally and in writing (T4) • To guide students to use and understand mathematical concepts and notations (T7) • To guide students to achieve fluent numeracy at the head and in writing using the features of calculations (T10) • To guide students to observe and describe the geometric properties of pieces and patterns and to introduce the learner to geometric concepts (T11)
---	--

Desimaalilukujen yhteenlasku 9.10 ✓

Laske

- 1) $0,2 + 0,7 =$
- 2) $1,2 + 0,6 =$
- 3) $2,6 + 0,6 =$
- 4) $1,5 + 1,2 =$
- 5) $1,8 + 1,1 =$
- 6) $0,5 + 0,9 =$
- 7) $0,4 + 2,4 =$
- 8) $0,8 + 1,6 =$
- 9) $0,7 + 4,3 =$
- 10) $3,3 + 2,2 =$ 9.10 ✓

Lisää puuttuva numero

- a) ? $\times 7 = 49$
- b) ? $\times 7 = 28$
- c) ? $\times 7 = 21$
- d) ? $\times 8 = 16$
- e) ? $\times 8 = 24$
- f) ? $\times 8 = 80$

9.11 ✓

Jaa herkut tasan Tonin ja Annin kesken. Tee jakolasku ja merkitse vastaus.

1.

___ : ___ = ___

Tulos: ___ muffinsia
2.

___ : ___ = ___

Tulos: ___ tikkaria
3.

___ : ___ = ___

Tulos: ___ jäätelöä

Harjoittele ensin helpoilla luvuilla

$523 + 523$

tässä luvussa on viisi sataa kaksi kymmentä ja kolme ykköstä

kolmonen on ykkösiä
kaksi on kymmeniä
viisi on satoja

merkitse ykköset allekkain eli kolmoset allekkain
merkitse kymmenet allekkain eli kakkoset
merkitse sadat allekkain eli viidet

laske allekkain luvut yhteen

523
523
+
1046

9.27 ✓

Laske tehtävät vihkoosi allekkain ja merkitse tulos

a) $54 + 31$

Figure 22. Older primary school-age learners studied basic calculus in a variety of ways.

TABLE 11. Objectives of upper secondary school and older learners in mathematics
(Finnish National Agency for Education 2014)

<p>Mathematics (7th -9th gr.)</p>	<ul style="list-style-type: none"> • To guide students to evaluate and develop his / her mathematical solutions and to critically examine the meaningfulness of the result (T6) • To guide students to develop his / her ability to calculate basic calculations with rational numbers (T11) • To support students to expand the understanding of the concept of reading to real numbers (T12) • To support students to expand their understanding of percentage calculation (T13) • To guide students to understand the concept of the unknown and to develop their equation-solving skills (T14) • To support students to understand the concepts of geometry and the connections between them (T16) • To encourage students to develop their ability to calculate areas and volumes (T18)
---	---

Primary and secondary school learners used the tasks to strengthen their ability to calculate basic calculations (addition, subtraction, multiplication, and division). They were practised in a variety of different ways.

Tee lukusuora

Tarvitset kynän ja paperin

Piirrä viiva missä on numerot 0,1,2,3,4,5,6,7 oikealle päin ja sitten jatkat viivaa myös nollan vasemmalle puolelle, ja merkitset sinne -1,-2, -3, -4, -5, 6-, 7 jne 9.15 ✓

Laske 5 -8=

Laske nolasta 5 eli lukusuoralla hyppäät viisi numeroa **oikealle**

Siirry sitten 8 hyppäystä **vasemmalle**, koska numero 8 on negatiivinen, otat pois numerosta 5.

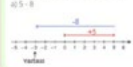
Päädyt lukusuoralla numeroon -3.

Eli 5-8= -3 9.17 ✓

Katso kuva 9.17 ✓

Laitetaan lukusuoramallin avulla

5-8



- Aloita nolasta
- Siirry ensin 5 askeelta oikealle
- Siirry sitten 8 askelta vasemmalle
- Päädyt numeroon -3 9.18 ✓

Tee yhteenlaskusta kertolasku.
Laske allekkain vihkoosi. Merkitse tulos.

a) $31 + 31 + 31$
 $\underline{\quad} \times \underline{\quad} =$

b) $53 + 53 + 53$
 $\underline{\quad} \times \underline{\quad} =$

c) $241 + 241$
 $\underline{\quad} \times \underline{\quad} =$

d) $71 + 71 + 71 + 71 + 71 + 71$
 $\underline{\quad} \times \underline{\quad} =$

e) $201 + 201 + 201 + 201$
 $\underline{\quad} \times \underline{\quad} =$ 9.27 ✓

Laske vihkoosi ja merkitse tulos.

a. $4 \times 212 =$
 b. $3 \times 302 =$
 c. $3 \times 220 =$
 d. $4 \times 102 =$
 e. $2 \times 201 =$
 f. $3 \times 321 =$
 g. $3 \times 301 =$

! Muista!
Kokonainen on sata prosenttia (100%)
Prosentti (1%) on sadasosa
 $1\% = 1/100 = 0,01$ 9.27 ✓

! *Prosenttiluku* on aina kahden luvun suhde eli jakolasku 9.29 ✓

Yllä olevan esimerkin mukaisesti laske jakolaskuina, saat vastaukseksi desimaaliluvun, muuta se prosenteiksi kertomalla luku 100:lla. 9.31 ✓

1) Kuinka monta prosenttia

a) 8 on luvusta 100
 b) 5 on luvusta 150
 c) 2 on luvusta 40
 d) 84 on luvusta 150 9.32 ✓

Figure 23. Upper and secondary school learners both studied basic arithmetic operations and strengthened mathematical understanding with verbal arithmetic problems.

In the verbal calculation tasks, the living environment of the learners was focused. The connection between multiplication and division was confirmed. In addition, learners became familiar with the concepts of decimals

and fractions, practised using them in basic calculations, and locating them with a sequence of numbers. The understanding of the magnitude and interrelationship of the numbers was strengthened.

Older learners were also familiarised with the negative numbers and percentages. They practised transformations and ratios of percentages, decimals, and fractions.

Learners became acquainted with geometric objects and planar patterns, and their properties. They practised measurement and unit conversions. The measurement tasks considered the challenging living environment of the learners. Learners with more advanced skills were also given additional voluntary assignments.

Miten laskujärjestys sinulta jo sujuu? Muistatko järjestyksen? Ensín sulut, sitten kerto- ja jakolaskut, sitten yhteen- ja vähennyslaskut vasemmalta oikealle. 9.10 ✓

EXTRA: Tämä on jo haastavampi:

A) $420 / 7 / 5 =$
 B) $100 \times (49 - 7) / 6 =$
 C) $4 + 60 + 80 / 4 \times 50 - 40 =$
 D) $4 + 60 + 80 / 4 \times (50 - 40) =$ 9.10 ✓

Figure 24. More challenging additional tasks for older learners

7.3 Environmental science: biology and geography

Environmental science builds a foundation for the proficiency of different disciplines in environmental science. The teaching of these supports the development of the learners' relationship with their environment, the development of their worldview and growth as a person in general. The teaching of environmental science and biology was provided as active and experiential learning. The learning materials

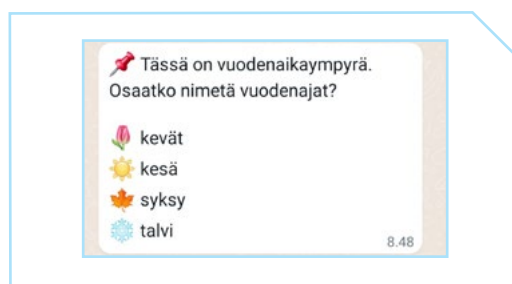
emphasise the study of the learner’s own living environment. In the Distance school project, environmental studies, biology, and geography

were taught both independently and integrated into language and mathematics teaching.

TABLE 12. Objectives of environmental science studies for primary school students (Finnish National Agency for Education 2014)

<p>Environmental science (1st –2nd gr.)</p>	<ul style="list-style-type: none"> • To offer students a possibility to use their natural curiosity and to guide the students to experience environmental science studies as meaningful. (T1) • To encourage students to have joy of learning while learning environmental science studies, as well as to enjoy learning and new challenges, and to practice long-term working habits. (T2) • To guide students to observe and research their nearby environment (T4) • To encourage students to wonder and be curious (T5) • To guide students to make observations and experiments in their nearby environment by using different senses and simple research tools, and to present their findings in different ways (T6) • To guide students to describe and classify in different ways all kinds of organisms, habitats, phenomena, materials, and situations and to name them (T7) • To guide students to practice emotional skills and to strengthen their self-appreciation and valuing of others. (T13)
--	---

The teaching of early childhood and primary school learners focused on building a positive self-image of the learner, practising emotional and interaction skills, becoming familiar with everyday skills, and exploring one’s own immediate environment. The teaching of environmental science was integrated into the teaching of the language: it was practised to name body parts, animals, and plants and to describe their properties. The teaching was illustrated with the help of emojis, photographs, and picture collages. The learning tasks were based on games and research that encouraged curiosity and interest in environmental phenomena.



📌 Harjoittele piirtämään ihminen.

Piirrä pää. 🧠
 Piirrä silmät 👁️, nenä 👃 ja suu 👄.
 Piirrä korvat. 👂
 Piirrä hiukset. 💇

Vieläkö haluat jatkaa?

Piirrä kaula. 👤
 Piirrä ihmiselle vartalo/vatsa. 🧑
 Piirrä ihmiselle kädet. 🖐️
 Piirrä kumpaankin käteen viisi sormea.
 🖐️
 Piirrä jalat. 👣

8.49

📌 Katso kuvaa.
 Kerro, mitä aamuisin tapahtuu. 9.00 ✓

➡️ Välitetty

herätys 	aamugala 	puhuta
pestä hampaat 	pestä kasvat 	harjata hiukset
leikkii 	ohikku 	lupaa ABC- 123- 456- 789

9:00 ✓

📌 Missä tunteet tuntuvat kehossani?
 Pohdi 🔍 kuvien avulla, miltä ilo 😊 ja suru 😞 tuntuvat eri kehon osissa.

8.54 ✓

Figure 25. The environmental studies of the youngest learners were integrated with the learning of the language.

✓ Opettele elävien ja elottomien tutkijoiden tärkeimmät kysymykset:

1. Tarvitseeko se ilmaa? 🌬️
 2. Tarvitseeko se ruokaa tai vettä? 🍌
 3. Kasvaako se? 🌱 8.50 ✓

📌 Tee havaintoja 🧐 ja muistiinpanoja

📝

🧐 Katso teltassa tavaroita ja asioita:

✓ listaa mitä näet.

Esim. Kenkä, muki, peitto, sisko jne...

🧐 Katso teltan ulkopuolella mitä näet

Figure 26. Environmental learning material included inquiry learning tasks.

The teaching of primary and secondary school learners consisted of the contents of biology and geography. The aim is to provide learners with the opportunity to broaden their understanding based on scientific knowledge and to support the construction and expansion of their worldview. Learners are instructed to consider the impact of their own activities on their own and other people's well-being, as well as on nature and the broader society. They are encouraged to become familiar with understanding and nurturing biodiversity.

TABLE 13. Emphasised goals of older primary school learners in environmental education
(Finnish National Agency for Education 2014)

<p>Environmental Science (3rd–6th gr.)</p>	<ul style="list-style-type: none"> • To generate and maintain the student’s interest in the environment and the study of environmental studies and helps the learner to experience all fields of environmental science relevant to themselves (T1) • To support the development of the student’s environmental awareness (T3) • To guide students to plan and carry out small-scale research, to make observations and measurements in diverse learning environments using different senses and research and measurement tools (T5) • To guide the students to explore and act in nature and the built environment (T9) • To support student’s ability to identify, express and regulate their feelings (T10) • To guide students to perceive the environment, human activities and related phenomena using the concepts of environmental science and to develop their conceptual structures from preconceptions towards the precise use of the concepts (T12) • To guide students to understand, use and make different models that can be used to interpret and explain people, the environment, and their phenomena (T13) • To guide students in the study of nature, the identification of organisms and habitats and ecological thinking, and to guide the learner in understanding human structure, vital functions, and development (T15) • To guide students to geographical thinking, to perceive one’s own environment and the whole world, and to practice map use and other geomedial skills (T16)
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TABLE 14. Objectives of upper secondary school and older learners in biology and geography
(Finnish National Agency for Education 2014)

<p>Biology (7th–9th gr.)</p>	<ul style="list-style-type: none"> • To guide learners to understand the basic structure and function of an ecosystem and to compare different ecosystems and identify species (T1) • To guide learners to assess changes in the natural environment and human impact on the environment (T6) • To guide learners to develop scientific thinking skills and an understanding of cause-and-effect relationships (T7) • To guide learners to do research (T10) • To inspire learners to deepen their interest in nature and its phenomena and to strengthen the relationship with nature and environmental awareness (T12)
<p>Geography (7th–9th gr.)</p>	<ul style="list-style-type: none"> • To support the construction of a structured map image of the learner from the globe (T1) • To guide the learner to study biogeographical phenomena and to compare natural landscapes in Finland and elsewhere on earth (T2) • To guide the learner to study human geographical phenomena and cultural landscapes and to understand different cultures, livelihoods, and people’s lives in Finland and in different parts of the world (T3) • To guide the learner to develop a sense of space and an understanding of symbols, proportions, directions, and distances (T6) • To guide the learner to practice everyday geomedia skills and to read and interpret maps and other models of geographical phenomena (T7) • To train the learner to observe the environment and the changes that take place in it, and to activate the learner to follow current events in his or her immediate environment, in Finland and around the world (T9) • To guide learners to value their regional identity and the diversity of nature, human activities, and cultures, and to respect human rights throughout the world (T13)

Older learners became acquainted with the continents, their natural conditions, and regional livelihoods. They compared the differences and

similarities between different states and cultures. They got to know the living and non-living nature as well as the different species and plants

in the areas. In addition, learners were instructed to explore and interpret maps (e.g., terrain and theme maps), photographs, and various diagrams in a variety of ways. Also, current news and themes were utilised in the teaching.

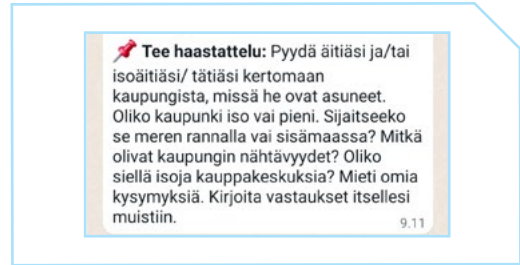
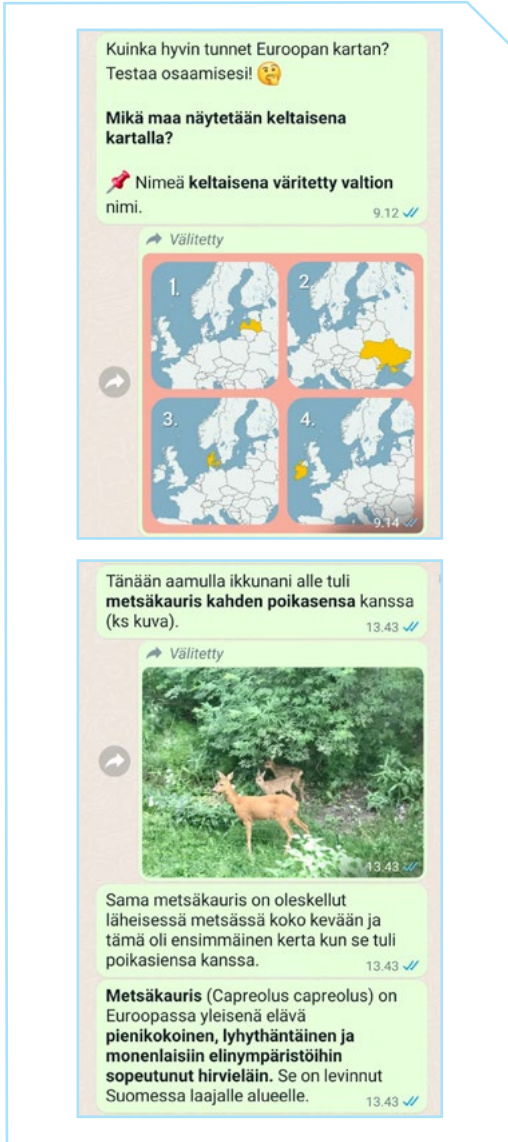


Figure 27. Learners became familiar with the maps and animals and obtained information through an interview. Map images YLE Learning: Björkstrand and Nieminen, 2019

The study material consisted of clearly sequenced texts and voice recordings of these texts. The emojis of state flags within the instant messaging application were used to identify them.



Figure 28. The emoji range of the instant messaging application can be utilised in mobile distance learning.

7.5 History

The objective of teaching history is to install a students' interest into the phenomena of the past and develop their understanding of the historical past and knowledge of different cultures. This assists them to understand the past, present and the meaning that individuals have as agents of history. Studying history also

supports the development of learner's identity and makes them understand the impact culture has on individuals and societies. This enhances their cultural interaction and encourages them to understand and appreciate differences. Learning history also develops their logical thinking and ability to make insights. History is taught in a meaningful and holistic way by integrating it with different subjects and themes.

TABLE 15. Objectives of upper secondary school and older learners in history
(Finnish National Agency for Education 2014)

<p>History (5th–6th gr.)</p>	<ul style="list-style-type: none"> • To get to know history as a discipline and to gain interest with the past human life. (T1) • To learn to distinguish historical time spans and concepts. (T4) • To understand the outlines and continuity of history. (T8)
<p>History (7th–9th gr.)</p>	<ul style="list-style-type: none"> • To strengthen the learner's interest in history as a discipline and as a subject that constructs one's identity. (T1) • To strengthen the learners' skills to understand historical time spans and concepts. (T4)

The focus of history teaching has been in understanding the broad lines of the subject. The content of the study was mostly Finnish history and folklore. In addition, the learners

have become acquainted with the backgrounds and differences of folk traditions around the world and with Finland's UNESCO World Heritage Sites.

Suomen opetussuunnitelmaan mukaan oppilaiden tulee tutustua **Suomen UNESCO:n maailmanperintökohteisiin.** 14.14

Rauma on vuonna 1442 perustettu kaupunki Länsi-Suomessa. Se on Suomen **neljänneksi vanhin kaupunki** Turun, Porvoon ja Ulvilan jälkeen. Rauma tunnetaan sen murteesta, pitsinnypläyksestä, meri- ja metsäteollisuudesta. 14.14

Rauma on satamakaupunki. Sen ansiosta **Rauman murre** (gjääl) on saanut vaikutteita etenkin ruotsin ja englannin kielestä, sekä ranskan, venäjän ja viron kielestä. 14.14

Raumalla on kaksi **UNESCO:n maailmanperintökohdetta**. Ensimmäinen on Pohjoismaiden suurin yhtenäinen ja hyvin säilynyt **vanha puutaloalue Vanha Rauma**. Se on elävä ja kaunis kaupungin keskus; täynnä museoita, kauppoja, ravintoloita ja koteja. Toinen UNESCO:n maailmanperintökohde on **pronssikautinen kalmistoalue Sammallahdenmäki**. Se on alue, missä on pronssikaudella kiviröykkiöistä rakennettuja hautapaikkoja. 14.14

Figure 29. In the Distance school project, learners got acquainted with UNESCO World Heritage sites in Finland

Lue ja/tai kuuntele tietoa Helsingin Olympiastadionista. 9.18 ✓

Viime ja tällä viikolla on ollut Helsinki Design Week, jonka päätapahtumapaikkana on ollut Helsingin Olympiastadion. Siellä vietettiin stadionin peruskorjausta ja uudelleen avaamista. 9.18 ✓

0:16 PTT-20200918-WA... 9.18 ✓

Helsingin Olympiastadion valmistui vuonna 1938. Se oli suunniteltu vuoden 1940 olympialaisia varten. Kisat peruttiin toisen maailmansodan alkamisen takia. Helsinki sai olympialaiset isännöitäväkseen sodan jälkeen vuonna 1952. 9.18 ✓

0:25 PTT-20200918-WA... 9.18 ✓

Olympiastadion on yksi Suomen itsenäisyyden symboli. Se on monumentti sekä henkisesti että rakennuksena. Jo stadionin rakennusvaiheessa puhuttiin koko kansan stadionista. Helsingin Olympiastadion torneineen on Helsingin tunnetuimpia maamerkkejä ja funktionalismin taidonnäyte. 9.18 ✓

J.L. Runeberg

Viime perjantaina 5. helmikuuta oli Suomen kansallisrunoilijan **Johan Ludvig Runebergin** merkkipäivä. Hän eli 1800-luvulla. Hänen lapsuus ja nuoruus oli köyhää. Kun hänen isänsä sairastui, hänen piti lopettaa opiskelut Turun yliopistossa. Runebergin piti mennä töihin.

Hänestä tuli opettaja. Lisäksi hän alkoi kirjoittamaan tarinoita ja runoja. Hänen äidinkieltensä oli ruotsi. Hänen pääteoksensa *Vänrikki Stoolin tarinat* teki hänestä **kansallisrunoilijan**. Kirjan alkuruno on nimeltään *Maamme*, ja siitä tuli **Suomen kansallislaulu**. Kirja sisältää myös toisen tunnetun runon, *Porilaisten marssin*, josta tuli Suomen armeijan kunniamarssi.

Suomalaisilla on tapana myös herkutella **runebertortuilla**. Tortun valmistusaineita ovat muun muassa vehnä jauho, keks... [Lue kokonaan](#) 15.29 ✓

Figure 30. History teaching combined current topics and calendar year events. Teaching was integrated with other subjects.

History learning materials consisted of periodic texts in plain language that were also sent as voice messages. If necessary, a glossary message explaining the concepts in the text was attached to the learning material. In addition, lessons learned were illustrated through photographs, maps, support vocabularies, and concept maps. For example, the tasks of understanding and producing different texts were used as learning tasks. History was also integrated into language tasks.

7.6 Social Studies


The aim of studying social studies is to provoke the learner's interest in society, active participation, and influence, as well as various current phenomena and their impact on the life of the individual and the community. Social studies encourage the learner to be an active citizen who acts socially, ethically and in accordance with sustainable development.

TABLE 16. Emphasised goals of older primary and secondary school and older learners in social studies (Finnish National Agency for Education 2014).

<p>Social science (5th–6th gr.)</p>	<ul style="list-style-type: none"> • To guide the student to gain interest about the one's surrounding society, and about social sciences as a discipline and a subject that moulds one's identity. (T1) • To encourage the student to practice the basic democratic active citizen skills. (T7)
<p>Social Science (7th–9th gr.)</p>	<ul style="list-style-type: none"> • To guide the learner to deepen one's interest in the surrounding society and social sciences as a discipline. (T1) • To guide the learner to understand the basic principles of rule of law. (T3) • To strengthen the learner's skills to understand historical time spans and concepts. (T4)

In social studies, learners practice everyday skills needed in a pluralistic society and community life. These skills include, for example, the construction, presenting and justifying one's own opinion, constructive


interaction, sustainable consumer skills and voting. The contents of social studies can be easily applied and integrated into the study of languages, environmental studies as well as mathematics.

 **Mitä sinä jo tiedät Yhdysvalloista?**

Kiinnostaako sinua tietää tuosta maasta vielä jotain?
Mikä sinua kiinnostaa eniten?
Mitä kysymyksiä sinulla olisi?

Voit kirjoittaa muutamalla lauseella mitä jo tiedät (tai tehdä ajatuskartan) ja voit myös kirjoittaa meille kysymyksiä.

10.12 ✓✓

Jatkamme Etäkoulua torstaina **matematiikan** tehtävillä. 

10.12 ✓✓

Yhteiskuntaoppi on oppiaine, jonka tehtävänä on herättää oppilaan **kiinnostus yhteiskuntaa, vaikuttamista ja osallistumista kohtaan**. Yhteiskuntaopin tehtävänä on myös harjaannuttaa niitä taitoja, joita tarvitaan moniarvoisessa yhteiskunnassa ja yhteisöllisessä elämässä. Näitä taitoja ovat esimerkiksi rakentava vuorovaikutus. Yhteiskuntaopin keskeisiä teemoja ovat mm. aktiiviseksi ja vastuulliseksi kansalaiseksi kasvaminen ja demokraattisen yhteiskunnan periaatteet.

9.07 ✓✓

Yhdysvaltain presidentinvaali on epäsuora vaali, jossa valitaan Yhdysvaltain presidentti ja varapresidentti. Vaali pidetään neljän vuoden välein.

Tämän vuoden vaalit ovat järjestyksessään 59. Yhdysvaltain presidentinvaalit. Vaalipäivä on nyt ensi tiistaina 3. marraskuuta 2020. Yhdysvalloissa on kaksi pääpuoletta; **Republikaanit ja Demokraatit**.

9.07 ✓✓

Figure 31. In social studies, e.g. current U.S. elections.

8 Objectives of transversal competence

In early childhood education and basic education, there is also a goal to teach transversal competences of children and adolescents. This consists of the ability to use knowledge and skills, as well as to act according to the situation. This is shaped by learners' values and attitudes, as well as the will to be an active citizen and to promote a sustainable future. Transversal competences are developed throughout one's life.

When possible, the Distance school project supported the development of the learners' transversal competences. The subject-specific or interdisciplinary tasks were linked to the objectives of transversal competences which are also linked to each other. The Distance school was not able to achieve all these goals due to the nature of mobile distance learning. These include, for example, promoting the learner's interaction skills, IT skills, and advocacy. Learners have been supported and encouraged, which hopefully has influenced their attitudes and especially their motivation to learn and act.

8.1 Early childhood children

Children's backgrounds were always remembered when planning and implementing the mobile education for early childhood children. Their proficiency in the Finnish language in particular placed limitations in the planning and implementation of tasks. Several of the children were just learning Finnish, e.g., imitating it and listening to it. It was also considered that the messages went through the children's immediate adult. Linguistic and technological constraints also challenged the promotion of some broad-based knowledge objectives more deeply.

8.1.1 Thinking and learning

Thinking begins with wonder. Early childhood children are naturally curious and want to learn. They get excited easily and mimic their parents. Children learn to think by playing, listening to stories and rhymes, exploring, and experimenting. Everything happens in

interaction with other people and the child's environment. In the Distance school project, the learning environment is challenging, and the mobile device brings its own constraints.

The teaching tried to expose children to novel ideas and topics of wonder through messages with audio and images. Several tasks encouraged them to play, build, and experiment. Children's immediate adults were guided to encourage children to try despite possible failures. The children learned to name things and learn the Finnish language, which could be a new thinking tool for them. They also learned to compare and structure things. Opportunities were given for wondering and making new insights.

Learning is a collaborative effort. Achieving this at a Distance school was challenging due to the limitations posed by the learning environment. In the learning tasks, learners were encouraged to cooperate with each other within the possibilities of the learning environment.

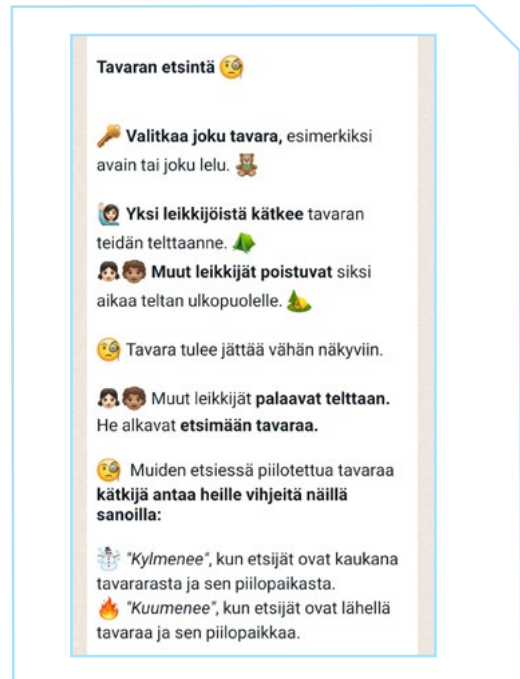


Figure 32. Tasks and games developed children's thinking skills.

8.1.2 Cultural competence, interaction, and expression

The target group of the Distance school project was multicultural. They were introduced to Finnish culture and traditions. The operation of the Distance school project was based on confidentiality and respect for each other. At the same time, the children's own views were listened to and respected in the assignments. The activities were always based on interactivity and respect for others, as well as listening. Learners were encouraged to interact and develop self-expression skills. The development of their cultural identity was supported by various tasks.

8.1.3 Self-care and everyday skills

The challenging living conditions of early childhood children did not support the advancement of everyday skills. Through the Finnish language tasks of mobile distance

learning, children also learn everyday skills. The main themes in the mobile education of early childhood children were everyday activities such as morning or evening activities, dressing according to the weather and the seasons.

The children also received information and pictures about the daily life of the kindergarten, children's games in Finland and activities in playgrounds. Children also learned emotional skills by practising naming emotions and expressing them. Underlying these learning tasks was the goal of supporting children to repatriate to their new home country.



Figure 33. Tasks guided everyday activities and expression of emotions.

8.1.4 Multiliteracy, communication and technological skills

The Distance school was implemented via a mobile device and thus the children learned to read emojis, pictures, text and listen to voice messages. They also learn to send voice messages to teachers. In this way, their multilingual skills and information and communication technology skills developed. The children were given a variety of stories, fairy tales and poems to listen to. Comprehension of the text was facilitated by audio files, images, and emojis. Playing strengthened multitasking skills, for example, Kim's game, which develops visual memory. Linguistic challenges made it difficult to interpret or evaluate images or stories more accurately.

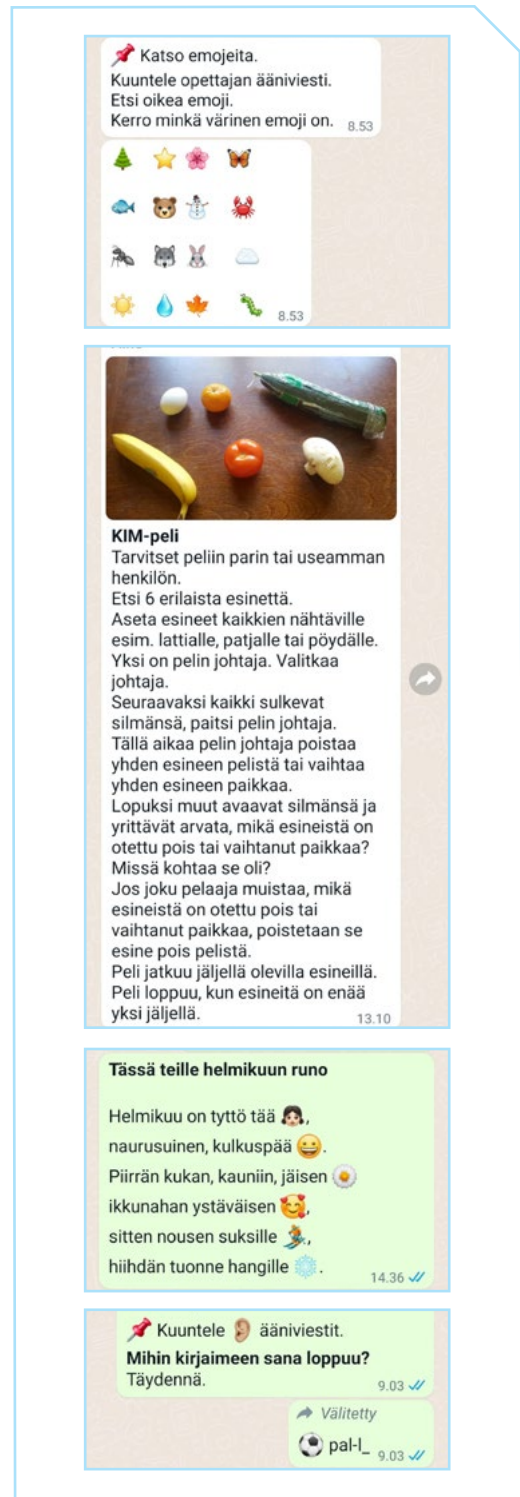


Figure 34. Assignments developed multitasking and technological competence.

8.1.5 Participation and influence

Supporting the inclusion of early childhood children in mobile distance education was challenging, but voice messaging enabled mutual interaction. Indeed, the children's immediate adults could record the children's speech to the teachers and thus bring out the children's individual thoughts.

8.2 Primary and secondary school learners

The transversal competences of primary and secondary school learners were promoted by integrating these objectives into the tasks of the subjects in accordance with the National Core Curriculum for Basic Education.

8.2.1 Thinking and learning to learn

The development of learners' thinking skills was promoted by encouraging them to make observations about pictures, news, stories, or their environment, as well as to reflect and make comparisons. Implementing exploratory learning was challenging due to various constraints such as learners' living environment, the level of linguistic and academic skills, technological opportunities, and distance learning. Similarly, various sources could not be utilised. All the information either came directly from the teachers or through the learners' own research and observation, e.g., by interviewing their immediate adults.

Learners were encouraged to be curious and ask questions. In addition, they were sent problem-solving assignments, especially in mathematics. Verbal tasks require reasoning ability. The joy of learning was maintained by including activating tasks. This also fostered creativity and developed insight. The development of learners' learning skills was assessed weekly by asking for feedback on the complexity and suitability of the tasks. Each

learner was given tasks corresponding to their own skill level, thus maintaining the motivation to learn. The broader goal of the Distance school was to build a foundation for the continuation of learning in Finland, as well as for motivation of lifelong learning.

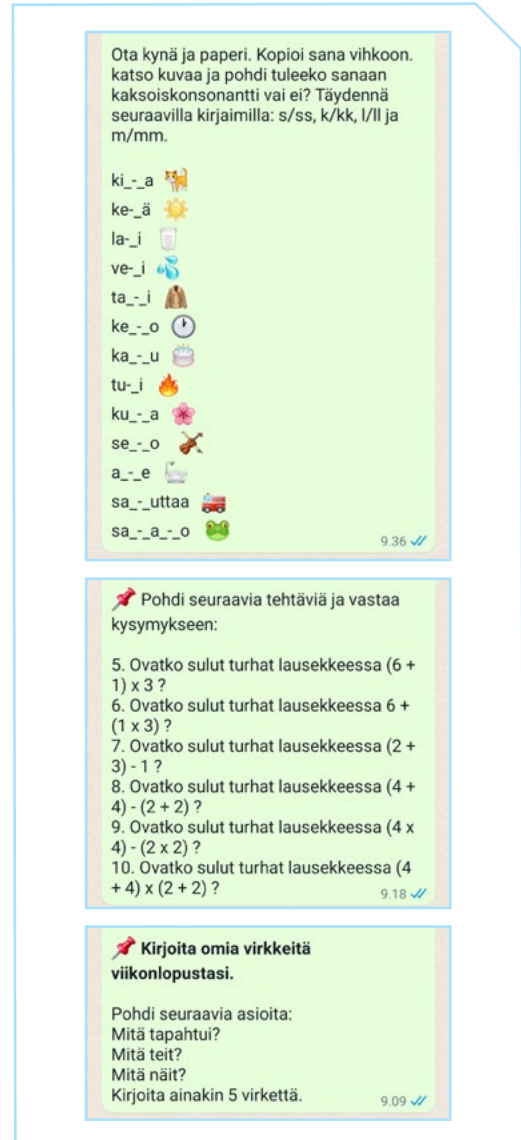
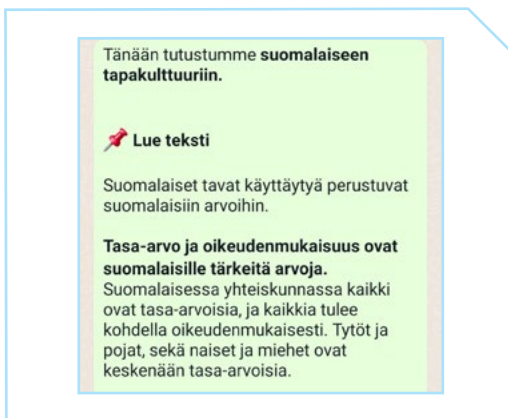


Figure 35. Assignments supported thinking skills and learning to learn.


8.2.2 Cultural competence, interaction, and expression

The awareness of Distance school learners about Finnish culture was promoted. They got to know Finnish culture through various holidays, such as Midsummer, Independence Day, Runeberg Day, Kalevala Day. In addition, they received information about Finland's UNESCO World Heritage Sites and Finnish history. Similarly, the development of their own multicultural identity was supported by various tasks. They were instructed to see their own multicultural background as a resource and strength. Moreover, emojis and characters that ethnically and culturally corresponded to them were used in the assignments. Learners were encouraged to consider their own relationship with Finland.

Learners were instructed according to their age level to express and present their own opinions and ideas. They studied Finnish and English, and learned to use both mathematical symbols and visual expression, e.g., with the help of emojis. Because of the challenging learning environment of Distance school learners, other expressions such as Visual Arts, Drama, and Music were sadly left out of the assignments.

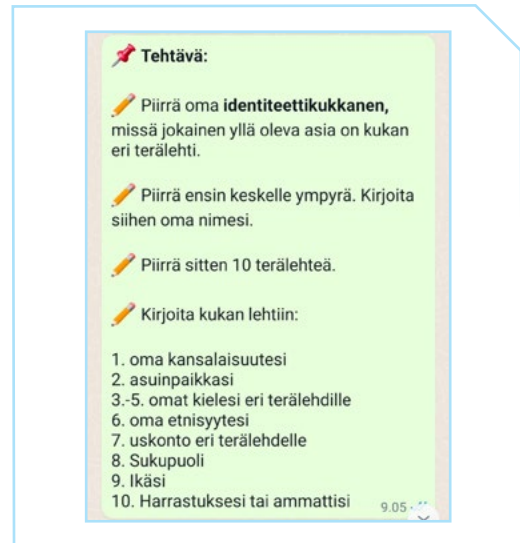



Tänään tutustumme suomalaisen tapakulttuuriin.


 **Lue teksti**


Suomalaiset tavat käyttäytyä perustuvat suomalaisiin arvoihin.


Tasa-arvo ja oikeudenmukaisuus ovat suomalaisille tärkeitä arvoja. Suomalaisessa yhteiskunnassa kaikki ovat tasa-arvoisia, ja kaikkia tulee kohdella oikeudenmukaisesti. Tytöt ja pojat, sekä naiset ja miehet ovat keskenään tasa-arvoisia.




 **Tehtävä:**

 Piirrä oma **identiteetikukkanen**, missä jokainen yllä oleva asia on kukan eri terälehti.

 Piirrä ensin keskelle ympyrä. Kirjoita siihen oma nimesi.

 Piirrä sitten 10 terälehteä.

 Kirjoita kukan lehtiin:

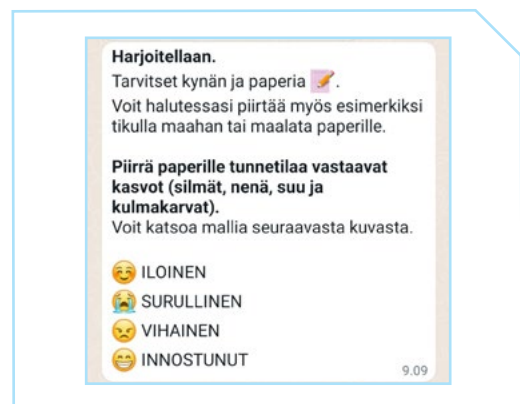
1. oma kansalaisuutesi
2. asuinpaikkasi
- 3.-5. omat kielesi eri terälehdille
6. oma etnisyytesi
7. uskonto eri terälehdelle
8. Sukupuoli
9. Ikäsi
10. Harrastuksesi tai ammattisi

9.05


Figure 36. Tasks supported the development, interaction, and expression of cultural identity.

8.2.3 Self-care and everyday skills





Distance school learners were instructed to practice everyday skills such as how to dress according to different seasons or how to interpret for example the school timetable. The older learners also wrote about their own daily lives. In addition, the learners reflected on their own feelings. The tasks of both mathematics and the Finnish language included insights into how to act as a consumer.



Harjoitellaan.

Tarvitset kynän ja paperia  .
Voit halutessasi piirtää myös esimerkiksi tikulla maahan tai maalata paperille.

Piirrä paperille tunnetilaa vastaavat kasvat (silmit, nenä, suu ja kulmakarvat).
Voit katsoa mallia seuraavasta kuvasta.

 ILOINEN
 SURULLINEN
 VIHAINEN
 INNOSTUNUT

9.09

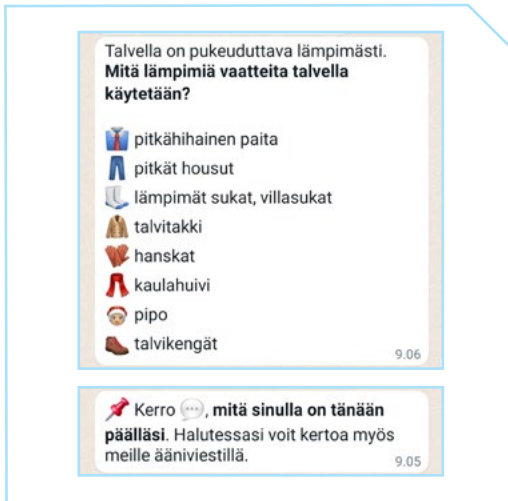


Figure 37. Tasks developed everyday skills and self-care.

8.2.4 Multiliteracy

The Distance school utilised such verbal, pictorial, auditory and numerical material. Learners became acquainted with a variety of texts: stories, news, information texts, cartoons, and poems. In addition, they listened to voice messages and examined images, such as maps, diagrams, and photographs, as well as interpretation of emojis. This is how they learn to understand different forms of communication. Learners were given the opportunity to ask questions, wonder, and realise. They listened and produced the stories themselves. Learners' basic reading and writing skills developed and became smoother.

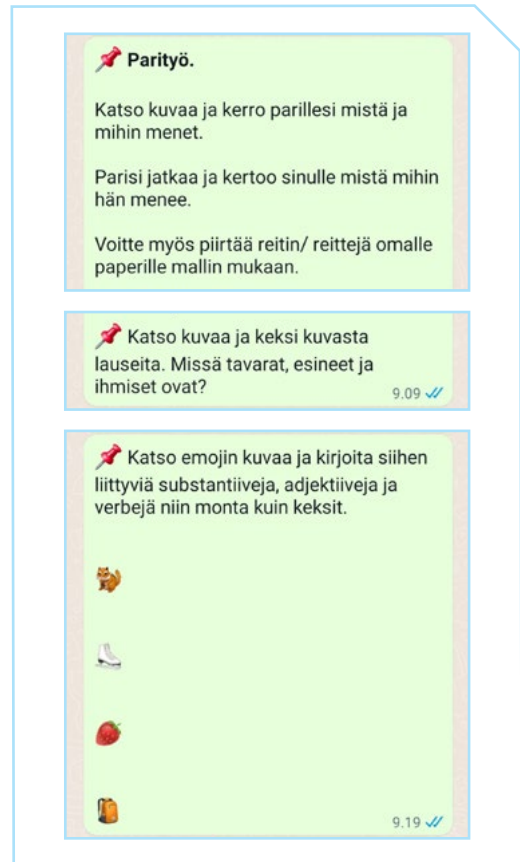
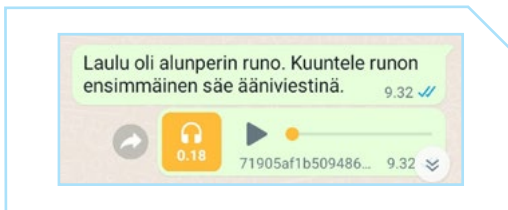


Figure 38. Assignments developed multiliteracy.

8.2.5 Information and communication technology skills

Mobile distance learning was implemented in an instant messaging application and thus learners have also learned about the versatile use of WhatsApp by utilising the sending and receiving of emojis, voice messages, text messages and images. Due to technological limitations, not all its features could be exploited. These include sending documents and internet links or making video calls. At times, downloading photos was slow in mobile Distance school.

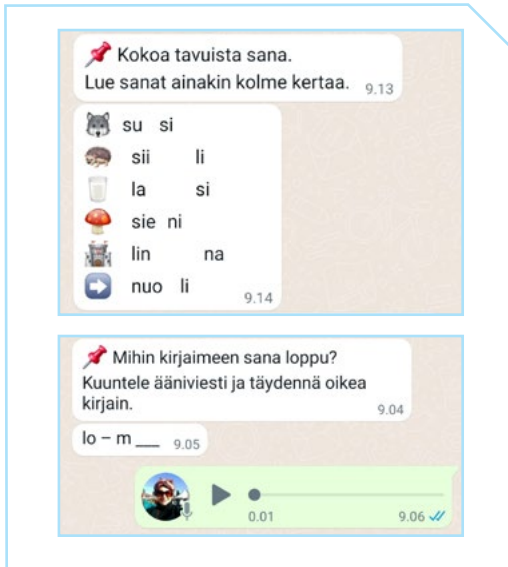


Figure 39. The tasks promoted information and communication technology skills.

8.2.6 Working life skills and entrepreneurship

Distance school learners heard about different professions in stories and poems. In geography, older learners became acquainted with the industries of different countries. In addition, learners made sense of professions e.g., through emojis.

Participating in a Distance school requires students to have perseverance, which is part of entrepreneurship. Completing one's own assignments requires students to have special focus, perseverance, responsibility, and creativity in challenging circumstances.

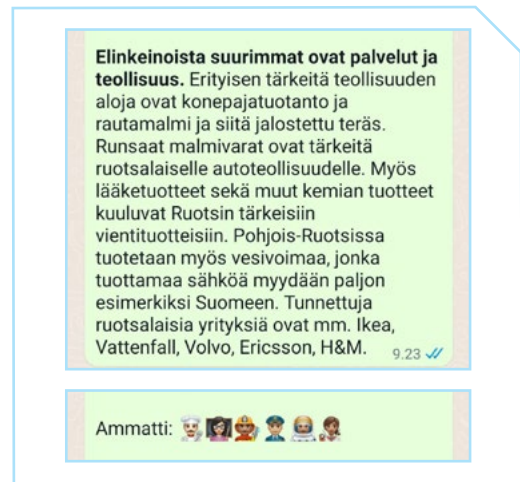


Figure 40. Tasks supported working life skills and entrepreneurship.

8.2.7 Participating, influencing, and building a sustainable future

Learners participated in the preparation of the content and schedule of teaching, as well as in the assessment of learning. Older learners were given the task of practising opinion writing. The principles of exploratory learning support inclusive skills. In terms of otherwise learning practices, then the opportunities for influence developed were very limited. Teachers were also not present to support growth in decision-making or conflict resolution. These are challenging to do remotely.

Learners received information about nature and climate change, as well as the state of the Baltic Sea in environmental science and biology, as well as geography. Older learners also became acquainted with the U.S. presidential election and democracy at the time.

Miten tehtävä sujui?

👍 Tehtävä oli sopivan haastava. Osaan jo melko hyvin laskea yhteen- ja vähennyslaskuja, joissa on kymmenylitys.

👎 Tehtävä oli liian haastava. Haluaisin vielä harjoitella lisää yhteen- ja vähennyslaskuja, joissa on kymmenylitys. 9.07

ITSEARVIOINTI: 😊 *Miten kertotaulut sujuvat?*

👍 osaan nämä jo erittäin hyvin

👎 en muista kaikkia kertotauluja vielä, tarvitsen lisää harjoittelua 9.30 ✓

📌 Ota kantaa.

Kirjoita lyhyt mielipidekirjoitus, jonka voit julkaista esimerkiksi jollakin keskusteluforumilla. Aiheen voit valita itse. Voit myös halutessasi kirjoittaa vaihtoehtoisesti seuraavista aiheista:

Erilaisuus on rikkautta!
 Kiusaaminen on väärin!
 Roskaaminen kuriin!
 Ihmisoikeudet

9.13 ✓

Figure 41. Tasks were participatory and developed the ability to influence.

9 Evaluation and feedback

The evaluation of the competences of learners is more challenging in distance education than in actual classroom. Teachers cannot see the execution of tasks by the learners, unless the answers are sent as photographs or voice messages to the teachers. In order to develop the teaching and modify it according to the level and individual needs, feedback from learners was requested continuously every week.

9.1 Learner Assessment

In mobile distance learning, assessment is always primarily for the learner. It should help the learner understand their own learning. Evaluation must be fair, constructive, positive, and encouraging (Finnish National Agency for Education, 2014). The assessment can be both indicative and include suggestions on how to proceed or correct performance. It should always be individualised, diverse, and timely (Atjonen et al. 2019). Assessment of learners living in fragile areas should also encourage learners to believe in their own abilities to learn and develop as a unique individual.

The evaluation is an ongoing process. Learners' skill level diagnostics are done all the time. Based on the tasks returned by the learners, the teacher gets a better idea of what the learner already knows and whether the tasks are too challenging. Through assessment, the teacher designs and produces individual learning materials for learners. Learning materials can be accompanied by assignments where the learner can also practice self-assessment skills.



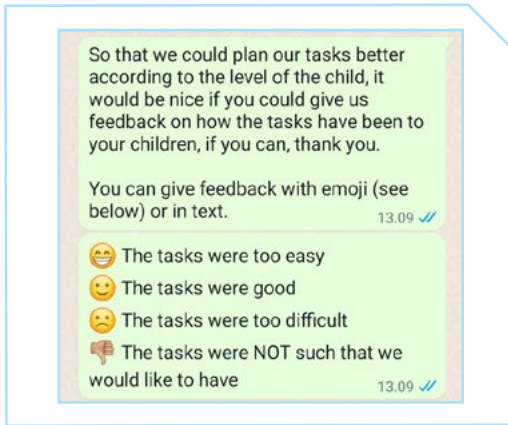


Figure 42. Learners practised self-assessment skills.

Feedback evaluates the performance of the learner. The teacher can comment on the learner's return to the task orally, praising and encouraging success, or drawing the learner's attention to the challenges and problems of the task. Although the teacher is not present in mobile distance learning in the actual learning situation, he or she can assess the learner's learning through text or voice messaging or from a photograph of the task. In addition, feedback guides and encourages the learner to develop new skills and leads to new learning materials or ways of working. The teacher can provide solutions to the tasks as well as direct the learning and suggest what the learner should do next.

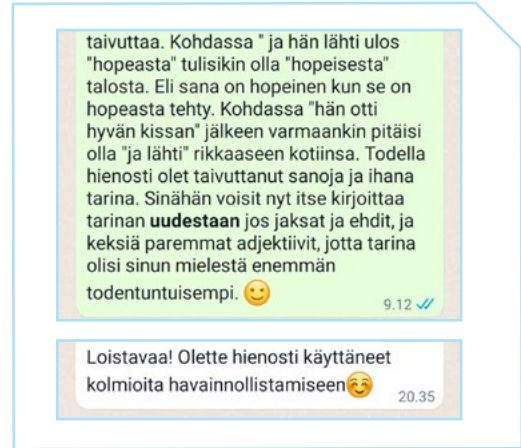
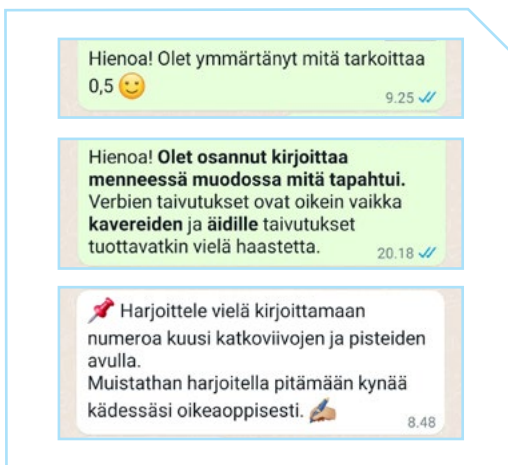


Figure 43. Teacher feedback and guidance.

9.2 Feedback on mobile distance learning

Continuous assessment of assignments, practices, learning materials, and communication is important to develop and tailor teaching to better meet the needs of learners and their immediate adults. Feedback on the success of teaching and assignments should be sought so that it is easy to provide and does not require much effort. In practice, this means that a feedback request can be answered by voice and text messages or only by emojis. It is important for assessment that there is a secure and confidential interaction between teachers and the learners' immediate adult.

At the end of each week, teachers sent easily accessible, standard feedback requests to learners and their immediate adults asking questions about, for example, the workload and challenge of the assignments. A few times a year, more extensive feedback was collected on mobile teaching schedules, subject content, and the learning materials. Teachers encouraged learners and their immediate adults to share learning challenges and experiences of success.



Figure 44. In the Distance school project, teachers actively gathered feedback in different ways from students and adults.

Furthermore, the learners provided feedback on the assignments. This helped in planning the following tasks. The feedback helped teachers understand if a task needed to be practised more than originally planned. In this case, the evaluation and development of teaching is an interactive process. This also supports learners' motivation to learn.

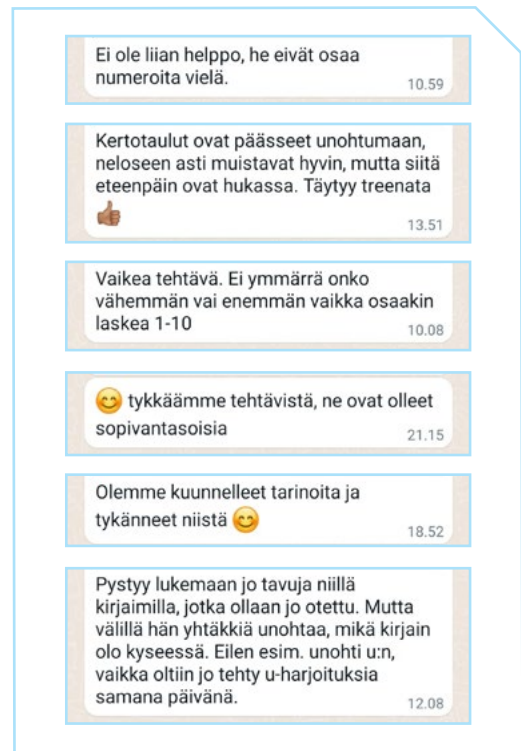


Figure 45. Spontaneous feedback on assignments from learners and caregivers.

10 The importance and effectiveness of mobile distance education

The importance and effectiveness of mobile distance education can be looked at on different levels. What is the meaning of it to the learner or to his or her caregiver? In addition the effectiveness of mobile education on societal level can be pondered.

10.1 The importance of education for the student

Mobile distance learning offers learners meaningful activities appropriate to their level of knowledge and skills, as well as the joy of learning. Simultaneously, teaching, and motivational messages from the day at the same time provide routine and stimuli for the days of learners living in fragile areas. In addition, mobile distance education provided children and adolescents with information about current world affairs. They were also reciprocally consulted, which fostered a sense

of inclusion. Mobile distance learning promoted both integration into a new country and lifelong learning for learners.

10.1.1 The importance of education in long term

Mobile distance learning offers children living in fragile areas a low threshold for learning. It enables individualised instruction for children and adolescents whose school path has been broken and whose basic skills are poor.

Individually designed and implemented mobile distance learning has developed the basic academic skills of the learners involved in the Distance school project. According to learners and their immediate adults who participated in the Distance school, the learners' skills have developed in all subjects and more. The most significant learning experiences shared with teachers have been learning to read and write, achieving fluency in the mother tongue, and consolidating basic numeracy skills. Positive

learning experiences increase the motivation and commitment of learners and their immediate adults to study further.

Mobile distance learning provides an opportunity for children and adolescents living in fragile areas to develop in the management of basic academic skills. Literacy and maths skills make it easier to adapt and succeed in school when proper schooling is possible again. The management of basic skills is also important from the point of view of vocational training and employment. Good basic skills reduce the risk of exclusion.

In addition to teaching skills and knowledge, mobile distance learning aims to help learners build positive visions for the future. Learners gain experience of active agency and identify their own strengths. They learn how the choices and decisions they make will affect to construct a reality that is full of possibilities. The provision of mobile distance learning can therefore be seen as one of the most important means of empowerment to promote the development of knowledge, skills and self-confidence of children and adolescents living in fragile areas.

10.1.2 Education as part of integration

The mobile distance education for the children in Al-Hol prison camp was part of the integration efforts of the children back to Finland. Integration is the process of settling into a new country and culture. It is an interactive process, whereby the migrant is offered information and skills in order to adjust to the new society. Learning the language plays an important role in integration and in understanding the new culture. In the mobile Distance education project the education emphasised learning the Finnish language and getting familiar to it. Many of the children were born in Syria and had not been accustomed to hearing Finnish. The mobile education also included content on Finnish culture, history and customs. The intention was to prepare the repatriation of the children to Finland. The children were also told for example about the daily routines of Finnish children in

day care, school and during their freetime.

Mobile distance education can be utilised in integration efforts of children from different refugee camps when moving to a new country. If the destination country is already known, then mobile education can offer tasks on learning the new language and culture of the destination. In this way the children's orientation to the new country can be eased. In addition the children can also develop other necessary skills prior to moving to a new country.

10.1.3 Education as the prevention of violent radicalisation

Violent radicalisation and extremism can best be combated through preventative work. Prevention is always more effective than remedying consequences (Ministry of the Interior, 2020). All activities that support schooling and learning prevent radicalisation. Each year of education is seen to reduce the risk of conflict by about 20% (Global partnership, 2021). Peace education work, the practising of emotional skills, and the prevention of bullying are examples of education to prevent radicalisation. Preventing violent radicalisation increases security as well as the sense of security, and additionally reduces confrontation between different sections of the population and the polarisation in the society, which are the goals of violent extremist groups.

Dialogue is important in preventing violent radicalisation. In mobile distance learning, the teacher maintains dialogue by being present, discussing and listening to the needs and concerns of learners and their immediate adults, and providing solutions to them.

10.2 The importance of education for the immediate adults

Mobile distance learning also offers meaningful activities for immediate adults of learners, as it assists to create everyday routines.

A functional interaction between the learner and immediate adults is essential for the success of mobile distance learning. The interaction can develop alongside the learning - the adult and the learner both learn something new from each other as they work together to achieve a common goal. Their interaction can thus deepen.

For the immediate adult, mobile distance learning can be a meaningful and empowering experience. He/she is a significant and valuable actor without whom the learner cannot participate in teaching. The role of the immediate adult can be challenging, allowing him or her to find new strengths and qualities within oneself. He/she is also offered the opportunity to learn new skills or to go over what he/she has learned before.

Participation in mobile distance learning and the experiences of success it provides can also direct the immediate adult's thoughts towards the future. Following one's own child's learning and the development in one's own role may provide positive experiences of success. At its best, mobile distance learning creates hope for a positive future with many opportunities for both the immediate adult and their children or adolescents.

10.3 The social significance of mobile education

Fragile areas, global areas of conflict and extreme violence, are home to around 1.8 billion people (OECD, 2020). In addition, millions of people are affected every year by natural conditions such as problems caused by climate change, storms, earthquakes, or volcanic eruptions. In 2018, more than 250 million children and young people were out of education (UNESCO, 2019). The corona pandemic that began in 2019 also caused the closure of schools for hundreds of millions of children around the world. There may be a great need for mobile distance learning both in fragile areas and in sudden social crises. Mobile distance learning is efficient, inexpensive, and fast

to organise, and easy for learners to use (Alalwan, Alzahrani, & Sarrab, 2013).

In fragile areas, education and interventions are often provided by various international or local organisations that could take advantage of mobile distance learning. Training in emergencies or crisis areas is often policy driven. An uneducated population can have a social impact on keeping an area unstable (Burde, 2017). Providing education in these vulnerable areas is extremely important as it helps to rebalance the region, it supports social construction, and promotes global security. Decreased or unjust access to education causes or contributes to conflicts. Mobile distance learning could increase educational opportunities in these circumstances.

Education can support the stabilisation and reconstruction of states or regions. In addition, education increases young people's opportunities and future plans, prevents radicalisation, and supports the legitimacy of states from the perspective of citizens. Mobile distance learning has huge potential to increase the accessibility of education for children and adolescents living in fragile areas.

When there are no educational opportunities, the likelihood of children and adolescents to join armed groups increases. Mobile distance learning can provide them with alternative paths and hope for the future. It is a relatively inexpensive, time and place independent way to organise education in challenging and fragile areas. It allows for a low threshold for interaction with teachers and other learners. Mobile distance learning may even be the only opportunity to teach basic skills (reading, writing and maths skills) to children and young people in these areas. In addition, functional, exploratory teaching can promote learners' agency and self-esteem.

The international distance learning provided by the The Finnish Foundation for Life-Long Learning is a pioneer internationally; similar work is not known to have been carried out before. Cooperation with other actors would provide new perspectives and opportunities for the development of mobile distance learning.

11 The future of mobile distance education

The number of mobile phone devices around the world is immense; almost everyone has one. The mobile phone device suits well for organisation of education and learning. The messages to students are sent and received fast and can be provided either as a group or as a personal message. The mobile Distance education project has proven that excellent learning outcomes can be reached by experimenting and piloting. Mobile distance education can be used and tested by different actors and it can be developed as a methodology for distance, hybrid or contact teaching.

11.1 Development of mobile distance learning in the Distance school project

The development of mobile distance learning for learners living in fragile areas has taken place in the Distance school project through experimentation, challenges, and practical experiences. There was no report of the corresponding teaching at the beginning of the project.

International aid organisations working with children and adolescents living in fragile areas have curricula as contact teaching for teacher-led early childhood education, pre-primary, and primary education. Their curricula emphasise the practice of literacy and numeracy through play and joint activities. They accurately model the speech and activities of the teacher and the children and young people. They have detailed Lesson Plans and instructions for more than 150 games and activities that promote children's empowerment (Save the Children, s.a.).

Mobile distance learning for children and adolescents living in fragile areas would benefit from the development of its own curriculum. In the Distance school project, learning materials were developed and the curriculum was applied while teaching was implemented. It would be important to consider in more detail how the Finnish curriculum could be applied in conditions where there are no textbooks or other study materials, and the Internet cannot be used as a source of information.

There is little learning material designed or

suitable for mobile distance learning. When it is difficult or impossible to transfer images, videos and files, the use of learning materials is very limited. In the Distance school project, teachers designed and produced the learning material themselves, utilising and applying existing learning material.

The mobile distance learning curriculum should also record goals for the development of learner-teacher interaction, as activities are based on trust and common understanding. Voicemail plays an extremely important role, as does video connectivity if it can be used. The curriculum should also include the goals and a description of the activities of the immediate adult and teacher cooperation.

Photographs were generally not available in the Distance school project. Due to a weak internet connection, they loaded slowly or not at all. Emojis worked well, but their range was not enough for teaching needs. In response to the problem, the project developed lightweight, fast-loading sticker images (see Appendix 1). They can be used in instant messaging applications to supplement learning materials and to support written or oral communication with learners and adults. The sticker collection contains symbols that describe:

- 1) the learner's physical environment
- 2) the interaction between the learner, the immediate adult and the teacher
- 3) subjects and their contents.

In addition, the diagnostic, formative, and summative assessment of the learner in mobile distance learning would need refinement and development. Assessment and feedback play an important role, especially when there is a delay in a learner's cognitive and linguistic skills.

11.2 Future opportunities for mobile distance learning

Mobile distance education is suitable for organising education for people living in exceptional circumstances and in fragile areas, from early childhood to adult learners. Mobile education can

be implemented quickly, because today most of the world's population has an opportunity to use a mobile device, such as a smartphone. Mobile distance learning is not technologically required in principle other than a telephone and a telephone subscription. In addition, the provision of mobile distance learning is relatively inexpensive. Communication can be fast and spontaneous, and it is possible 24/7. Mobile distance learning can also be informal. Teaching via a mobile device is an activity independent of time and place; the learner can study at a time that suits him or her, and the learning material is always at hand on the mobile device. Teacher guidance and support from other learners is achievable at a low threshold and quickly.

Mobile distance learning can also be arranged in addition to face-to-face or hybrid teaching. It offers new opportunities, for example, to organise support for individual learning and to increase interaction and accessibility. Mobile distance learning also feels more personal when the instruction comes directly to a personal phone that is always on hand and available. Furthermore, the learning tasks can be personalised with voice messages, pictures, and emoji. If mobile distance learning is provided for early childhood education, it must be remembered that the participation of young children in mobile distance learning always requires the presence of an immediate adult.

Mobile distance learning has certainly come to stay and needs to be developed in networks of different actors. Curriculum development and the production of learning materials could facilitate its implementation. The production of learning material should consider the possible weak internet connection, especially when operating in fragile areas. In the development of learning materials, the possibilities that can be utilised offline and the use of learning games could be explored. In the future, it is important for the development of mobile distance education to gather and share good practices of different actors, as well as to involve learners in the development of mobile distance education.

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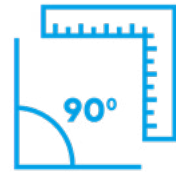
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ATTACHMENT



ILONA TAIMELA, TEACHER "AINO"
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Concept Model for Distance Mobile Education

A CHILD'S RIGHT TO LEARN IN FRAGILE AREAS

This report presents a model of distance education on mobile devices that was developed within a project at The Finnish Lifelong Learning Foundation. The model was applied when teaching Finnish children in the Al-Hol refugee camp in Syria 2020–2021. The conditions at the camp were very challenging, and the children did not have an option to attend a school.

The report encompasses the pedagogical principles and challenges of distance education within the project and gives details on how the teaching was arranged on a practical level. Finally, the role and impact of mobile e-learning and its applicability in the future will be evaluated.

The process started in March 2020 on the initiative of Finnish authorities with the aim of safeguarding the basic and human rights of the children. The purpose was to introduce some routines as well as to bring stimulation and joy of learning to the children's day-to-day life. Additionally, it was felt that this would support and prepare them for the forthcoming repatriation from the life in the middle of crises. The project was organised by The Finnish Lifelong Learning Foundation's Kulkuri School of Distance Education on the initiative of the Finnish Ministry for Foreign Affairs and funded by the Ministry of Education and Culture.