The LEGO Foundation

Distance Learning

A guide to playful distance learning – online and offline

Introducing Distance Learning

The COVID-19 pandemic has disrupted the routines of children, their families and teachers across the world. In any crisis that demands the physical closure of schools, distance learning is the safest and most feasible solution, helping children to continue learning away from the classroom.

Distance learning means any learning that happens at a physical distance. Distance from what? Not just from teachers. With school closures during the COVID pandemic, children have found themselves distant from things like:

→ The safe spaces of school buildings and playgrounds

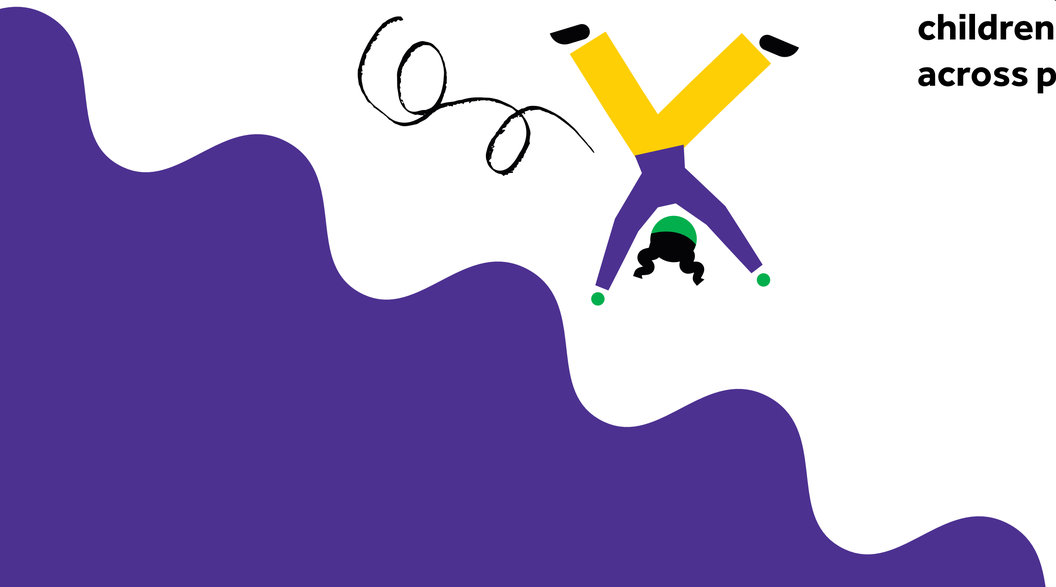
→ School meals programmes

→ Stimulating environments, with books and technology

→ Interaction and play with their peers, and other social and emotional support

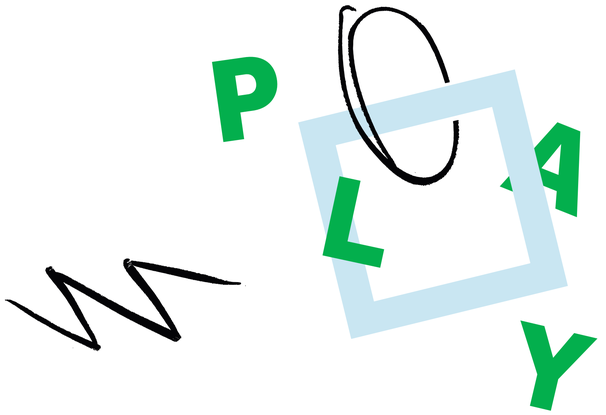
→ Creative activities such as music, dance, theatre and games.

At the LEGO Foundation, we believe that **children learn best through play**. We therefore think of distance learning as much more than just the packaging of learning content for remote delivery.



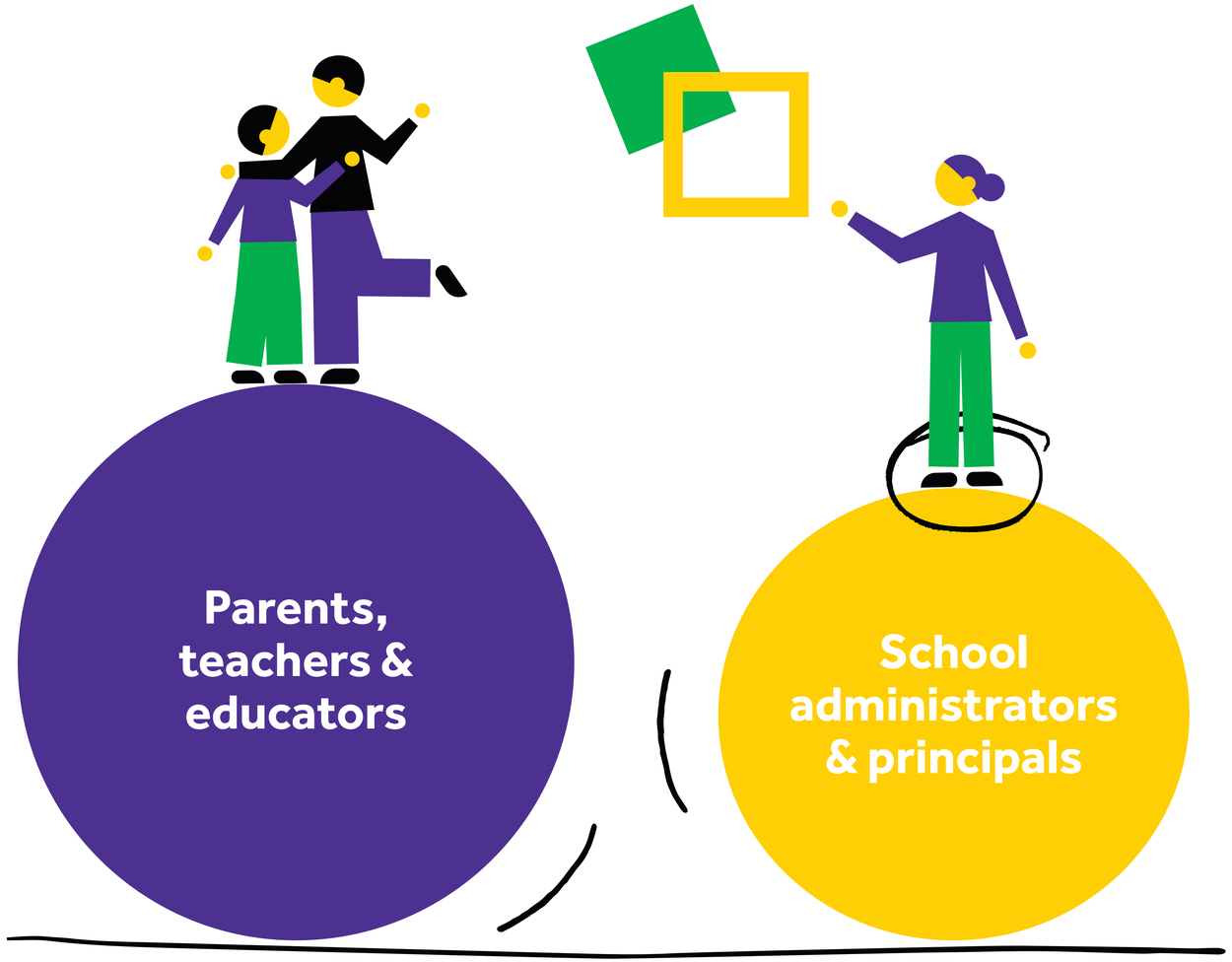
Distance learning should be about having a flexible approach, aimed at children's overall development. It needs to be sensitive to the great diversity in children's circumstances, and especially the amount of access that children have to learning resources.

There are many forms of distance learning: they use different kinds of technology, to different degrees. Used well, they all have the potential to **connect children to teachers, and to each other, across physical distance**.



The LEGO Foundation Distance Learning Guide offers ideas, evidence and links to useful resources and learning communities, to help you **make children's distance learning more playful, engaging, joyful and effective**, whether children are learning online or offline.

Many learnings from the pandemic can also be applied in other crises.



Who is this guide for?

The LEGO Foundation has put together this practical guide for everyone who is responsible for shaping children's learning in the context of school closures: especially teachers and other hands-on educators, and education administrators and decision-makers.

What this guide contains?

A

We suggest four things to consider with distance learning, based on what works in practice.

B

We highlight various forms of distance learning – three online and five offline – each with their advantages and challenges.

C

We look at common challenges in distance learning around the world, and make recommendations to help you set up or develop a distance learning programme.

Things to consider with distance learning

Things to consider with distance learning

Drawing on evidence of distance learning from around the world, we have identified some important things to consider, to help make learning **inclusive, engaging, focused on and meaningful for children, joyful and sociable**.

01

Nurturing a community of learners

The shift to learning remotely starts with creating a **virtual home for your learning community**, and establishing new routines. As you do this, it is important to remember that not every family has the same access to technology or digital skills.

The following stories show how some teachers have worked to build a sense of community while in lockdown.

CASE STUDIES

Nurturing a community of learners

NAME
Sarah Fraser

LOCATION
Scotland

Hot Chocolate Fridays

Sarah is the Headteacher of Newtonmore Primary School in Scotland. Since the school closed down in March 2020, Sarah and her staff team have worked hard to adapt and support their pupils' learning and well-being. One thing they did was host an informal online catch-up with their classes every Friday. Children join the session with a hot chocolate or their favourite drink. Some weeks, children get to wear their brightest jumper or a hat. This is an opportunity to end the school week by coming together and having some fun, which both parents and children appreciate.

NAME
Jessica Dreyer

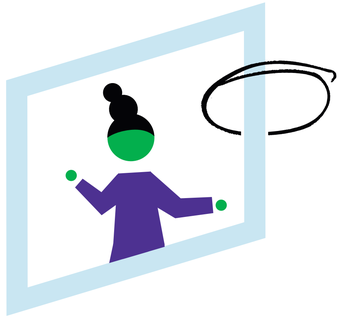
LOCATION
Denmark

Friendship Groups

Jessica knows that it can be difficult for the children in her class to meet each other in big groups online. She therefore created a Doodle poll where the children can sign up to meet their friends in smaller groups of four. After welcoming the children, Jessica steps back and let them lead the gatherings. They usually show each other toys and sometimes get quite silly.

CASE STUDIES

Nurturing a community of learners



NAME
Asmaa Khan

LOCATION
South Africa

Virtual Pyjama Parties

Asmaa video calls her students daily in order to nurture her online learners. This can be challenging with small children as they are inexperienced with video calls and feel shy. But when some of her students mentioned that they miss their friends, Asmaa set up a pyjama party over Zoom. Some children remained shy, but others started chatting to each other. Eventually she muted everyone, and allowed each child to show their favourite toy, speak about it, and share a short message with their friends.

NAME
Kim Ripley

LOCATION
United States

Singing Routines

Every Friday since the Hampshire College Early Learning Center in Massachusetts closed down, Kim and her colleagues have been holding a singalong on Zoom. But how are the teachers managing this on an online format? At the weekly online staff meeting the teachers discuss what is working with their Zoom singing and what to change, which songs seem particularly popular and how to handle tricky issues such as call and response singing. They always start with the same introductory song, and because of the slight time delay on Zoom, they have learned to mute everyone (except the song leader) most of the time.

02

Keeping learners safe online

As children use online platforms for distance learning, away from the classroom and with less adult supervision, there are important things to bear in mind about their safety: their privacy for example, or their being exposed to inappropriate material.

It is important to help **equip children with the skills they need**, to know what information they can trust, to communicate with each other respectfully, and to stay safe online.

Where to get advice

Global Kids Online. A toolkit from UNICEF, the London School of Economics and the EU Kids Online network.

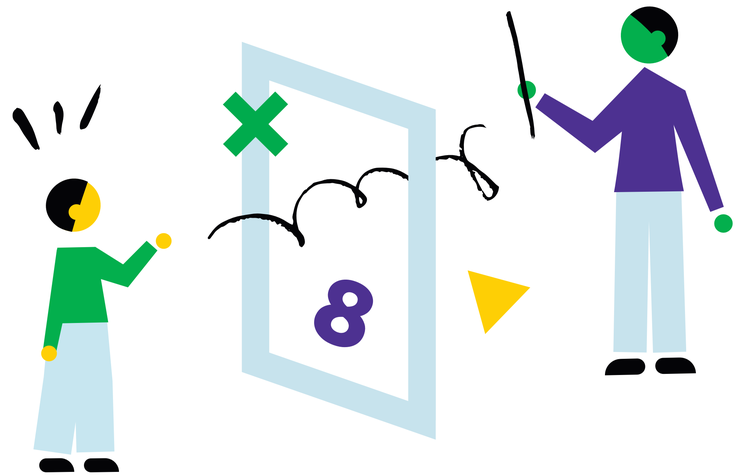
Common Sense Media. Practical resources for parents and educators, to help children stay safe on the Web.

03

Making learning flexible

Sticking to routines can be difficult for families in any crisis, and differences in family situations and access to distance learning sessions require a flexible approach to teaching.

On the following page two teachers describe how they have found inspiring ways to support their learners to connect and learn flexibly.



CASE STUDIES

Making learning flexible

NAME
Jessica Montgomery

LOCATION
South Africa / China

Be flexible with people, objects & spaces

Jessica is an experienced online educator, living in South Africa but teaching children in China, and she has a wealth of ideas when it comes to flexible online teaching. One thing to remember is that every time the camera turns on a remote communication platform, you are entering someone's private space and you never know what you will find. There will be times when your students are alone and times when they're sharing the room with family members, times of calm, and times of mess. It makes life easier when one incorporates the learner's environment into the lesson, no matter if it concerns people or objects. Jessica points out that there tends to be a high level of engagement when children get to use personal and meaningful objects as opposed to learning theoretically, and that there are many cases when siblings enter the frame wanting to engage with you and the student. Here, it is always best to include them in the lesson too.

NAME
Idah Khan

LOCATION
Mozambique

Create flexible STEM-like activities

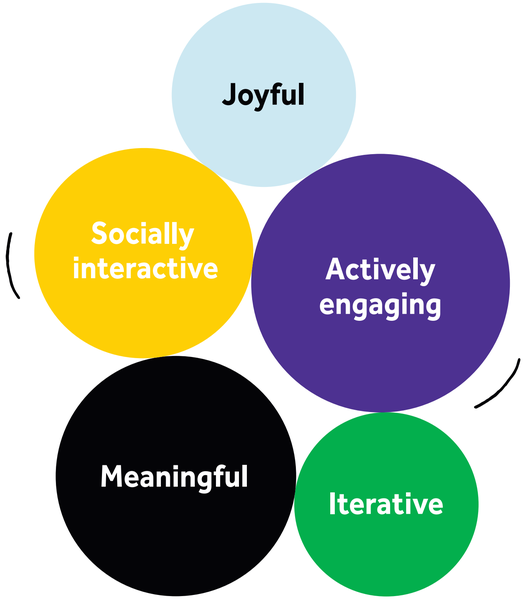
Idah is a teacher coach for the Primary Years Programme at the Aga Khan Academy in Maputo, Mozambique. With the country in lockdown, Idah and her colleagues are striving to be as flexible with the curriculum as possible. Because teaching at a distance is not the same as teaching in person, Idah's school is not ploughing ahead with lessons, teaching something just because they planned it. Instead they offer STEM-like activities where students can respond to a challenge by making a physical object (often in collaboration with family members), getting feedback from teachers and classmates, and then making changes to their creations. While the internet is filled with such ideas, Idah is making sure these activities are adapted to fit the realities in homes where 'taken for granted' resources may not be available. For example, rather than saying 'make a drum from a can' the challenge becomes to 'use something at home to make a rhythm'.

04

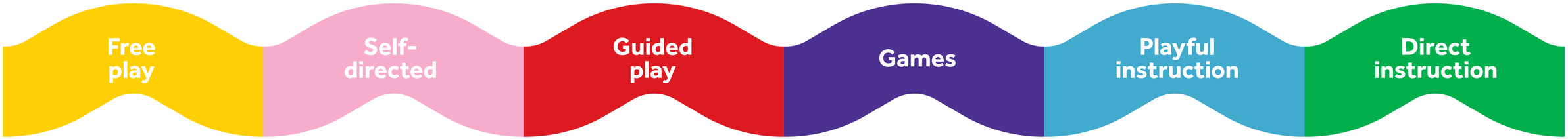
The spectrum of play facilitation

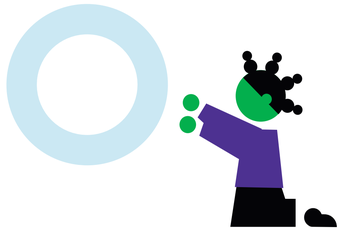
Distance learning can cover the whole spectrum of play, from the freest play children choose to the most adult-directed. In a distance learning environment, activities can take the form of play in the home and online.

By **combining activities from different points on the spectrum**, teachers can vary the amount of guidance and structure, choice and self-direction that children have, to meet children's needs and develop their skills and confidence.



Learning through play happens when the child finds the experience joyful, meaningful, actively engaging, sociable and iterative.





4

Self-directed activities and free play

Children of all ages find self-directed and free play very engaging, and activities at this end of the spectrum may help to reveal skills and interests that teachers were not aware of.
By showing interest in these forms of playful learning, and enabling children to share them, teachers and caregivers can **connect with children's rich personal worlds.**

WHERE TO START?

Create daily space for free play
Encourage and allow for specific times for free play during a day. Consider joining in with the children's offline games, but in order to keep the space for self-directed activities and free play, make sure to do so only on their terms.

Facilitate virtual play dates
Encourage children to play with their peers via video or audio chats (along with their caregivers, as a teacher you still have an important role in this, mediating in any conflicts and helping all children to feel part of the group).

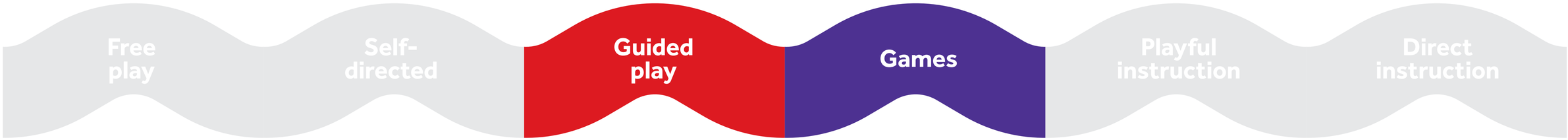
Guided play and games

These kinds of activity involve children being given a clear structure, but within that structure children are able to **make their own choices**. Teachers and caregivers have an important role in choosing activities that children can connect with, that actively engage them, relate to their learning goals, and are joyful and fun.

WHERE TO START?

Set home-specific challenges
No matter if you're teaching maths, science, English, art or something else, try to use what's already in the children's homes when giving them a challenge. You can use cooking as a way of exploring numbers (such as the weights and quantities of ingredients), family photos to copy, or create science experiments using household items.

Get the children to design their own games
This could take the form of an online scavenger hunt designed by the children for their families, or crossword puzzles, comic strips and animations designed by the children to share with peers. A design pack giving more ideas for designing games is available from the Connected Learning Alliance.



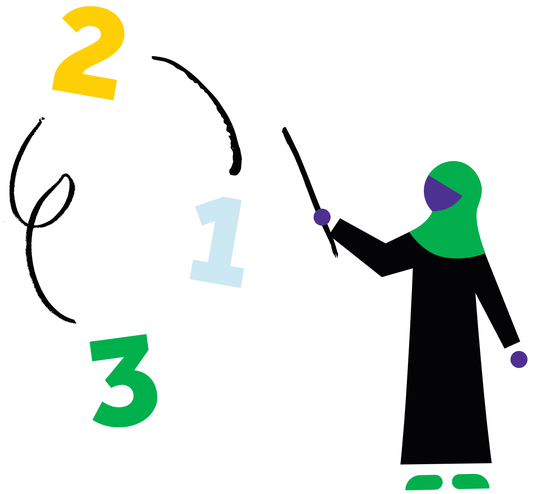
Playful and direct instruction

These forms of learning sit at the more structured end of the spectrum, with teachers and caregivers directing the activities, and learners having less choice over what they do. **Instruction is a good way of introducing subjects, ideas and activities that are new to learners**. It is still important to make activities interactive and engaging.

WHERE TO START?

Use role play in your instructions
One way to make instructions playful is through role play. Consider giving the kids instructions while you're acting out as a relevant character, or get the class to take on different personas before answering your question, so they can see the issue or challenge from new points of view.

Ask open-ended questions
As you explain a subject, ask open-ended questions to invite children's input. You can also encourage them to apply new concepts using concrete examples, while giving supportive feedback. Visit the Education Endowment Foundation for guidance on supportive feedback, and a summary of evidence for this approach.



Guiding Questions

In thinking about how you can support creative learning from a distance, it can be helpful to bear in mind some key questions:

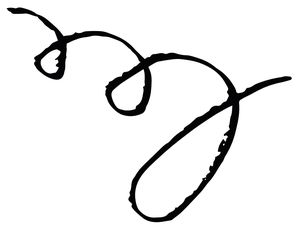
- How will you design experiences that are inclusive of the children's choices (of what to do and how to do it)?
- What guidance and resources will the children need to explore?
- Exploring and creating requires is demanding – how will you make the time and space for it
- What do the children already know and care about, and how could their experiences inspire them?
- How can you design experiences which meet children at their level of skill (including practical and technical skills)?
- Could you invite the children to ask their own questions which spark wonder and de-light, and intrinsically motivate them?
- How will you document and reflect on learning and progress with the children?
- If there is a product or creation, how will you share or use it among the children?
- How can the experience and each child's learning be transferred to other activities?

Different forms of distance learning

Different forms of distance learning

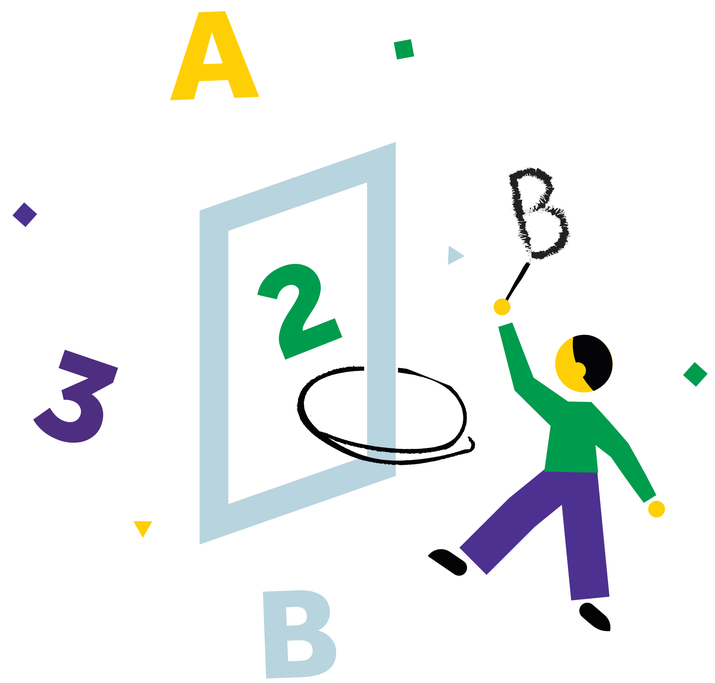
Here we first highlight three popular forms of distance learning, which take place at least partly online: blended learning, personalised learning, and learning through Creative Computing Communities.

We also look at five of the most effective offline channels of distance learning: radio, TV, SMS-based mobile technology, print and self-study materials and offline learning platforms.



1. **Blended Learning**
2. **Personalised learning**
3. **Creative Computing Communities**
4. **Radio**
5. **Television**
6. **SMS-based mobile technology**
7. **Print and self-study materials**
8. **Offline learning platforms**

Blended Learning



Blended learning **combines digital learning and face-to-face instruction**. It can incorporate 'flipped learning', which reverses or 'flips' traditional classroom learning by giving children curated content, for instance through videos, and reserving classroom time for discussion and group work.

On the spectrum of play facilitation, blended learning falls between playful instruction and direct instruction, and has potential for integrating play in distance learning.

ONLINE

Advantages and challenges

Enjoyment

Studies show that as blended learning is collaborative, children enjoy learning more, are more motivated, and have better relations with their teachers.[1]

Freedom

Blended learning gives learners the freedom to navigate and interpret materials for themselves, exploring their own interests and progressing at their own pace.

Skills

Blended learning can help give children real-world research, digital and decision-making skills.

Resources

Blended learning can be demanding in terms of the resources that it involves: these can be expensive.

Demands on teachers

Blended learning can ask a great deal of teachers: creating original content, grappling with technical issues, and switching between different platforms and formats.

Blended Learning
In practice

Jessica knows her learners' interests well, and she uses them to create meaningful lessons. For example, the children love pizza – pretend and real. So when thinking about maths, where a learning goal is familiarity with fractions, Jessica presented a pizza-making activity where the recipe included half and quarter cups of ingredients. She encouraged the children to send in photos of fractional pieces of their finished products, and then to make their own videos illustrating other types of maths concepts.

In a video about subtracting from ten, one child became a magician to make three cups 'disappear', and in illustrating halves, another child took a photo of half a banana and added facial features to the fruit.

From having observed the children play, Jessica and her colleague also knew the children loved the TV show Alphablocks. So they created a scavenger hunt based on the show as another way of facilitating blended learning.

NAME
Jessica Dreyer

POSITION
First grade teacher

LOCATION
International School of Billund (Denmark)

Try it out today

Making a short video
Encourage children to make their own videos. This could be about their everyday life, or you could give them a subject challenge they have to create a video solution for. They will probably also enjoy watching your video, including (or especially) the technical hiccups. If possible, think about adding filters and role play to your video.

Build together while apart
Give children opportunities to build things together in real time, perhaps using materials that are easily found at home. You can get inspiration from StoryCity.

Resources

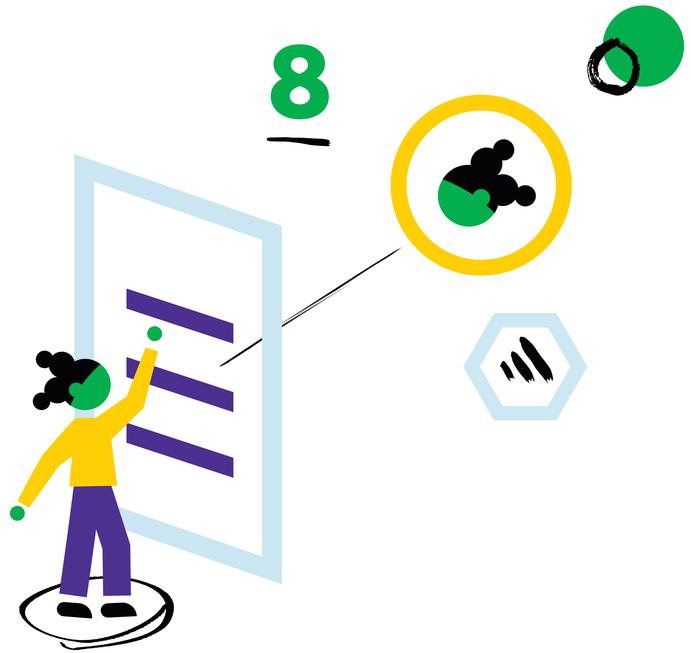
→ The Blended Learning Universe, curated by the Clayton Christensen Institute, provides resources including a directory of blend-ed-learning programmes, practical guides, video tutorials and downloadable worksheets.

→ Edutopia also offers resources to help you make the most of blended learning, including advice on get-ting started, tools and strategies, research on blended learning and examples of blended learn-ing in practice.

→ PBS Learning Media is an educational platform with thousands of free teaching resources including videos, lesson plans, and games (aligned to state and national US standards).

→ Playlist is an online platform filled with offline learning through play activities for kids, families and teachers to explore and try out. You can easily filter the activities based on your age group, time frame and accessible material.

Personalised Learning



Personalised learning is **tailored to children's unique needs, interests and cultural backgrounds. It is an alternative to 'one-size-fits-all'** approaches to education, in which teachers provide all learners with the same type of instruction and materials.

On the spectrum of play facilitation, personalised learning falls between playful and direct instruction. It is often initiated by adults or is based on software that uses reward systems based on video games, such as stars or points: as such it is not ideal for play based on curiosity and creativity.

ONLINE

Advantages and challenges

Pacing
In a similar way to blended learning contexts, personalised learning allows children to progress at their own speed.

Feedback
Learners and teachers get rapid and regular feedback on how quickly a child is learning.

Sociability
Personalised learning can reduce a child's interaction with others.

Expense
The software required for some forms of personalised learning can be costly.

Gamification of learning
Software can seem to marginalise the role of the teachers and caregivers, and can put more emphasis on game-based rewards than on real learning.

Personalised learning
In practice

NAMES
Maria Lopez, Nehyi Quintero & Laura Guzman

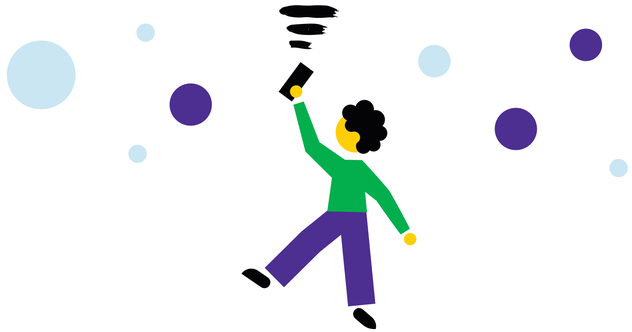
ORGANISATION
AeioTU

LOCATION
Colombia

Normally, the organisation aeioTU provides comprehensive services to 20,000 vulnerable children and their families in centres spread throughout the country. But when child-care centres and schools closed down in March 2020, the organisation needed to find another way to stay connected.

Many of the families served at aeioTU centres don't have access to high-speed internet, but most have mobile phones, so aeioTU teachers are making twice-weekly phone calls to the families to offer ideas about child development, and support children's learning at home. Teachers ask about families' daily routines so they can provide suggestions of how the children can be part of them in playful ways.

For example, children and parents could create stories as they fold the laundry or observe the different shapes of soap bubbles as they wash their hands. Teachers also talk to families about the children's interests: what materials is she interested in? What isn't she playing with? Just like in the classroom, activities can then be tailored to specific children, making learning personalized and meaningful.



Try it out today

Personalising learning environments
Encourage children to personalise their own learning environments. This can be done by asking your learners to find an object that means a lot to them, tell a story about why that is, and then have the object beside them throughout the lesson.

Showcasing learnings in personalised ways
Allow children to document and showcase their individual learning in their own way. Try to copy what the education platform Seesaw does: they take a portfolio-based approach for personalised learning and allow educators and caregivers to give direct feedback.

Resources

→ Edsurge offers a toolkit for personalised learning, with tools, projects and stories you can use.

→ The International Society for Technology (ISTE) has drawn on the experience of teachers around the world to offer useful guides to personalised learning.

→ Seesaw enables learners to draw, make videos and take pictures to express themselves.

→ ClassDojo is a personalised learning app.

Creative Computing Communities

Creative Computing Communities are **online spaces where learners design and code games and animations**, either individually or together: there is growing research showing how effective this can be.[2]

Creative Computing Communities fall between free play and direct instruction: they are among the most wide-ranging and promising approaches for promoting play-based distance learning.

ONLINE

Advantages and challenges

+

Problem-solving and expression
Studies show that Creative Computing Communities can help children with problem-solving and self-awareness, as well as developing their social, cognitive and creative skills. They offer children the chance to experiment, tinker, make, find their own voice and express themselves.[3]

Connection
Learners can connect with others with similar interests.

-

Access to resources
One challenge with Creative Computing Community platforms is that, although some also work offline, most require access to resources, including an internet connection.

Integration
In some contexts, teachers can find it difficult to integrate this form of learning into their teaching.

Moderation
Though Creative Computing Communities can be safe and inclusive for children who struggle in traditional classrooms, there is still a need for teachers to moderate online groups.

Creative Computing Communities

In practice

Before the pandemic, Linford facilitated Scratch clubs where young people got together to create and make using computer coding. Transitioning to virtual support, Linford has not only taken steps to keep the clubs engaging virtually, but also put in effort to support his colleagues with practical tools and examples of how technology can advance playful learning. For Linford learning is a team sport, and he believes that groups provide content knowledge as well as emotional support. In order to maintain the social element of his Scratch clubs, he therefore set up a WhatsApp group where club members can help each other with coding issues, share their projects, and thereby become equal contributors in the teaching and learning process.

Moreover, to keep things joyful, he embeds funny audio recordings in every project.

NAME	POSITION
Linford Molaodi	Lecturer at the University of Johannesburg. Facilitator of Scratch coding clubs.

Try it out today

Sharing your ideas
Join up with other teachers to share ideas about Creative Computing Communities. This could be done through meet-ups, WhatsApp or Facebook groups.

Doing it like the Japanese Lesson Study
Japanese Lesson Study is a good way of working with other educators to explore new ways of teaching, including using Creative Computing Communities.

Resources

→ The Connected Learning Alliance hosts conferences and offers resources relating to the creative use of technology.

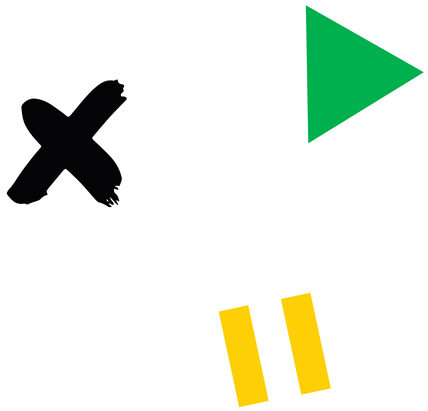
→ Scratch Educator Meetups, which are an extension of the Scratch Community, are for teachers who are interested in children using computing to express themselves creatively.

→ Maker Ed provides training and resources if you are interested in working with other teachers on maker education.

→ Scratch and Scratch Jnr introduce children to simple programming, and enable them to create interactive stories and games.

→ Minecraft EDU (the education edition of Minecraft) includes special features for educators, including technical support, classroom management tools and a global network of mentors. global network of mentors.

Radio



Radio is a **widespread and low-cost** technology, and evidence shows that distance learning via radio can be very effective.[4] It does not need high levels of technological literacy.

The challenges of radio include the fact that it is not accessible for children who are deaf or hard of hearing, and radio content is often not prioritised for vulnerable groups. Learners cannot pause or rewind to review or ask questions. In many cases, radio education depends on having a reliable electricity supply.

Radio education falls between playful and direct instruction, but it has good potential for play-based teaching. Radio-based storytelling, story acting, hands-on making with classroom materials, singalongs, physical exercises and games can all be designed to be playful.

Radio distance learning
In practice

PROJECT
"PlayMatters at Home Radio"
For children, caregivers & educators

LOCATION
Ethiopia,
Tanzania and Uganda

PlayMatters is a five-year project, which aims to increase learning through play opportunities for 800,000 refugees and children in Ethiopia, Tanzania and Uganda. As PlayMatters was in the early stages when the COVID-19 pandemic forced global school closures, the project quickly pivoted to develop a home-learning programme instead, which focuses on well-being and aims to minimise stress and learning loss through learning through play.

One of the main initiatives is 'PlayMatters at Home Radio', which incorporates home schooling guides and hands-on play ac-tivities fitting the environment. The radio programme gives caregivers recommended daily routines, tips on well-being, and examples of how to use everyday interactions as learning opportunities. Each show is filled with singing and is entertaining for children and families alike, but they are also meant to work as a guide for educators and caregivers, with tips to support their own well-being and reminders to check in on their community.

PlayMatters is led by the International Rescue Committee (IRC), and includes Plan Børnefonden (Plan), Stichting War Child (War Child), Innovations for Poverty Action (IPA), and the Behavioral Insights Team (BIT).

Try it out today

Using what is available
Find a radio programme that is relevant for your teaching and ask your class to listen to it. Then consider supplementing radio education experiences with other accessible methods (using SMS, TV, printed materials or even household items) to engage children and adults in playful learning.

Making radio
Help children to design their own podcasts or audio stories by asking them what they're pas-sionate about, or encourage them to remix radio broadcasts from their unique perspective. This can also be linked to a subject-specific challenge.

Resources

→ Ed Tech Hub

→ Radio Rookies

→ Toolkit from UNESCO

Television

Long used around the world for distance learning, TV has impressive reach and is good for dealing with visual topics such as art. It can be effective in engaging people who have low levels of technological literacy. It can make subjects available that are difficult to deal with in the classroom.

Evidence shows that **TV-based education is good for engaging children** in what they are learning: it is joyful, builds relationships with peers, and helps children to experiment and find connections with their own lives.[5]

TV-based education has its challenges: TV is less widespread globally than radio, and TV content is costly to make. It can be difficult to pause or rewind TV programmes. As with radio, TV-based education is often not prioritised for vulnerable groups, and it depends on having a reliable electricity supply.

TV-based education is on the spectrum of play facilitation between guided play and direct instruction: watching programmes is generally initiated by adults, but there is potential for using TV for play-based teaching. TV is good for storytelling, dancing, hands-on making, singalongs and physical games.

Television distance learning
In practice

NAME
Josefine Jack Eiby, Anders Schunk & Aslak Gottlieb

POSITION
Sofaskolen (The Sofa School)

WHAT
National TV programme in Denmark

Sofaskolen (The Sofa School) is a Danish initiative created for all schoolchildren in the country after the nation closed down in March. The school material publisher, Alinea, and teachers Josefine, Anders and Aslak adapted to the new situation by creating an alternative version of the classroom through live television, Sofaskolen, using both online and offline learning tools.

By having a set time frame and subject-specific and age-appropriate content, they made it easy for teachers to decide if they wanted their class to tune in to the programme each morning and whether or not to use the challenges in their online teaching afterwards. Most of Sofaskolen's lessons were interactive, with questions for children to vote on or answer individually by phone, and this data was shown on the screen live, creating a sense of belonging. Furthermore, the lessons often ended with a playful challenge that the kids could do offline. One example was when the children were asked to do something kind for another person in a creative way and then upload a photo of their idea. In this way Sofaskolen created a twist of the classic chain reaction which included offline play in a distance learning setting through TV.

Try it out today

Adding storytelling to TV programmes
Combine TV-based education with SMS, radio, printed materials, or even household items to immerse children and adults in playful learning. For example, if there is a suitable show on TV about nature or history, you could ask the kids to draw, build or tell a story as if they were actually present in that exact programme setting.

Making your own TV show
Encourage children to make their own plays, films, animations or puppet shows, or to remix TV content, and share it via Facebook, WhatsApp or YouTube.

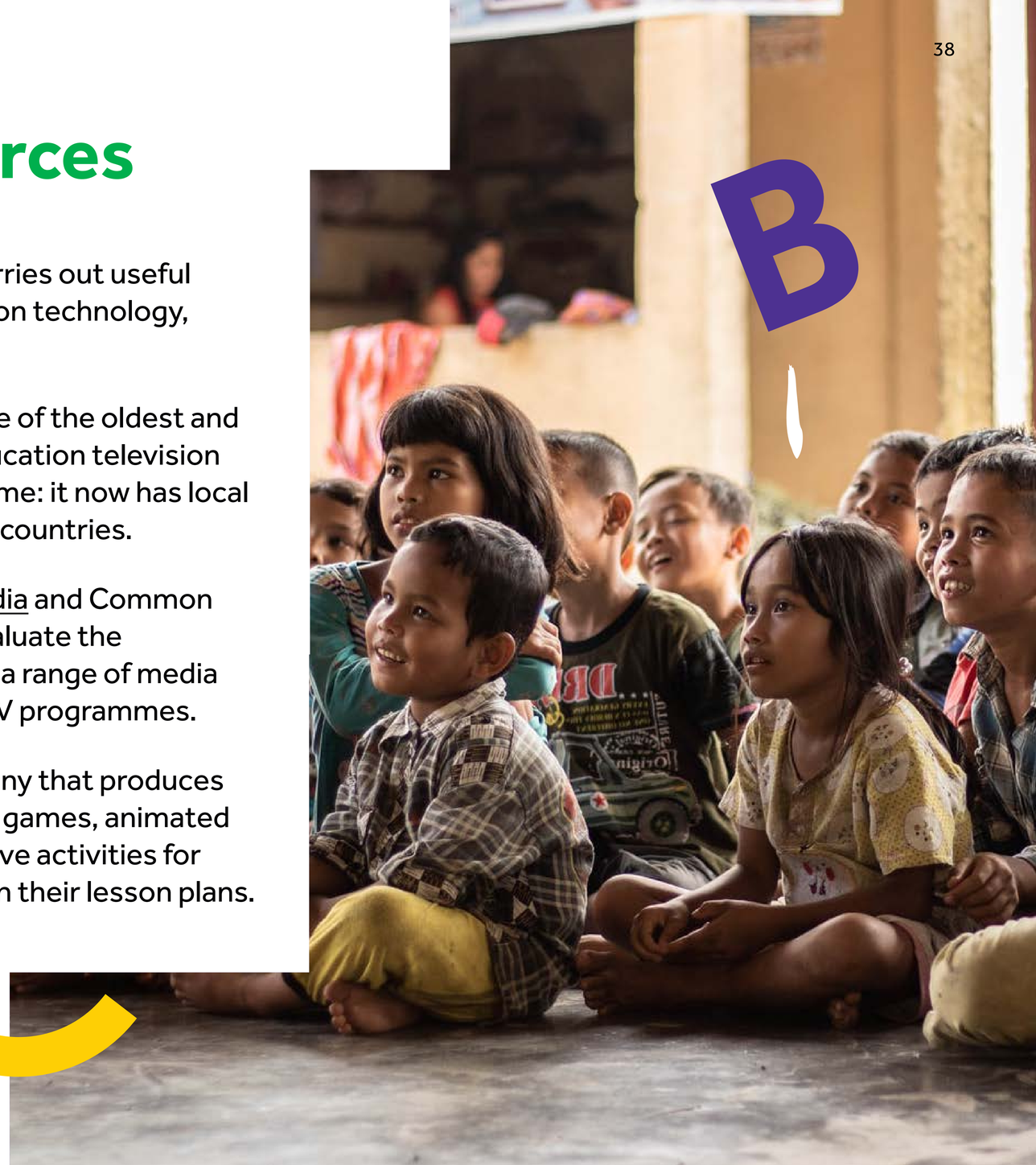
Resources

→ The Ed Tech Hub carries out useful research on education technology, including TV.

→ Sesame Street is one of the oldest and most successful education television programmes of all time: it now has local versions in over 150 countries.

→ Common Sense Media and Common Sense Education evaluate the educational value of a range of media content, including TV programmes.

→ BrainPOP is a company that produces multilingual learning games, animated movies and interactive activities for teachers to include in their lesson plans.



SMS-based mobile technology

Accessing **educational content via mobile has great potential reach**, especially for rural children. It is accessible, information is easy to find, and it is good for collaborative learning, connecting children with teachers and with each other. [6]

The challenges of this approach include the fact that many families only have one mobile phone, which other family members may need. Mobile devices and data plans can be costly, and there may be limits on sending larger messages. Some content is not designed for SMS formats.

Teachers and caregivers may have concerns about the misuse of mobile phones, and the perceived risk that they will distract children from learning. There are also concerns about children's privacy and data protection.

Use of SMS-based mobile technology falls between playful and direct instruction: many apps designed for mobiles are quite directed, but there is potential for play-based learning, especially when mobile technology is used alongside radio, TV or printed materials.

SMS-based distance learning

In practice

NAME
Ntombifuthi Chiloane

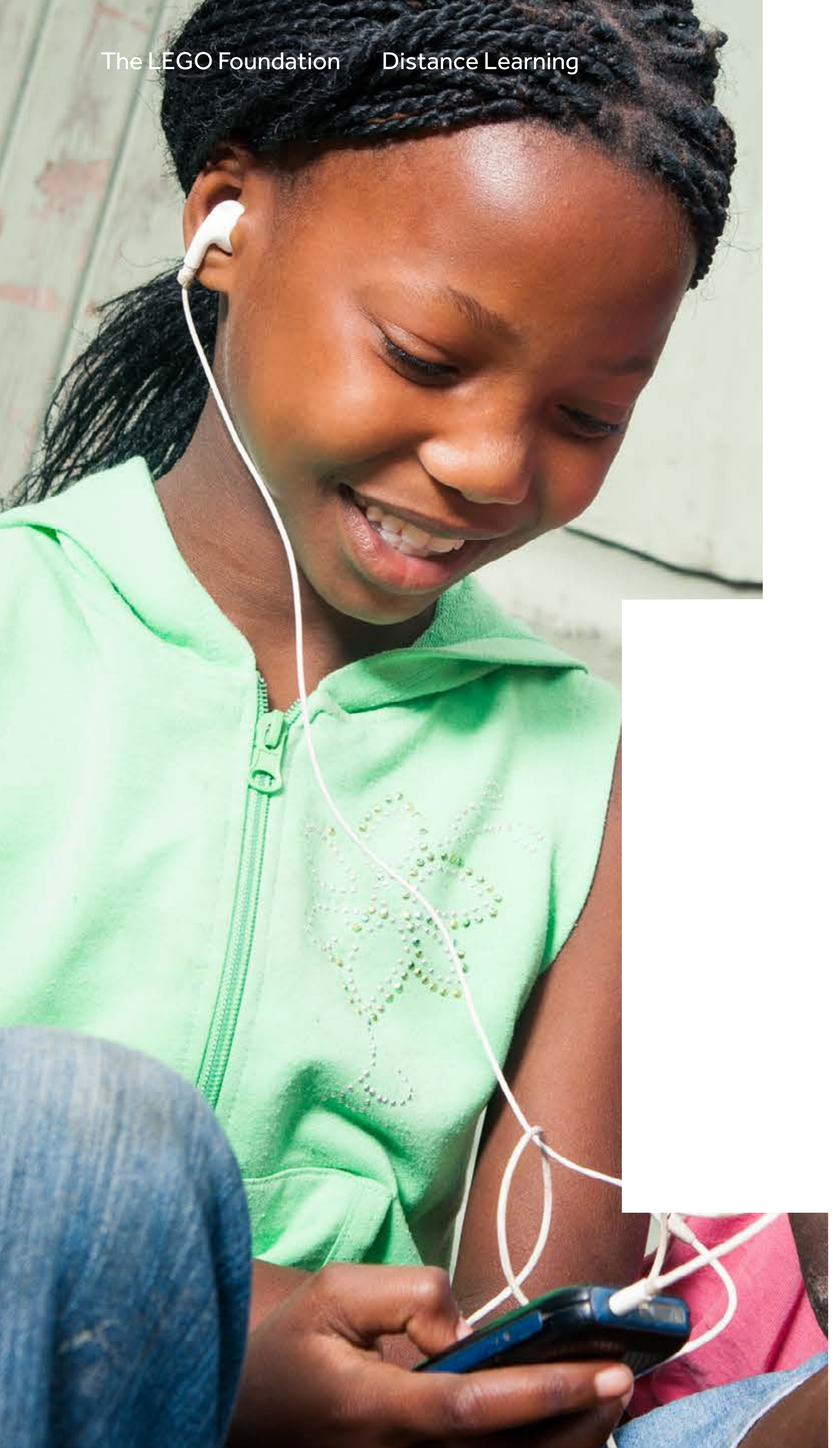
POSITION
Grade 4 teacher

LOCATION
Pretoria, South Africa

Ntombifuthi is a natural sciences teacher in Pretoria. With more than 150 learners in her classes, most of them without a reliable connection to the internet, SMS-based teaching has been essential to her ever since the pandemic.

Ntombifuthi has created a WhatsApp group for her students and their parents, where she shares explanations of the activities in the textbook, and encourages parents and children to ask questions or make comments. She has found that it is important to keep messages and communications as short and concise as possible, since explaining concepts over WhatsApp is not easy, and often photos are a great help.

Making learning playful has always been important to her, and Ntombifuthi makes sure that the activities she wants her students to engage in are context-specific and relevant to their lives. For example, when learning about different states of matter, she advises the parents to put some water in the fridge to freeze. They can then take it out in the sun to melt and put the same water in a kettle to boil to see how the water evaporates.



Try it out today

SMS chains
Experimenting with using SMS to encourage children to design and share their own learning quests, challenges and projects. Try to create a 'challenge/support SMS chain', where one student always challenges or asks the same small group of peers for help whenever they run into a problem or want to ask subject-specific questions. In this way you build networks between learners.

Photo hunting
Send subject-relevant photos to the children and ask them to find something either similar or opposite in their home. Maybe you can ask them to find 'something round' or 'something sharp', or you can send them a photo of a lamp or tool and ask them to take photos of where it connects or 'fits' in their home.

Resources

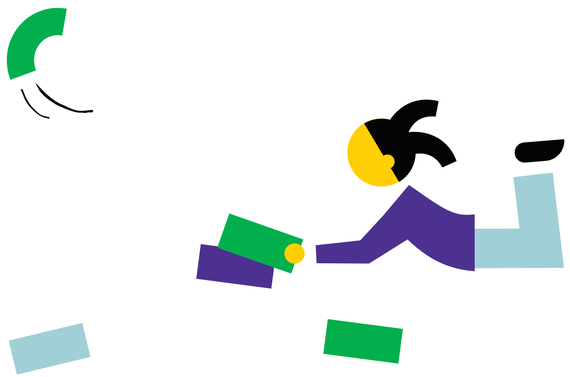
→ The Ed Tech Hub carries out new research on a range of education technology, including SMS.

→ The GSMA Foundation offers a mobile internet skills training kit

Print and self-study materials

The challenges of using print and self-study materials include the fact that they are not as interactive or engaging as some others, and they pose difficulties for blind and partially sighted children (Braille transcription can be costly). During the COVID-19 crisis, there may also be health risks involved in the physical distribution of printed material.

The oldest medium of distance learning, **printed materials are low-cost and easy to use**. Learners can progress at their own pace. No special equipment is needed, and materials are highly portable.



On the spectrum of play facilitation, using print and self-study materials falls between guided play and direct instruction: it can be a flexible method for promoting play-based teaching.

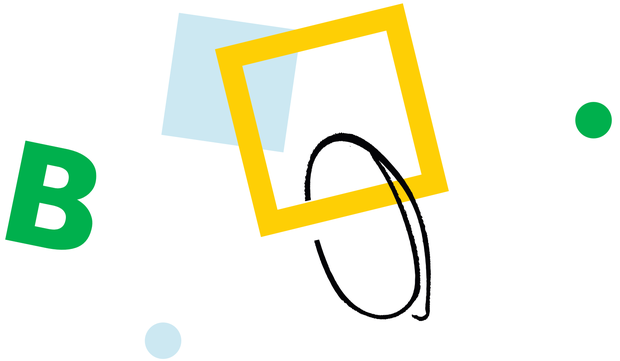
Distance learning through print & self-study

In practice

To make sure her young students don't fall behind during lockdown, Asmaa and her teaching team created literacy packs, which consist of one letter activity per day similar to what they normally do at school. Families were able to pick these up before the lockdown or receive them via email.

Because she is aware that many caregivers are very stretched during lockdown, Asmaa uses her experience as a teacher and mother to give recommendations for engaging learners during the pandemic and keeps reminding parents to reach out if they need support.

Asmaa also sends out communication daily via WhatsApp offering guidance for the day's activities.



NAME
Asmaa Khan

POSITION
Teaching children aged 5 to 6

LOCATION
Pretoria, South Africa

Try it out today

Combining print material with other types of media
Use print materials alongside other more engaging content, for example on the radio or TV. You can for example try to give the children a subject-specific challenge to listen for on the radio or look out for while watching TV, like ‘how many different animals do you see in tonight?’ or ‘what political statements have you heard in the news?’

Staying culturally relevant
Use print material that has imagery, illustrations and visual cues that are culturally relevant to where the children live. Get inspiration from the LEGO Foundation’s PlayPaper, which is a concept that facilitates learning through play through simple storytelling without words. The storyline, material and format should complement the children's environments, backgrounds and imagination.

Resources

→ The Global Education Coalition, launched by UNESCO, offers a comprehensive list of distance learning solutions, which can supplement and inspire printed materials.

Offline learning platforms

Quite new to the distance learning market, offline learning platforms involve content that can be stored on small devices: once it is on a device, children do not need an internet connection to access it. This can be **an easy and cost-effective way of making new resources available**, and devices can also be used to collect data to assess progress in learning.

OFFLINE

The challenges of offline learning content include the high cost of many of the devices that it is designed for. Many platforms are not open source and cannot be used with other platforms. To update devices and download content, an internet connection is needed. Not all platforms follow inclusive design standards.

On the spectrum of play facilitationv, offline learning platforms fall between games and direct instruction. They have potential for play-based learning, but often devices are designed for the consumption of content, with gamified rewards – it is not easy to experiment or tinker with them.

Resources

→ The Global Education Coalition, launched by UNESCO, makes resources available for appropriate distance education for learners around the world: this includes for offline learning platforms.

→ The mEducation Alliance brings together work from around the world, aimed at developing and evaluating mobile technologies for learning, especially in places with few resources.

→ Kolibri, developed by Learning Equality, includes a free offline platform making resources available on a wide range of subjects

Common challenges and solutions from around the world

Evidence of distance learning from around the world – showing what works and what doesn't – helps us to identify a number of common challenges, and solutions to those challenges.

Vulnerable learners

There is an increasing amount of **distance learning content** available, but it is **rarely adapted for vulnerable learners** – such as children with disabilities, children in minority language groups, or children from minority cultures. Other barriers that children may face include a lack of technological expertise, capacity and resources, which can make distance learning difficult.

Importance of learning through play

There is a tendency for distance learning approaches to lean towards the direct instruction end of the spectrum. Play is often seen as non-essential, something that helps build resilience in emergencies and conflict situations, maybe, but not directly related to academic subjects.[7] There is little understanding of how **play can help with a breadth of skills and academic learning**, and a lack of expertise in designing distance learning that allows for and embraces learning through play.

Using different tools

There is **no single solution in distance learning**: successful approaches use a range of different tools. An example is the Tiyende! Program, administered by Save the Children in Malawi since 2013, which combines different modalities and scaffolding.

Adult involvement

Finally, in distance learning **adult guidance and capacity is key.** Teachers and caregivers need training to use different technologies, and to help them be creative in getting the most from different forms of distance learning.[8]

Recommendations for distance learning programmes

Based on this evidence of distance learning around the world, we offer the following three recommendations when designing your own distance learning programme.

Fairness

You can **promote fairness in your distance learning** by using different tools – different things that learners have access to. Online content, radio, TV, SMS-based mobile technology, print materials, offline learning platforms: use them together, and don't rely on online learning too much.

Playfulness

Design your distance learning to be playful, creative and meaningful to children. Don't see distance learning just as a continuation of classroom-based schooling. There are opportunities in the current situation to design distance learning that is less about traditional content, and more about children learning in engaging, playful ways. This can last beyond COVID-19.

Support

The emphasis in some distance learning has been on delivering quality content to children, teachers and caregivers. It has been less about **giving families, teachers and caregivers the skills to support playful learning** using these materials. There are examples from around the world of support networks for teachers and caregivers, with communities sharing good practice in distance learning. These too can last beyond COVID-19.

And finally...

We hope that you have found something here that inspires you to try some new ideas for distance learning.

COVID-19 has meant that we have all had to change – the way we live, the way we learn, the way we teach.

But at the LEGO Foundation, we believe that the COVID-19 crisis is also an opportunity – to design more engaging, more playful distance learning, that will bring joy to children while they learn.

Endnotes

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