

THE LOW-FI PLAY GUIDE

BY HUMANS WHO PLAY

Practical ways to introduce play based learning with limited resources



WHY THIS GUIDE?

In our work with educators in underserved communities around the world we have heard it again and again; *I want to implement more play in my community but I don't have the resources to do it. The tech and materials aren't there, the budget isn't there, the trained staff isn't there. And frankly- it looks hard to do.*

This is the need we hope to address with this guide. We want to help push the critical conversations around the Right to Play into more practical ways to do it, even when it seems impossible. We designed this low-fi guide for educators, parents, policymakers, activists, big sisters, little brothers and anyone else who wants to bring play to their community anytime, anywhere. It's a work in progress and one we hope you will help us iterate on and improve. Because like you, we believe that everyone deserves rich play based experiences, whether it be in a large refugee camp in northern Kenya or a community school in East Harlem.

In Play,
-Ariam Mogos & Chloe Varelidi

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GLOSSARY

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SETUP YOUR SPACE: HOW TO CREATE A MAGIC CIRCLE OF PLAY WITH LIMITED RESOURCES.

There is a concept in game design that we call the Magic Circle. It's the invisible yet unbreakable spatial boundaries set by the rules of the game. Think of a simple game like Hide and Seek; when you play the game the reality of your surroundings is no longer relevant. All you can see is a land of magnificent hiding spots. We have used the concept of the magic circle to turn everything from crowded classrooms to outdoor areas in refugee camps into playful settings that set up children to deeply engage in their learning.

Here are three easy ways to do it:

CREATE A NARRATIVE

Invite children to use their imagination by assigning elements in the physical space to a story or a character they love. In a public elementary school in Washington, DC's Brentwood neighborhood, participants are enthralled with the Marvel Universe and their teacher has used superheroes to highlight different corners of the classroom such as a reading corner and a group work area.

PLAY ARCHITECT

Playful learning often requires the space to facilitate collaboration and physical activity. But that is not always possible when you are working in an overcrowded classroom with desks bolted to the floor and chairs in single rows. Here are some quick things you can do to work around those constraints and reorganize your space:

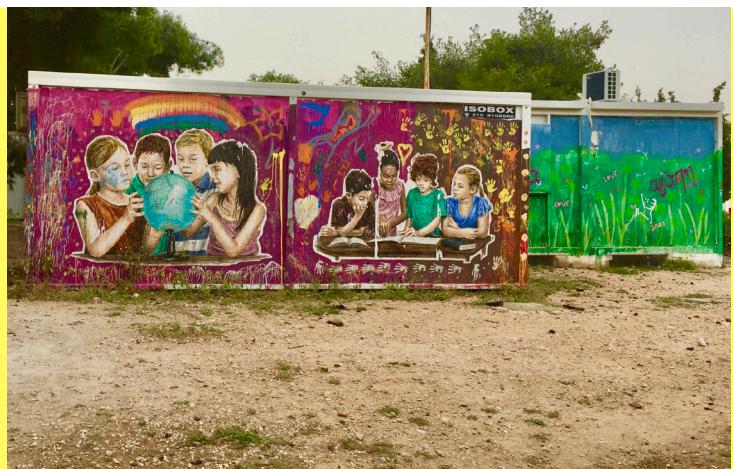
- Divide the room into four corners and use each corner as a group collaboration station.
- If possible push desks back (or your desk back) and have children sit on the floor or just on chairs for activities that require them to be in a circle or collaborate in small groups.
- Make the most of your outdoor space. Take children outside for activities like circle time and group work.
- Color-code areas of the room according to their use.



Moving chairs, materials and participants in a classroom in Nairobi.

UPCYCLE EVERYTHING

Do you have junk or old materials lying around your space? Repurpose them through a group activity with your participants. In Bidibidi, a refugee settlement in northern Uganda, children have repurposed humanitarian aid boxes and even mud to make their own toys. In the Shisto refugee camp in Greece, teachers and participants painted murals outside the containers they use as their classroom to make the space look more inviting.



Painted containers to host the daycare facility in the Shisto Refugee Camp.

2 READY, SET, GO! HOW TO KICKSTART PLAY WITHOUT ANY TRAINING.

- “*Implementing play in your classroom or community center is easy! Anyone can do it!*” You’ve probably been told this dozens of times in training. Or maybe you’ve seen children in your community in need of more play and want to take action, but don’t know where to start. We know that incorporating play into your lesson plans for example, can be daunting. It can be overwhelming to introduce new tools or new terms you might not be familiar with or yet, have to manage kids playing in a rigid classroom setting. On top of all that, creating a space for play requires you to access and embrace that side of yourself.
- That’s why we’ve put together three easy to follow activities that take you through the full cycle of play-based pedagogy; (1) playing a game (2) remixing an existing game (3) creating your own game.

PLAY A GAME OF FACE CHARADES

- A great way to introduce play is to … play games. Try this Charades inspired game in which participants work as a team to act out and guess different facial expressions.

- ● ● ● ● **LEARNING OBJECTIVES**
- ● ● ● ● Playing this game supports learners develop intercultural skills like empathy and a sophisticated understanding of how facial expressions communicate different emotions which are not necessarily the same across cultures.

- ● ● ● ● **LEARNING OUTCOMES**
- ● ● ● ● Participants will be able to:
 - (1) Be aware of the fact that people of other cultural affiliations may follow different verbal and nonverbal communicative conventions which are meaningful from their perspective.
 - (2) Adapt their behaviour to new cultural environments – for example, avoiding verbal and non-verbal behaviours which may be viewed as impolite by people who have different cultural affiliations from one’s own.

SET-UP

Get pencils, pens, index cards or small pieces of paper. Write up 5-8 different emotions (ranging from simple to more complex like happy, confused and concerned) on index cards.

ACTIVITY

1. Warmup (5 mins)

Form a circle with participants in the room. Ask them if they've ever played charades, a guessing game for a word or phrase from acting out clues. Tell them that today they're going to play charades for facial expressions. Ask participants if facial expressions are verbal or non-verbal behaviors. Tell them they will have 8 different facial expressions to guess as a class team and three minutes for each face charade card. A different volunteer will be asked to come up and act out each face charade card.

2. Play Face Charades (15 mins)

Ask one participant to volunteer to come up to the front of the class. Give the participant one of the face charade cards. Tell the volunteer to act out the facial expression on the card for the class without saying what the expression is. Tell participants they have 3 minutes to guess. If participants guess the facial expression within 3 minutes, ask for a new volunteer and move on to the next card. If they don't guess the facial expression in time, reveal the card.

3. Debrief (10 mins)

Ask participants the following questions:

- Which emotions were easy to guess?
- Which emotions were difficult to guess?
- Why do you think these emotions were difficult to guess?
- Are these common emotions that we express in the cultures we come from? Why or Why not?
- Are emotions expressed the same way across different cultures? Do you think facial expressions can create miscommunication and how?
- What are other ways of expressing ourselves or communicating that can help prevent miscommunication when we interact with people from different cultures?



Playing face charades in the daycare facility in the Shisto Refugee Camp.

REMIX A GAME OF MANCALA

Now that you've played a game, try remixing a game. It's even more fun and can promote effective learning when it's a game that's culturally relevant or holds personal value for participants.

LEARNING OBJECTIVES

In this activity, participants will define the five elements of a game, remix the elements of the game Mancala, and playtest their changes to learn that games are systems where if one element changes, so do other elements.

LEARNING OUTCOMES

Participants will be able to:

- (1) Define, identify and engineer the five elements of a game.
- (2) Remix a product or game and change some aspect of it in order to improve it, make it to serve a different purpose, or solve a new problem.

MATERIALS

- (1) [Mancala Remaking Worksheet](#) (optional) for each group of 2-3
- (2) [Mancala games](#) for each group of 2-3
- (3) 48 beads or stones for Mancala game
- (4) [Poster Paper Template](#) (for facilitator)

SETUP

Create a poster paper or chalkboard using the Poster Paper found in the Materials section above. Collect 48 beads or stones for the Mancala pieces for each Mancala game.

ACTIVITY

1. Play Mancala (10 mins)

Pull out a Mancala board and the 48 beads/stones and ask for a volunteer. Explain the game to participants as the volunteer plays along with you. If you need a refresher for Mancala you can find the full ruleset in the appendix of this guide.

2. Discuss what makes a game (5-10 min)

Now that participants know how to play Mancala, direct them to the 5 Elements of a Game Poster paper and ask them to think about the game of Mancala. Go through the 5 Elements and have them guess what each element would be in Mancala.

- Space: where the game takes place. (Eg. the board.)
- Goal: what the player must do in order to win the game. (eg. collect the most stones in your Mancala.)
- Rules: actions that the player is or is not allowed to do in the game and systems of penalty and reward. (eg. you can place stones in your own Mancala, but you have to skip over your opponent's Mancala.)
- Parts: people, events, things and objects that are within the game. (eg. the Mancala board, stones, players.)
- Mechanics: actions that can be performed while playing the game. (eg. think of verbs like collecting or dropping the stones in Mancala).

Based on their guesses, see if they can provide a definition for the term. If they cannot guess, provide a definition for the element based on the explanations above.

4. Define remix (5 min)

- Ask participants to get into pairs or triads. Each group receives a remixing worksheet.
- Tell participants they will be remixing the game of Mancala, and define the term remix.
- Explain that in order to see the impact of their change, they will have to playtest the game. Once they playtest their remix, they may see that they have to change other aspects of the game in order to make it work.

5. Remix the game (15 min)

Ask participants to choose one element of the game to change in any way they choose. If using worksheets, have them write it down.

Once they are done ask them to playtest the game with their peers. What would they change to make it more fun?

6. Debrief (5 min)

- Was anybody able to make a game that was more fun or challenging?
- What happened when one element was changed?
- Were you able to improve the player's experience of Mancala? How?





Students at the Nairobi Play Project play-testing their remixed versions of Mancala.

CREATE A MAZE GAME

Participants know the elements of a game and have tinkered with remixing, now they're ready to prototype their own game through collaborative play.

LEARNING OBJECTIVES

Participants will learn how to work together to build an original maze game using the 5 Elements of a Game in a class relay race.

LEARNING OUTCOMES

Participants will be able to:

- (1) Apply their understanding of the game design process and five elements of a game to collectively create a new product/model.
- (2) Effectively collaborate without verbal communication.

MATERIALS

Legos
Poster paper, cardboard, chalk, post-it's, glue
Markers, crayons, pencils, pens
Old toys or game parts you can find lying around
Fruit or other food you can use as game pieces
Any other expendable local materials

SETUP

Collect and organize prototyping materials for distribution.

ACTIVITY

1. Warmup (5 min)

Tell participants that today they'll be prototyping their own maze games in teams of four. Define maze game for participants: a game in which players follow a path or a collection of paths. Each team will be given the space of the game, and then each team member will have to design the goal, rules, components and mechanics one at a time as a relay race. Explain to participants that each team member has to complete the design of their element before the next team member can get started. Team members cannot interfere or contribute to the elements of their team members' with verbal cues, only non-verbal cues. They each have 5 minutes to design their element.

2. Relay Race (20-25 min)

Break participants into teams of four and provide them 60 seconds to decide who will design which element. Distribute materials to teams or let them choose which materials they'd like to use. Tell teams the space for their maze game is a cave. They have 20 minutes to complete their prototype.



Participants using legos to create their own maze games in Nairobi.

3. Playtest (10-15 min)

Once time's up, tell participants to guide the class through a playtest of their prototype.

Ask participants the following questions:

- What was challenging about building a maze game together without verbal communication?
- What skills did you use? How did it help?
- What was the most difficult element to design? Why?



Refugee children using cardboard pieces to create their own physical games in Athens.

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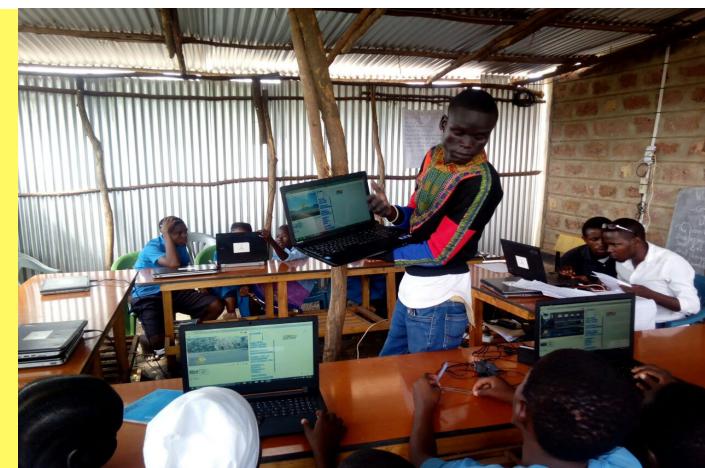
MAKE IT FULL-PROOF HOW TO SET YOURSELF UP FOR SUCCESS WHEN THINGS GO WRONG.

Not all play-based activities require electricity or connectivity, but as more digital media and digital tools are used to enhance play-based learning, it's becoming commonplace. If you've ever designed a workshop, a class or an event in need of either, you know firsthand that in the implementation phase things don't always go according to plan. It's important to build full-proof strategies into your program design for when disaster strikes to make the most of your time with participants.

Here are five strategies to set you up for success:

POWER UP

Electricity can be unpredictable, you never know when it'll go out so when you have it keep your devices (if you're using laptops, tablets, or phones) connected until fully charged. A great investment is a portable power bank, which can store a reserve of power on days you really need it. Some power banks can also power multiple devices at once.



Facilitator in Kakuma Refugee Camp guides participants through an activity fully charged when the power is out.

EMBRACE THE ANALOG

When electricity fails, ditch the digital. Keep a repository of analog paper-based activities on hand that you can easily switch to when you don't have power or connectivity. Ideally these analog activities are already mapped to your lesson for the day so that you don't have to design a lesson in the middle of a session (although it can be a great creative exercise!). The [Stanford D-Lab K-12 Wiki](#) has some nice paper-based activities for teaching different stages of the design process.

GET A BATTERY POWERED PROJECTOR

When power does go out, even if you have charged devices, it can be really challenging when you can't collectively guide participants through an activity because you don't have a power source for your projector (we know...we've run around facilitating from one participant to the next in a crowded classroom too!). From our experiences, battery-powered projectors can come in very handy, and are robust and affordable. Purchase rechargeable batteries too to keep costs down and promote green play.



Facilitator in Nairobi guides participants collectively with a battery-powered projector.

KNOW WHICH WAY THE WIND BLOWS

The weather can be friend or foe when designing your play-based activities but planning ahead can make it work more in your favor. At the beginning of every week align activities to the weather forecast.

If you're in a low-infrastructure environment and expecting heavy rains tomorrow, there's a greater likelihood that (1) you'll have power outages (2) participants won't attend your program that day for safety and health reasons. A way to mitigate the negative impact on your programming is by staying flexible and modular with your program design. Send participants home that day with take-home activities and use tomorrow for lesson-planning, or keep your activities indoors tomorrow.

MAKE OFFLINE YOUR DEFAULT

When you have temporary access to connectivity, it can be tempting to design your play-based activities with the assumption you'll have internet for them, but if it's not the infrastructural norm it's safer to design for an offline mode. There are many tools for play that work offline too like Scratch.

GLOSSARY

- Prototype: an original and early version of a model or design.
- Low-fidelity (Low-fi): a type of prototype that is easy and inexpensive to make and quick to test.
- Play-based pedagogy: methodologies to teach through play.
- Magic Circle of Play: the invisible boundaries set by the rules of the game.
- Mancala: Ancient East African board game.
- Remix: change some aspect of it in order to improve it, make it to serve a different purpose, or solve a new problem.
- Maze Game: a game which follows a path or collection of paths.
- Infrastructural norm: current facilities, infrastructure and systems in place for a given context.
- Elements of a Game: what makes up a game system.
- Game Space: where the game takes place.
- Game Goal: what the player must do in order to win the game.
- Game Rules: actions that the player is or is not allowed to do in the game and systems of penalty and reward.
- Game Parts: people, events, things and objects that are within the game.
- Game Mechanics: actions that can be performed while playing the game.

MANCALA RULES

1. Pull out the Mancala board and the 48 beads/stones and ask for a volunteer. Explain the game to participants as the volunteer plays along with you.
2. Tell participants that before the game begins, you position the board between you and your opponent. The board has two rows of six holes each, and a long Mancala on each end. You have one side, and your opponent has the other.
3. Put four stones, beads or any other small object in each hole (not including the Mancala). There should be a total of 48 stones (4 stones in 12 holes).
4. Players decide who goes first.
5. To start, you grab all of the stones in any hole on your side and drop them, one by one, in each hole counter-clockwise (including the holes on your opponent's side) until you have no stones left in your hand.
6. You can place stones in your own Mancala (it counts as a hole), but you have to skip over your opponent's Mancala.
7. Once you have no more stones, it's your opponent's turn.
8. The game is over when you or the other player have no more stones on your side.
9. Tell participants that if the last piece you drop is in an empty hole on your side, you capture that piece and any pieces in the hole directly opposite.
10. Tell participants if you drop a stone into your own Mancala and that is the last stone in your hand, then you get another turn.
11. Always put all stones you collect in your Mancala.
12. The winner is the person with the most stones in their Mancala.



YOU MADE IT ALL THE WAY TO THE END!

We hope this was a useful resource that you and others can implement, remix and build on to introduce play to your community. We loved creating this guide and look forward to your feedback.

Send us an email at hi@humanswhoplay.com or let us know your thoughts (and how you used this guide!) @humanswhoplay on twitter and instagram.

