The LEGO Foundation
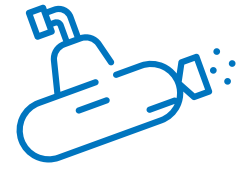

The Learning through Play Experience Tool:

Zooming in on the five characteristics of Learning through Play

August 20th 2020

Contents

Play and learning are like the two wings of a butterfly – one cannot exist without the other.

Carla Rinaldi
President of Reggio Children

Introduction

Playful experiences support children in practising and developing a breadth of skills that are essential for them to thrive and successfully navigate a complex and ever-changing world. The LEGO Foundation has developed a new tool that can be used by facilitators and designers to dive deep into children's experiences and reflect on their own practice.

From our research we have found that, during play, children have experiences that are **joyful**, **actively engaging**, **iterative**, **meaningful**, and **socially interactive**.

Playful experiences foster **deeper learning**, which is a child's ability to construct meaning and understanding in ways that allows her to apply knowledge and skills in novel situations.

Understanding a child's experience
We conducted an independent literature review and found that no existing tools are designed to capture a child's playful experience.

The review also found that such a tool could have a highly positive and lasting impact on children's learning. By having a **shared understanding** about what a playful experience *looks like*, facilitators and designers can provide environments in which children across the world can learn through play.

Because of the potential impact of such a tool, we decided to develop one ourselves.

This leaflet is an introduction to the new tool.

Developing a shared understanding and language
The Learning through Play Experience Tool can be used by practitioners and designers to observe, reflect upon, and improve children's playful experiences.

By using the tool you will:

1. get a deep and nuanced understanding of the five characteristics of learning through play,
2. learn what playful experiences look like, and
3. become able to have informed dialogues about facilitation and experience design

The tool is not designed to rate or evaluate the individual child, but to understand how adults can better empower and enable children's experiences.

Characteristics of playful experiences

The five characteristics listed below draw on extensive conversations with experts in the field, as well as reviews of the literature on play and learning. We do not view them as providing any formal definition of play, but they do help unfold how playful experiences lead to deeper learning.

We say learning through play happens when the activity (1) is experienced as joyful, (2) helps children find meaning in what they are doing or learning, (3) involves active, engaged, minds-on thinking, (4) involves iteration (experimentation, hypothesis testing and problem solving) and (5) is socially interactive.

These five characteristics draw on evidence for how children learn best (Zosh et al. 2017) and how to foster a playful mindset.

Joyful
Joy is at the heart of play - both enjoying a task for its own sake and the momentary thrill of surprise, insight, or success after overcoming challenges.

Recent research shows how curiosity and positive experiences are linked to learning; for example, infants show more learning after a surprising event than after one that is expected.

Actively engaging
Learning through play also involves being actively engaged. Imagine a child who's fully absorbed in playing with a set of building blocks. She is actively imagining how the pieces will go together and is so engrossed that she fails to hear her father call her for dinner. This mental immersion and ability to stay focused are especially powerful in the context of learning through play.

Joyful

Socially interactive

Actively engaging

Meaningful
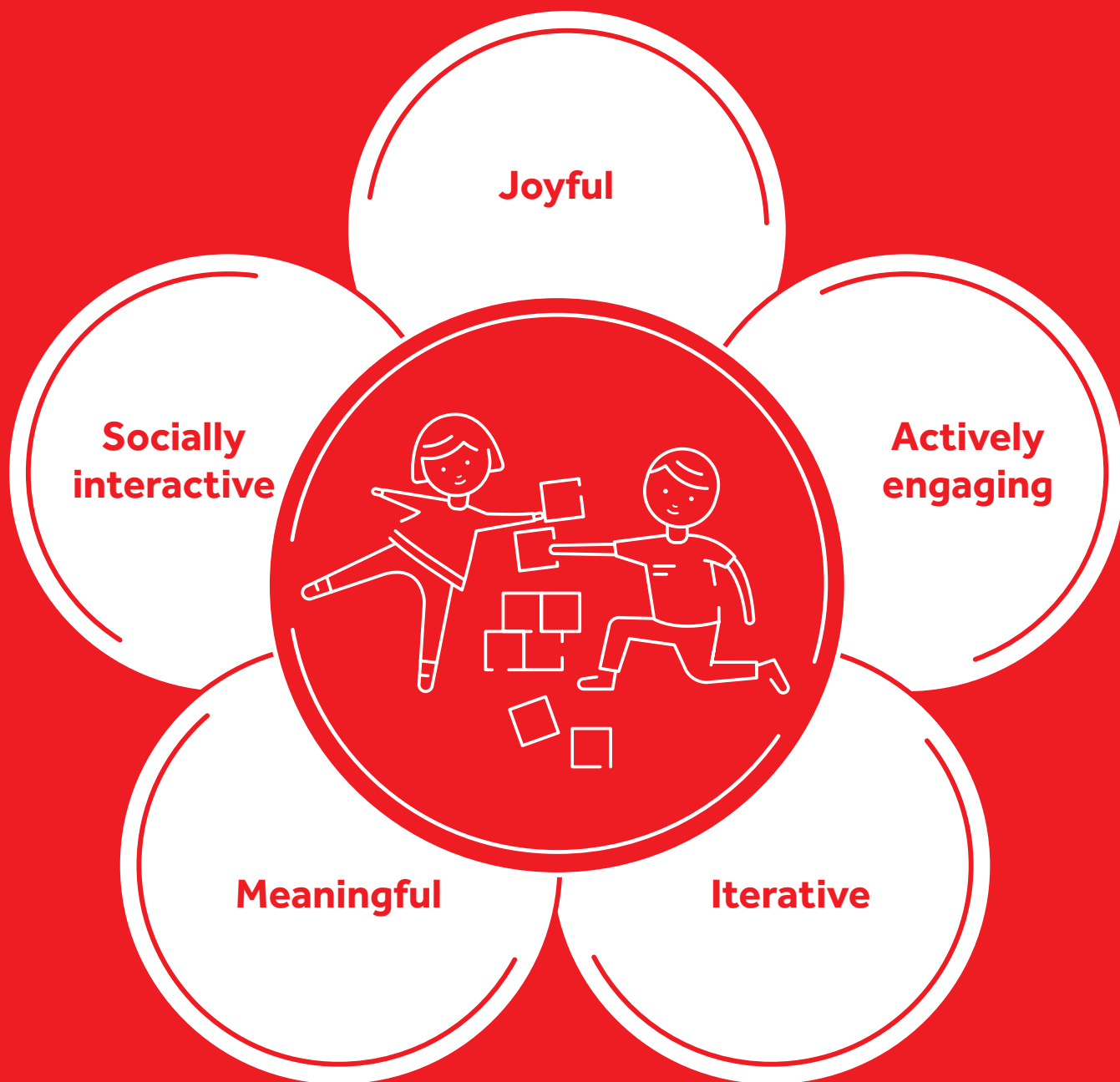
Iterative

Iterative

From a toddler trying different ways to build a high tower with blocks, to a young child discovering that the angle of a slide impacts how far a marble will shoot across a room, iteration – trying out possibilities, revising hypotheses and discovering the next question – leads to increased learning.

Meaningful

Meaningful is when the child can relate new experiences to something already known thereby making connections between things that are relevant to them.

In play, children often explore what they have seen and done, or noticed others do, as a way of grasping what it means. By doing so, they can express and expand their understanding through a variety of media, symbols and tools.

Socially Interactive

Social interaction is a powerful tool for both learning and play. By communicating their thoughts, understanding others through direct interaction and sharing ideas, children are not only able to enjoy being with others, but also to build deeper understanding and more powerful relationships.

These five characteristics ebb and flow as children are engaged in learning through play activities.

But in order to observe the five characteristics, practitioners and designers need to know what they look like.

The Learning through Play Experience Tool

The Learning through Play Experience Tool contains descriptions of what the five characteristics of playful experiences might look and feel like from a child's perspective (see page 22-23 for a detailed version).

Using the tool is called **behavioural coding** and it consists of three steps:
1. observe a playful experience,
2. identify the best-fitting I-statements for each of the five characteristics, and
3. discuss the experience with others and reflect on the child-facilitator-environment interactions

Shared understanding of a child's experience
The tool does not provide direction for what to do once you know the depth of a child's experience on each of the five characteristics. But having a shared understanding of a child's experience is neccesary for having informed dialogues about learning through play experiences.

The goal is not for children to reach the deepest levels as fast as possible. Developing and practicing skills takes time and just like a submarine on a deep sea mission sometimes you need to get up for air.

State of play

Passive

I am following instructions

Exploring

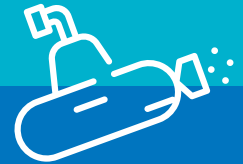*I am considering possibilities*

Owning

I am choosing my own path

Recognising

I have new insights

Transferring
After the experience

I am reflecting on how this experience can influence the reality of my own life, and have confidence that it changes myself and others

	Joyful	Actively Engaging	Iterative	Meaningful	Socially Interactive
	I am neutral about the experience	I am following the play or instructions of others	I do not know how to respond to the experience	I am doing this because I have to	I am alone or in a group not by choice
	I am curious about the experience	I am interested in the environment and materials	I interact with the experience	I attend to the experience	I am aware of others
	I am enjoying the process, even if it's challenging	I am focussed on the activity	I adjust my approach	I am developing my understanding	I play with others or let others approach me
	I feel a sense of accomplishment	I am invested	I am deliberate about the changes I make	I show how the experience is relevant to me	I play with others collaboratively
	I am enthusiastic about trying this again	I have tried this again after the experience	I seek out and explore new projects	I recall the experience and use it to understand other things	I cooperate with others to initiate new play experiences

> **Self-efficacy is the belief in one's ability to influence events that effect one's life and control over the way these events are experienced.**

Albert Bandura
Professor Emeritus of Social Science and Psychology at Stanford University

States of play:

Empowering children's self-efficacy

Unless people believe they can produce desired effects through their actions, they have little reason to act at all, or persevere in the face of difficulties. That is why playful experiences must empower children's self-efficacy.

Children should be able to explore and develop their own ideas, and good facilitators observe, build on, extend, and challenge children's ideas; they help children move up and down the states of play.

Navigating the depths of learning through play
A good facilitator inspires children's play, creates space and time for many kinds of playful experiences, and adapts his or her role to match where children are as they take on new challenges.

To guide children through playful experiences, we have included the States of Play in the Learning through Play Experience Tool.

They describe five primary states that children can go through during play experiences beginning with Passive *"I am following instructions"* to Transferring *"I am reflecting on how this experience can influence*

the reality of my own life and have confidence that it changes myself and others."*

Compared to both free play and direct instruction guided play is a much more impactful approach for empowering children's self-efficacy, which, in turn, is good for their developing brains.

Experiences that build brain architecture
The brain architecture needed for lifelong learning is built when children choose what to do and how, by exploring, manipulating, and influencing the environment - not from simply being exposed to objects or information.

Empowering children through playful experiences is a natural process for them to explore the world around them; to formulate and test their own hypotheses about the world, social norms, and laws of nature.

Coding examples

On the next pages, you will see three examples of behavioural coding.

The first thing to notice in the photo to the rigt is that there are several children. If this had been a video recording or live play experience, observers would begin by agreeing on which child to observe.

Let us continue this example by focusing on the boy to the far right of the photo. He is clearly reacting to whatever or whoever is standing in front of the children.

In terms of Joyful, he seems very curious about the experience, which means that he is in the Exploring state of this characteristic.

Moving to Actively Engaging, his facial expression indicates that he could be in the Recognising state, "I am invested", because his open eyes and mouth signal some sort of insight or perhaps surprise.

Questions for reflection:
- How can a facilitator leverage the boy's engagement?
- Which materials or objects would allow the boy to further test and iterate on his insight?
- What steps can the facilitator take to make the experience more Socially Interactive?

Coding examples

In the second example, we will focus in the girl in the left side of the photo.

She seems to be staring into the air without any particular purpose or goal. She niether looks happy nor sad, so in terms of Joyful she is in the Passive state, "I am neutral about the experience".

Regarding Meaningful, she could be doing this because she has to, also in the Passive state. But given that we do not know what has happened before the photo was taken, she could also be simply taking a few minutes rest.

In terms of Socially Interactive, she is likely somewhere between Passive, "I am alone or in a group not by choice" and Exploring, "I am aware of others".

Questions for reflection:
- How can a facilitator make the experience more joyful for the girl?
- How long would you wait before engaging her with a reflection task of her own or a suggestion to help the younger children?
- What could be done to get the attention of the entire classroom?

Coding examples

In the last example, we will focus on the boy in the left side of the photo in the yellow T-shirt.

On the characteristic Actively Engaging, he is likely in Exploring, "I am interested in the environment and the materials". Perhaps he was in Owning, "I am focused on the experience", a few seconds ago, but something other than the teacher's activities seem to have caught his attention.

Regarding Socially Interactive, he is between Exploring, "I am aware of others", and Owning, "I play with others or let others approach me".

In terms of Iterative, he could be in Owning, "I adjust my approach", depending on what he does next. Perhaps he is observing something or someone with the intent of using the feedback to change his behaviour.

Reflection questions:
- When should a facilitator intervene and get the boy's attention back to the teacher?
- What could he be looking at that is more empowering for his self-efficacy that simply following instructions?
- Is this activity guided play, or are the children overall simply following instructions?

> **If you are interested in something, you will focus on it, and if you focus attention on anything, it is likely that you will become interested in it.**
>
> **Many of the things we find interesting are not so by nature, but because we took the trouble of paying attention to them.**

Mihaly Csikszentmihalyi
Professor of Psychology and Management at Claremont Graduate University

Attention leads to growth

By using the Learning through Play Experience Tool, you learn what playful experiences look like and thereby become able to have informed conversations about facilitation and experience design.

Once you know what to look for, you will see playful experiences everywhere. You will also become able to reflect on how elements in a child's environment can be tweaked to foster even deeper learning experiences.

When you talk with others who have used the tool, you establish a common language about learning through play, because you know what the five characteristics look like.

Learning a new language takes practice

Establishing a common understanding and shared language about the five characteristics does not happen by using the tool once. And the skills needed to become a lifelong learner do not develop from a single playful experience.

But the steps we as facilitators and designers take don't need to be large. They just need to take us in the right direction.

So let's put more attention on the many nuances of learning through play!

Your notes

References

ACER (2019). *Measures of characteristics and skills associated with learning through play*. Australian Council for Educational Research, June 2019

Bandura, A. (2006). Toward a psychology of human agency. *Perspectives on psychological science, 1(2).*

Csikszentmihalyi, M. (2020). *Finding flow: The psychology of engagement with everyday life*. Hachette UK.

The LEGO Foundation (2017). *What we mean by: Learning through play.* Version 1.2, June 2017.

Zosh, J. M., Hirsh-Pasek, K., Hopkins, E. J., Jensen, H., Liu, C., Neale, D., ... & Whitebread, D. (2018). Accessing the inaccessible: Redefining play as a spectrum. *Frontiers in psychology, 9.*

Zosh, J. M., Hopkins, E. J., Hirsh-Pasek, K., Jensen, H., Liu, C., Neale, D., ... & Whitebread, D. (2017). *White paper - Learning through play: a review of the evidence.* The LEGO Foundation, November 2017.

....

....

....

....

....

....

....

....

....

....

....

....

....

....

No Observation	No opportunity to observe this characteristic
Non Play	I am opting out of the experience
Waiting	I am waiting my turn/ I am waiting for resources

State of play	Joyful		Actively Engaging	
	Summary Description	Example Behaviour	Summary Description	Example Behaviour
Passive *I am following instructions*	I am neutral about the experience	Participates in the experience but without any evidence of pleasure	I am following the play or instructions of others	Does not take initiative
Exploring *I am considering possibilities*	I am curious about the experience	Moves or looks around the space paying attention to the environment Picks up toys or props	I am interested in the environment and materials	Appears to be orienting or reorienting to the play experience Talks about how to engage
Owning *I am choosing my own path*	I am enjoying the process, even if it's challenging	Appears to be caught up in the activity Goes through struggle, frustration or irritation and continues	I am focussed on the activity	Continues despite minor distractions Shows no interest in wanting to stop
Recognising *I have new insights*	I feel a sense of accomplishment	Shows pleasure when talking about the experience Shows pride in creation, e.g., proudly places creations on displays; performs for an audience	I am invested	Maintains focus and pushes past obstacles Living the narrative
Transferring *I am reflecting on how this experience can influence the reality of my own life, and have confidence that it changes myself and others*	I am enthusiastic about trying this again	Takes initiative to start a new project	I have tried this again after the experience	Shows desire to repeat play experience later Plays for longer sessions without interruptions

Iterative		Meaningful		Socially Interactive	
Summary Description	*Example Behaviour*	*Summary Description*	*Example Behaviour*	*Summary Description*	*Example Behaviour*
I do not know how to respond to the experience	Imitates others without evidence of independent consideration	I am doing this because I have to	Complies with the direction of others Appears disinterested	I am alone or in a group not by choice	Withdraws because ideas are not recognised or ignored Is clearly uncomfortable with play partner or group Rejected / excluded by group
I interact with the experience	Tries out the model or example Repeats the same action without making any changes	I attend to the experience	Describes visual cues or signs Uses different senses (touch, sounds, etc.) or moves around, showing awareness of the experience	I am aware of others	Watches others playing Imitates the play of others without direct engagement with them Shares attention to activity with others (e.g. looks at and talks about equipment with others)
I adjust my approach	Identifies what is not working and adjusts model in minor ways or tries a new idea Seeks advice ("Does this look right?" "Shall we do it like this?")	I am developing my understanding	Evidence that actions are goal directed Talks about what he/she is doing (to self or to others) Makes connections	I play with others or let others approach me	Offers and accepts ideas and creations Shows creation to others not involved in creating it Sharing tools and equipment
I am deliberate about the changes I make	Steps back to reflect on the problem Stretches the intentions of the experience design Makes major overhauls to original creation	I show how the experience is relevant to me	Expresses realisation ("You can also…") Acts upon revelation	I play with others collaboratively	Negotiates rules and relationships Cooperates with others (e.g. helping each other find the toys or pieces to play with)
I seek out and explore new projects	Uses the iteration process as a tool to solve complex challenges	I recall the experience and use it to understand other things	Uses the play experience as a tool for understanding new as well as old things after the play experience Refers to experience when trying to learn new things (e.g., "Like that time when we were playing where we…?")	I cooperate with others to initiate new play experiences	Serves as a recognised expert and resource to others Helps others focus on the play experience

Together, we champion learning through play

Get to know us better at LEGOFoundation.com
Like us on Facebook.com/LEGOFoundation
Follow us on Twitter @LEGOFoundation
Email us at LEGOFoundation@LEGO.com