

# Welcome!

Thanks for Joining Us Today.

Please use chat to sign in  
with your name.



# Creative Play: Tap into Your Brain's Superpower!



JULY 22, 2020

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# Housekeeping for Webinars

- **This meeting is being recorded**
- **Be on video** if possible.
- **Use the chat** for questions and reflection at any time throughout the presentation.
- Please **mute your audio**.

- **Stay Engaged.**
- **Community Mindset.**
- **Speak Your Truth.**
- **Be Open to New Ideas.**

# Zoom Meeting

Audio only

With video



What is the first thing that comes to mind when you hear the word  
**“PLAY”**?

Go to the chat box and click on the link to answer this question in 4 words or less. Once you type your answer, Hit Submit and join us back here.

# Summer is Here!

The usual enthusiasm for summer is absent...

## **WHY?**

- ✓ Students have been home since mid March
- ✓ Covid-19 has placed restrictions on gatherings, summer camps, sports, pools...
- ✓ Vacations have been cancelled

# They're bored – already! (we're bored too)



# What is Happening?

- Since the beginning of the COVID-19
- Statewide, national, and international surveys have been conducted since 2019-2020 (Additional information regarding depression, anxiety, students, etc. can be found on the website, and what has been expected (using November 2019-January 2020 average as a baseline).

## So What Do We Do?

How do you instill **excitement, creativity, inquiry, exploration** and help children **thrive** during the summer?

# PLAY

The background of the image shows the silhouettes of five children playing on a grassy hill. The children are in various active poses: one is jumping on the left, another is standing with arms raised, and others are in mid-air or running. The scene is set against a bright, orange-hued sunset sky, with the sun low on the horizon behind the children. The overall mood is joyful and energetic.

**Children need the  
freedom and time to play.  
Play is not a luxury.  
Play is a necessity.**

**- Kay Redfield Jamison**

# How Does Play Help?

- Enhances brain structures and function
- Promotes development of executive function skills
- Supports development of self-regulation skills
- Fosters pro-social skills
- Enhances cognitive and language skills

# How Does Play Help?

- Fosters pro-social skills
- Facilitates parent engagement
- Promotes safe, stable and nurturing relationships
- Improves life course trajectory!

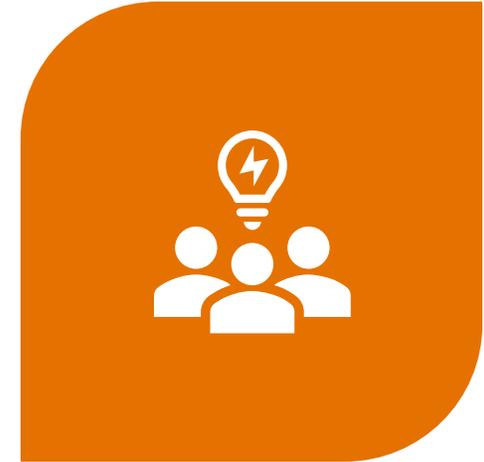
# Play Supports 21<sup>st</sup> Century Skills



PROBLEM-  
SOLVING



COLLABORATION



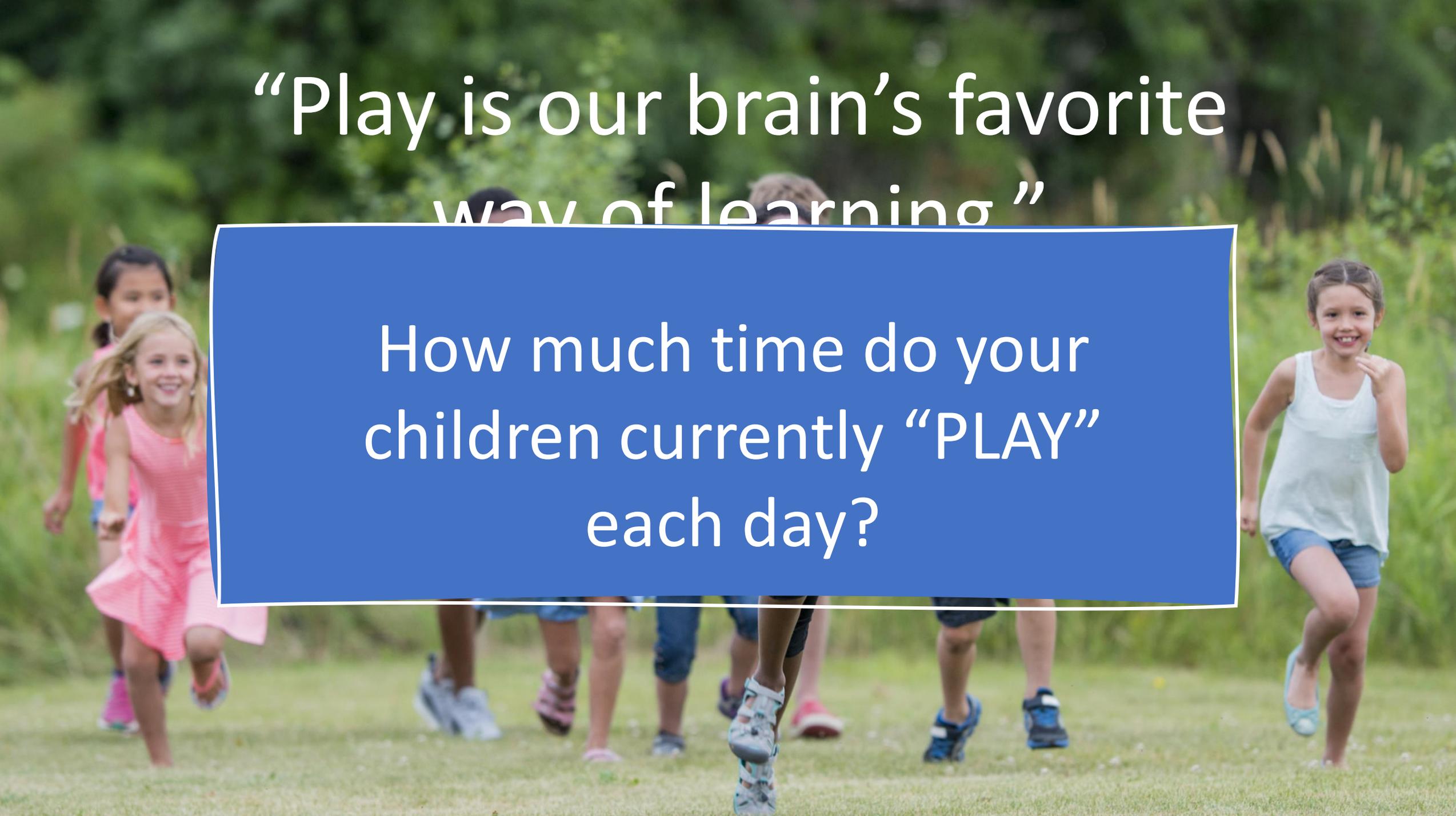
CREATIVITY

# What is Play?

- Activity that is **intrinsically motivated**
- Entails **active engagement**
- Results in **joyful discovery**
- **Involves creativity and imagination**
- **No designated outcome (win/lose)**

# What are the Current Challenges to Play?

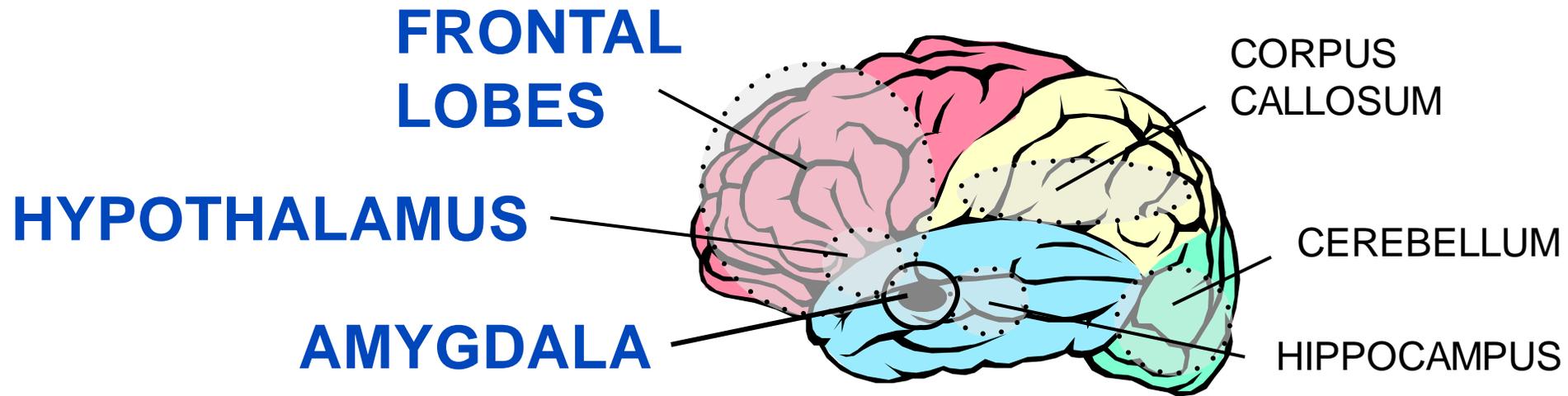
- Unsafe neighborhoods
- Access to quality public spaces and recreation center
- Overscheduled
- Media
- Obesity

A group of children are running happily across a grassy field. In the foreground, a girl in a light blue tank top and denim shorts is running towards the right, smiling broadly. To her left, a girl in a pink dress is also running. In the background, several other children are visible, some running and some standing. The background is a lush green field with trees and bushes.

“Play is our brain’s favorite  
way of learning”

How much time do your  
children currently “PLAY”  
each day?

# Let's Begin with the BRAIN...



## The Brain Made Ridiculously Simple!

<b>HIPPOCAMPUS</b> The Mail Carrier	<b>AMYGDALA</b> The Palace Guard	<b>HYPOTHALAMUS</b> Thermostat	<b>CORPUS CALLOSUM</b> Brooklyn Bridge	<b>CEREBELLUM</b> Mover & Shaker	<b>FRONTAL LOBES</b> Learning to Drive



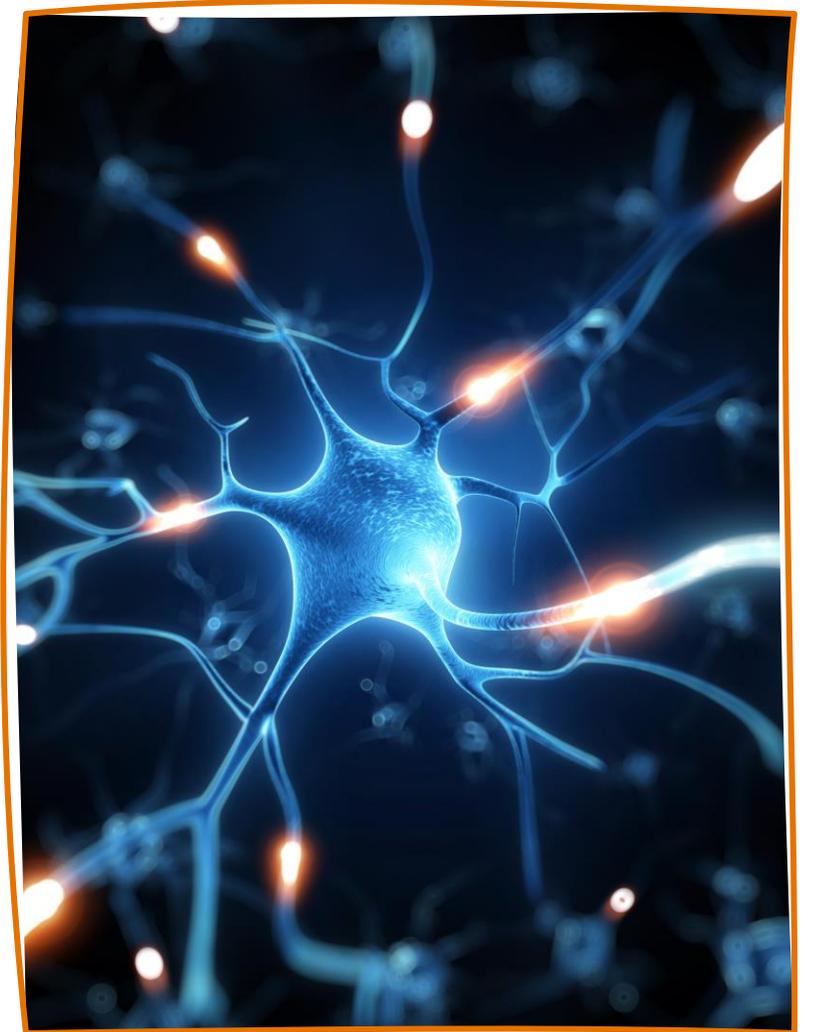
**“The truth is that play seems to be one of the most advanced methods nature has invented to allow a complex brain to create itself.”**

**- Stuart Brown**

# Why Play?

**No play...no changes in those neurons.**

It is those changes in the prefrontal cortex during childhood that help wire up the brain's executive functioning, which has the critical role in regulating emotions, making plans and solving problems.



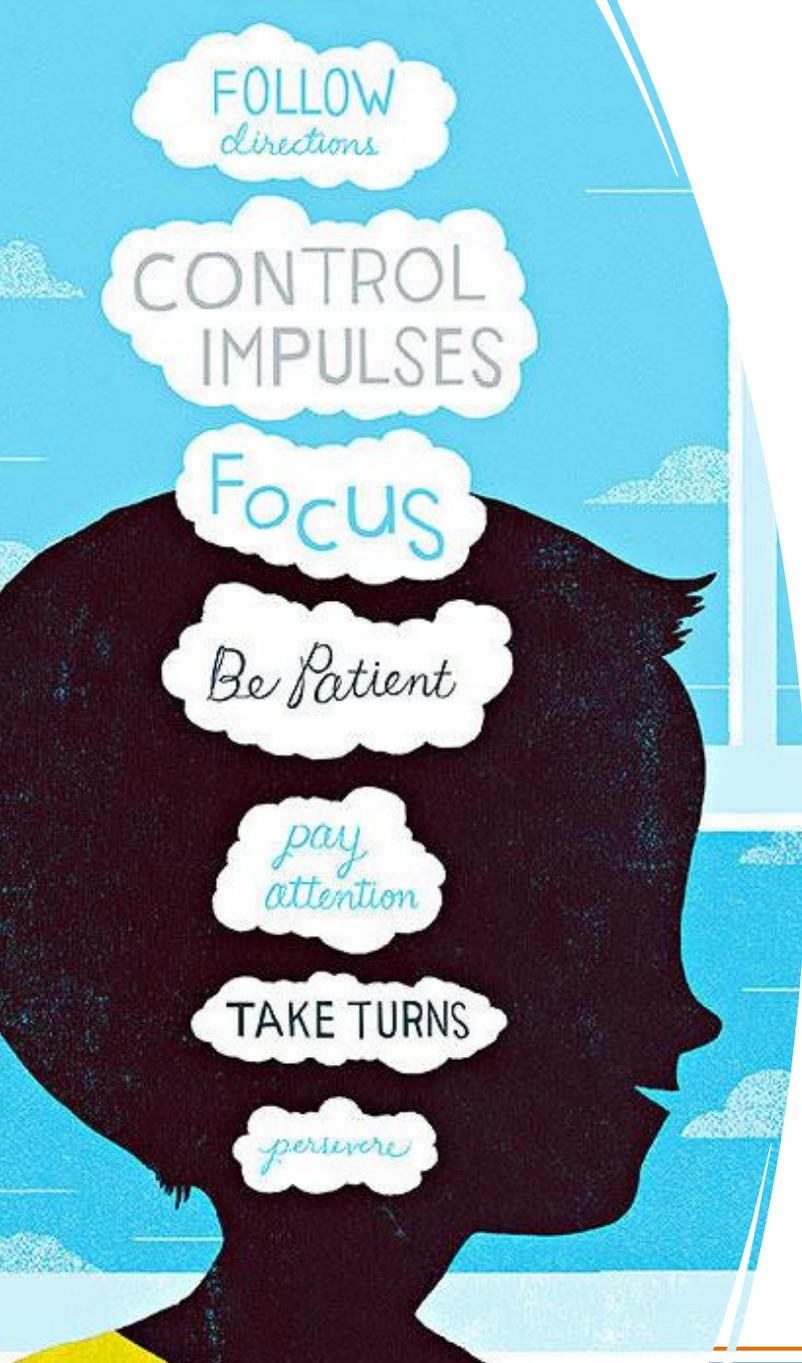
# Play and the Feel-Good Hormones

- Play can **unlock powerful feel-good hormones** and **change the way the brain responds** to the signals it receives.
- Feel-good hormones – **endorphins, oxytocin, dopamine, and serotonin = key to incredible mental health benefits**, including:
  - improved mood
  - reduced stress
  - greater happiness
  - feeling of being more alive

# Creative Play Develops the Brain's Executive Function

Creative play exercises the Frontal Lobe (Executive Function Control Center):

- Plan
- Organize
- Manage Time
- Pay Attention
- Manage Emotions
- Learn from Past Experiences
- Self Control
- Self Discipline



# Executive Function

Executive function is a set of mental skills that include:

- working memory
- flexible thinking
- self-control.

We use these skills every day to learn, work, and manage daily life. Trouble with executive function can make it hard to focus, follow directions, and handle emotions, among other things.

- Philip D. Zelazo, PhD: The Understood Team

# EF or IQ?

- Researchers have found that executive function skills **are stronger predictors than IQ** of success in school, the workforce, and later in life.
- Teaching students how to play games can **help them develop the executive function skills necessary to manage complex cognitive processes.**

# 10 GAMES

TO IMPROVE  
EXECUTIVE FUNCTIONING  
SKILLS

<b>1</b>	<b>BLURT</b> (self-control, metacognition)
<b>2</b>	<b>SCRABBLE</b> (planning, organization)
<b>3</b>	<b>PICTIONARY</b> (flexibility, time management)
<b>4</b>	<b>DISTRACTION</b> (working memory, attention)
<b>5</b>	<b>5 SECOND RULE</b> (time management, task initiation)

<b>6</b>	<b>FREEZE</b> (self-control, attention)
<b>7</b>	<b>JENGA</b> (self-control, flexibility, planning)
<b>8</b>	<b>BRAINTEASERS</b> (perseverance, flexibility)
<b>9</b>	<b>CHESS</b> (planning, flexibility, working memory)
<b>10</b>	<b>SODUKU</b> (perseverance, working memory)
<a href="http://www.thepathway2success.com">www.thepathway2success.com</a>	
Pathway 2 SUCCESS	

# Why Play?

- So, play prepares children for more than just school, **but life!**
- However, to produce this sort of brain development, **children need to engage in plenty of so-called creative play.** No coaches, no umpires, no rule books. (Hamilton, J., 2014)

A young child with blonde hair, wearing a blue bow, pink sunglasses, and a blue swimsuit, is sitting on a sandy beach. The child is pouring water from a blue and yellow watering can onto a sandcastle. The sandcastle is built with blocks and is surrounded by other colorful beach toys, including a red bucket, a green bucket, and a blue bucket. The background shows a clear blue sky, palm trees, and the ocean.

**Play gives children  
a chance to practice  
what they are  
learning.**

**- Fred Rogers**

# Two Types of Play

Convergent | Divergent



# Two Types of Play

## Convergent

One right answer and that a problem has a single solution

## Games with Rules

In solitary or group play children recognize and follow rules that conform to the expectations and goals of the game in order to sustain play.

# Two Types of Play

## Divergent

Seeks multiple perspectives and multiple possible answers to questions and problems

- Functional – sensory exploration
- Constructive – manipulate objects to create something
- Symbolic/dramatic – pretend, dress up

# Divergent Play Increases Self-Regulation

Pretend play increases two crucial skills:

## 1) **Self-regulation** (impulses, emotions, attention)

- Children must collaborate on an imaginary environment and agree to pretend rules for play

## 2) **Reason counterfactually** (make inferences about events that have not actually occurred)

- Children engage in “what if” thinking that allows them to problem-solve effectively

# Creative Play Activities

Encourages **flexible use of materials:**

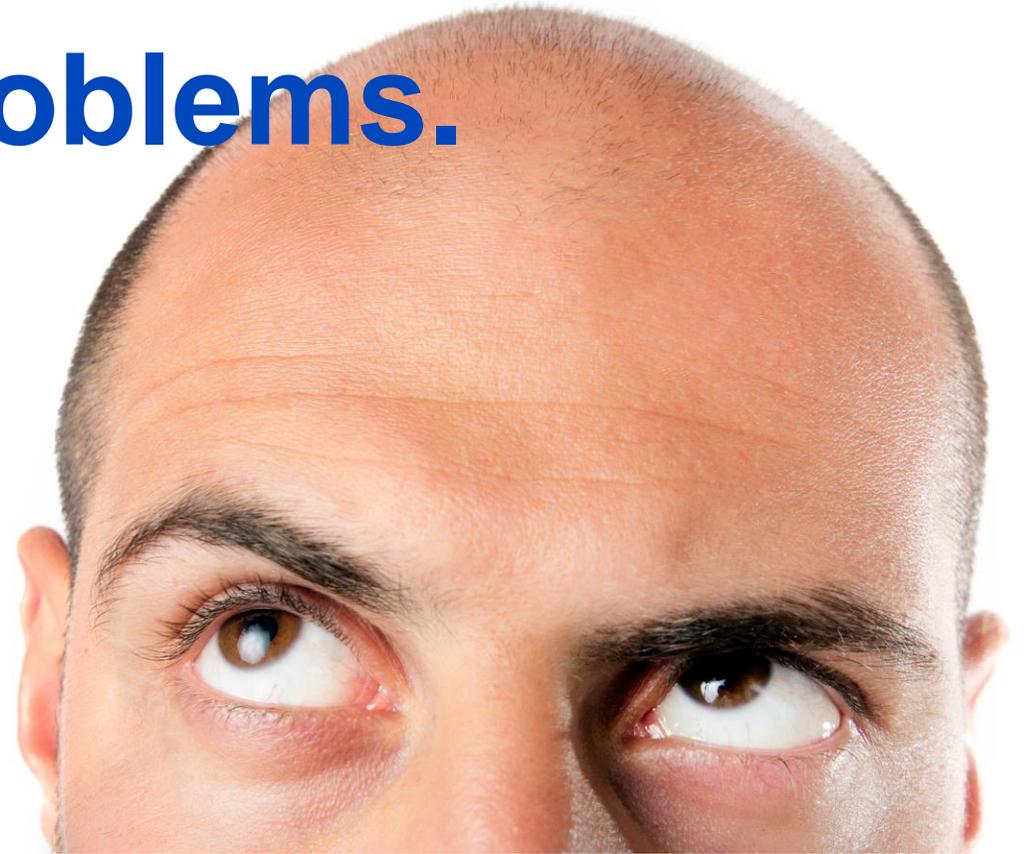
- blocks
- paper
- writing materials
- arts and craft materials

# More Examples of Creative Play

- Playing on playground equipment, climbing, swinging, running around
- Playing make-believe and dress-up
- Reading and looking at books they enjoy, not as part of homework or study
- Storytelling
- Camping in the back yard
- Creating plays, songs, dances



Research suggests that the way a child plays contributes to their ability to solve problems.





“Play is the  
highest form  
of research.”  
- Albert Einstein

# How Much Play Time is Needed to Benefit?

POLL

How much play time enhances classroom attention  
for 4- and 5-year-olds:

**5 minutes**

**10 - 20 minutes**

**30 minutes**

# How Much Play Time is Needed to Benefit?

**10 – 20 minutes**

In a small study of 4 and 5-year-olds, researchers found that recesses of **10 or 20 minutes** enhanced classroom attention. Recesses as **long as 30 minutes** had the opposite effect.  
(Pelligrini and Holmes 2006)

# How Much Play Time is Needed to Benefit?

Countries who achieve higher academically, like Sweden, Finland, China, and Japan, **have more play built into their school days**, whether it be brief breaks of 10 minutes or lengthy play times of 30 minutes or more.

# How Much Play Time is Needed to Benefit?

POLL

How much moderate-to-vigorous play time is recommended by the CDC for 6 through 17-year-olds:

**30 minutes**

**60 minutes**

**2 hours**

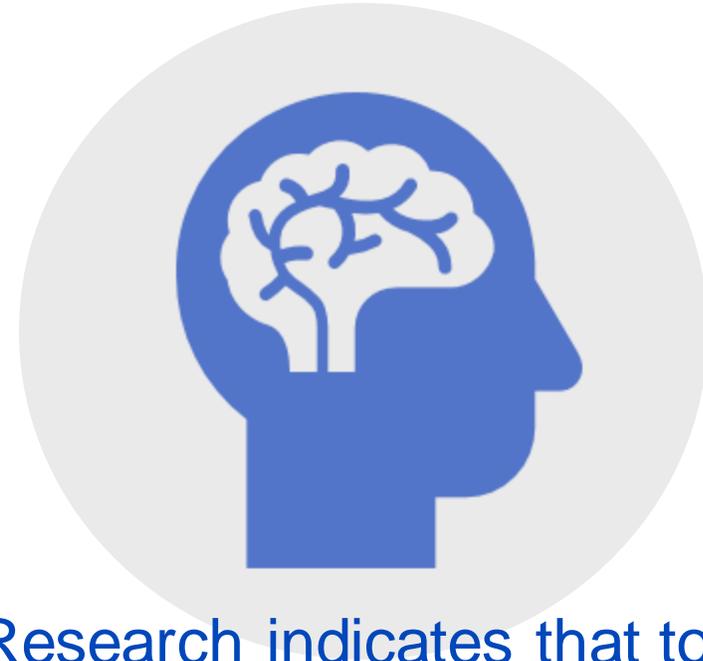
# Healing through PLAY.



# Play Reduces Stress



Children and adults need ways to manage their toxic stress.



Research indicates that toxic stress can disrupt the development of executive function skills and learning pro-social behavior – both are essential for children to thrive.

# Play and Stress

High amounts of play are associated with low levels of cortisol.



# Play and Stress

**Play is one of the best activities to help with stress!**

- Releases lots of oxytocin and serotonin
- It is a great way for kids to focus on creative thinking
- Kids are much happier after play

# Play and Stress

## **Play is one of the best activities to help with stress:**

- Releases lots of oxytocin and serotonin, thus making you feel more relaxed
- It is a great way for them to focus on creative thinking, which allows them to forget what is troubling them.
- Kids are much happier after play, which helps to improve their behavior, increasing participation in the classroom and being a better listener

# active kids learn better



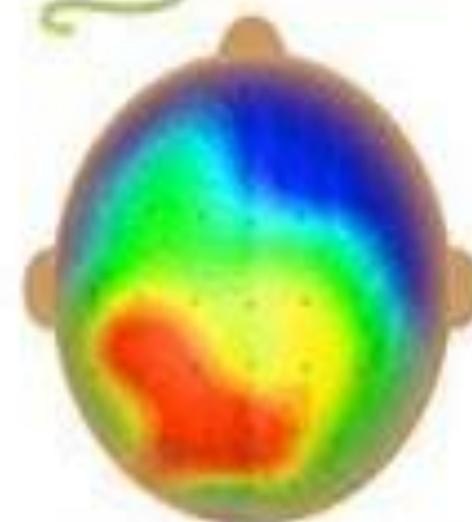
## BRAIN SCANS OF STUDENTS TAKING A TEST:



Red areas are very active;  
blue areas are least active.



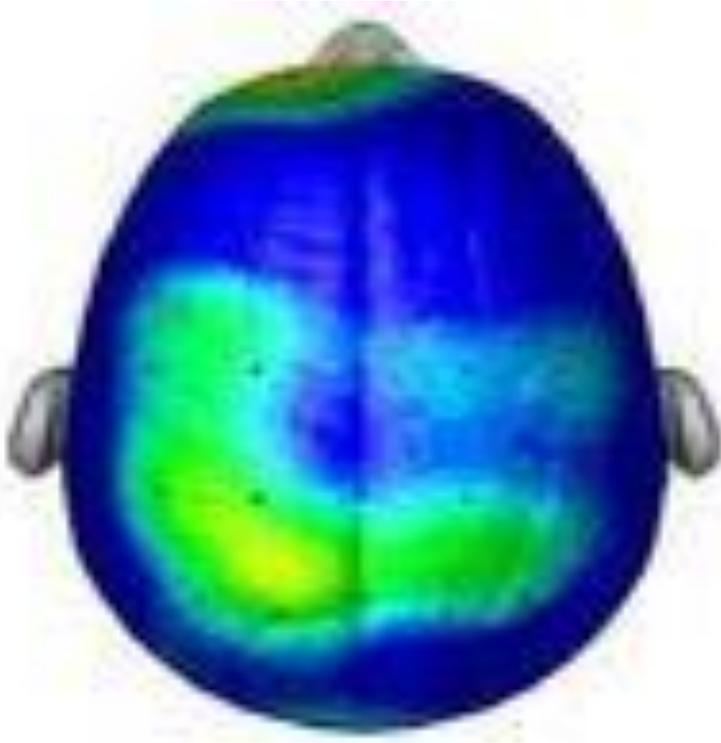
after 20 minutes of  
sitting quietly



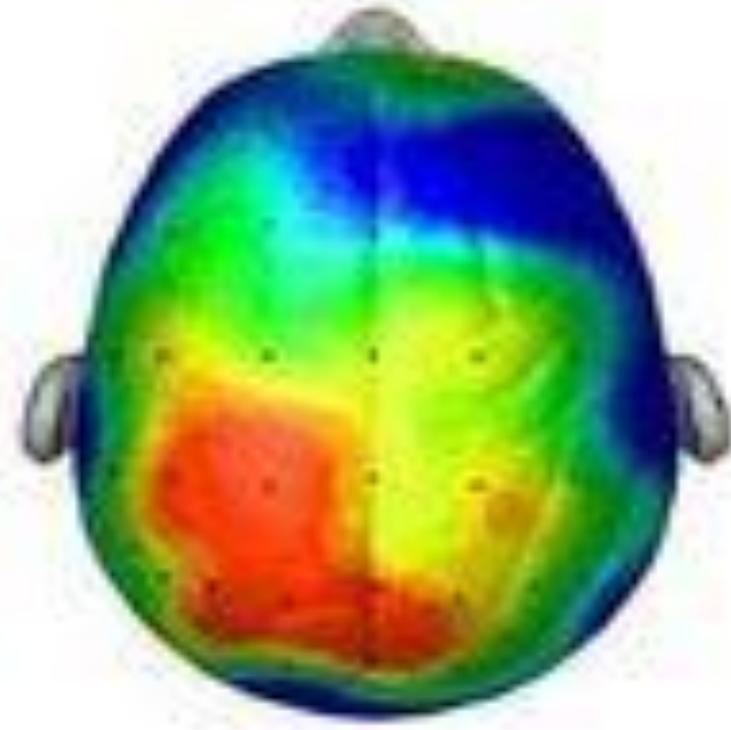
after 20 minutes of  
walking

Learn more about why active kids learn better and how schools can help at [activelivingresearch.org/activeeducationbrief](http://activelivingresearch.org/activeeducationbrief).

## Brain After Sitting Quietly



## Brain After 20 Min Walk Triggering Endorphins



Scan compliments of Dr. Chuck Hilman University of Illinois

# Parental Relationships

- As the American Academy of Pediatrics report notes, some of the best interactions between parents and kids occur during downtime—just talking, preparing meals together, working on a hobby or art project, playing sports together, or being fully immersed in child-centered play.
- Parents who let their children direct the playtime learn much about their world. They can also provide some gentle guidance about positive behavior and problem-solving, if necessary, as the pretend game unfolds. (Hartwell-Walker, J., 2020)



So how do we  
**make time**  
to PLAY?

You need to **schedule** time  
for unstructured play!



# Make Play a Priority!

01

Make time in  
your schedule  
for play

02

Turn off all  
electronics –  
phones,  
computer,  
iPad

03

Be fully  
present

04

Appreciate  
and enjoy  
your time  
together

# Adults Need Time to Play as Well

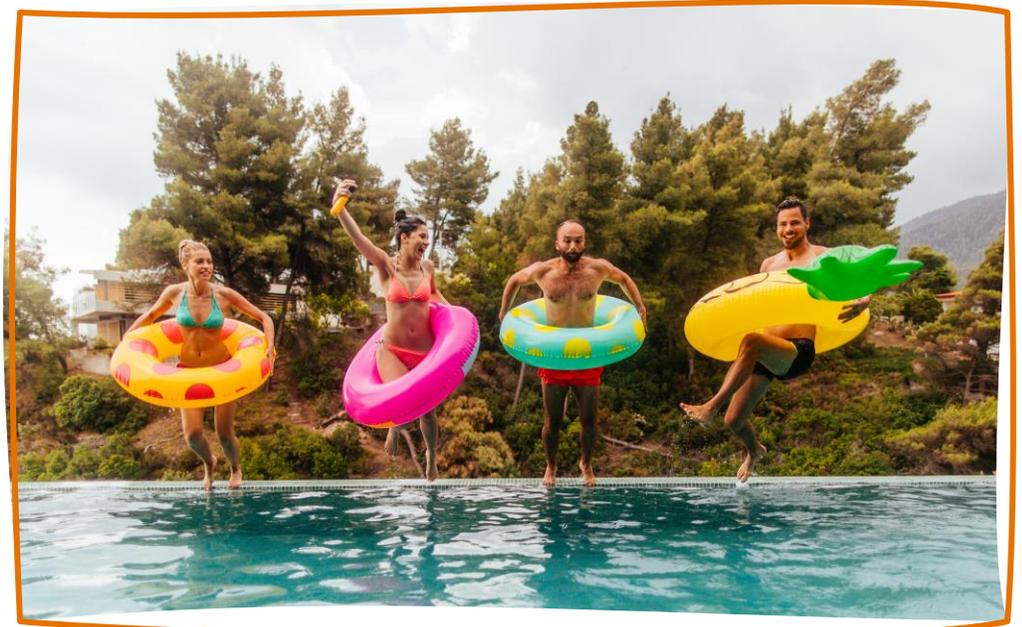
Play has many benefits for adults such as:

1. Relieves stress
2. Improves brain function
3. Stimulates the mind and boosts creativity
4. Improves relationships and connections with others



# Adults Need Time to Play as Well

5. Keeps you feeling young and energetic
6. Develops and improves social skills
7. Teaches cooperation with others
8. Heals emotional wounds



# Play for a Healthy Adulthood

**Play is something done for its own sake. It's voluntary, it's pleasurable, it offers a sense of engagement, it takes you out of time. And the act itself is more important than the outcome.**

# Play for a Healthy Adulthood

- Maintains social well-being.
- Playing is how we connect with others.
- Helps to maintain memory and thinking skills; dodging degenerative brain disease.
- Mutual playfulness in relationships help to solidify bonds: building community, keeping the mind sharp and keeping close the ones you love.

(Yenigun, S., 2014)

# Benefits of Play at Work

1. **Boosts** productivity and innovation
2. **Keeps you functional** when under stress
3. **Refreshes** your mind and body
4. **Encourages** teamwork
5. **Increases** energy and **prevents** burnout
6. **Triggers** creativity and innovation
7. **Helps you see** problems in new ways

Lawrence Robinson, Melinda Smith, M.A., Jeanne Segal, Ph.D., and Jennifer Shubin, June 2019

**The playing adult  
steps sideward into  
another reality; the  
playing child  
advances forward  
to new stages of  
mastery.**

Erik H. Erikson,  
American  
psychoanalyst,  
1902–1994





**Let's  
PLAY  
Today!**

# Great Resource!

- Physical Activity Guidelines for Children and Adolescents  
[https://health.gov/sites/default/files/2019-09/Physical\\_Activity\\_Guidelines\\_2nd\\_edition.pdf#page=46](https://health.gov/sites/default/files/2019-09/Physical_Activity_Guidelines_2nd_edition.pdf#page=46)
- Enhancing and Practicing Executive Function Skills with Children from Infancy to Adolescence; Harvard University  
<https://46y5eh11fhgw3ve3ytpwxt9r-wpengine.netdna-ssl.com/wp-content/uploads/2015/05/Enhancing-and-Practicing-Executive-Function-Skills-with-Children-from-Infancy-to-Adolescence-1.pdf>

Visit the website for free resources:

- today's **PowerPoint**
- **easy-to-read articles**
- **Information regarding our AUGUST WEBINAR!**

<https://childrensguild.org/webinars/>



**KIDS** <sup>20</sup><sub>20</sub>  
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**OCTOBER 26-27, 2020**

# Questions or Comments?

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