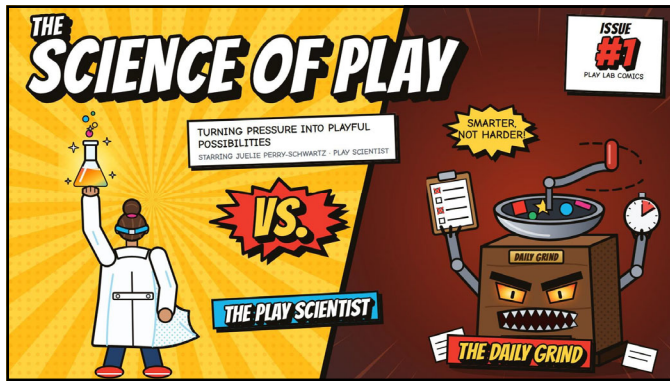




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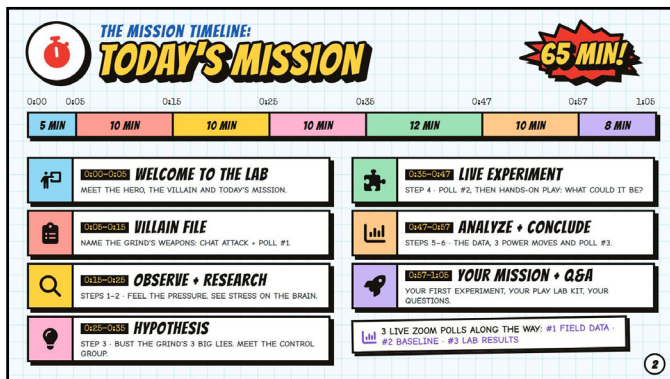
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### MISSION OBJECTIVES

BY THE END OF THIS SESSION, YOU'LL BE ABLE TO:



|                      |                                                                                                                |
|----------------------|----------------------------------------------------------------------------------------------------------------|
| 1<br><b>EXPLAIN</b>  | HOW CHRONIC STRESS AFFECTS AN EDUCATOR'S BRAIN AND BODY, AND HOW PLAY HELPS LOWER STRESS AND SPARK MOTIVATION. |
| 2<br><b>IDENTIFY</b> | AT LEAST THREE DAILY GRIND PRESSURES IN YOUR OWN WORK AND HOW EACH ONE CROWDS OUT PLAY.                        |
| 3<br><b>APPLY</b>    | ONE PLAYFUL POWER MOVE TO AN EVERYDAY ROUTINE, AND PLAN HOW YOU'LL TEST IT TOMORROW.                           |

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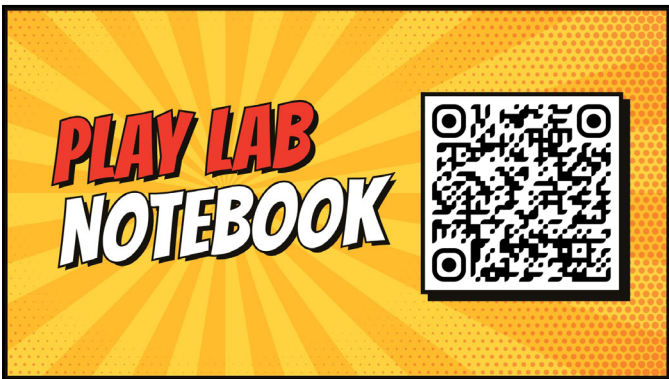
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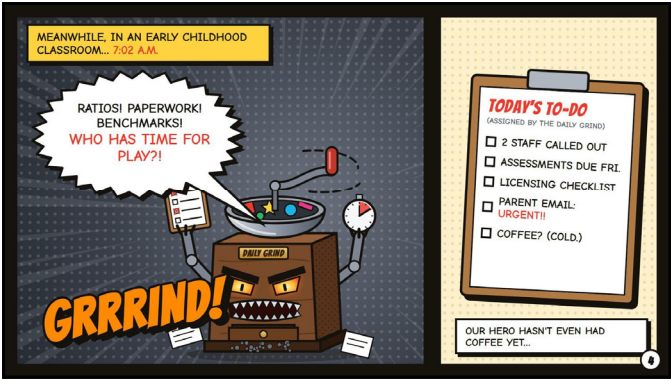
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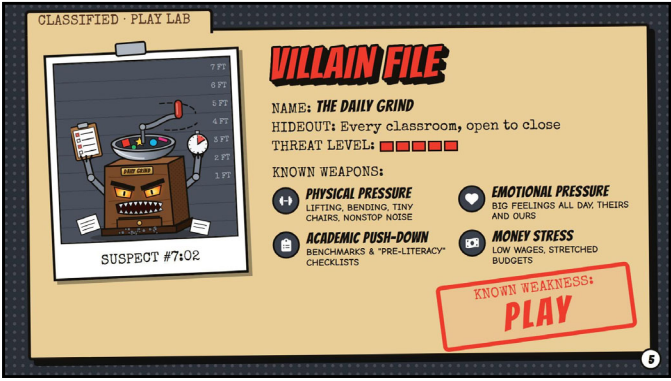
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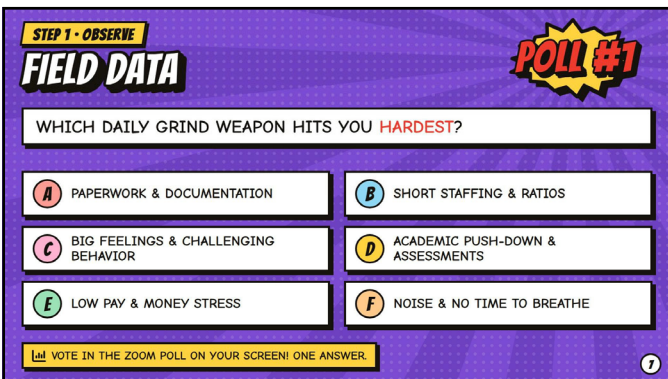
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**THE MISSION PLAN:**  
**THE SCIENTIFIC METHOD**

**OBSERVE**  
WHAT'S REALLY HAPPENING?

**RESEARCH**  
WHAT DOES SCIENCE SAY?

**HYPOTHESIZE**  
WHAT IF...?

**EXPERIMENT**  
TEST IT. LIVE!

**ANALYZE**  
WHAT DID THE DATA SHOW?

**CONCLUDE**  
WHAT CHANGES TOMORROW?

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**STEP 1 - OBSERVE**  
**LAB WORK: UNDER PRESSURE**

**PHYSICAL**  
  
⌚ STRETCH BOTH ARMS STRAIGHT OUT. HOLD... HOLD... HOLD...

**EMOTIONAL**  
  
⌚ KEEP HOLDING. NOW SOMEONE WITH A CLIPBOARD IS WATCHING... AND SCORING YOU.

**REFLECT & SHARE: WHAT DID YOU NOTICE?**

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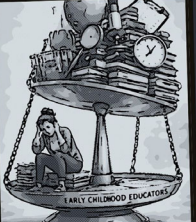
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**STEP 1 - OBSERVE**  
**IT'S NOT YOUR IMAGINATION.**  
**THIS WORK IS HEAVY.**

  
EARLY CHILDHOOD EDUCATORS

**63%**  
MET SCREENING  
CRITERIA FOR  
DEPRESSION

**1 IN 4**  
FACED FOOD  
INSECURITY OR  
ECONOMIC HARDSHIP

**80%**  
HAD AT LEAST ONE  
ADVERSE CHILDHOOD  
EXPERIENCE

CASE FILE: 67 EARLY EDUCATORS IN 13 CENTERS. THESE AREN'T CHARACTER FLAWS. THEY'RE FINGERPRINTS OF THE GRIND.

Source: Baker & Dymis (2024). Psychology in the Schools 61(4). Pilot study, surveyed Fall 2021.

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**STEP 2 - RESEARCH**

## YOUR BRAIN ON THE GRIND

**CHRONIC STRESS**



**CORTISOL** ↑↑↑

✗ IMPAIRS LEARNING & MEMORY

✗ REDUCES ATTENTION

✗ DISRUPTS MOOD

STRESS KNOCKS THE BRAIN'S THINKING CENTER (PREFRONTAL CORTEX) OFFLINE → SURVIVAL MODE: REACT. RUSH. REPEAT.

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**STEP 3 - HYPOTHESIZE**

**HYPOTHESIS:**

- IF WE REDUCE PRESSURE AND REINTRODUCE **PLAY**, WE DON'T LOSE LEARNING...

**WE RESTORE IT.**




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**THE GRIND FIGHTS BACK: 3 BIG LIES**

"PLAY IS JUST FOR KIDS."

**BUSTED!**

**WE TEACH FROM THE STATE WE'RE IN.**  
A regulated, playful adult sets the tone for the whole room.

"THERE'S NO TIME FOR PLAY."

**BUSTED!**

**PLAY ISN'T ANOTHER THING ON YOUR LIST.**  
It's a way of doing the list: routines, transitions, even cleanup.

"PLAY ISN'T REAL LEARNING."

**BUSTED!**

**PLAY BUILDS LANGUAGE, EXECUTIVE FUNCTION & PROBLEM-SOLVING.**  
Pediatricians call it a buffer against the negative impacts of stress.

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**STEP 4 - EXPERIMENT**

**THE CONTROL GROUP**

**THE NORDIC MODEL**  
PLAY · OUTDOOR ACTIVITY · DEMOCRACY, BEFORE EARLY ACADEMICS

**DENMARK**  
OUTDOOR, CHILD-LED PLAY · WELL-BEING OVER PERFORMANCE

**FINLAND**  
LATER ACADEMIC START · PLAY-BASED LEARNING · STRONG GLOBAL RANKINGS

**SWEDEN**  
PLAY IN THE CURRICULUM · SOCIAL-EMOTIONAL DEVELOPMENT FIRST

**VS.**

**THE AMERICAN MODEL**

GROWING FOCUS ON STANDARDIZED BENCHMARKS & "PRE-LITERACY" SKILLS TO GET READY FOR ELEMENTARY SCHOOL

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STEP 4 • EXPERIMENT

**BASELINE READING**

POLL #2

BEFORE THE EXPERIMENT: HOW CHARGED IS YOUR BATTERY **RIGHT NOW?**

1

RUNNING ON FUMES

2

LOW BATTERY

3

GETTING BY

4

PRETTY CHARGED

5

FULLY CHARGED

Let VOTE IN THE ZOOM POLL! WE'LL MEASURE AGAIN AFTER WE PLAY.

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STEP 4 • LIVE EXPERIMENT

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**WHAT COULD IT BE?**

60 SECONDS!

?

TYPE EVERY IDEA IN THE CHAT.  
SILLY ANSWERS COUNT DOUBLE!

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STEP 4 • FIELD RESEARCH

**GROWN-UPS AT PLAY**

HA HA!

STRUM!

CLICK-CLACK!

OBSERVED: LAUGHTER, FOCUS, CREATIVITY... **AND ZERO WORKSHEETS.**

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**STEP 5 - ANALYZE**  
**ON THE GRIND**



▲ CORTISOL

SURVIVAL MODE  
REACT · RUSH · REPEAT

**ON PLAY**



▼ STRESS HORMONES LIKE CORTISOL

▲ DOPAMINE  
MOTIVATION · LEARNING · ENGAGEMENT

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**STEP 5 - ANALYZE**  
**RESULTS: SMARTER, NOT HARDER**



MIND  
▼ CORTISOL

HEART  
▲ JOY & CONNECTION

BODY  
▲ ENERGY & MOVEMENT

PLAY ISN'T JUST FOR CHILDREN: WE TEACH FROM THE STATE WE'RE IN.

PLAY-BASED EXPERIENCES POWER UP:

|                 |                    |
|-----------------|--------------------|
| LANGUAGE        | EXECUTIVE FUNCTION |
| PROBLEM-SOLVING | CREATIVITY         |
| ENJOYMENT       | PEACE              |



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**POWER UP! 3 PLAY SCIENTIST MOVES**

POWER MOVE 1



**CONTROL**

↓

**CURIOSITY**

SHIFT FROM DIRECTING BEHAVIOR TO **STUDYING IT.**

POWER MOVE 2



**OUTCOME**

↓

**EXPERIENCE**

SHIFT FROM MEASURING PRODUCTS TO **OBSERVING PROCESSES.**

POWER MOVE 3



**MANAGING**

↓

**JOINING**

SHIFT FROM CONTROLLING THE ENVIRONMENT TO **ENTERING IT.**

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STEP 5 • ANALYZE

POLL #3

LAB RESULTS

TWO QUICK QUESTIONS TO CLOSE THE EXPERIMENT

QUESTION 1

AFTER THE EXPERIMENT: HOW CHARGED IS YOUR BATTERY **NOW**?

1

2

3

4

5

RUNNING ON FUMES

LOW BATTERY

GETTING BY

PRETTY CHARGED

FULLY CHARGED

QUESTION 2

WHICH POWER MOVE WILL YOU TRY TOMORROW?

A

B

C

D

CONTROL → CURIOSITY

OUTCOME → EXPERIENCE

MANAGING → JOINING

ALL THREE. LOOK OUT, GRIND!

VOTE IN THE ZOOM POLL ON YOUR SCREEN! TWO QUICK ANSWERS.

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STEP 6 • CONCLUDE

NEW HYPOTHESIS:

PLAY ISN'T EXTRA.  
IT'S ESSENTIAL!

"The opposite of play is not work, it is depression."  
— BRIAN SUTTON-SMITH, PLAY SCHOLAR

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# YOUR MISSION STARTS TOMORROW AT 7:02 A.M.



## RUN YOUR FIRST EXPERIMENT

① PICK ONE POWER MOVE.  
② TRY IT FOR ONE DAY.  
③ LOG WHAT HAPPENS.

NO LAB COAT REQUIRED.

## GRAB YOUR PLAY LAB KIT



RESOURCES ON THE PLAYFUL PADLET

## BRING THE PLAY LAB TO YOUR TEAM



KEYNOTES & PROFESSIONAL DEVELOPMENT WITH INSPIRE TO IMPACT



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# TO BE CONTINUED...

NEXT ISSUE: YOUR CLASSROOM, TOMORROW MORNING!

STARRING

## JUELIE PERRY-SCHWARTZ

PLAY SCIENTIST · STORYTELLER · HUMORIST





## THANKS FOR PLAYING!

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# LAB NOTES

THE RESEARCH BEHIND TODAY'S ISSUE

Bates, R. A., & Dynia, J. M. (2024). Psychological and physiological stress and stressors in early childhood educators: An observational pilot study. *Psychology in the Schools*, 61(4), 1415-1439.

Yogan, M., et al. (2018). The power of play: A pediatric role in enhancing development in young children. *Pediatrics*, 142(3), e20182068.

Arnsten, A. F. T. (2009). Stress signalling pathways that impair prefrontal cortex structure and function. *Nature Reviews Neuroscience*, 10(8), 410-422.

Vanderschuren, L. J. M. J., Achterberg, E. J. M., & Trezza, V. (2016). The neurobiology of social play and its rewarding value in rats. *Neuroscience & Biobehavioral Reviews*, 70, 86-106.

Sutton-Smith, B. (1997). *The Ambiguity of Play*. Harvard University Press.

Research roots: Harvard Center on the Developing Child · NAEYC · Stuart Brown · Peter Gray · Maria Montessori · Friedrich Froebel

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**CLICK "FILE" THEN "MAKE A COPY"**

# ***PLAY LAB NOTEBOOK***

## ***THE SCIENCE OF PLAY***

### ***THE PLAY SCIENTIST VS. THE DAILY GRIND***



A fill-in-the-blank workbook for early childhood educators

***PRESENTED BY JUELIE PERRY-SCHWARTZ, M.S.***

**[INFO@INSPIRETOIMPACT.NET](mailto:INFO@INSPIRETOIMPACT.NET)**

**772.473.4994**

**[INSPIRETOIMPACT.NET](http://INSPIRETOIMPACT.NET)**

This notebook belongs to: \_\_\_\_\_



SLIDES 1 TO 3

## ***WELCOME TO THE PLAY LAB***

Today you're the scientist. Fill in the blanks as we go. Every answer is on a slide or in what you'll hear, and the last pages help you plan your first experiment back in your classroom.

### ***TODAY'S MISSION: 65 MINUTES***

| Time | Section              | What happens                                                            |
|------|----------------------|-------------------------------------------------------------------------|
| 0:00 | Welcome to the Lab   | Meet the hero, the villain and today's mission.                         |
| 0:05 | Villain File         | Name the Grind's weapons in the chat and in Poll #1.                    |
| 0:15 | Observe and Research | Steps 1 and 2. Feel the pressure and see what stress does to the brain. |
| 0:25 | Hypothesis           | Step 3. Bust the Grind's 3 big lies and meet the control group.         |
| 0:35 | Live Experiment      | Step 4. Poll #2, then hands-on play.                                    |
| 0:47 | Analyze and Conclude | Steps 5 and 6. The data, 3 power moves and Poll #3.                     |
| 0:57 | Your Mission and Q&A | Your first experiment, your Play Lab Kit and your questions.            |

## MISSION OBJECTIVES

By the end of this session, you'll be able to:

1. **Explain** how chronic stress affects an educator's brain and body, and how play helps lower stress and spark motivation.
2. **Identify** at least three Daily Grind pressures in your own work and how each one crowds out play.
3. **Apply** one playful power move to an everyday routine, and plan how you'll test it tomorrow.

PART 1 · SLIDES 4 TO 7

## MEET THE VILLAIN: THE DAILY GRIND

### MEANWHILE, 7:02 A.M.

The Daily Grind's mission: squeeze every drop of \_\_\_\_\_ and \_\_\_\_\_ out of your day, one \_\_\_\_\_ at a time.

### VILLAIN FILE

|                |                                                              |
|----------------|--------------------------------------------------------------|
| Name           | The Daily Grind                                              |
| Hideout        | Every _____, open to close                                   |
| Weapon 1       | _____ pressure: lifting, bending, tiny chairs, nonstop noise |
| Weapon 2       | _____ pressure: big feelings all day, theirs and ours        |
| Weapon 3       | Academic _____: benchmarks and "pre-literacy" checklists     |
| Weapon 4       | _____ stress: low wages, stretched budgets                   |
| Known weakness | _____                                                        |

## ***CHAT ATTACK AND POLL #1: FIELD DATA***

The Daily Grind's #1 weapon in my classroom: \_\_\_\_\_

My Poll #1 vote: \_\_\_\_\_ The group's top answer: \_\_\_\_\_

## ***MY OWN VILLAIN FILE***

Name three Daily Grind pressures in your own work and how each one crowds out play.

| The pressure | How it crowds out play |
|--------------|------------------------|
|              |                        |
|              |                        |
|              |                        |

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PART 2 · SLIDES 8 TO 11

# ***OBSERVE AND RESEARCH***

## ***THE MISSION PLAN: THE SCIENTIFIC METHOD***

1. \_\_\_\_\_: What's really happening?
2. \_\_\_\_\_: What does science say?
3. \_\_\_\_\_: What if...?
4. \_\_\_\_\_: Test it. Live!
5. \_\_\_\_\_: What did the data show?
6. \_\_\_\_\_: What changes tomorrow?

## ***LAB WORK: UNDER PRESSURE***

When I held my arms out, my body noticed: \_\_\_\_\_

When someone with a clipboard was "scoring" me, I felt:

\_\_\_\_\_

## ***IT'S NOT YOUR IMAGINATION***

In a study of \_\_\_\_\_ early educators in 13 centers, \_\_\_\_\_% met screening criteria for depression, about \_\_\_\_\_ in 4 faced food insecurity or economic hardship, and \_\_\_\_\_% had at least one adverse childhood experience.

These aren't character flaws. They're the \_\_\_\_\_ of the Daily Grind.

## ***YOUR BRAIN ON THE GRIND***

The Grind's secret weapon is a stress hormone called \_\_\_\_\_.

Chronic stress impairs learning and \_\_\_\_\_, reduces \_\_\_\_\_ and disrupts \_\_\_\_\_.

Stress knocks the brain's thinking center, the \_\_\_\_\_ cortex, offline. That's survival mode: react, \_\_\_\_\_, repeat.

\_\_\_\_\_

## PART 3 · SLIDES 12 TO 14

***HYPOTHESIS***

If we reduce \_\_\_\_\_ and reintroduce \_\_\_\_\_, we don't lose learning. We \_\_\_\_\_ it.

***THE GRIND FIGHTS BACK: 3 BIG LIES***

| The lie                      | Busted: the truth                                                     |
|------------------------------|-----------------------------------------------------------------------|
| "Play is just for _____."    | We teach from the _____ we're in.                                     |
| "There's no _____ for play." | Play isn't another thing on your list. It's a way of doing the _____. |
| "Play isn't real _____."     | Play builds language, _____ function and problem-solving.             |

The lie I hear most, or tell myself: \_\_\_\_\_

***THE CONTROL GROUP: NORDIC VS. AMERICAN***

Denmark: outdoor, \_\_\_\_\_-led play, and well-being over \_\_\_\_\_.

Finland: a \_\_\_\_\_ academic start and play-based learning.

Sweden: play is built into the national \_\_\_\_\_.

The American model: a growing focus on standardized \_\_\_\_\_ and "pre-literacy" skills.

What surprised me: \_\_\_\_\_

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PART 4 · SLIDES 15 TO 17

## ***LIVE EXPERIMENT***

### ***POLL #2: BASELINE READING***

Before the experiment, my battery is at (circle or highlight one):

|                    |               |              |                  |                 |
|--------------------|---------------|--------------|------------------|-----------------|
| 1 Running on fumes | 2 Low battery | 3 Getting by | 4 Pretty charged | 5 Fully charged |
|--------------------|---------------|--------------|------------------|-----------------|

### ***WHAT COULD IT BE?***

You have 60 seconds. List everything the whisk could be. Silly answers count double.

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Round 2. My object: \_\_\_\_\_. It could be:

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My brain switched from "right answer" mode to "\_\_\_\_\_" mode.

### ***FIELD RESEARCH: GROWN-UPS AT PLAY***

Observed: laughter, focus, creativity... and zero \_\_\_\_\_.

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## ***ANALYZE AND CONCLUDE***

### ***THE DATA: GRIND VS. PLAY***

On the Grind, \_\_\_\_\_ goes up and we slip into survival mode.

On play, stress hormones like cortisol go down and \_\_\_\_\_ goes up. It boosts \_\_\_\_\_, supports \_\_\_\_\_ and increases \_\_\_\_\_.

### ***RESULTS: SMARTER, NOT HARDER***

Mind: less \_\_\_\_\_. Heart: more joy and \_\_\_\_\_. Body: more energy and \_\_\_\_\_.

Play-based experiences power up language, executive function, problem-solving, \_\_\_\_\_, enjoyment and peace.

### ***THREE POWER MOVES***

| Power move              | What it looks like                                  |
|-------------------------|-----------------------------------------------------|
| From _____ to curiosity | Shift from directing behavior to _____ it.          |
| From outcome to _____   | Shift from measuring products to observing _____.   |
| From managing to _____  | Shift from controlling the environment to _____ it. |

### ***POLL #3: LAB RESULTS***

My battery before the experiment: \_\_\_\_\_. After the experiment: \_\_\_\_\_

The power move I'll try tomorrow: \_\_\_\_\_

## CONCLUSION

Play isn't \_\_\_\_\_. It's \_\_\_\_\_!

"The opposite of play is not \_\_\_\_\_, it is \_\_\_\_\_." Brian Sutton-Smith, play scholar

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PART 6 · SLIDES 23 AND 24

## ***YOUR MISSION: RUN YOUR FIRST EXPERIMENT***

Tomorrow at 7:02 a.m., the Daily Grind will be waiting. Pick one power move, try it for one day, and log what happens. No lab coat required.

|                                     |                                       |
|-------------------------------------|---------------------------------------|
| Question                            | What's really happening in my day?    |
| Hypothesis                          | If I try this power move, I expect... |
| Power move I'll try                 |                                       |
| When (which routine or transition)  |                                       |
| What I'll watch for in myself       |                                       |
| What I'll watch for in the children |                                       |

**LAB LOG**

| Day | What I tried | What happened | My battery (1 to 5) |
|-----|--------------|---------------|---------------------|
| 1   |              |               |                     |
| 2   |              |               |                     |
| 3   |              |               |                     |
| 4   |              |               |                     |
| 5   |              |               |                     |

**MY CONCLUSION**

What changes next because of what I observed:

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## WRAP-UP

**MISSION CHECK**

Look back at today's mission objectives. Mark the box that fits you right now.

| Objective                                                                                                                     | I've got it              | Still working on it      |
|-------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|
| <b>Explain</b> how chronic stress affects an educator's brain and body, and how play helps lower stress and spark motivation. | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>Identify</b> at least three Daily Grind pressures in your own work and how each one crowds out play.                       | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>Apply</b> one playful power move to an everyday routine, and plan how you'll test it tomorrow.                             | <input type="checkbox"/> | <input type="checkbox"/> |

**YOUR PLAY LAB KIT**

Resources on the Playful Padlet: [open the Play Lab Kit](#)

Bring the Play Lab to your team with keynotes and professional development from Inspire to Impact: [connect with Inspire to Impact](#)

## LAB NOTES

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## SOURCES

Bates, R. A., & Dynia, J. M. (2024). Psychological and physiological stress and stressors in early childhood educators: An observational pilot study. *Psychology in the Schools*, 61(4), 1413–1439.

Yogman, M., et al. (2018). The power of play: A pediatric role in enhancing development in young children. *Pediatrics*, 142(3), e20182058.

Arnsten, A. F. T. (2009). Stress signalling pathways that impair prefrontal cortex structure and function. *Nature Reviews Neuroscience*, 10(6), 410–422.

Vanderschuren, L. J. M. J., Achterberg, E. J. M., & Trezza, V. (2016). The neurobiology of social play and its rewarding value in rats. *Neuroscience & Biobehavioral Reviews*, 70, 86–105.

Sutton-Smith, B. (1997). *The Ambiguity of Play*. Harvard University Press.

# PLAY ALWAYS WINS!

