Repeat to Remember

The Crucial Role of Repetition in Early Childhood Development

Stephanie Seidler, Director of We Skoolhouse

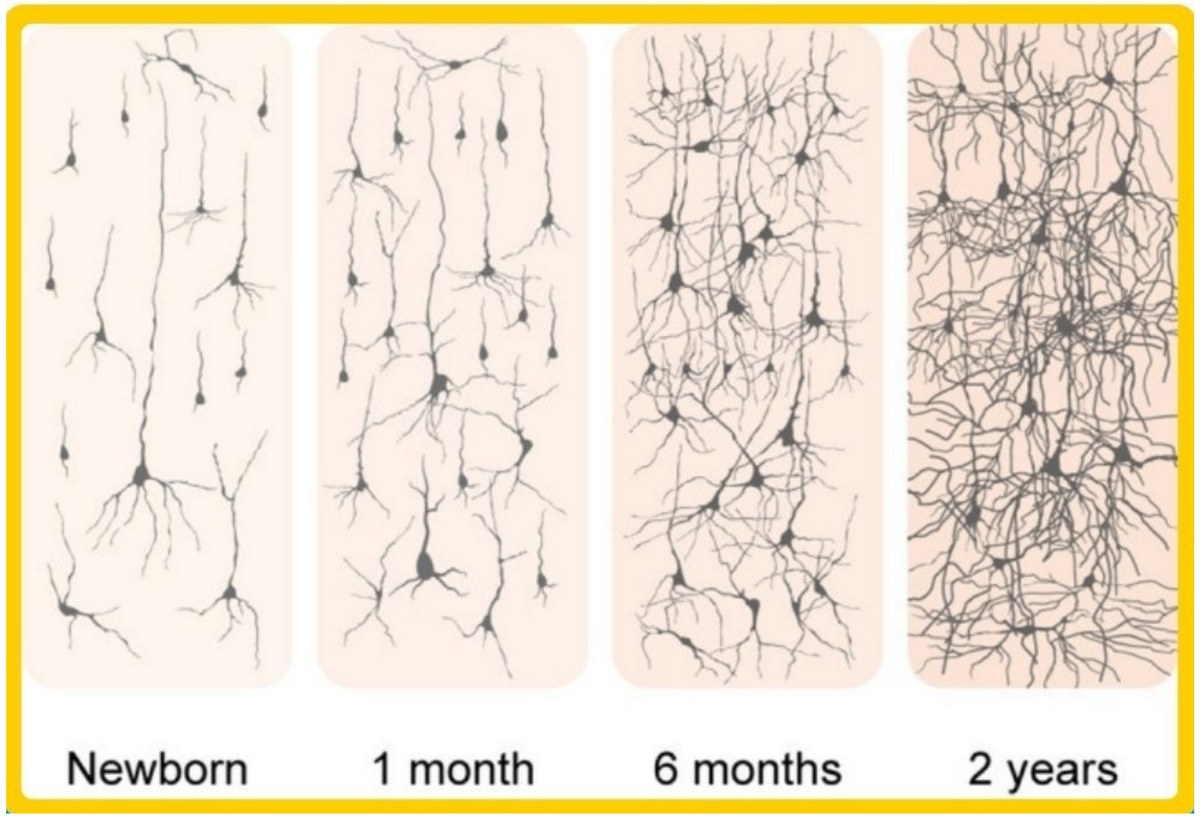
Repetition involves the act of repeating words, phrases, actions, or events. It is a fundamental cognitive process crucial for:

- Development of Cognitive Structures & Neural Pathways (Improves Processing)
- Memory Formation
- Skill Acquisition & Mastery
- Confidence & Sense of Security
- Establishing Habits & Automatization

Repetition is Important at Any Age, But Why is it Particularly Important in Early Childhood?

Foundation of Learning: Rapid brain development in the first five years (90% of the human brain) After age 5, the brain focuses more on refining and consolidating existing skills and knowledge,

Repetition is crucial for brain growth and development as it strengthens neural connections, enhances synaptic plasticity, and lays the foundation for learning and memory.



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Underlying Reasons Children Crave Repetition

Neural Pathway Strengthening:
Enhances neural connectivity and efficiency.

Synaptic Plasticity:
Enables adaptive changes in connections (allowing synapses to change and strengthen over time) .

Skill Acquisition:
Consistent repetition is essential for refining and automating various skills.

Memory Formation:
Repetition consolidates information from short-term to long-term memory.

Surface Level Reasons Children Crave Repetition

Are Working to Learn a New Skill/Song/Story (Perserverance)

AGAIN! AGAIN! AGAIN!

It's Fun! May Also Enjoy Anticipating What Comes Next

ONE MORE TIME!

Feel Confident & Proud When They Master a Skill/Song/Story (Pride)

ONE MORE TIME!

Feel Safe and in Control When Things Are Familiar and Predictable

AGAIN! AGAIN! AGAIN!

“Now what we know from research is that it takes 400 repetitions of an act or a learning skill, 400 times, to get one new synapse. Or –would you like to know an option – there's an option. OR, 12 repetitions with joy and laughter and you get a synapse because there's **a release of a chemical dopamine."**

– Karyn Purvis

Dr. Karyn B. Purvis (1951–2016) was a developmental psychologist and a renowned expert in the field of child development, attachment, and trauma.

DOPAMINE

Dopamine, a neurotransmitter, extends to reward-based learning, enhancing memory retention that **is reliant on motivation, pursuit, and reward anticipation.**

This highlights dopamine's multifaceted role in shaping cognitive experiences, merging memory, motivation, and reward.

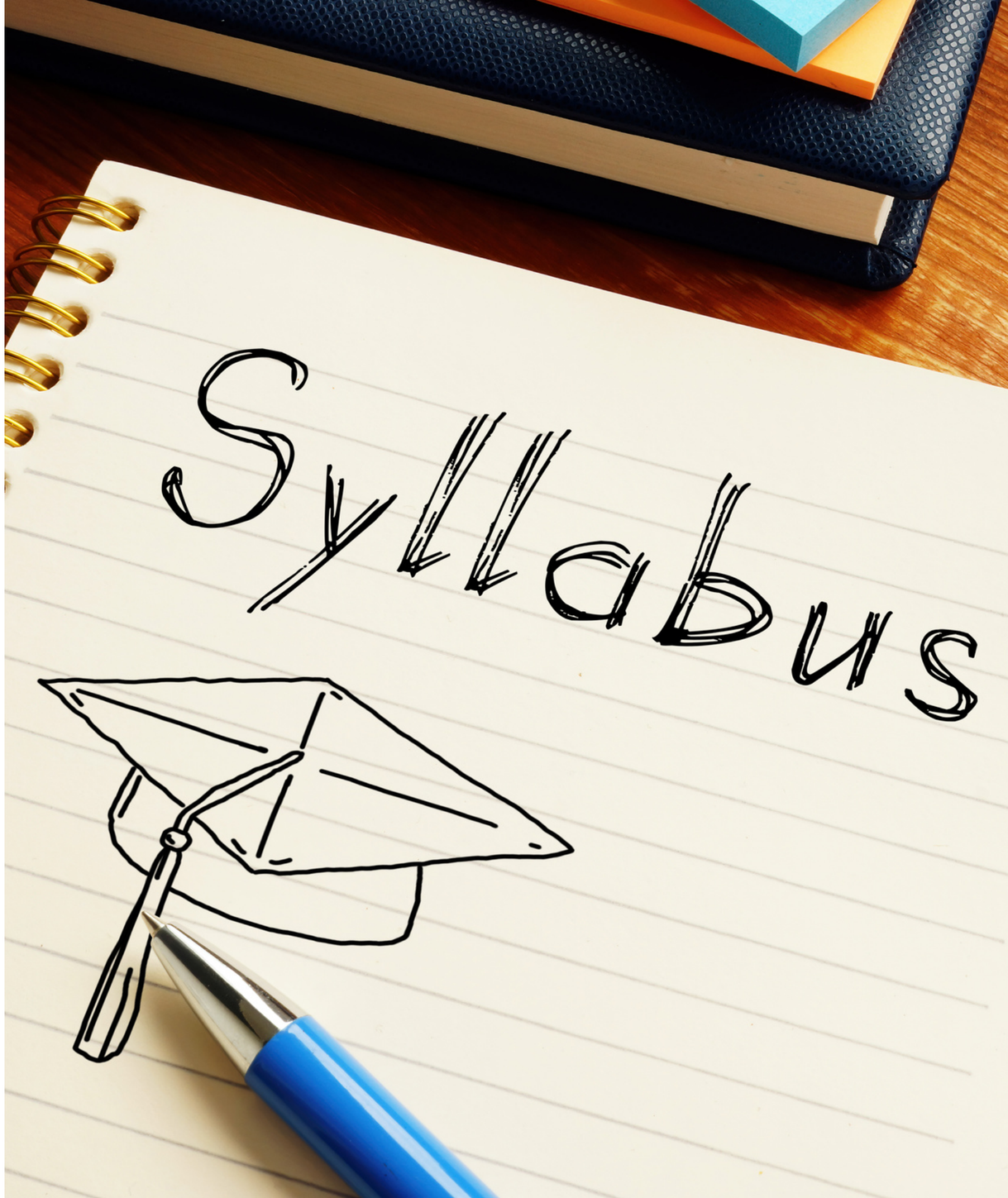
Shoutout: Andrew Huberman, Neuroscientist @hubermanlab

Time to Say “Bye! Bye!” to “Theme of the Week!”

Welcome to the We Skoolhouse Institute of Learning

Enjoy a sneak peek of what's in store this semester:

- Week 1: Quantum Physics
- Week 2: Environmental Science
- Week 3: Organic Chemistry
- Week 4: Palentology
- Week 5: Cultural Anthropology
- Week 6: Renewable Energy
- Week 7: Marine Biology
- Week 8: Artificial Intelligence
- Week 9: Political Science
- Week 10: Meteorology
- Week 11: Linguistics
- Week 12: Astrophysics



Why Do Children Have “Theme of the Week” While Adults Have Semesters for One Subject?

Cognitive Aspect	Young Children	Adults
Working Memory	Limited capacity; challenges with simultaneous processing.	Larger capacity; efficient processing and manipulation.
Attention and Focus	Shorter attention spans; more susceptible to distractions.	Longer sustained attention; better ability to filter distractions.
Experience & Knowledge	Limited prior knowledge; slower integration of new information.	Extensive prior knowledge; faster recognition and understanding.
Metacognition	Developing metacognitive skills; limited awareness of learning strategies.	Higher-level thinking about one's own thinking; better self-awareness.
Processing Speed	Slower processing as neural pathways are still developing.	Generally faster processing due to mature neural pathways.

What's the Rush?

- Access to limitless resources – but more is not better
- We project our boredom onto children
- Job limitations and/or parent expectations

So What to do Instead?

- Prioritize child-led play – The children already know what to do!
- Slow down – one theme a year > one theme a week
- Contextual Repetition > Rote Memorization/"Drill & Practice"
- Revisit experiences, then revisit some more! Slowly build:
    - For example: Week 1: clay w/hands, week 2: clay with feet, week 3: clay with sticks, week 4: clay with loose parts, etc.
- Read the same books and sing the same songs:
    - A study on language acquisition found that children pick up new vocabulary quicker from repeated readings of the same book than when they encounter the same words in different new texts (Horst, Parsons & Bryan, 2011).

Questions?

Let's Hear Them!

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We Skoolhouse

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We provide: Daily schedules, suggested activities & materials, virtual 1:1 consultations, webinars, and live specials (yoga, dance, & music).