Going with the Flow
As a Learning and Design Approach:
From Theory to Application

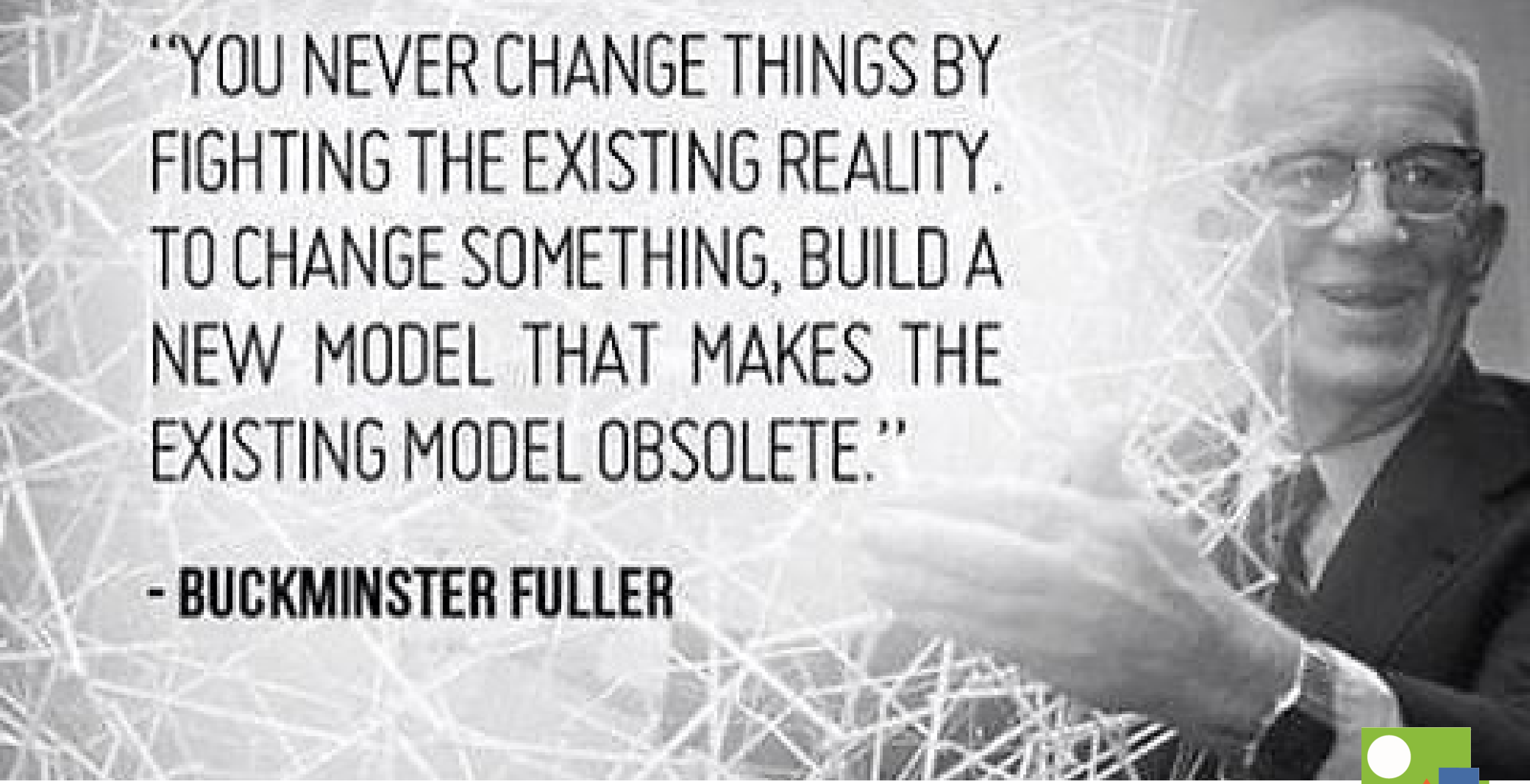




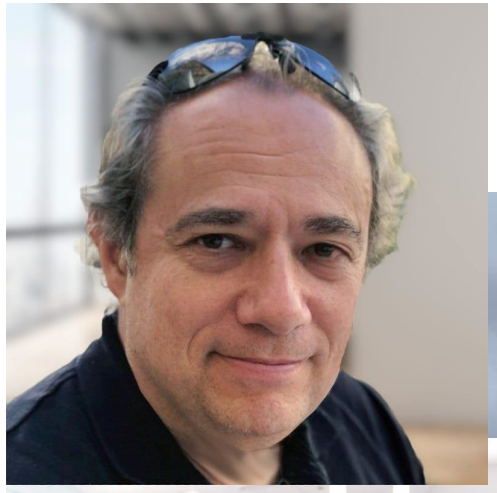
If we want this future, we have to invent it!

A REIMAGINED FUTURE FOR LEARNING

- A future where children are known, loved, and supported to pursue their interests to thrive in life.


"YOU NEVER CHANGE THINGS BY FIGHTING THE EXISTING REALITY. TO CHANGE SOMETHING, BUILD A NEW MODEL THAT MAKES THE EXISTING MODEL OBSOLETE."
- BUCKMINSTER FULLER

Jay Litman, Founder and Principal of Litman Architecture/Educational Consulting Group









Jay Litman, AIA

PARTNER
2006

PARTNER
2019

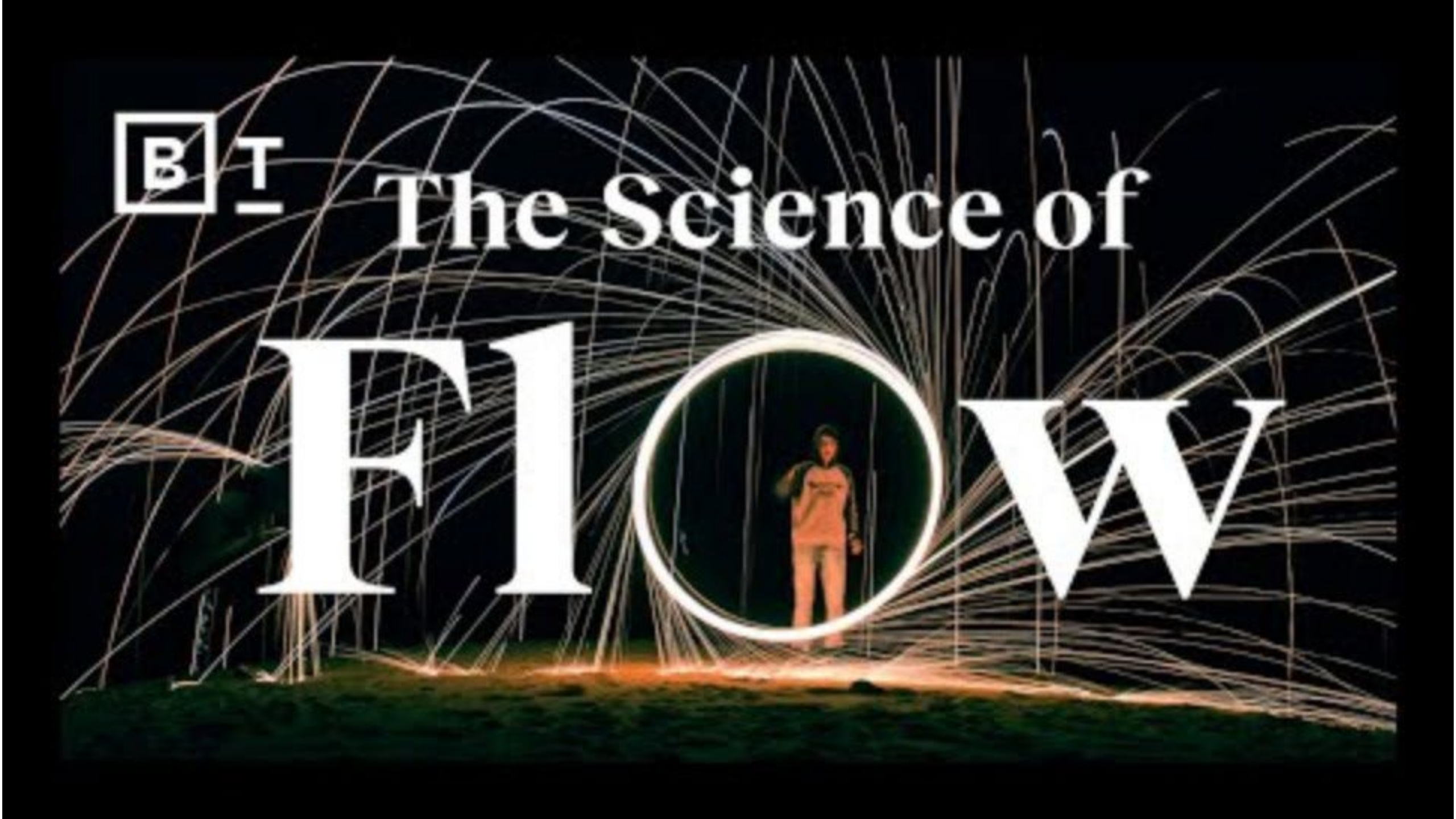
FOUNDER &
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2023

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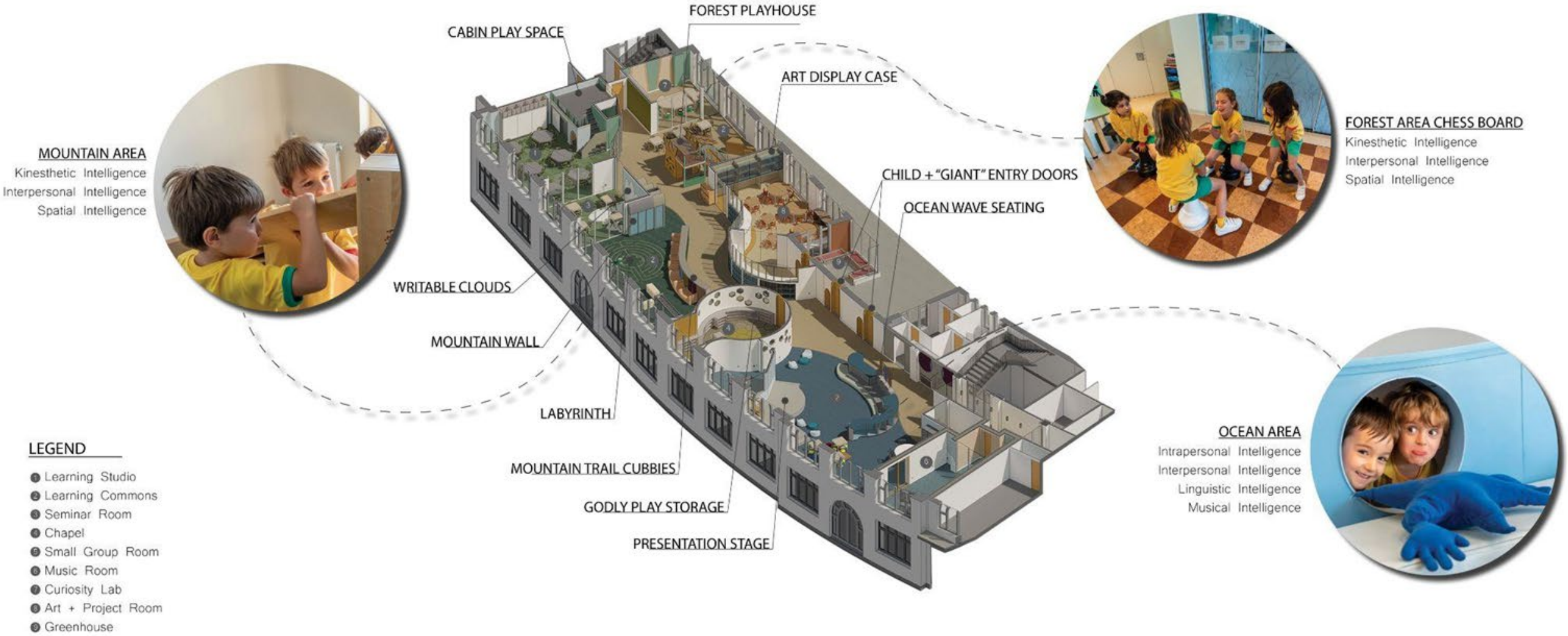
PRINCIPAL
ARCHITECT
2023

HAVE YOU EVER GONE WITH THE FLOW?

Can you think back to a specific moment in your life when you were so completely immersed in what you were doing that you lost all track of time?


BT
The Science of
FLOW

The new Early Education Center at the Col-legi Montserrat in Barcelona is a great example of what happens when the foundation design concepts are based on Gardners´ Multiple Intelligence theory Csikszentmihalyi's 9 Dimensions of Flow. Kids deserve to find happiness and joy every day they are in school!



"Going with the Flow" – As a Learning and Design Approach: From Theory to Application

“A place where knowledge, dreams, and open-minded children flow.”

Parent Quotes:



"Flow is an open space where one does not just learn intellectually but emotionally."

Parent Quotes:



“Flow is the unknown dimension: a paradise for children.”

Parent Quotes:



“Flow is the transformation of a classroom into a great learning space.”

Parent Quotes:



Csikszentmihalyi's 9 Dimensions of Flow

Flow Motivators are distinct from triggers, though they operate in a direct pipeline: Motivators get you to start, Triggers get you to stay focused, and Dimensions describe what the experience feels like. While triggers are the immediate neurobiological switches that drive attention into the present moment, motivators are the underlying psychological drives that push an individual to engage with the task in the first place.

The Flow Cascade: Motivators → Triggers → Dimensions



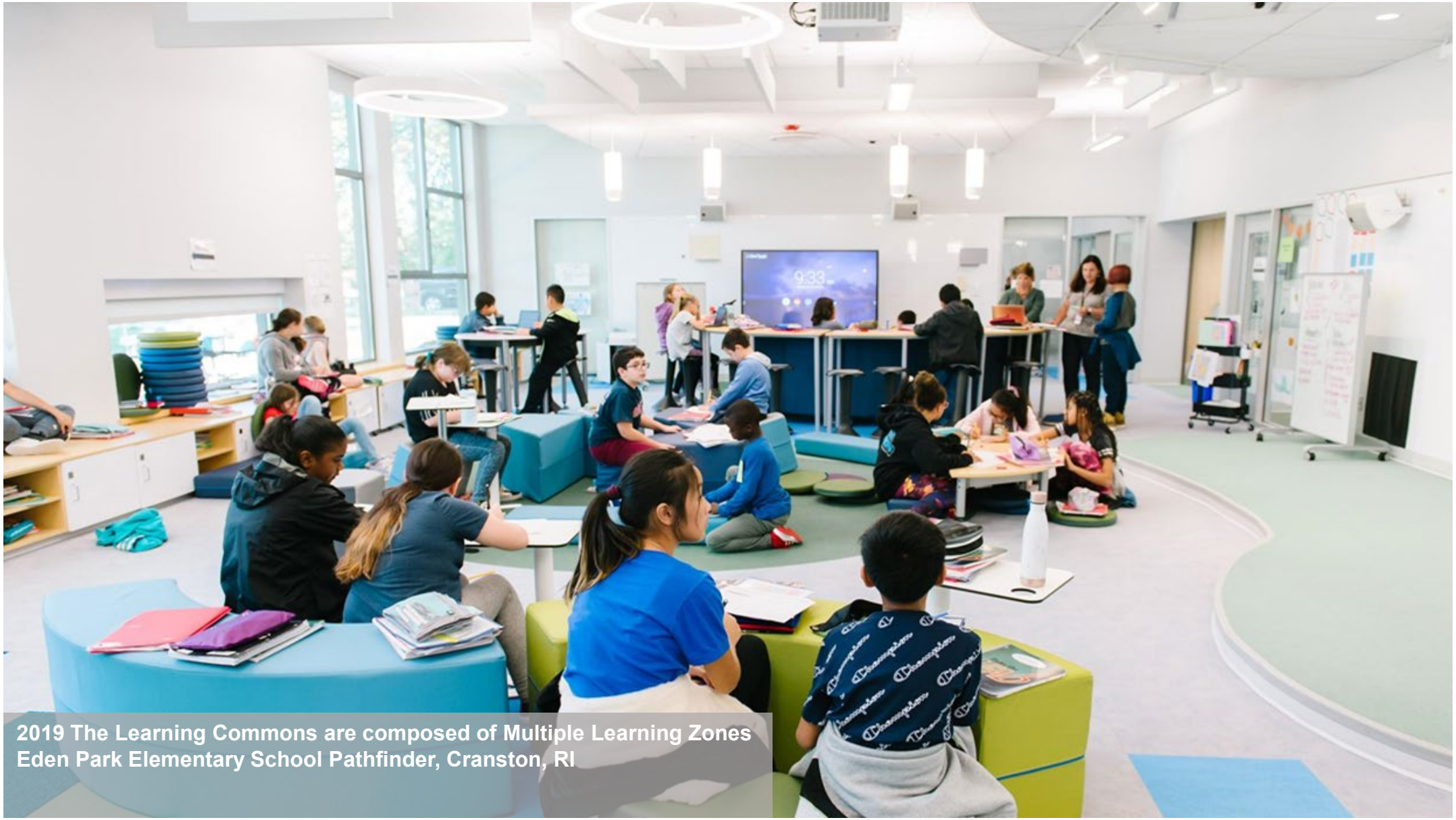
“Going with the Flow” – As a Learning and Design Approach: From Theory to Application

Csikszentmihalyi's 9 Dimensions of Flow

Primary Flow Motivators (The "Why")

Flow motivators are primarily rooted in Self-Determination Theory and intrinsic motivation frameworks (such as Daniel Pink's Drive model):

- **Autonomy (Self-Direction)**: The desire to control one's own path, choices, and environment. (*Without autonomy, a task feels enforced, which activates stress/anxiety pathways rather than flow channels.)*
- **Mastery (Growth & Competence)**: The innate urge to improve, hone craft, and stretch abilities. *(Mastery is the primary fuel behind seeking out the Challenge-Skill Balance trigger.)*
- **Purpose (Meaning)**: Connecting the task to a larger objective or higher impact. *(Purpose raises the psychological stakes, activating the High-Consequence Risk trigger mentally even if physical risk is zero.)*
- **Curiosity & Novelty Drive**: The neurochemical desire to explore the unknown. *(Driven by dopamine, curiosity naturally predisposes the brain to seek out Rich Environments and Pattern Recognition.)*
- **Intrinsic Interest (Passion)**: Doing the work because the activity itself is inherently satisfying, laying the groundwork for the Autotelic Experience dimension.



2019 The Learning Commons are composed of Multiple Learning Zones
Eden Park Elementary School Pathfinder, Cranston, RI

“Going with the Flow” – As a Learning and Design Approach: From Theory to Application



The Learning Commons enables student agency, student centered learning and multiple learning modalities. Students organize flexible furnishings into configurations that best suit their needs.

“Going with the Flow” – As a Learning and Design Approach: From Theory to Application

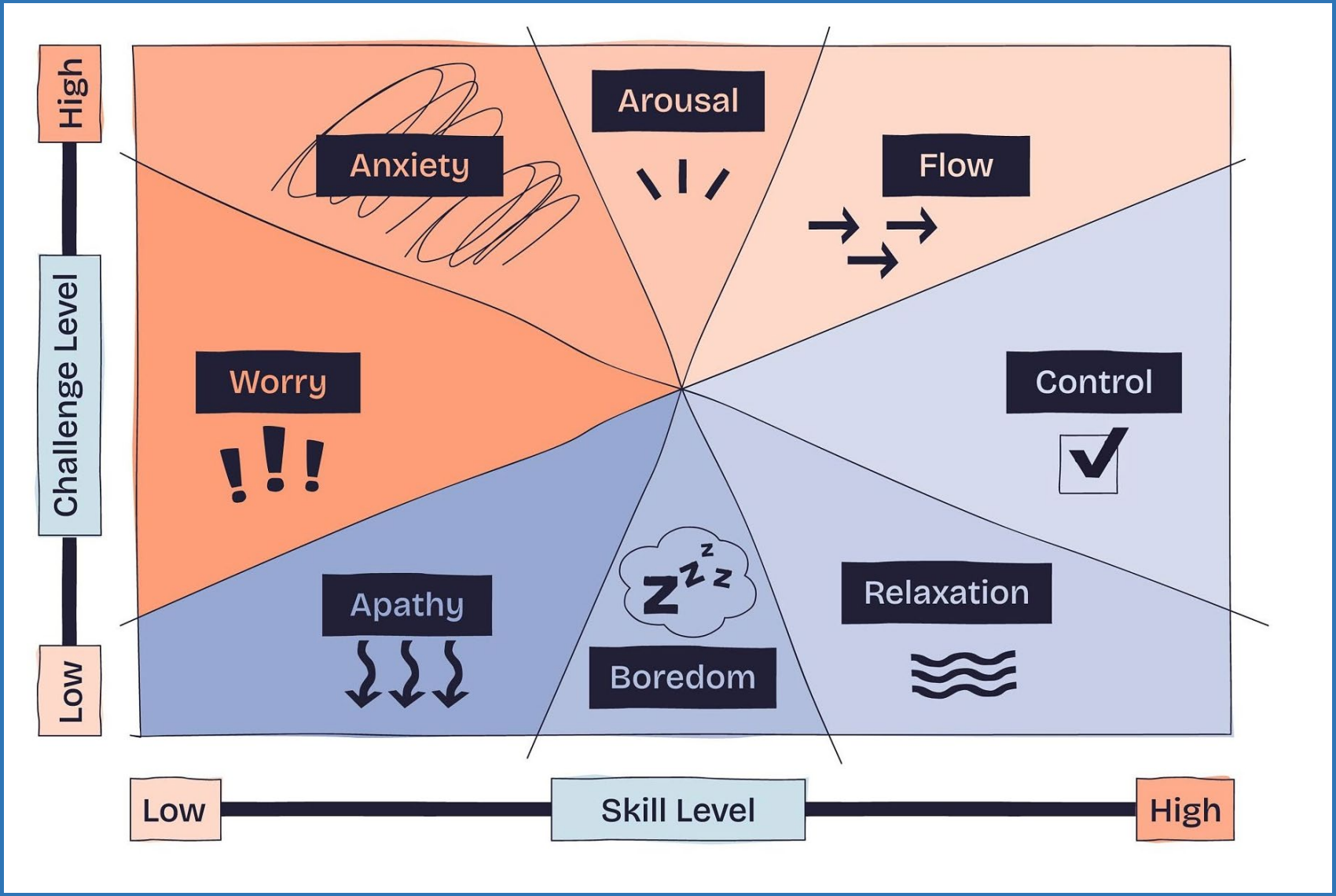
Csikszentmihalyi's 9 Dimensions of Flow

Triggers are the prerequisites or catalysts that pump dopamine and norepinephrine to drive focus into the present moment, the dimensions of flow represent the subjective experience itself—what the state actually feels like and how cognition operates once you are inside it.

Triggers act as the **inputs**, while the 9 dimensions (first codified by Mihaly Csikszentmihalyi and expanded by Dr. Susan Jackson) are the **experiential outputs**.

The Functional Engine: Input →State →Output

Csikszentmihalyi's 9 Dimensions of Flow



Csikszentmihalyi's 9 Dimensions of Flow

Flow State Triggers

1. Psychological Triggers (Internal Drive)

- **High Challenge / Skill Balance:** The foundational trigger.
- **Clear, Immediate Goals:** Knowing exactly what you are trying to accomplish .
- **Immediate Feedback Loops:** Real-time information on performance.
- **Deep Embodied Concentration:** Singularity of focus on a single task, eliminating multi-tasking or external interruptions.

2. Environmental Triggers (External Settings)

- **High-Consequence Risk:** Physical, mental, social, or emotional stakes raise dopamine and adrenaline, driving attention instantly into the present moment.
- **Rich Environment:** Novelty, unpredictability, and visual/spatial complexity force the brain to actively process environment dynamics rather than relying on autopilot.
- **Deep Immersion:** Physical or spatial containment free from friction, sudden auditory disruptions, or visual distractions.



“Going with the Flow” – As a Learning and Design Approach: From Theory to Application



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Csikszentmihalyi's 9 Dimensions of Flow

Flow State Triggers

3. Social Group Triggers (Shared / Collective Flow)

- **Shared, Equal Attention:** Total collective commitment to a single unified goal within a group.
- **Clear Communication & Shared Nomenclature:** Rapid, transparent feedback without ego or procedural hesitation.
- **Equal Participation / Skill Alignment:** Every member of the group possesses a comparable skill level relative to their assigned role.
- **Sense of Control & Autonomy:** Team members feel agency over their decisions while trusting their peers implicitly.
- **Blending Personal Egos (Familiarity):** A collective rhythm where individual identity yields to group execution.



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Csikszentmihalyi's 9 Dimensions of Flow

Flow State Triggers

4. Creative & Cognitive Triggers (Mental Patterns)

- **Pattern Recognition:** The brain's ability to link new incoming information with existing mental frameworks, releasing a burst of dopamine.
- **Risk-Taking / Iterative Experimentation:** Willingness to explore unproven paths without the immediate cognitive load of self-criticism or fear of error.
- **Autotelic Experience:** Undertaking the activity for the intrinsic reward of the work itself, rather than external compensation or validation.

Csikszentmihalyi's 9 Dimensions of Flow

I have adapted Dr. Susan Jacksons´ original dimensional performance measurements for School and Education design, and translated these concepts into human-centered architectural and instructional mechanics:

Cognitive framework mapping the optimal experience by functional phase. Each dimension of Flow is identified by a Cognitive Description and the resulting User based Spatial and Environmental Experience (UX) as integrated with the Pedagogical & Operational Systems (P&O Systems)

Csikszentmihalyi's 9 Dimensions of Flow

- **Cognitive Experience:** How executive function, cognitive load, emotional safety, and focus adapt to support optimal processing. This identifies the internal mental mechanics of the learner. It defines how cognitive load shifts, how attention is allocated, and how emotional or neurological processing alters to unlock and sustain each dimension.
- **UX (User Spatial and Environmental Experience):** How students and educators physically, visually, and emotionally interact with the built environment (e.g., sightlines, ergonomics, acoustics, lighting, micro-zones).
- **P&O (Pedagogical & Operational Systems):** The structures, routines, and spatial rules that govern how learning flows through the environment (e.g., time schedules, spatial flexibility, feedback loops, technology integration).

Csikszentmihalyi's 9 Dimensions of Flow

These 9 dimensions are divided into

- ❑ **Prerequisites** (the conditions that trigger flow),
- ❑ **Experiential Mechanics** (what happens during flow),
- ❑ **The Internal State** (the cognitive signature of flow).

Csikszentmihalyi's 9 Dimensions of Flow

PREREQUISITES

The conditions that trigger flow

Csikszentmihalyi's 9 Dimensions of Flow

1. Change-Skill Balance

Cognitive Experience - Optimal Arousal & Low Anxiety. The mind enters an equilibrium state where neural arousal is high enough to prevent boredom, but stress response (amygdala activation) remains suppressed. Cognitive resources are fully deployed toward processing without being hijacked by worry or under-stimulation.

User Experience - Differentiated spatial zones within a single learning environment (e.g., quiet study nooks, collaborative hubs, hands-on maker areas) that allow learners to self-select spaces matching their current skill and task complexity.

P&O Systems - Tiered learning tasks, flexible grouping strategies, and learner-driven pathways that prevent both cognitive overload and boredom.





Csikszentmihalyi's 9 Dimensions of Flow

2. Clear Goals

- **Cognitive Experience -** Reduced Executive Load & Directional Clarity. Working memory is liberated from deciphering "what to do next." The brain forms a crisp mental map of the desired outcome, allowing attention to focus entirely on execution rather than task orientation.
- **User Experience** - High-visibility environmental cues—such as visible project boards, dedicated display walls, and transparent learning zones—that orient students immediately to the task.
- **P&O Systems -** Explicit learning intentions, visual rubrics, and structured daily roadmaps integrated into the spatial workflow.



Csikszentmihalyi's 9 Dimensions of Flow

3. Unambiguous Feeback

- **Cognitive Experience -** Real-Time Error Calibration. The brains' error-detection circuitry (anterior cingulate cortex) receives immediate signal, enabling effortless micro-adjustments in thinking without triggering defensiveness or internal task interruption.
- **User Experience** - Acoustic and visual transparency (e.g., glass partitions, writable wall surfaces, pin-up zones) that make learning processes and peer work visible in real time.
- **P&O Systems -** Rapid formative assessment routines, peer review protocols, and real-time telemetry (digital or physical progress tracking).





Csikszentmihalyi's 9 Dimensions of Flow

EXPERIENTIAL MECHANICS

What happens during flow), and the Internal State (the cognitive signature of flow.

Csikszentmihalyi's 9 Dimensions of Flow

4. Action-Awareness Merging

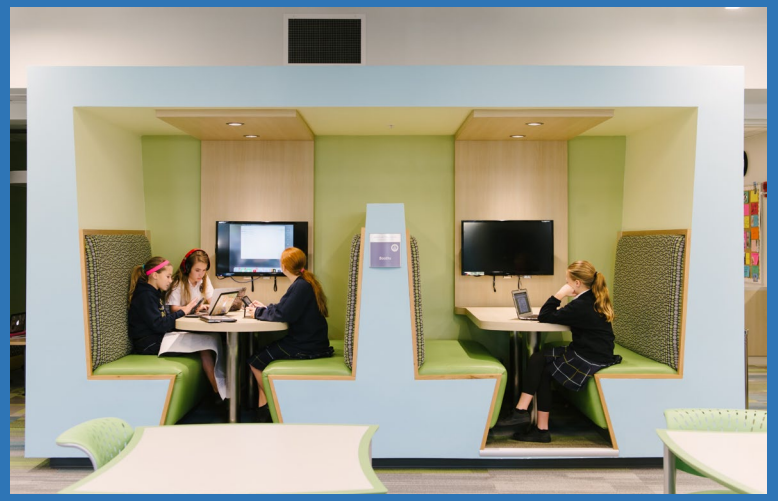
- **Cognitive Experience -** Automaticity & Fluid Processing. Deliberate, conscious decision-making transitions into implicit, procedural execution. The cognitive lag between thinking, decision-making, and physical/intellectual action disappears.
- **User Experience** - Frictionless spatial transitions—flexible furniture, mobile power stations, and intuitive circulation paths where movement between tasks feels natural and effortless.
- **P&O Systems -** Low-friction learning protocols where instructions, materials, and digital tools are seamlessly embedded into the activity rather than requiring disruptive resets.



Csikszentmihalyi's 9 Dimensions of Flow

5. Concentration on Task at Hand

- **Cognitive Experience -** Attentional Gating & Working Memory Suppression. The prefrontal cortex filters out extraneous sensory noise and internal intrusive thoughts, directing 100% of available cognitive capacity to a tightly bounded field of inquiry.
- **User Experience** - Acoustic management, controlled visual stimulation, and perimeter buffering that shield high-focus zones from high-traffic circulation pathways.
- **P&O Systems -** Time-blocking (e.g., block scheduling, uninterrupted deep-work windows) and minimized administrative interruptions during active learning labs.





Csikszentmihalyi's 9 Dimensions of Flow

6. Sense of Control

- **Cognitive Experience -** Sense of Agency & Psychological Safety. Fear of failure and performance anxiety are temporarily suspended. The mind operates with confidence in its capability to navigate complexity and pivot when facing obstacles.
- **User Experience** - Spatial agency—giving students and teachers direct control over their physical environment via reconfigurable furniture, adjustable lighting, and mobile whiteboards.
- **P&O Systems -** Autonomous choices in how and where students demonstrate mastery, building psychological safety and reducing anxiety.

Csikszentmihalyi's 9 Dimensions of Flow

THE INTERNAL STATE

The cognitive signature of flow.

Csikszentmihalyi's 9 Dimensions of Flow

7. Loss of Self Consciousness

- **Cognitive Experience -** Transient Hypofrontality & Deactivation of Ego. The Default Mode Network (DMN)—the neural network responsible for self-monitoring, social evaluation, and self-doubt—downregulates. The learner stops questioning "How do I look doing this?" and fully becomes the task.
- **User Experience** - Non-judgmental spatial layouts—such as small-group pods, semi-private alcoves, and decentralized teacher positions—that remove the feeling of being constantly on display or under surveillance.
- **P&O Systems -** A culture of psychological safety where iteration, low-stakes drafting, and peer collaboration are prioritized over performance anxiety.

Csikszentmihalyi's 9 Dimensions of Flow

8. Transformation of Time

- **Cognitive Experience -** Temporal Distortion. Clock-time tracking recedes into the background. Because working memory is entirely saturated by the immediate activity, the brain stops calculating the passage of time, making hours feel like minutes (time compression) or high-focus moments feel expanded (time dilation).
- **User Experience** - Biophilic design, natural light control, and open-plan flexibility that support sustained, deep engagement without artificial spatial fatigue.
- **P&O Systems -** Pacing models that accommodate deep immersion (e.g., design sprints, extended lab blocks) rather than rigid, bell-driven interruptions.

Csikszentmihalyi's 9 Dimensions of Flow

9. Autotelic Experience

- **Cognitive Experience -** Intrinsic Dopaminergic Reward. The brain releases neurochemicals (dopamine, endorphins) in response to the process of learning itself, making the mental activity internally gratifying regardless of external grading or recognition.
- **User Experience** - Inspiring, high-craft environments—tactile materials, celebratory display spaces, and inviting aesthetics—that make the physical space a place people want to inhabit.
- **P&O Systems -** Intrinsic reward loops, student-driven inquiry, and project-based outputs where the process of creation is inherently satisfying.





Csikszentmihalyi's 9 Dimensions of Flow

CASE STUDY "JIGSAW" ANALYSIS

Workshop Facilitation Guide: "Mapping Flow to Physical Space"

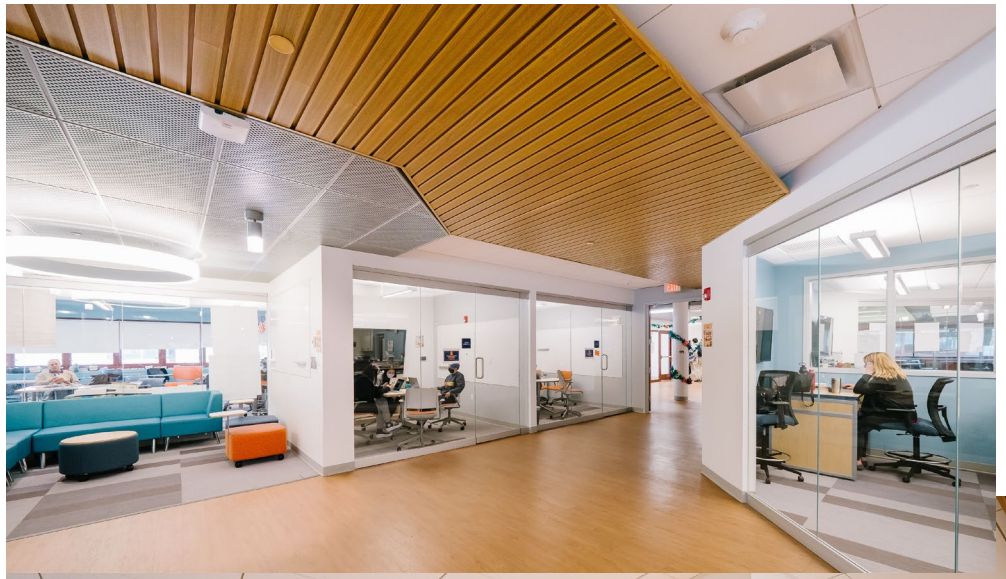
- Round #1 - Target Duration: 10 minutes
- Round #2 – Case Study Swap: 8-10 minutes
- Group Structure: 9 Teams (10-12 people per team)

Materials Needed:

- 9 "Dimension Brief /" Expert" Cards" (1 per team, assigning one Flow Dimension)
- 1 "Case Study Matrix Sheet" per table (featuring Horace Greeley High School, Col-legi Montserrat, and Eden Park Elementary)

Csikszentmihalyi's 9 Dimensions of Flow

CASE STUDIES

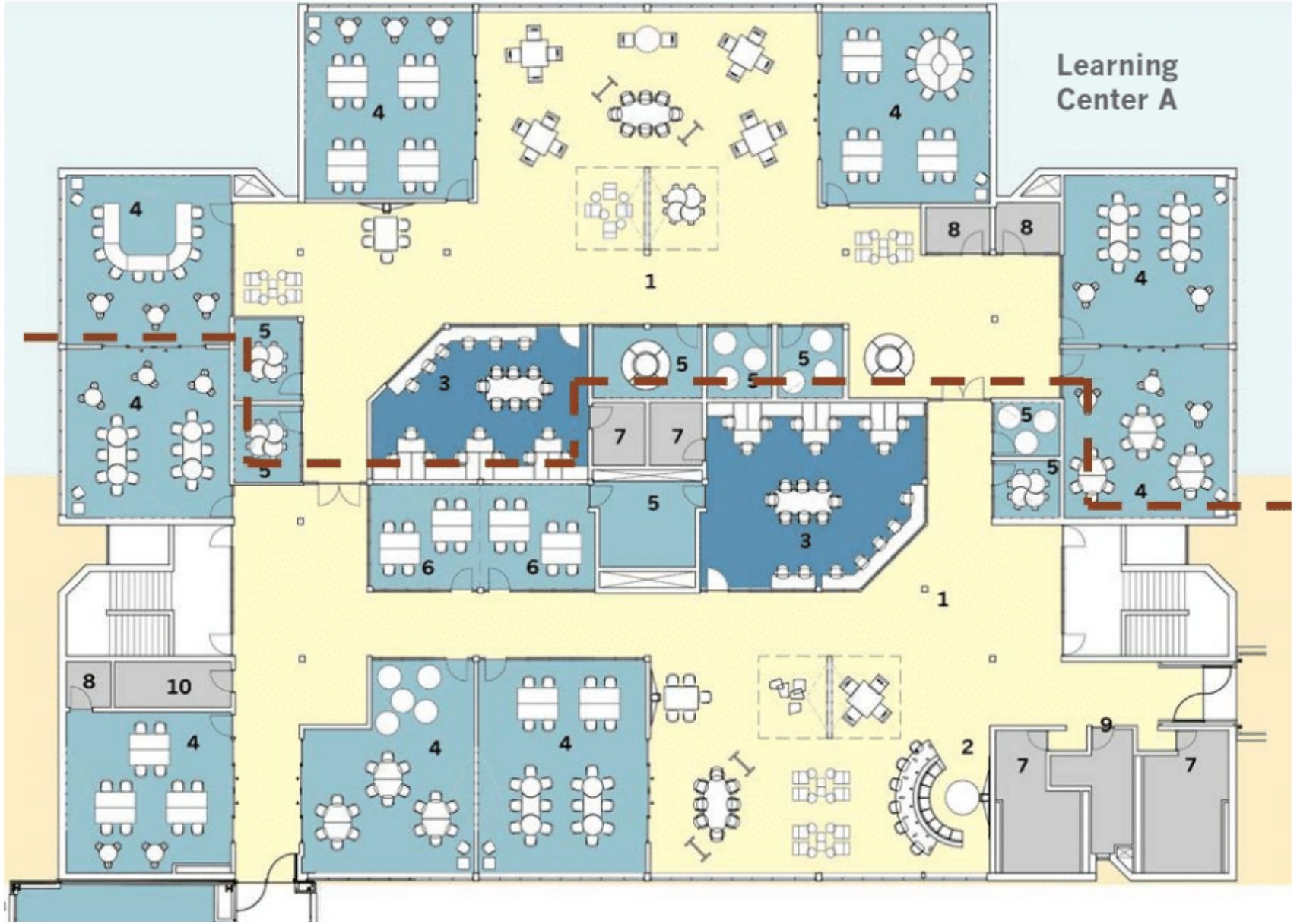






Horace Greeley High School
Chappaqua, NY
Reimagining the "L Wing"

"Going with the Flow" – As a Learning and Design Approach: From Theory to Application



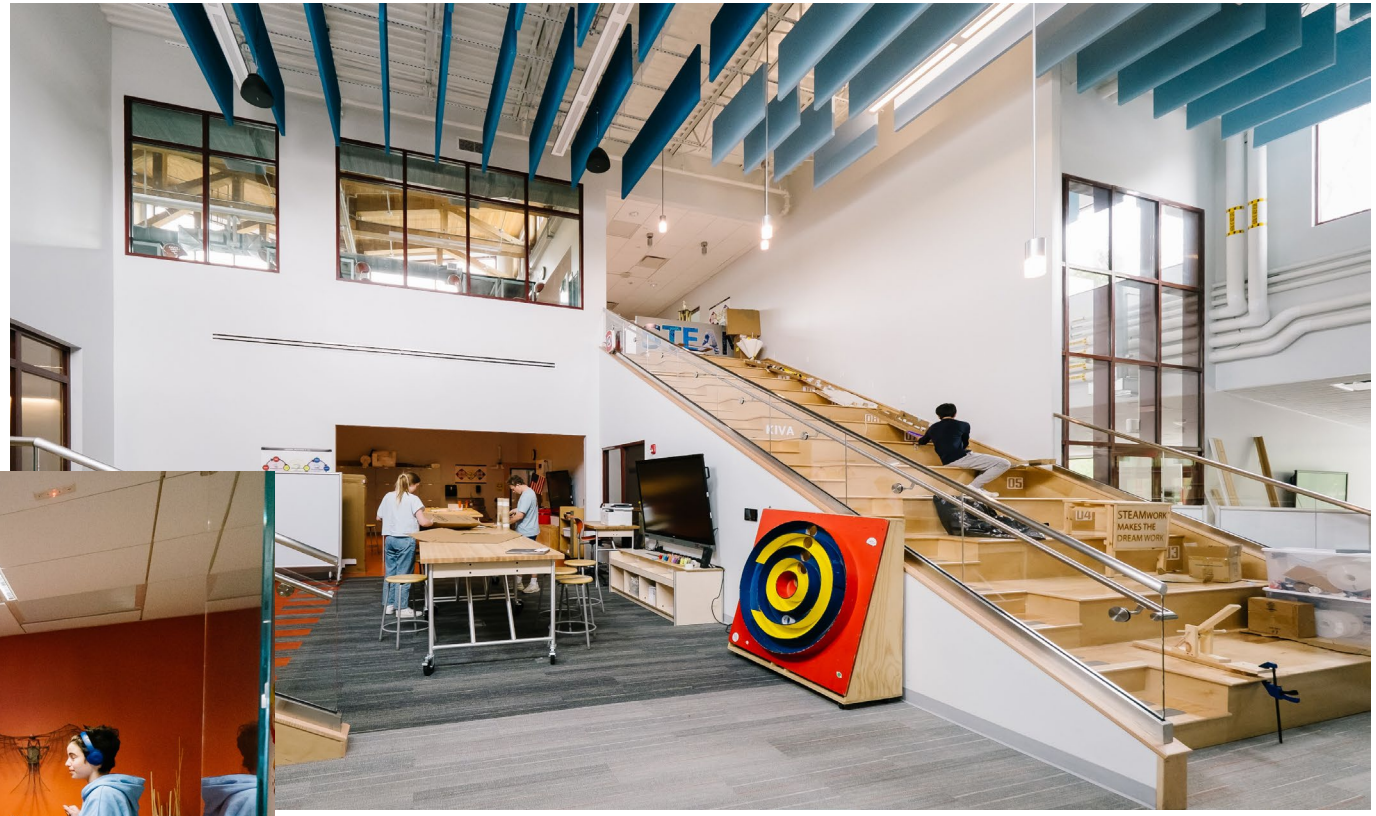
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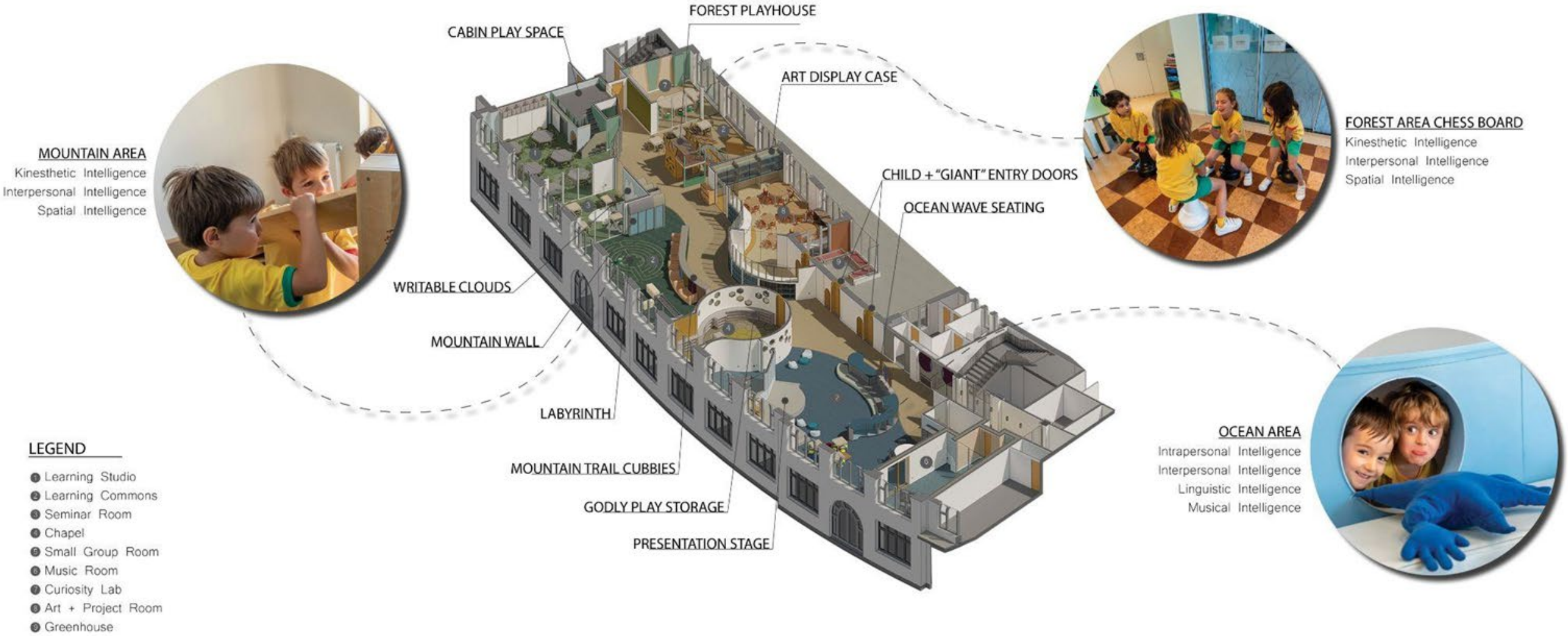






“Going with the Flow” – As a Learning and Design Approach: From Theory to Application

The new Early Education Center at the Col-legi Montserrat in Barcelona is a great example of what happens when the foundation design concepts are based on Gardners´ Multiple Intelligences theory and Csikszentmihalyi's 9 Dimensions of Flow. Kids deserve to find happiness and joy every day they are in school!



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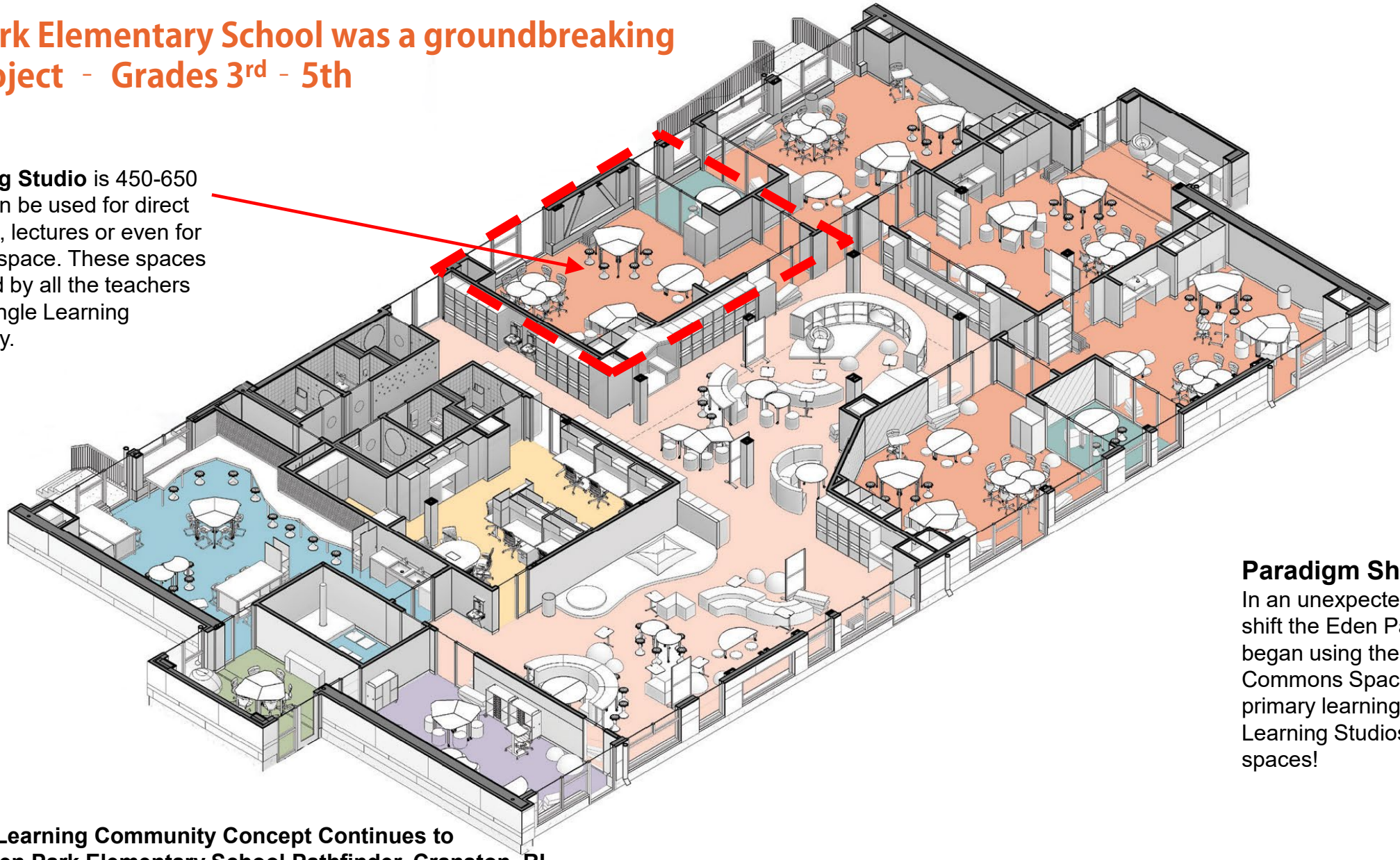






Eden Park Elementary School was a groundbreaking Pilot Project - Grades 3rd - 5th

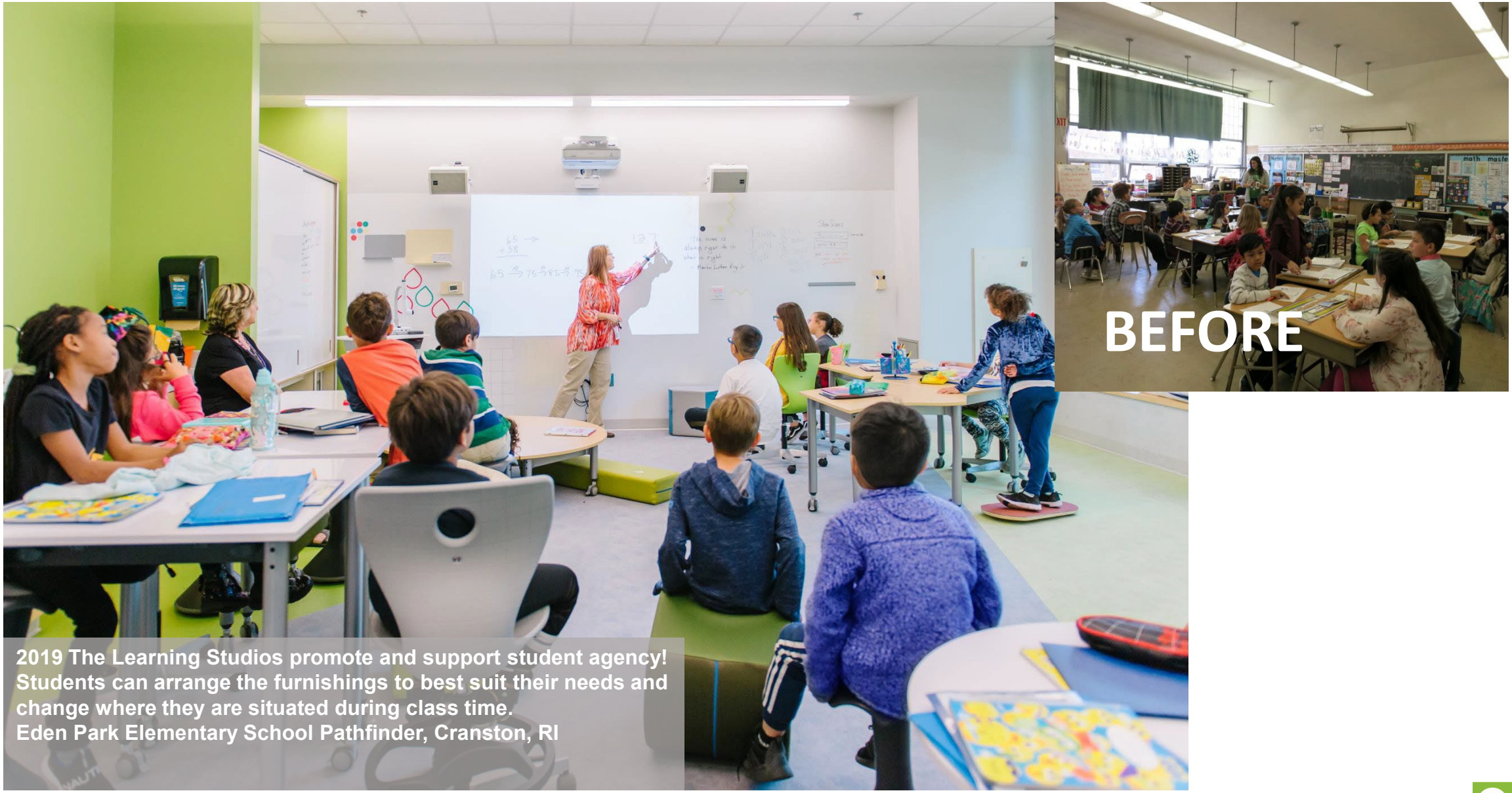
A **Learning Studio** is 450-650 SF and can be used for direct instruction, lectures or even for break out space. These spaces are shared by all the teachers within a single Learning Community.



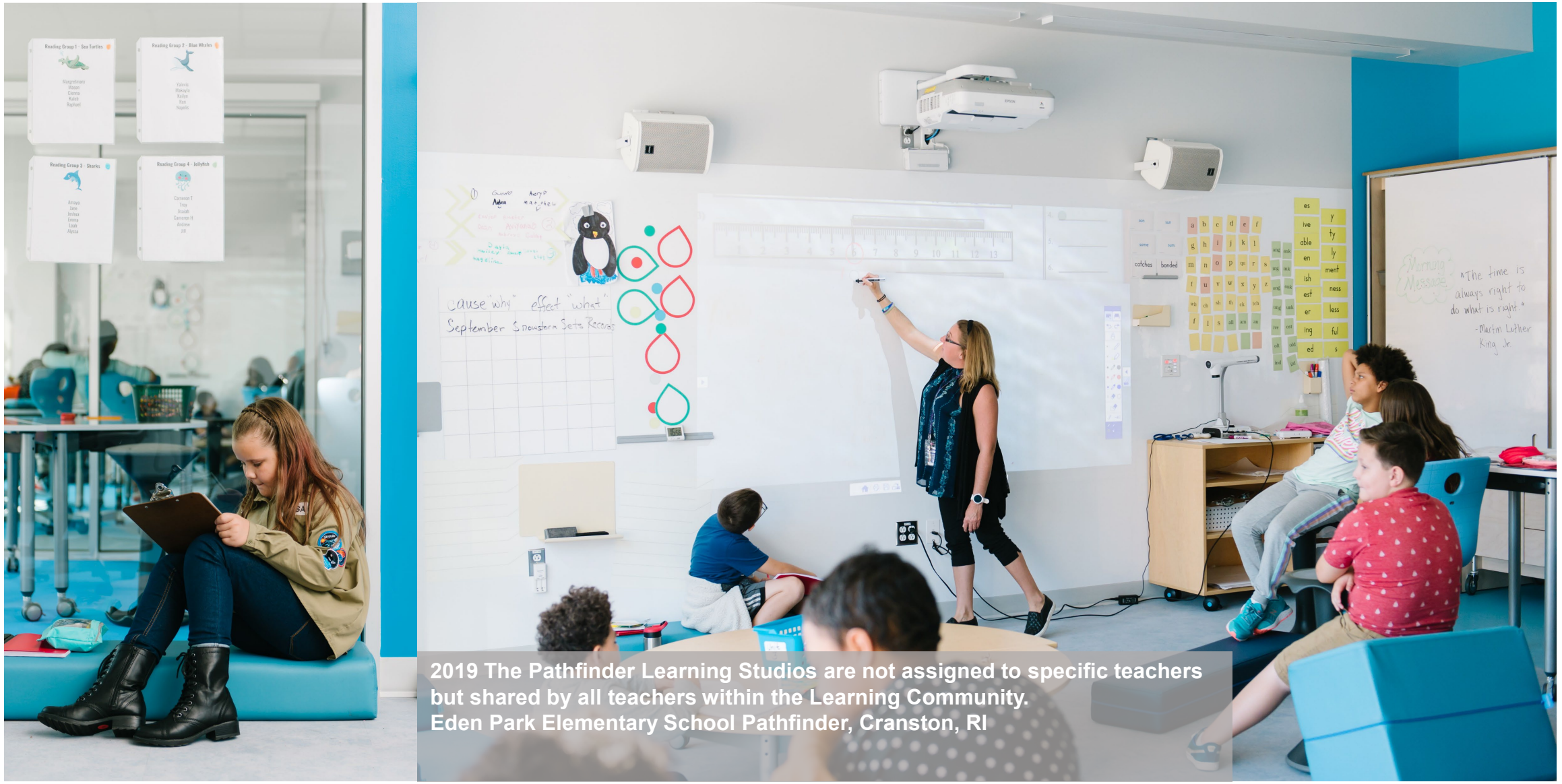
Paradigm Shift!
In an unexpected paradigm shift the Eden Park Teachers began using the Learning Commons Spaces as the primary learning areas and the Learning Studios as break out spaces!

2019 The Learning Community Concept Continues to Evolve Eden Park Elementary School Pathfinder, Cranston, RI

"Going with the Flow" – As a Learning and Design Approach: From Theory to Application

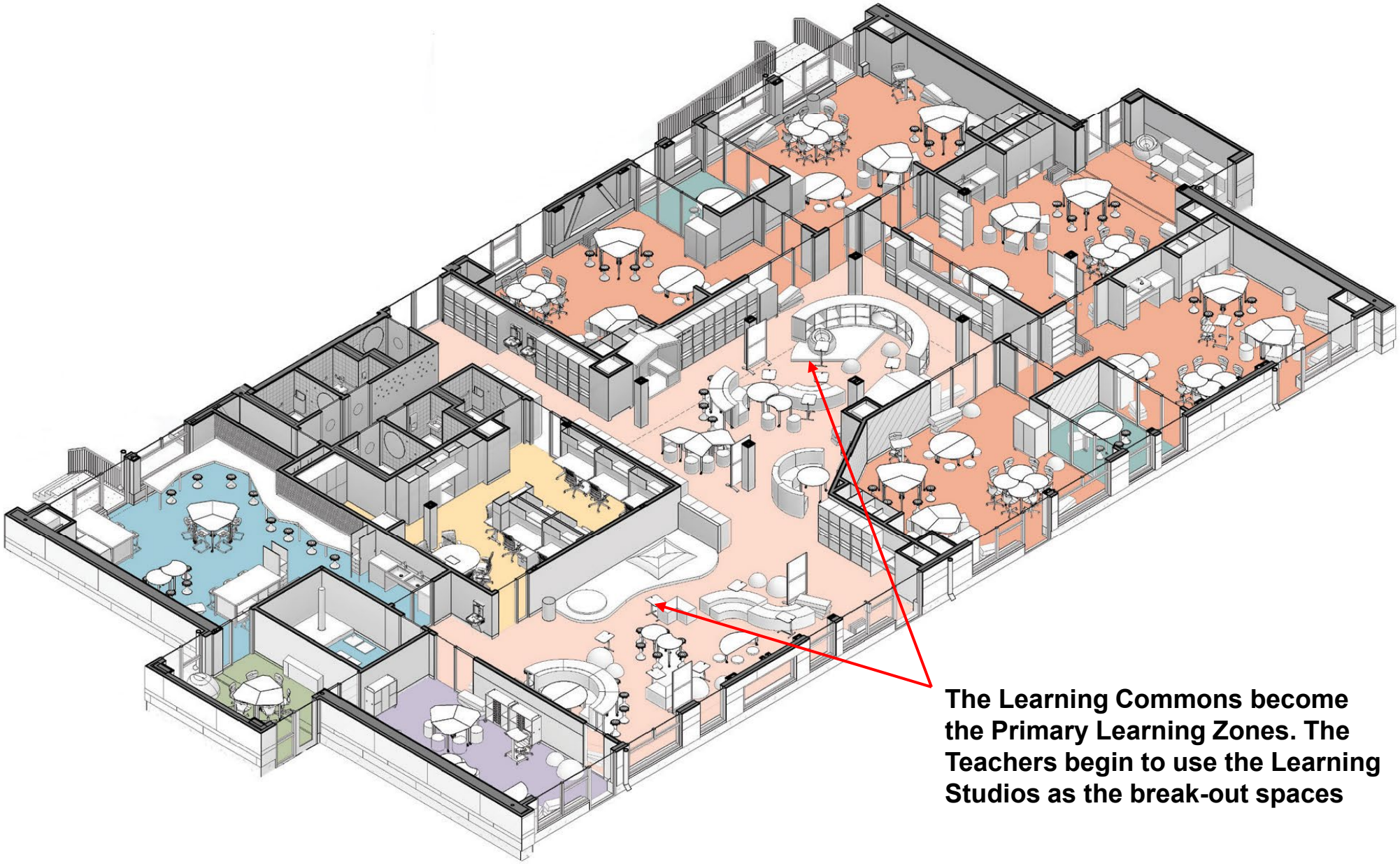


2019 The Learning Studios promote and support student agency! Students can arrange the furnishings to best suit their needs and change where they are situated during class time.
Eden Park Elementary School Pathfinder, Cranston, RI



2019 The Pathfinder Learning Studios are not assigned to specific teachers but shared by all teachers within the Learning Community.
Eden Park Elementary School Pathfinder, Cranston, RI

"Going with the Flow" – As a Learning and Design Approach: From Theory to Application



The Learning Commons become the Primary Learning Zones. The Teachers begin to use the Learning Studios as the break-out spaces







2019 The Learning Commons are composed of two Learning Zones
Eden Park Elementary School Pathfinder, Cranston, RI

“Going with the Flow” – As a Learning and Design Approach: From Theory to Application





The Eden Park Elementary School Pathfinder has become a valuable living research tool. Students not only set the furnishings up to suit their needs, but they also reinvent how certain pieces function!

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