



BOLOGNA ELEM

REIMAGINING LEARNING ENVIRONMENTS

AGENDA

- 1 Introductions – CUSD & Orcutt | Winslow
- 2 Portrait of the Learner + Journey to Excellence
- 3 Polling
- 4 Learning Outcomes <<>> Learning Environments
- 5 Polling
- 6 Discussion

Introductions



VISPI KARANJIA
PARTNER IN CHARGE



SARAVANAN BALA
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RA [AZ], AIA, WELL AP, ALEP
ASSOCIATE



ADAM STRONG
RA [AZ]
ARCHITECT



PHIL GEIMAN
RA [AZ]
ARCHITECT



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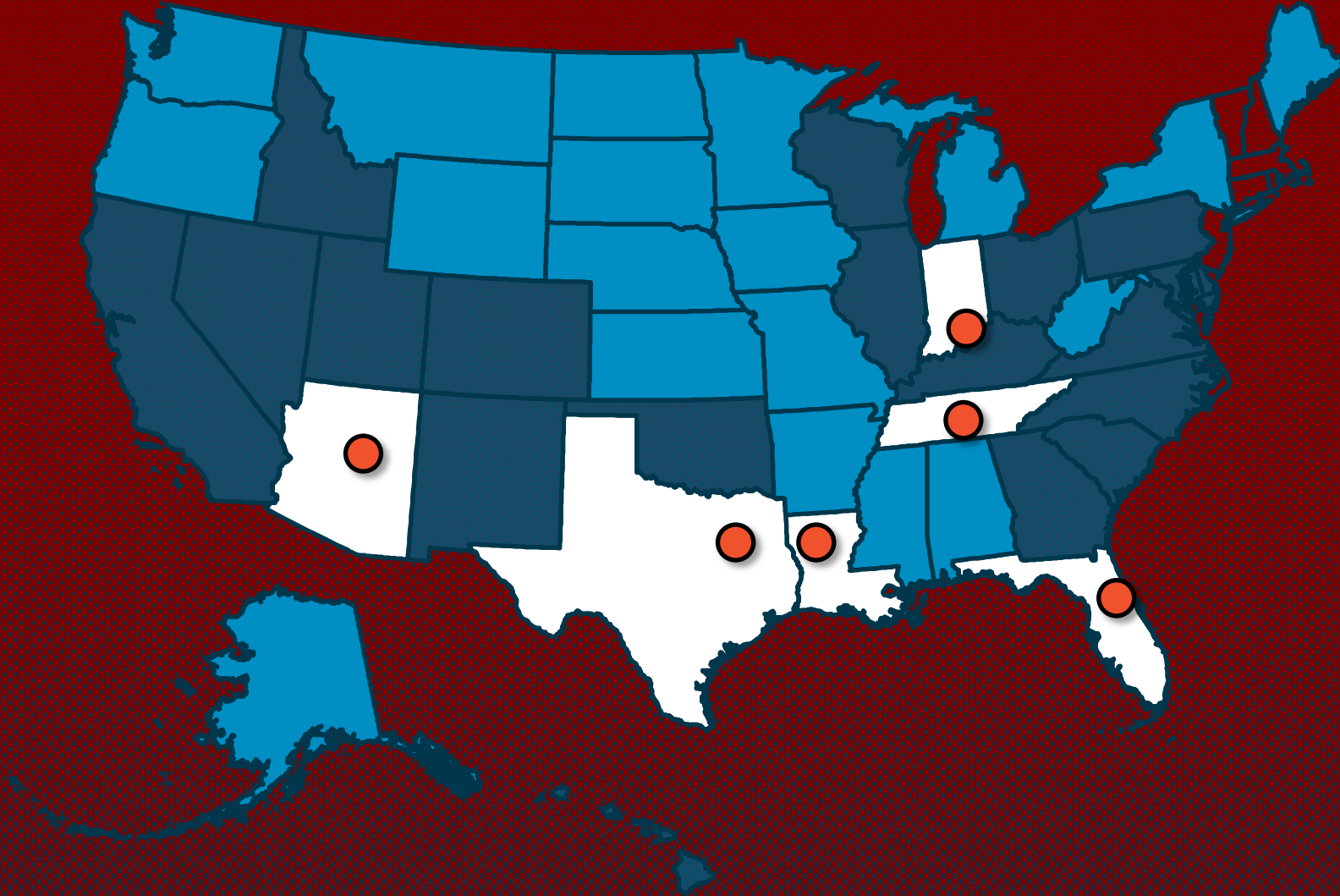
SUNNY LEE



NENWE GEESO

orcutt | winslow

ARCHITECTURE • PLANNING • INTERIOR DESIGN



51 *Years*

27 *States*

6 *Locations*

orcutt | winslow

PHOENIX

85

*Local
Arizona
Resources*

50⁺

*Education
Studio
Staff*

10

*Interior
Designers*

8

*Creative
Services*

200⁺

*NATION
WIDE*



SPECTRUM OF LEARNING



Valley View
Leadership
Academy



Madison
Meadows



Cherokee
Elementary

TRADITIONAL

LEARNER-CENTRIC / NEXT GEN

CONTEMPORARY

Bélen Soto
Elementary



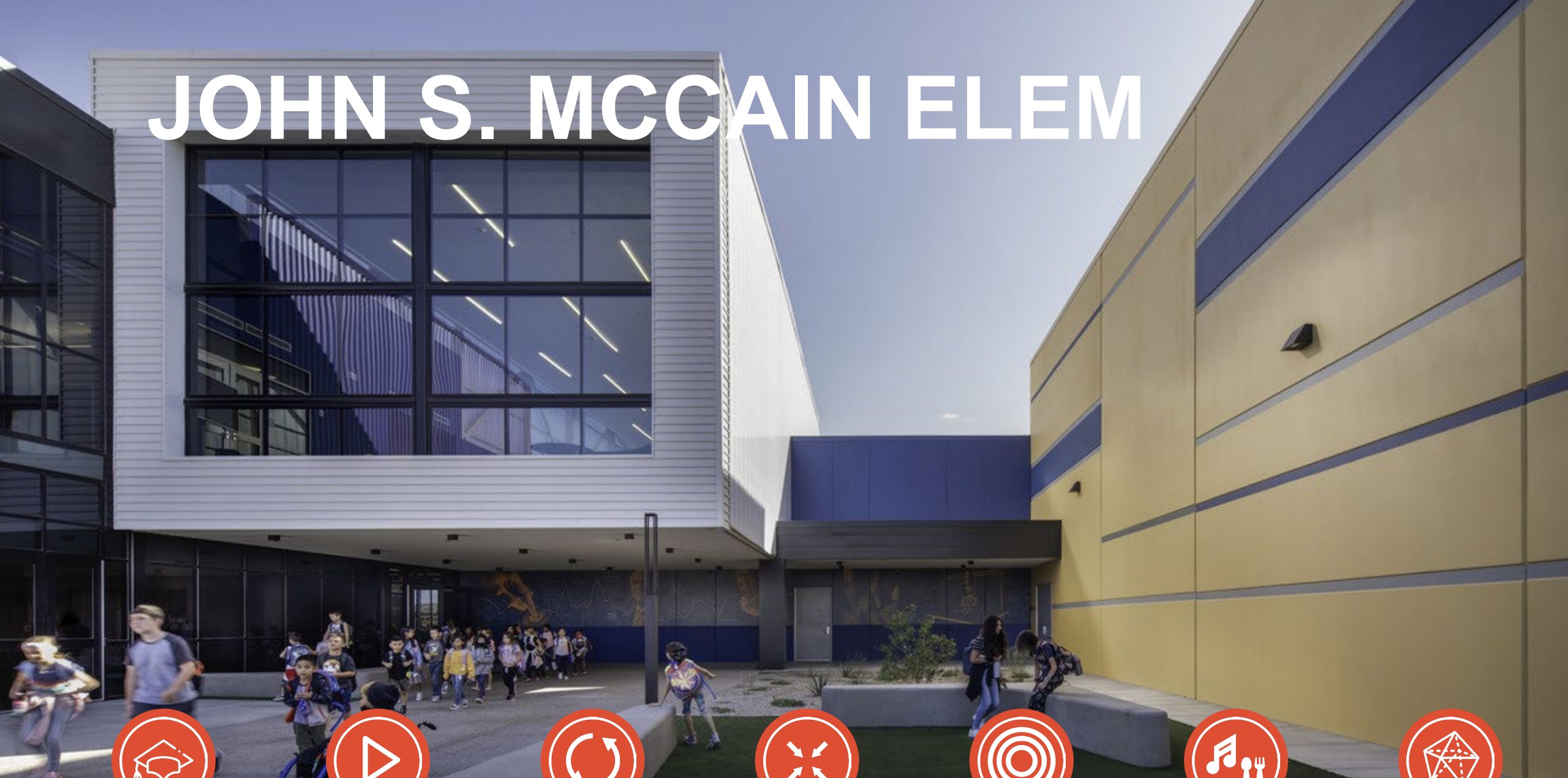
Maricopa
Institute of
Technology



John S.
McCain III
Elementary



JOHN S. MCCAIN ELEM



LEARNER
CENTRIC



TECHNOLOG
Y



FLEX SPACE



COLLABORAT
ION



CAMPUS
HUB



GYM/CAFE/MUSIC



GRAPHICS

JOHN S. MCCAIN ELEM

TED



LEARNER
CENTRIC



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GRAPHICS

CHEROKEE ELEM



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CENTRIC



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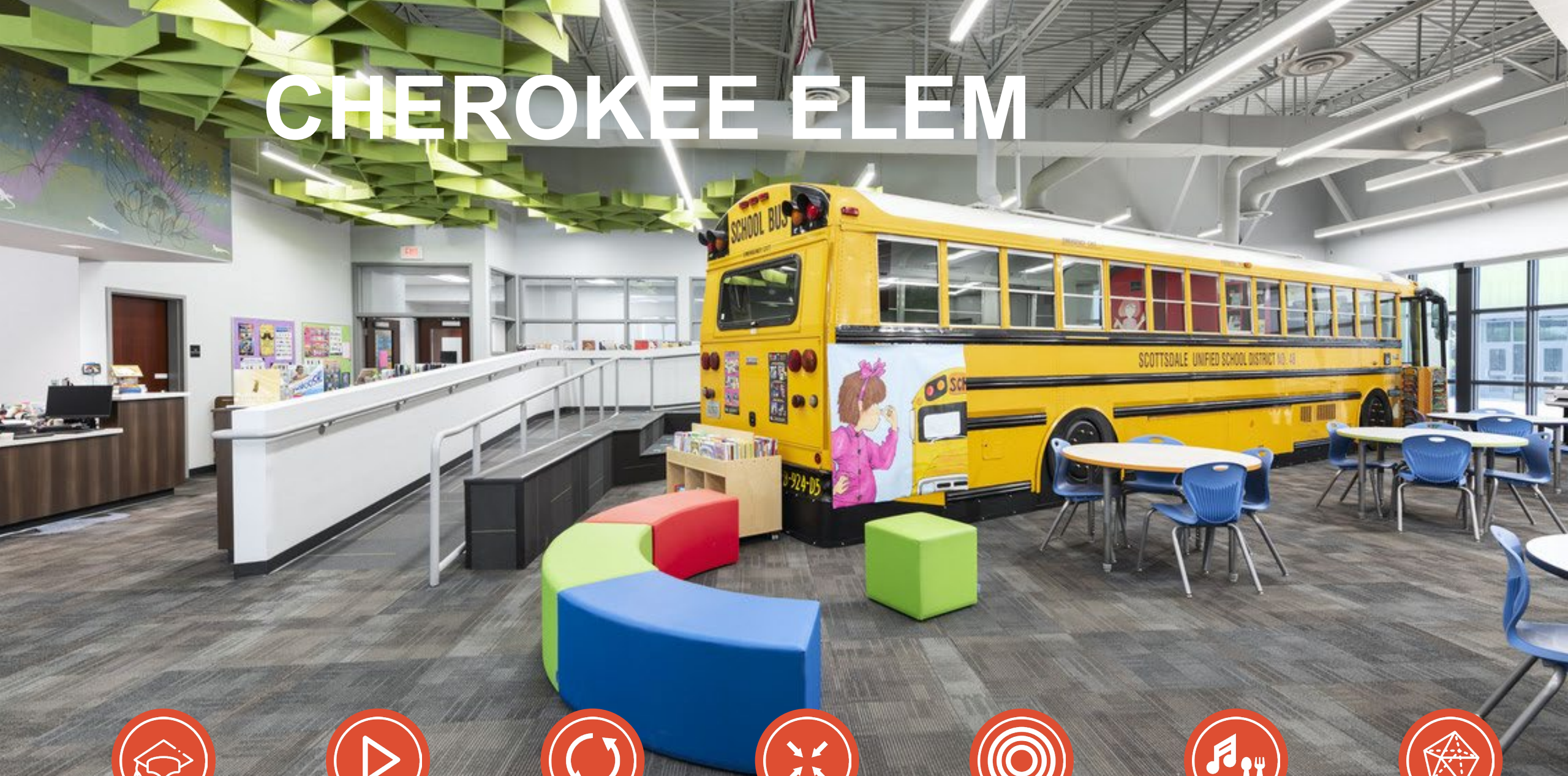


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CHEROKEE ELEM



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EASTMARK HS



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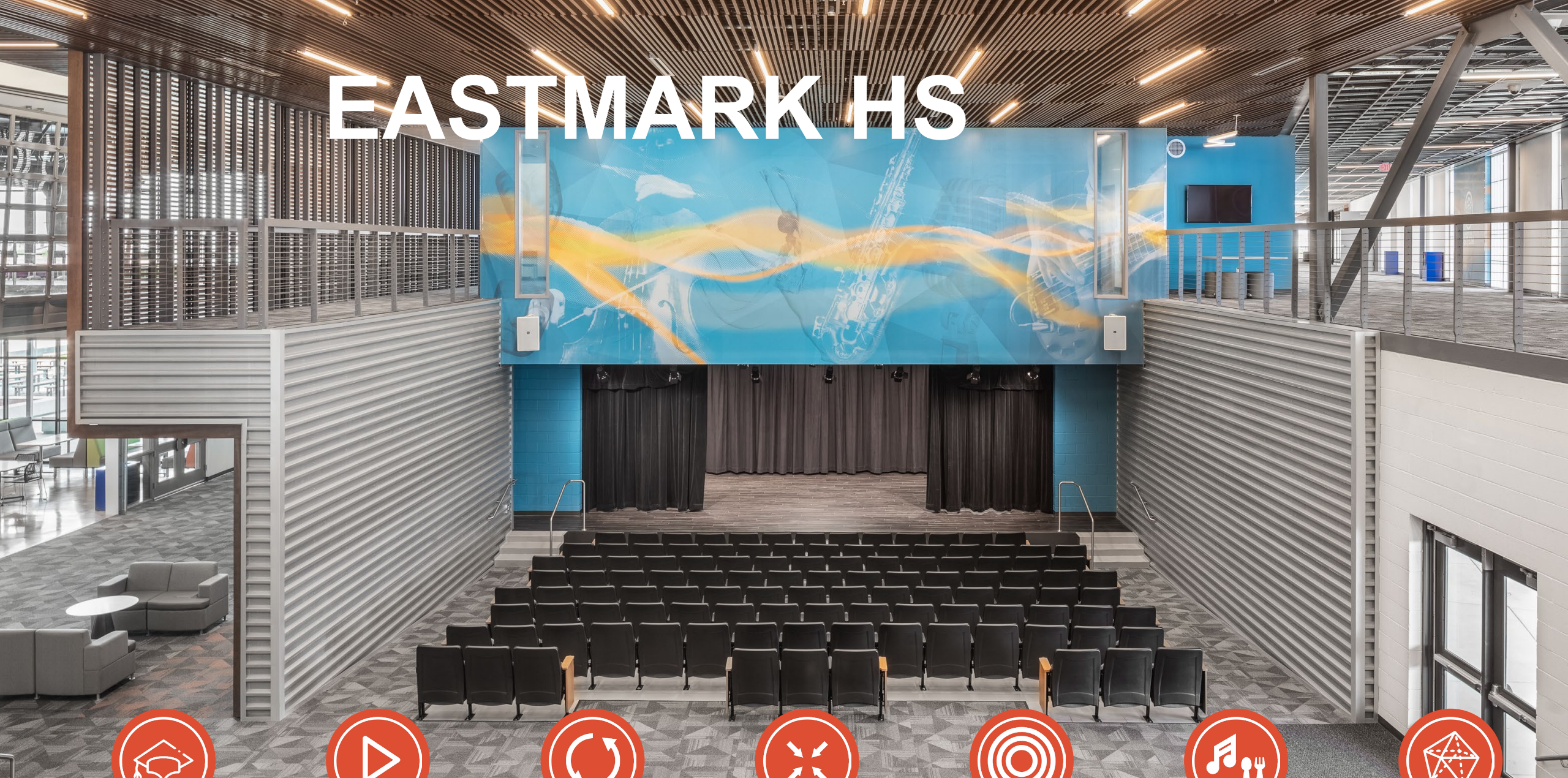


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GRAPHICS

MADISON MEADOWS



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MADISON MEADOWS



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CENTRIC



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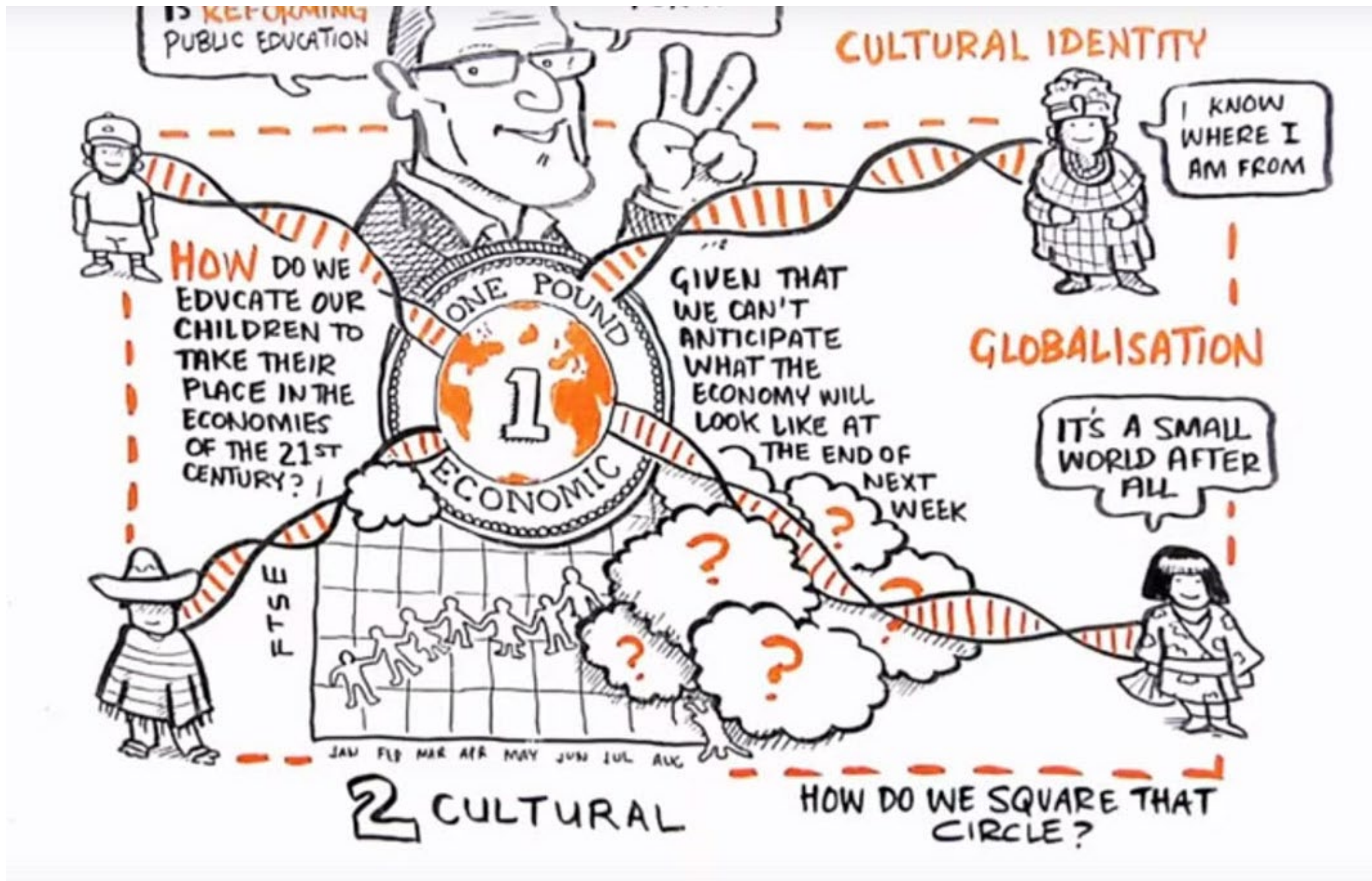
CAMPUS
HUB



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GRAPHICS



JOURNEY TO EXCELLENCE

Goal 1: Learning Experiences

- CUSD students and staff engage in meaningful and innovative learning experiences using essential skills and strategies that foster continuous growth to develop successful members of local and global communities

Goal 2: Community Engagement

- CUSD families and community partners engage in the shared responsibility of personalizing experiences that contribute to the students personal, social, emotional, and academic growth.

Goal 3: Innovative Organizations

- CUSD staff illustrate future focused, and adaptable instructional and operational practices that are equitable, efficient, fiscally responsible, and data driven to ensure high quality educational experiences.

Goal 4: Culture

- CUSD students, staff, families, and community members cultivate inclusive and supportive environments that enhance open collaboration, quality learning and pathways to achievement.



CUSD PORTRAIT OF A LEARNER



PORTRAIT OF A LEARNER

Chandler Unified School District



ADAPTABILITY

- Flexible
- Overcome barriers
- Demonstrate resilience
- Adjust to challenging conditions or change



COLLABORATION

- Value others' input
- Own team decision
- Work cohesively towards a common goal
- Balance individual goals with group goals
- Contribute respectfully when sharing ideas



COMMUNICATION

- Active listener
- Develop responsible digital footprint
- Adapts to the needs of the audience
- Articulate thoughts through written, oral, and non-verbal skills



CRITICAL THINKING

- Ask questions
- Persevere through problems to find a solution
- Identify, define, and solve authentic problems
- Collect, assess, and analyze relevant information
- Reflect on learning experiences, processes, and solutions



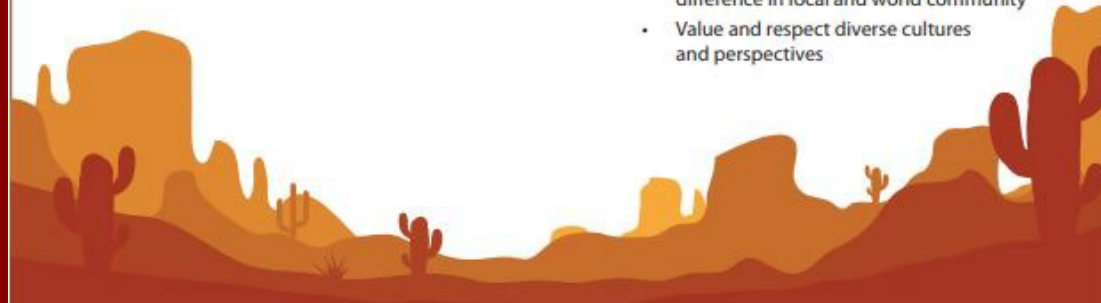
EMPATHY

- Seek to understand
- Demonstrate compassion and concern for others
- Respect and connect with others' feelings, opinions, and culture



GLOBAL CITIZEN

- Literate in technology and communication skills
- Demonstrate civic responsibility
- Apply learning to real world situations
- Empower self and others to make a difference in local and world community
- Value and respect diverse cultures and perspectives



EMPOWERED FOR ANY AND ALL OPTIONS



ENROLLED



EMPLOYED



ENLISTED




ENTREPRENEUR

Utilizing transferable, interdependent skills

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TEXT SARAVANANBAL270 TO 22333

A top-down view of a child's hands coloring various Christmas-themed illustrations on a wooden table. The child is using colored pencils to fill in a drawing of a penguin in a pink dress. Other drawings include a group of penguins, a fox, and Santa Claus. A box of colored pencils is open on the left.

**LEARNING IS A
RESIDUE OF EXPERIENCE**



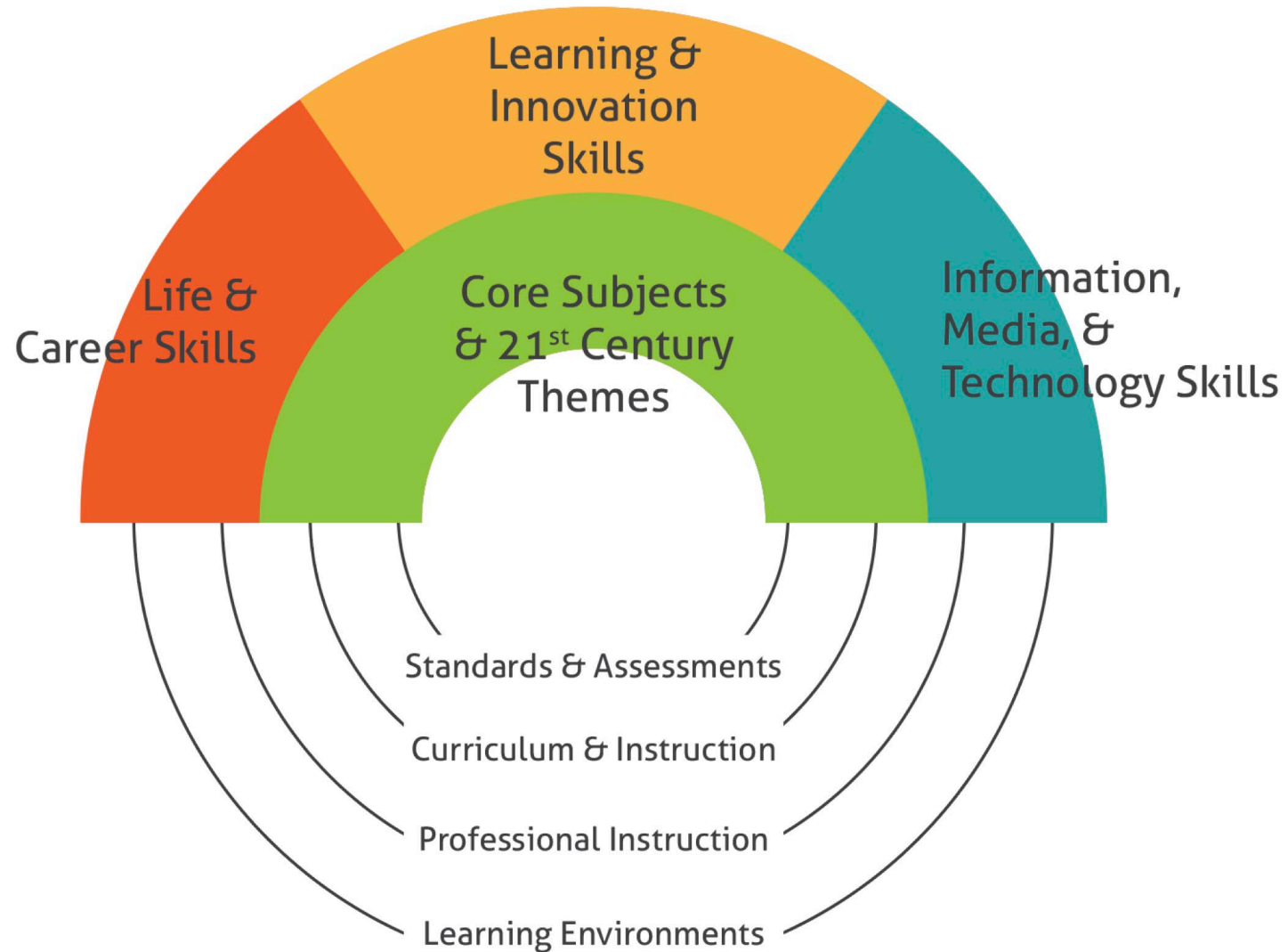
SCHOOLS ARE ACTION SETTINGS

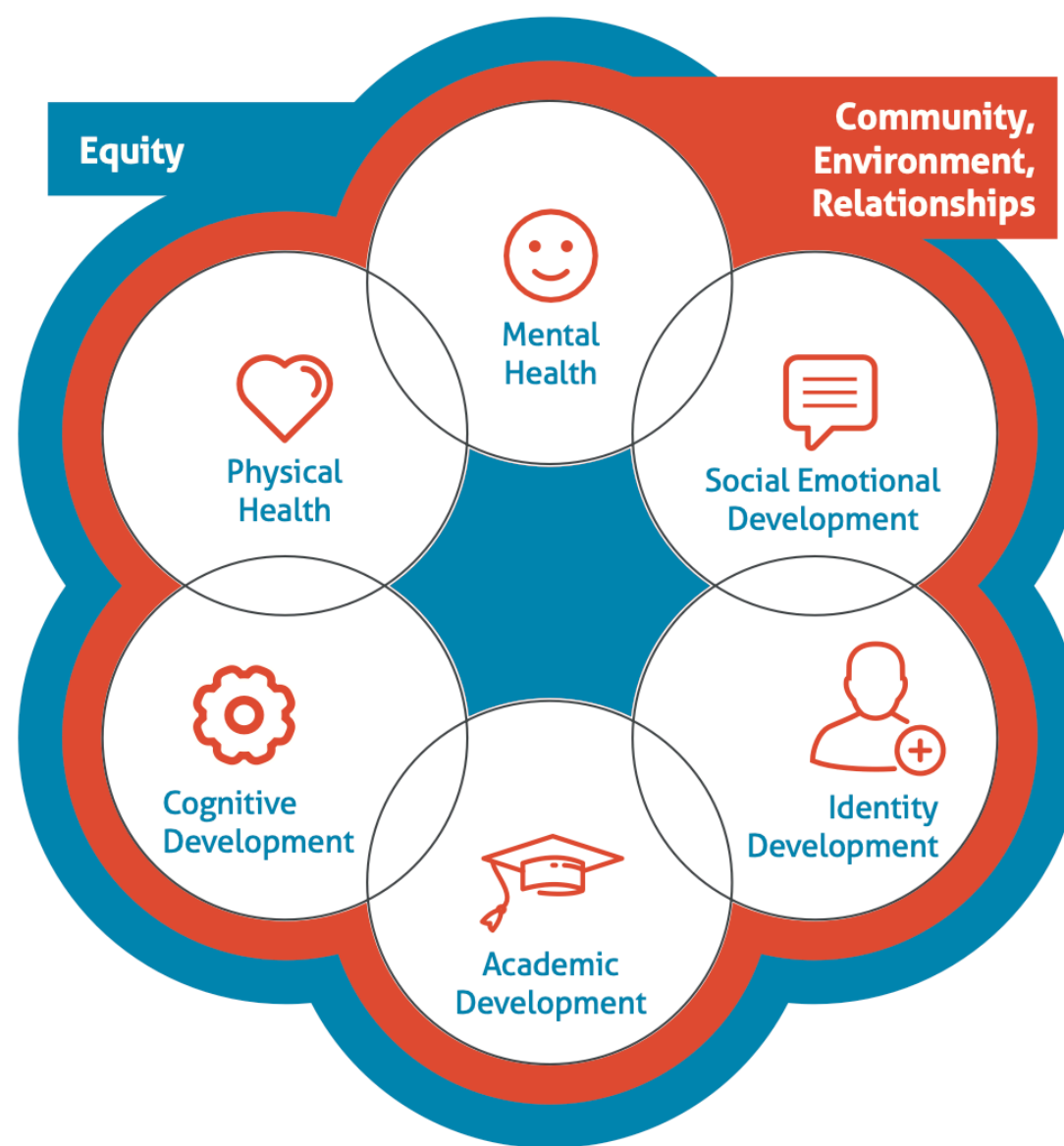
4th Industrial revolution

AI, Robotics, Internet of Things, Autonomous Vehicles, 3D Printing, Nanotechnology, Biotechnology, Materials Science, Energy Storage, Quantum Computing.

Blockchain Analyst, NFT Professional, Driverless Mobility Engineer, Metaverse Influencer, Telemed Physician, Cloud Architect, DevOps Engineer, Drone Pilot, Chief Listening Officer, Bud Tender.

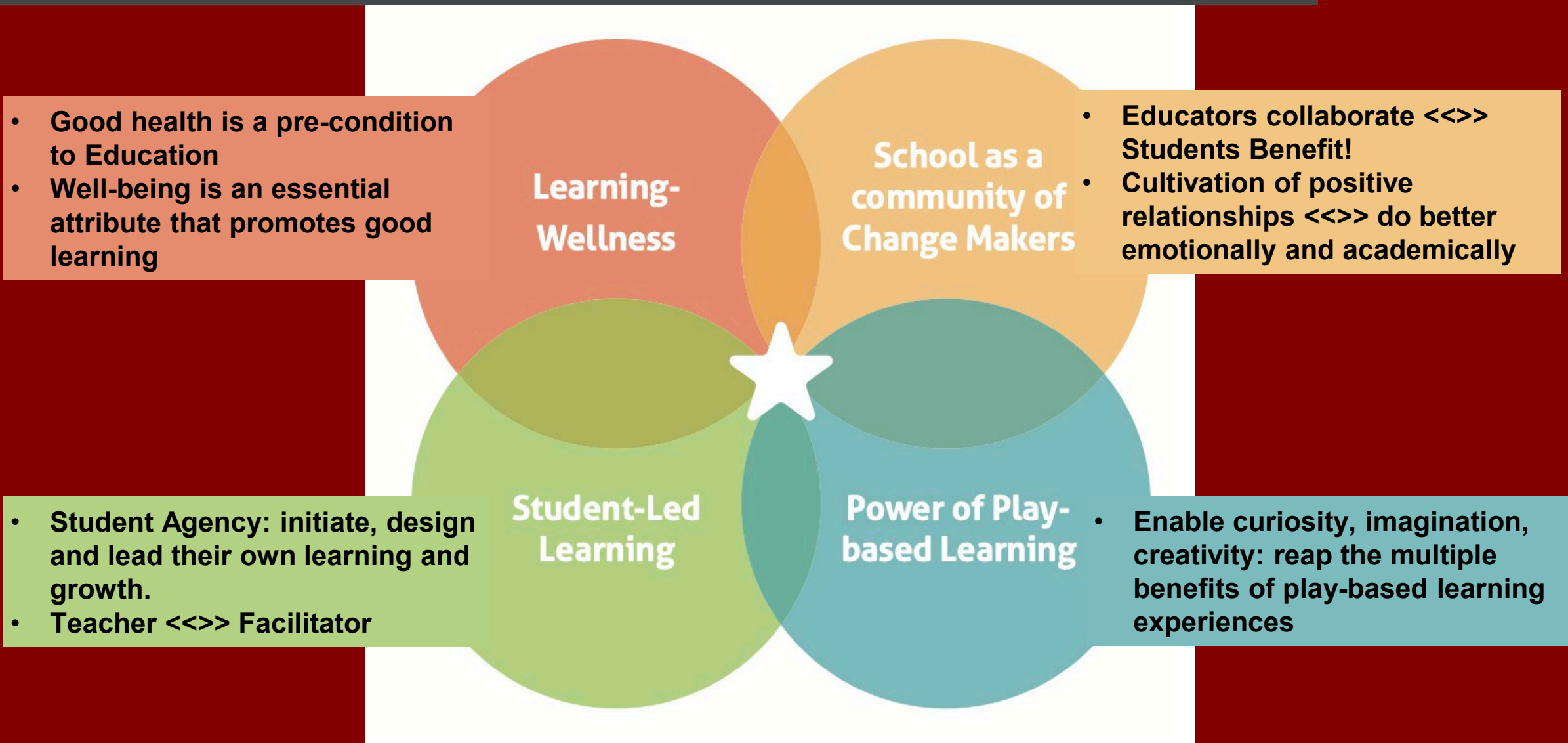
CONTENT VS SKILLS

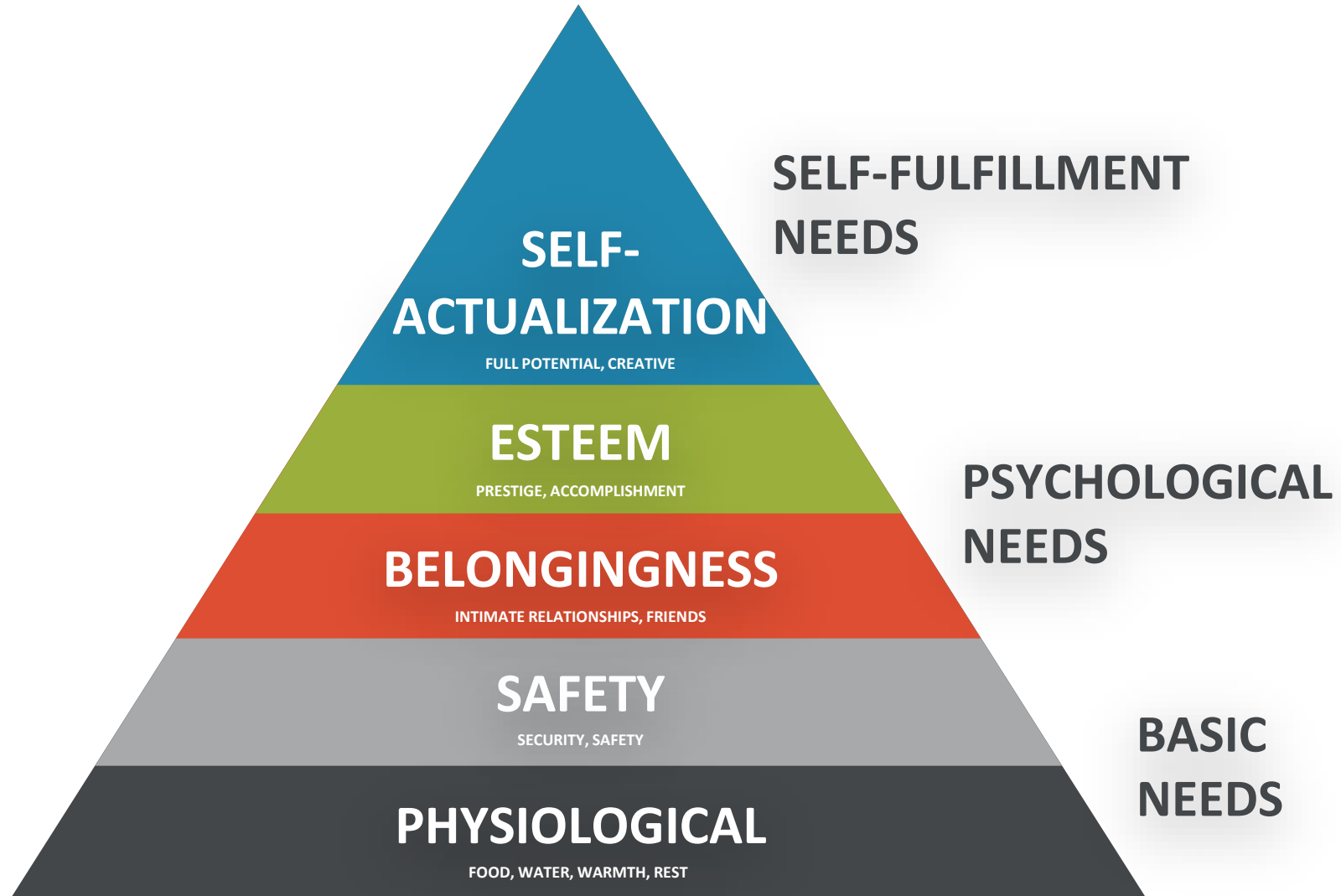




Source: Chan-Zuckerberg Initiative Whole child Framework

PARADIGMS OF FUTURE LEARNING







Self Actualization



Curriculum, Pedagogy
Instruction



Engagement



Professional
Development



High Performance Design



Learner Centric Design

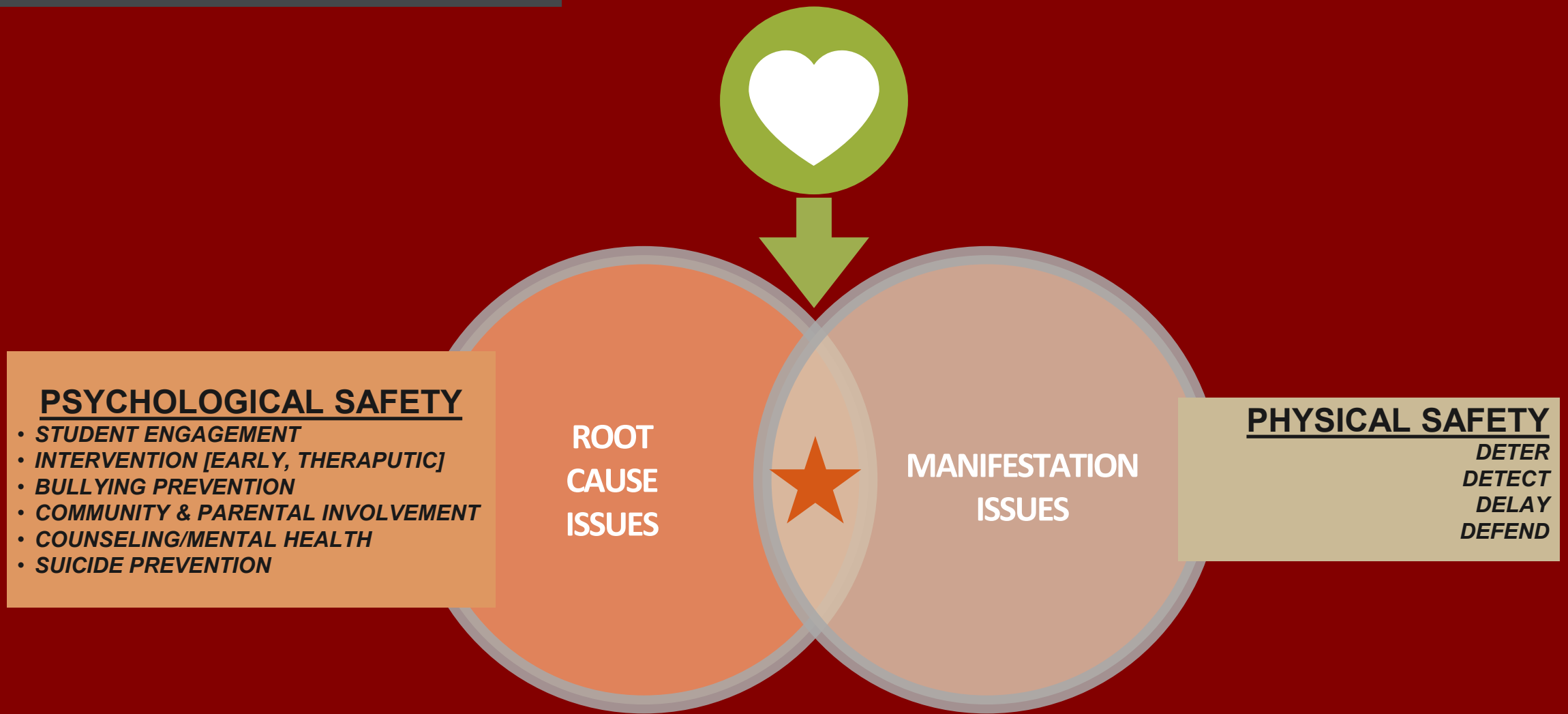


Inclusive Design
Trauma Informed Design



High Performance Design

HPD - SAFETY



BALANCE PHYSICAL AND PSYCHOLOGICAL SAFETY!!!

HPD – COGNITIVE SCIENCE BASED



The average test score gain is

3.3x **HIGHER**
in the biophilic
classroom



HPD – COGNITIVE SCIENCE BASED

- SCALE AND REPETITION [**cognitive stimulation**]
- PATTERNED COMPLEXITY, BEAUTY, INCLUSIVITY, DIVERSITY [**improves pro social behavior**]
- NATURAL LIGHT [**promotes circadian rhythms**]
- VIEWS TO THE OUTSIDE, OUTDOOR LEARNING SPACES [**brain downshifting**]
- PROSPECT & REFUGE [**reduces stress, improves concentration, attention**]
- MYSTERY, RISK/PERIL [**dopamine release, builds self-esteem**]



HPD – COGNITIVE SCIENCE BASED

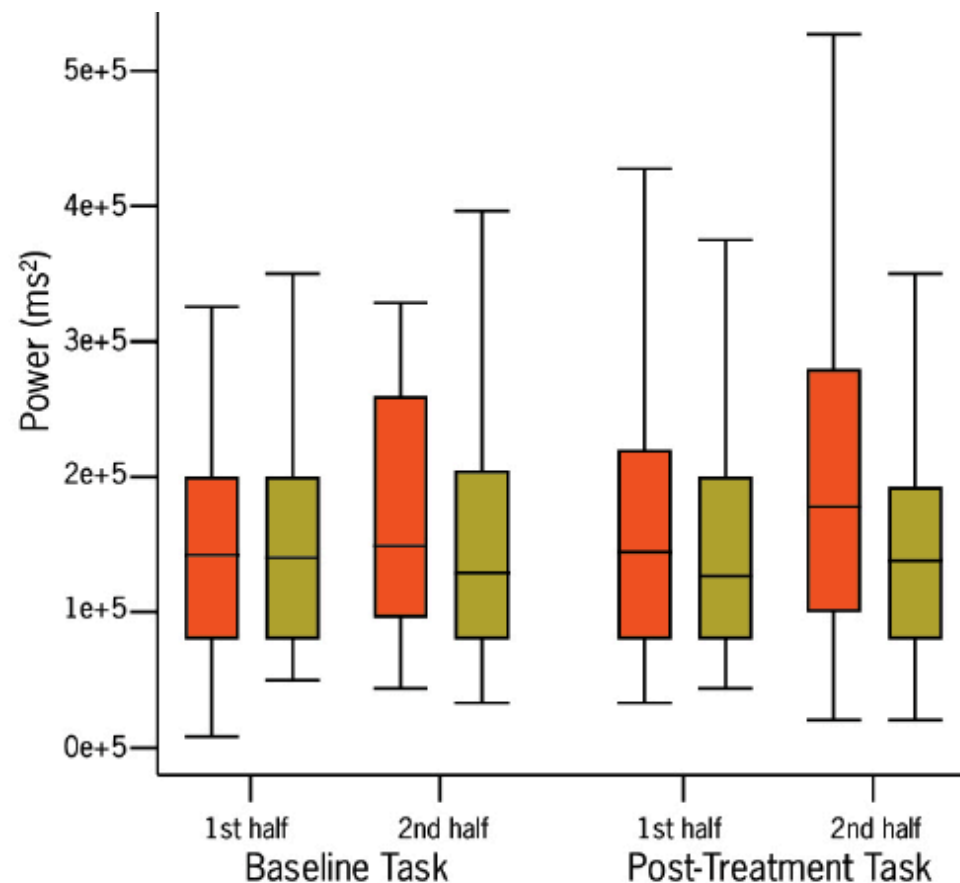


Figure. Boxplot of the median and variance of moment-to-moment response variability (reported as power). Participants viewed a concrete (orange boxes) or green (green boxes) roof. Data shown for the 1st and 2nd half baseline task, and the 1st and 2nd half post-treatment task indicates a significant difference between participants viewing a concrete and green roof. Source: Lee et al. 40-second green roof views sustain attention: The role of micro-breaks in attention restoration. *Journal of Environmental Psychology* 42(2015):182–189.





Learner Centric Design

BRAIN BASED LEARNING

Campfire



A place for a community of learners to sit together, listen to each other and learn from storytellers

EX:

CLASSROOMS

Watering Hole



A place for learning from peers in small groups

EX:

BREAKOUTS

Cave



An area to be alone and to reflect or work independently, without interruption or distraction from others.

EX:

REFUGE SPACES

Swamp



For when we get stuck on a task or concept and need to meet in a group with an expert.

EX:

MAKER SPACES

Plains

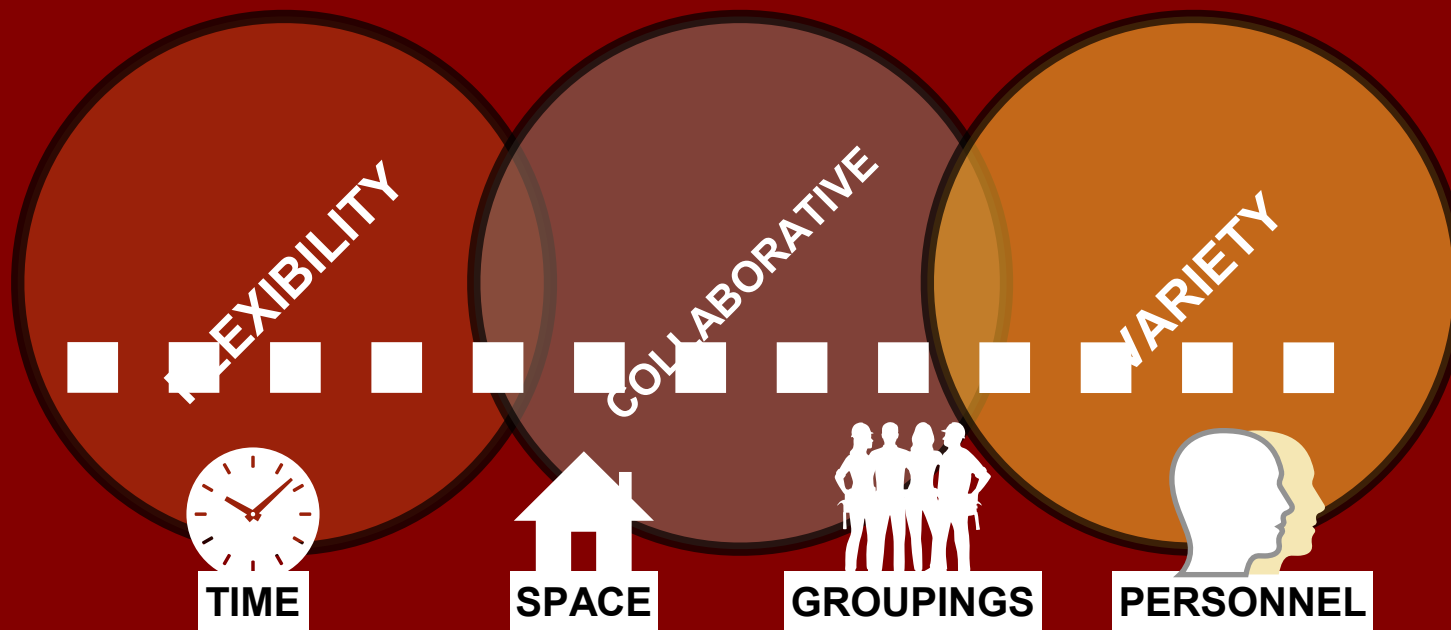


For when everyone is working independently, spread out wherever they need to be.

EX:

MAKER SPACES
COMMUNITY HUBS

LEARNER CENTRIC FEATURES



NOVELTY



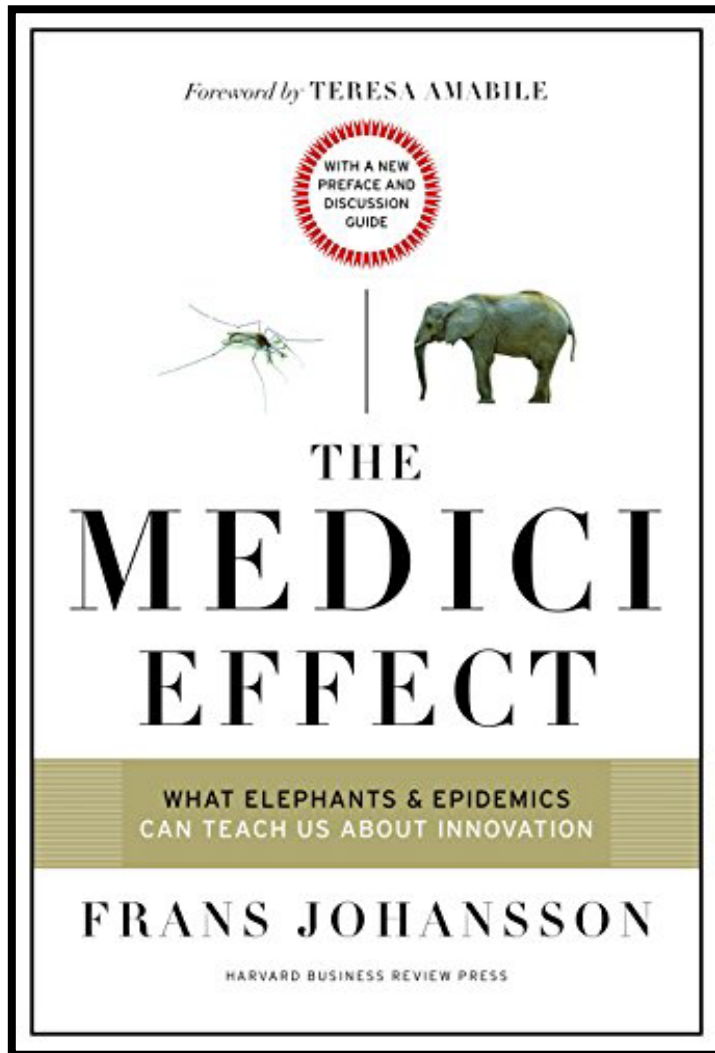
SOCIAL LEARNING





Inclusive Design
Trauma Informed Design

JEDI



Diversity &
Inclusion are
drivers of
Innovation !

INCLUSIVE DESIGN

How does the school environment promote or diminish a sense of inclusion within the student population and wider community?

How do schools reinforce or undermine the idea that all students are treated equitably through the built environment?

How does the physical infrastructure of a school positively connect with, or negatively disconnect from, the idea that difference is good?

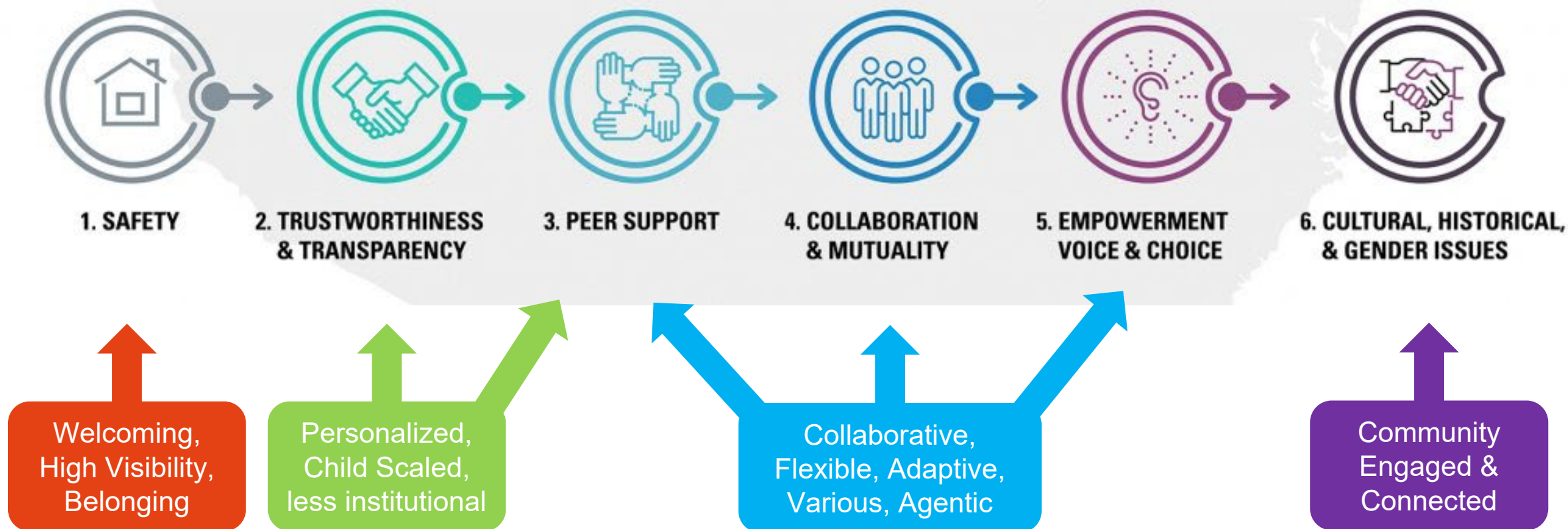
What messages can school buildings send relative to ***you belong*** versus ***you shouldn't be here***?

TRAUMA INFORMED DESIGN

67% of the General Population has had at least one Adverse Childhood Experiences (ACE)

83% of People of Color have had at least one Adverse Childhood Experiences (ACE)

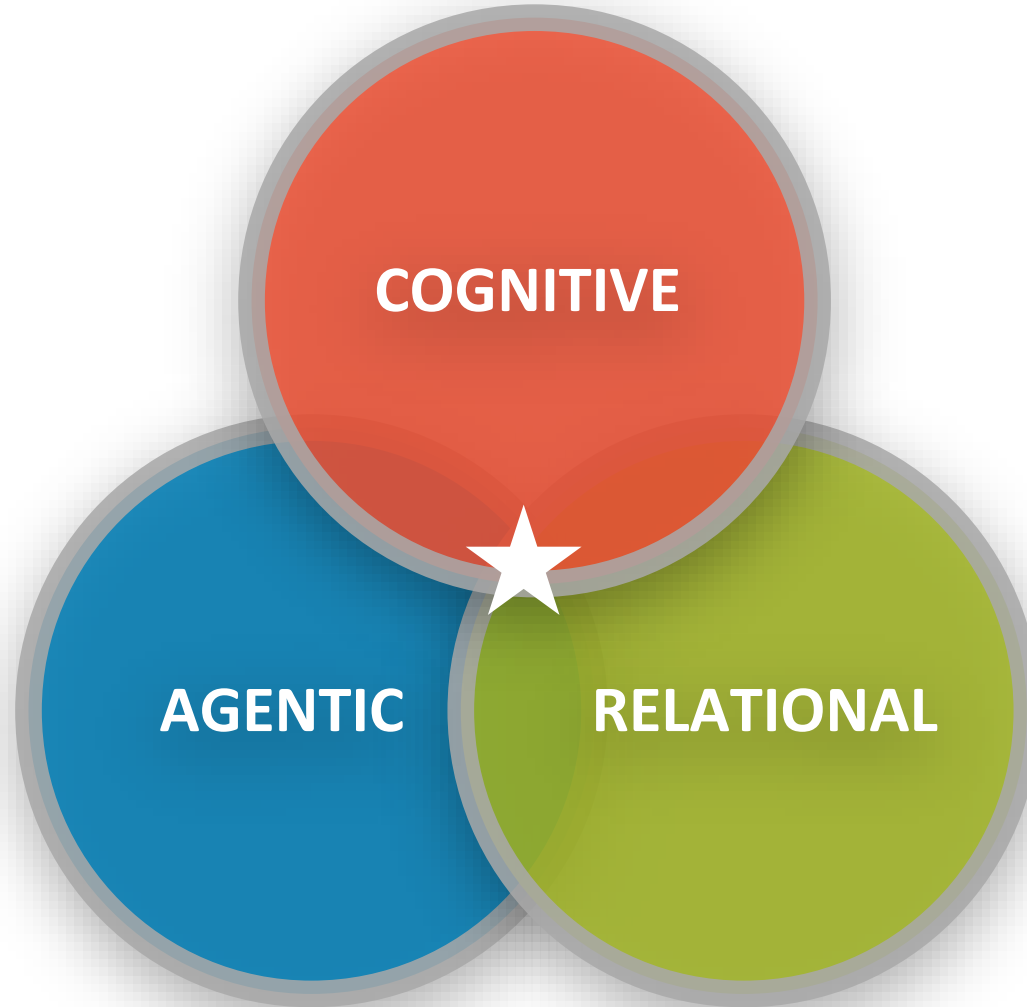
[Source: SAMHSA-USDHHS]





Engagement

ENGAGEMENT

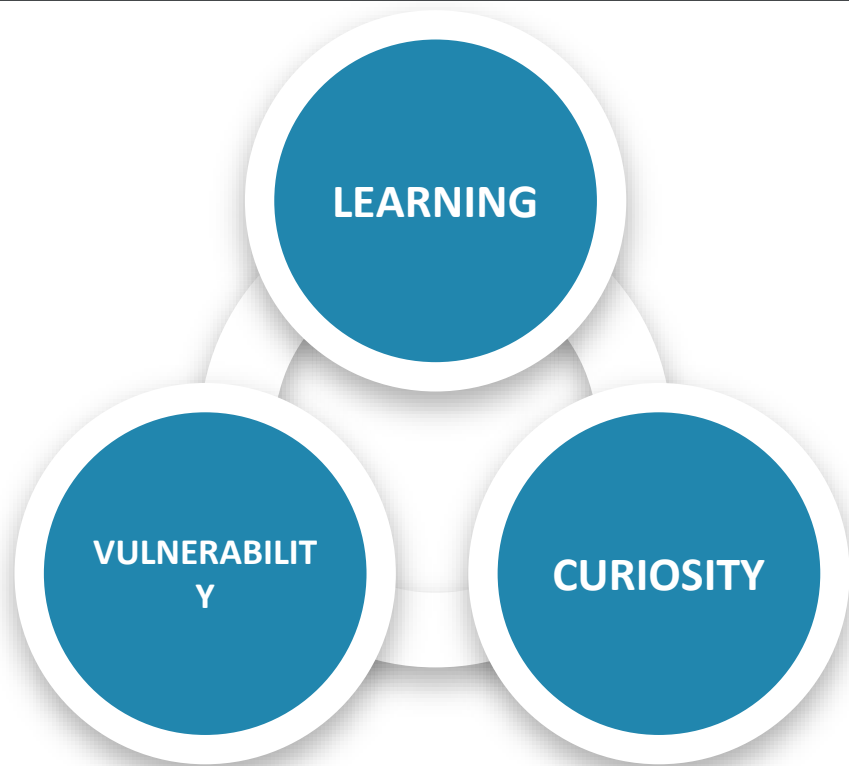


COGNITIVE ENGAGEMENT

- CHOICE BUT ALSO RIGOR
[cognitive stimulation]
- SKILLS SCAFFOLDING [move students progressively toward stronger understanding and, ultimately, greater independence in the learning process]



RELATIONAL ENGAGEMENT



- TRUST, EMPATHY, BELONGING [drivers of innovation]
- PSYCHOLOGICAL SAFETY [student-student, and student-teacher]

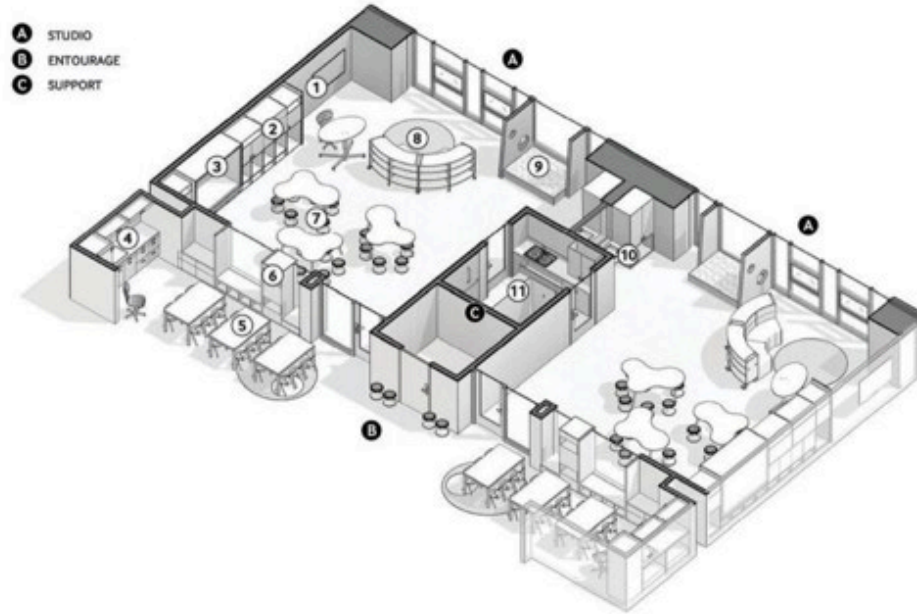


AGENTIC ENGAGEMENT

Learning in a Neighborhood Setting

-  EXTERIOR VISUAL CONNECTION
-  INTERIOR VISUAL CONNECTION
-  INTERIOR PHYSICAL CONNECTION

- ① INTERACTIVE TECHNOLOGY
- ② STUDENT STORAGE
- ③ READING NOOK
- ④ TEACHER WASHING / RESOURCE
- ⑤ ENTOURAGE / GROUP DINING + ARTS
- ⑥ ENTOURAGE STORAGE
- ⑦ HANDS-ON ACTIVE LEARNING
- ⑧ FOCUSED GROUP LEARNING
- ⑨ PERFORMANCE PLATFORM
- ⑩ STUDENT WASHING
- ⑪ SHARED STUDENT TOILETS



- LEARNERS ABILITY TO MAKE CHOICES ABOUT THEIR LEARNING & LEARNING ENVIRONMENT
- [SPARK CURIOSITY AND QUESTIONING, SELF PACED LEARNING, RESILIENCE]





Curriculum and Pedagogy

PEDAGOGY

TRADITIONAL

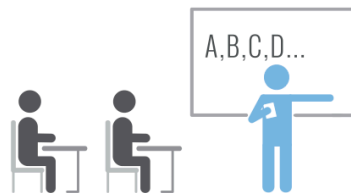
The traditional classroom is in a rank and file organization with all desks facing the front or the instructor. This organization is typically used for classes that are primarily lecture based. The teacher is usually positioned at the front of the classroom with a white board and the teachers desk near by. Furthermore, in the traditional model the instructors are seen as the knowledge or content providers while the students are receivers. The classroom area is 960 square feet and often has very few daylight openings if any. The classroom teacher to student ratio is desired to be between 1:16 to 1:24 but it is not common for classrooms to exceed those numbers, especially in public schools.

COMMON CORE TESTING

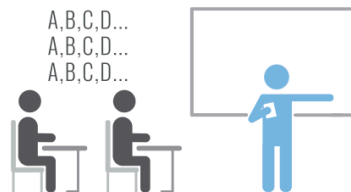


STANDARDIZED TESTS

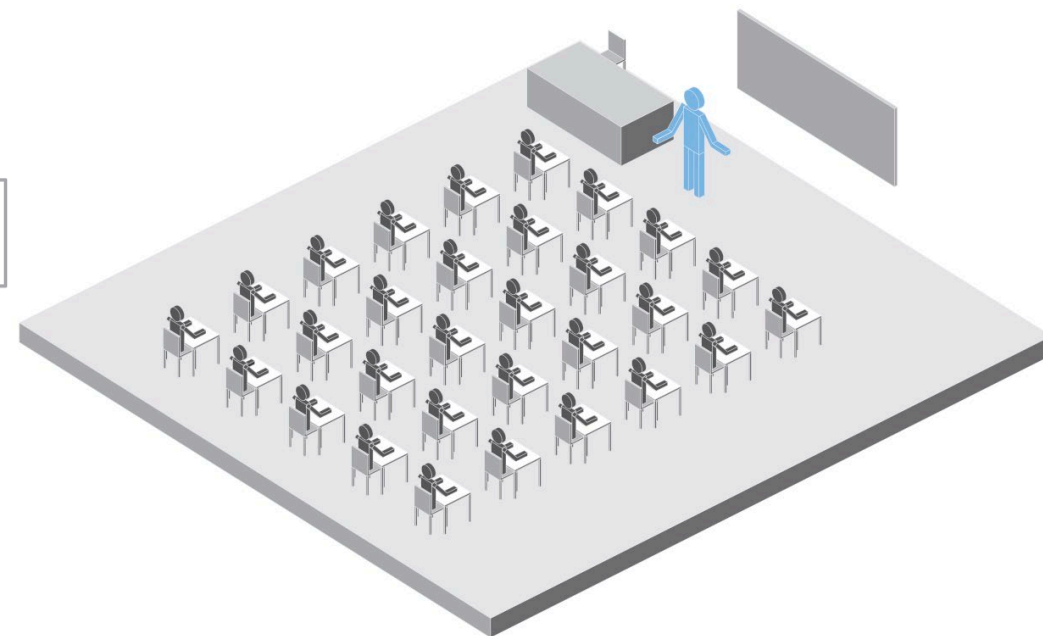
ONE-WAY TEACHING METHODS



BANKING METHOD



ROTE LEARNING



RANK & FILE SEATING
Used for one-way Teaching

PEDAGOGY

PROJECT BASED LEARNING

Project-Based Learning (PBL) is any programmatic or instructional approach that utilizes multifaceted projects as a central organization strategy for educating students. Students are typically assigned a project or series of projects that require them to use research, writing, interviewing, collaborating or public speaking skills to compose various work products that may include papers, scientific studies, public policy proposals, multimedia presentations, video documentaries, art installations, or musical and theatrical performances ("Project-Based Learning," 2013). An open-ended real world problem or challenge drives the project and a tangible product, performance or event is created (Larmer, 2014). Through project development, students integrate many subjects and skills into a multidisciplinary learning experience. Projects may take several weeks, months or semesters ("Project-Based Learning," 2013).

THE 8 ESSENTIALS OF PROJECT-BASED LEARNING INCLUDE:

1. **Significant Content** to students' lives.
2. A **Need to Know** feeling given by project.
3. A **Driving Question** to focus student effort.
4. **Student Voice & Choice** in communicating learned content and skills.
5. **21st Century Competencies** that include research, critical thinking, collaboration and creativity/innovation.
6. **In-Depth Inquiry** that lead students to research, discover, test and draw new conclusions.
7. **Critique & Revision** to emphasize trial and error and recalculating in the process.
8. **Public Audience Presentation** to add value to the work produced (Larmer & Mergendoller, 2012).

8 ESSENTIALS OF PROJECT BASED LEARNING



1. SIGNIFICANT CONTENT



3. DRIVING QUESTION



5. 21ST CENTURY COMPETENCIES



7. CRITIQUE & REVISION



2. NEED TO KNOW



4. STUDENT VOICE & CHOICE



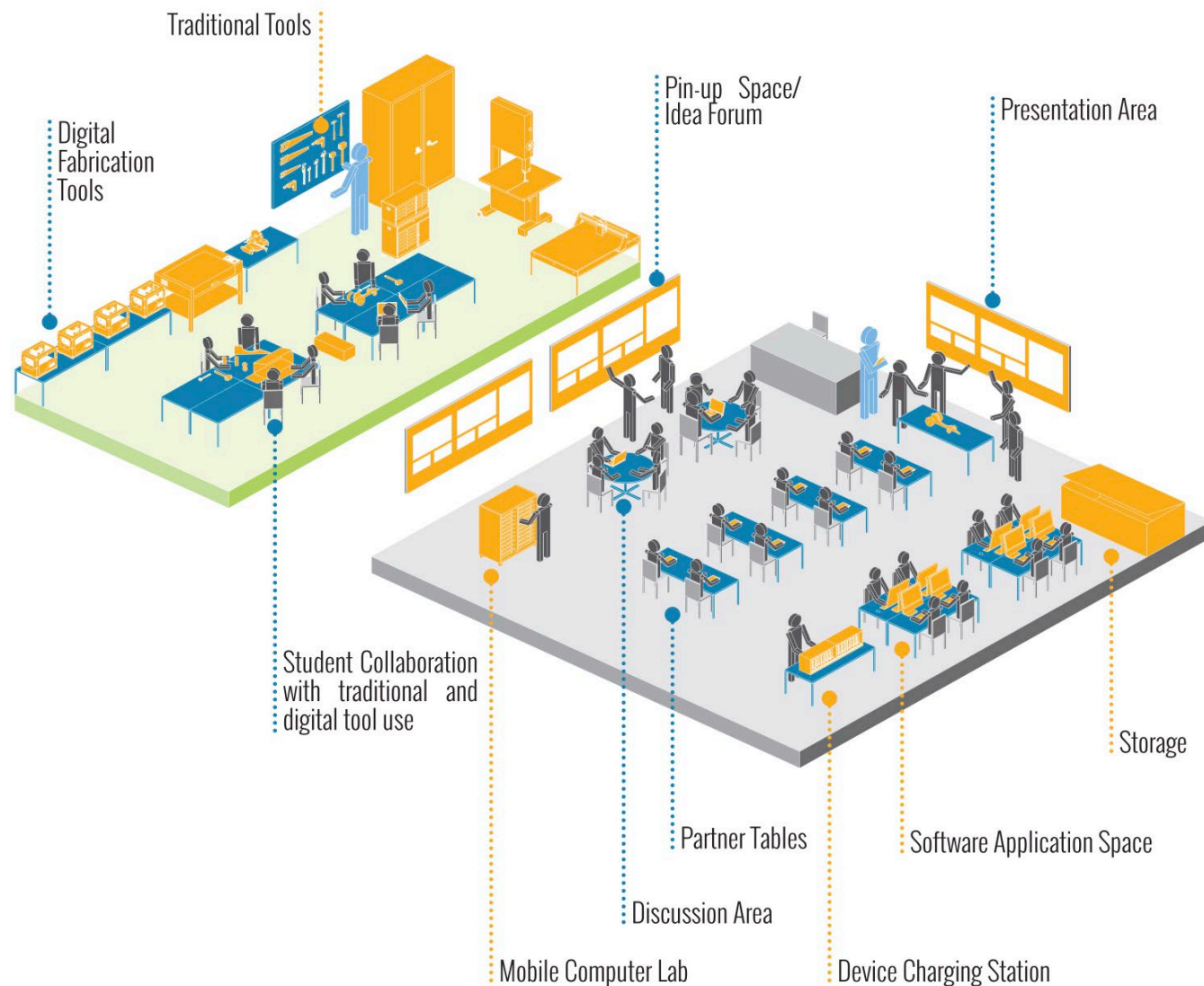
6. IN-DEPTH INQUIRY



8. PUBLIC PRESENTATION



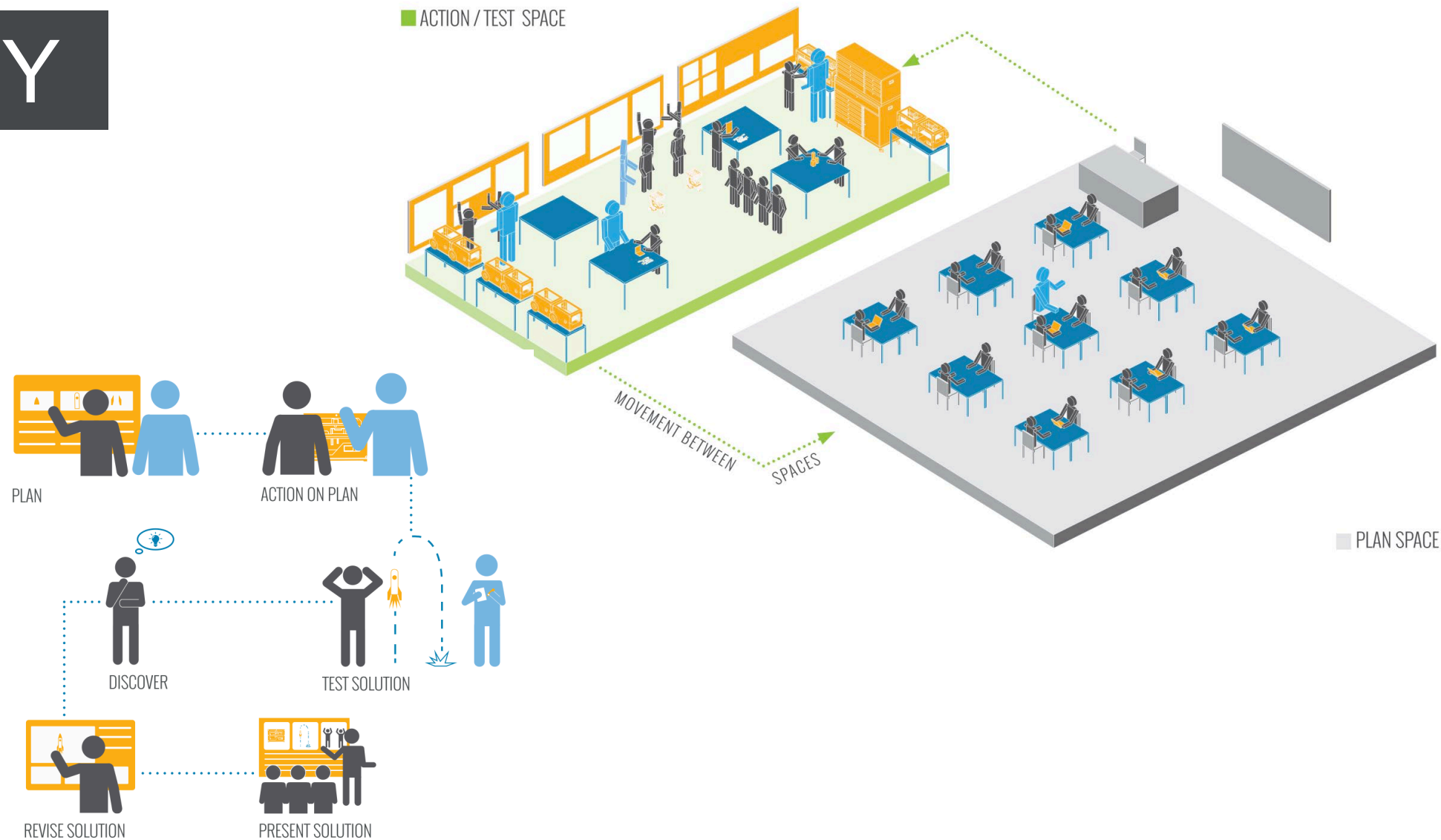
FABLAB



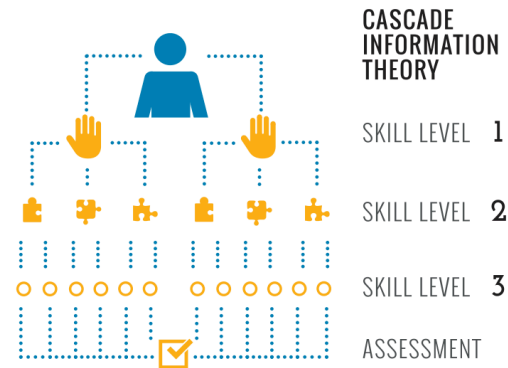
PEDAGOGY

DESIGN-BASED LEARNING

Design-Based Learning focuses on design and creativity. The students create physical objects that reflect themes, concepts and standards. The steps to this process is to plan, experiment, discover, interpret, discriminate, revise and then justify their learning. Visual learning, spatial and holistic thinking are all at the center of this educational trend along with needing to work simultaneously in different media. (About Design-Based Learning, 2009)



PEDAGOGY



FORMING HABIT

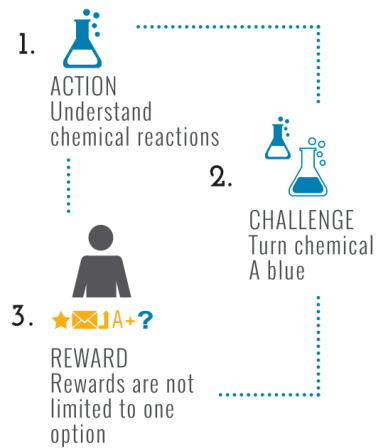
KNOWLEDGE
ACQUIRED
What to



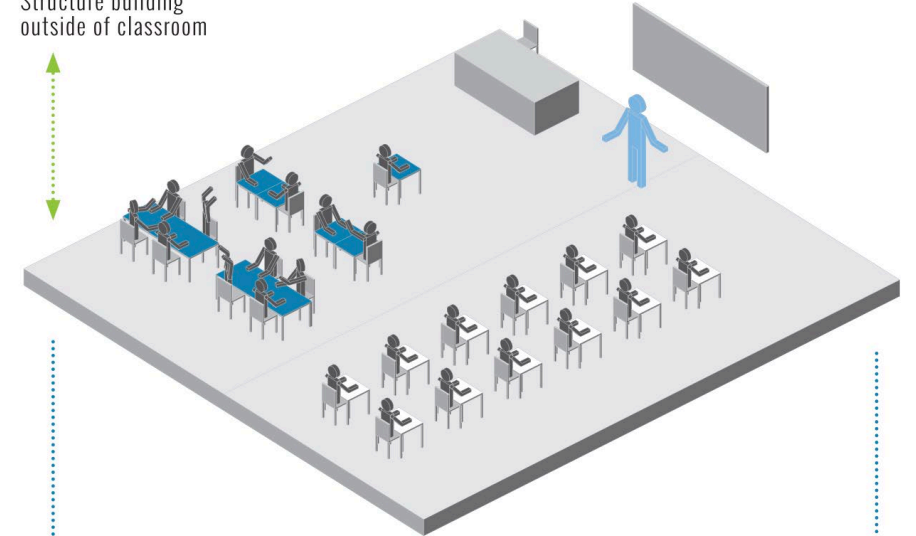
SKILLS
LEARNED
How to

DESIRE
want to
Desire comes
from reward

THE HABIT LOOP



Structure building
outside of classroom



INDIVIDUAL VS TEAM

Can be used in traditional classrooms or
problem-based teams or as individuals

GAMIFICATION

Gamification is the use of game theory as a means of educating or acquiring skills. gamification is not the same as game-based as gamification can go unnoticed as a game while still using game theory. Game theory entails starting with a teaching goal in mind, proposing a challenge to reach that goal, provide skills along the way through cascade theory, and then reward that challenge when the goal is completed (Kiang, 2014) (Teachthoughtstaff, 2014).

PROFESSIONAL DEVELOPMENT

1. Bridge technology with pedagogy



2. Mold teaching with 21st century knowledge and skills



3. Project-Based learning



4. Child and adolescent development



5. Wide range of assessment strategies



6/7. Collaborate/ Mentor



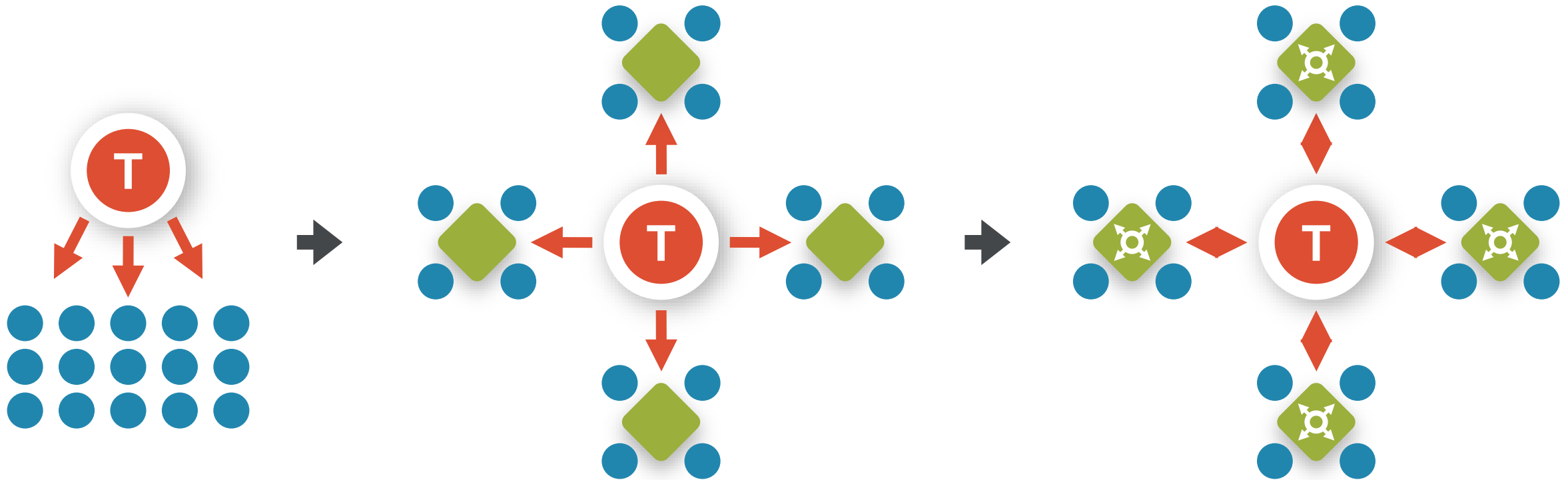
8. Many types of learning methods to reach each student



9. Life-long learning



TEACHER AS FACILITATOR





Self Actualization

SELF ACTUALIZATION

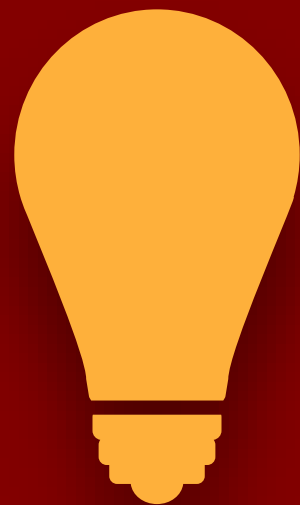


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Think BIG!