



“The Virgin Islands Department of Education embraces ALL students and empowers them to achieve their fullest potential.”

A 9th Grade Center was studied post occupancy



INTRODUCTION



PAM LOEFFELMAN

- DLR GROUP
- FAIA
- Architect

MODERATOR



DR. LENNIE SCOTT-WEBBER

- INSYNC:
Education
Research +
Design
- AIA Affiliate

PI

PANELIST



DR. DIETER BREITHECKER

- Federal
Institute for
Health &
Posture
- Health &
Kinetic
Scientist

Co-PI

PANELIST



DINA SORENSEN

- d.studio
- Architect
- Assoc AIA,
LEED
- AP BD & C

Co-PI

PANELIST

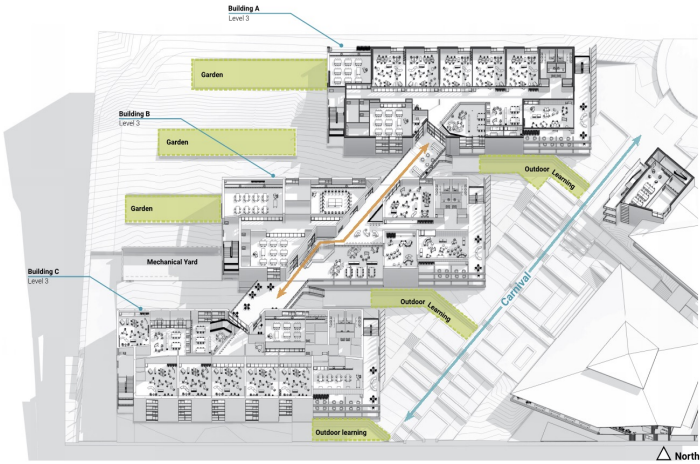




DISASTERS, OPPORTUNITIES, VISION: TRANSFORMING LEARNING EXPERIENCE WITH PURPOSE | VIDEO



RESEARCH – INFORMED MASTER PLANNING



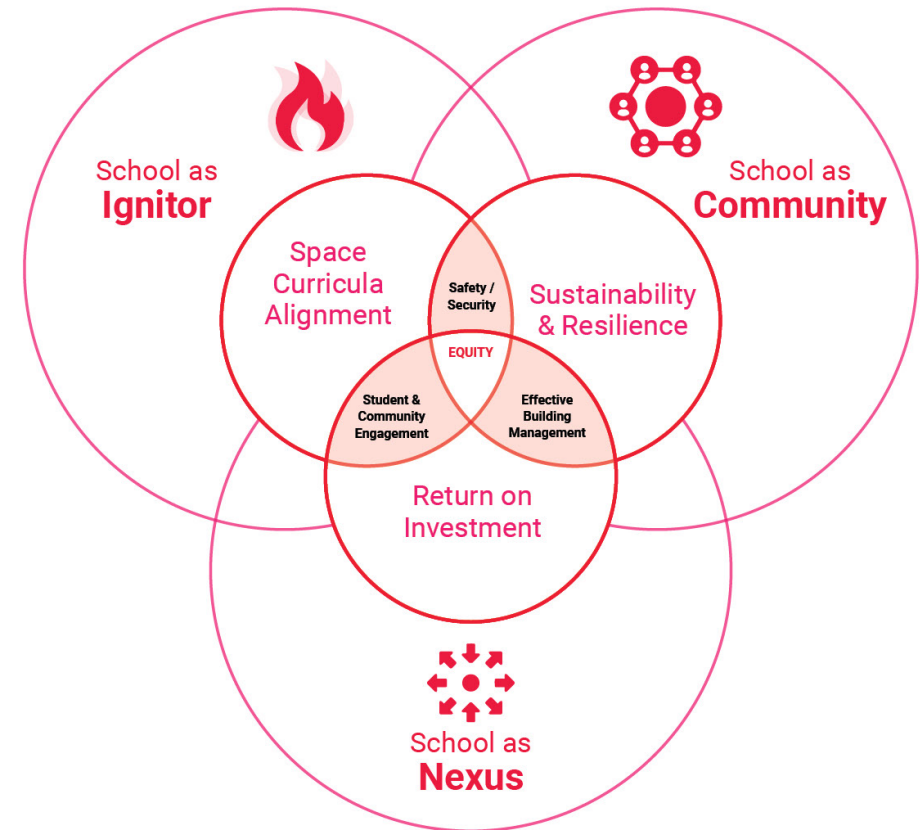
SEI/TEI | Student Engagement Index™ & Teacher Engagement Index™ Used to Inform 'Space Curricula Alignment Indicators'

[Research led by Dr. Scott-Webber, INSYNC: Education Research + Design]

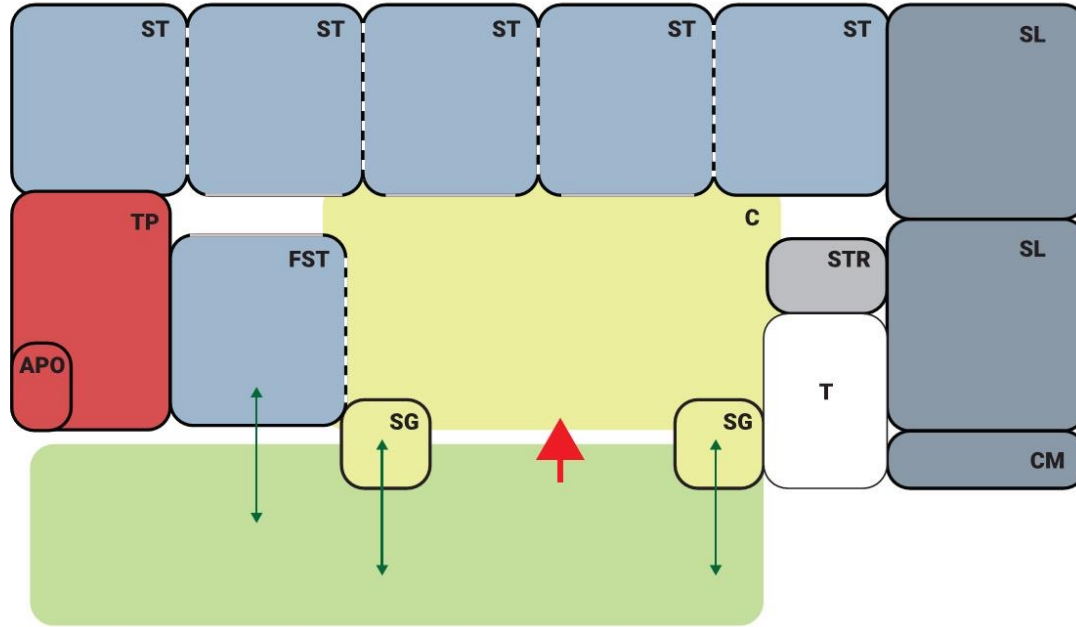


VIDE Guiding Principles...

-  Whole Child
-  Equity
-  Addressing the Needs of All Students & Integrating Technology
-  Using Technology to Assess the Impact of Practices
-  Health, Safety & Security
-  Cultural, Local & Economic Competence and Resilience
-  Integrated Design, Assessment, Operation & Management



9-12 Learning Suite



9-12 Learning Suite Linear Orientation

- OPAQUE
- - - TRANSPARENT
- · - · - CHANGE IN MATERIAL
- FLEXIBLE/OPERABLE
- ↔ POTENTIAL CONNECTION TO OUTDOOR LEARNING
- (T) TOILET



**CHARLOTTE
AMALIE
HIGH SCHOOL
ANNEX**



RESEARCH – INFORMED PLANNING

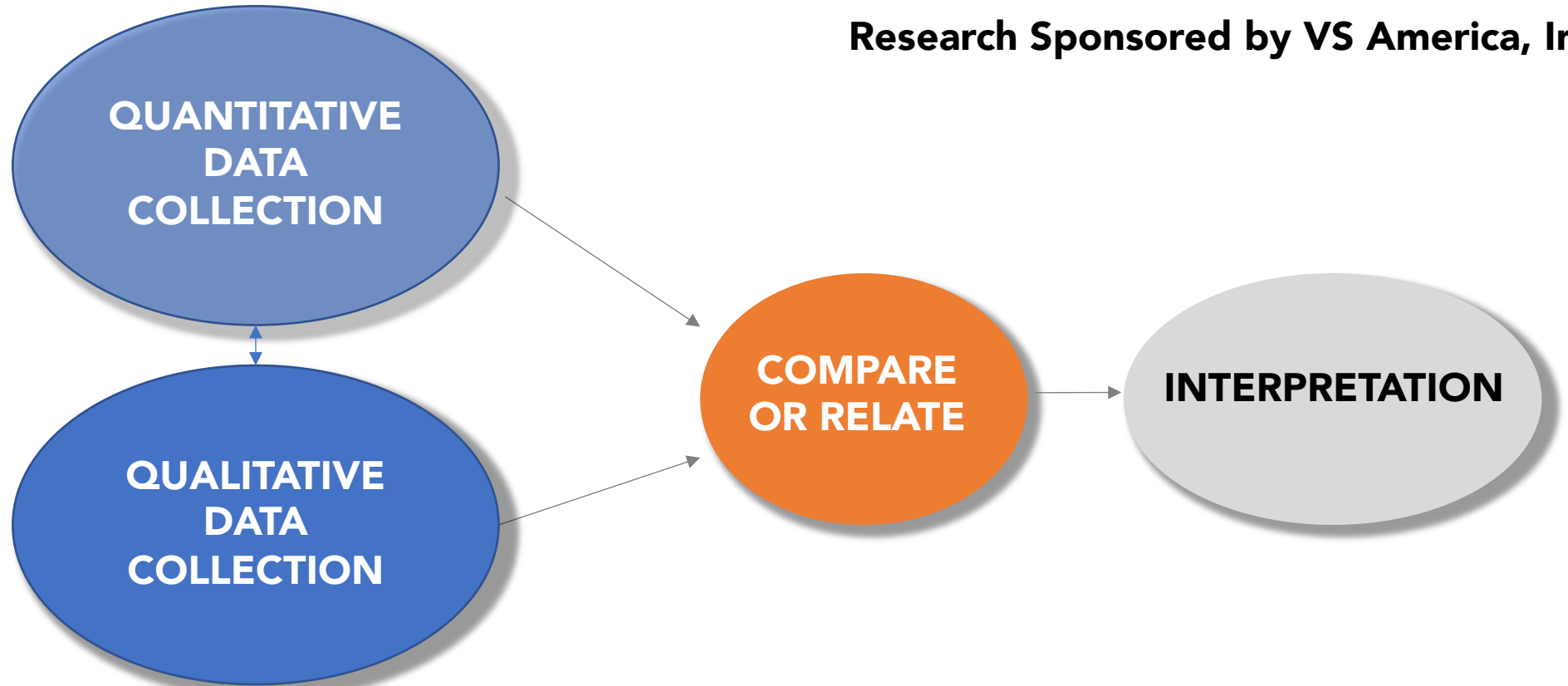


WHY?

UNDERSTAND IF 9th GRADE ERGO-DYNAMIC FURNITURE DESIGN SOLUTIONS ARE INTUITIVE FOR USERS WITHOUT INTERVENTION



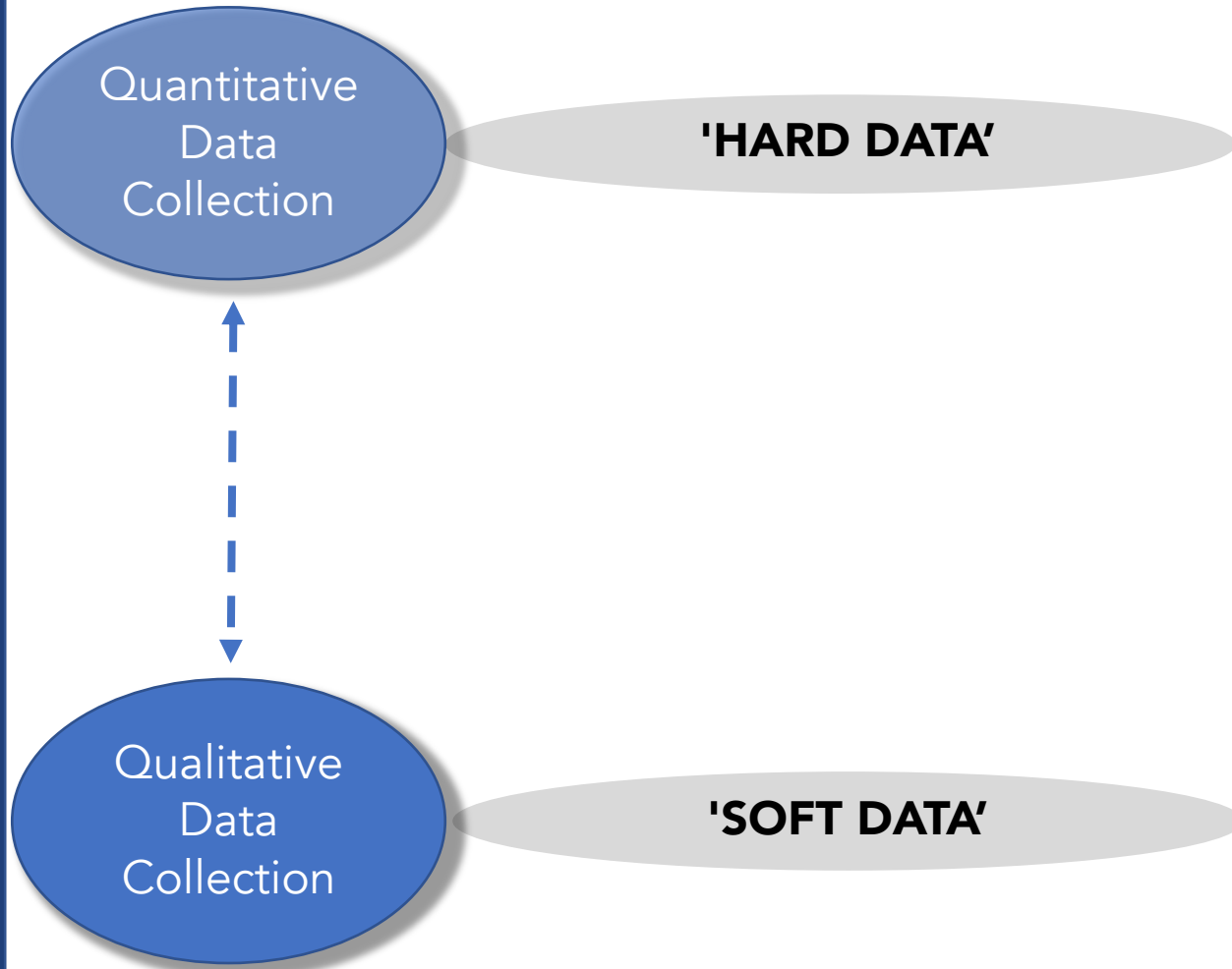
Research Sponsored by VS America, Inc.



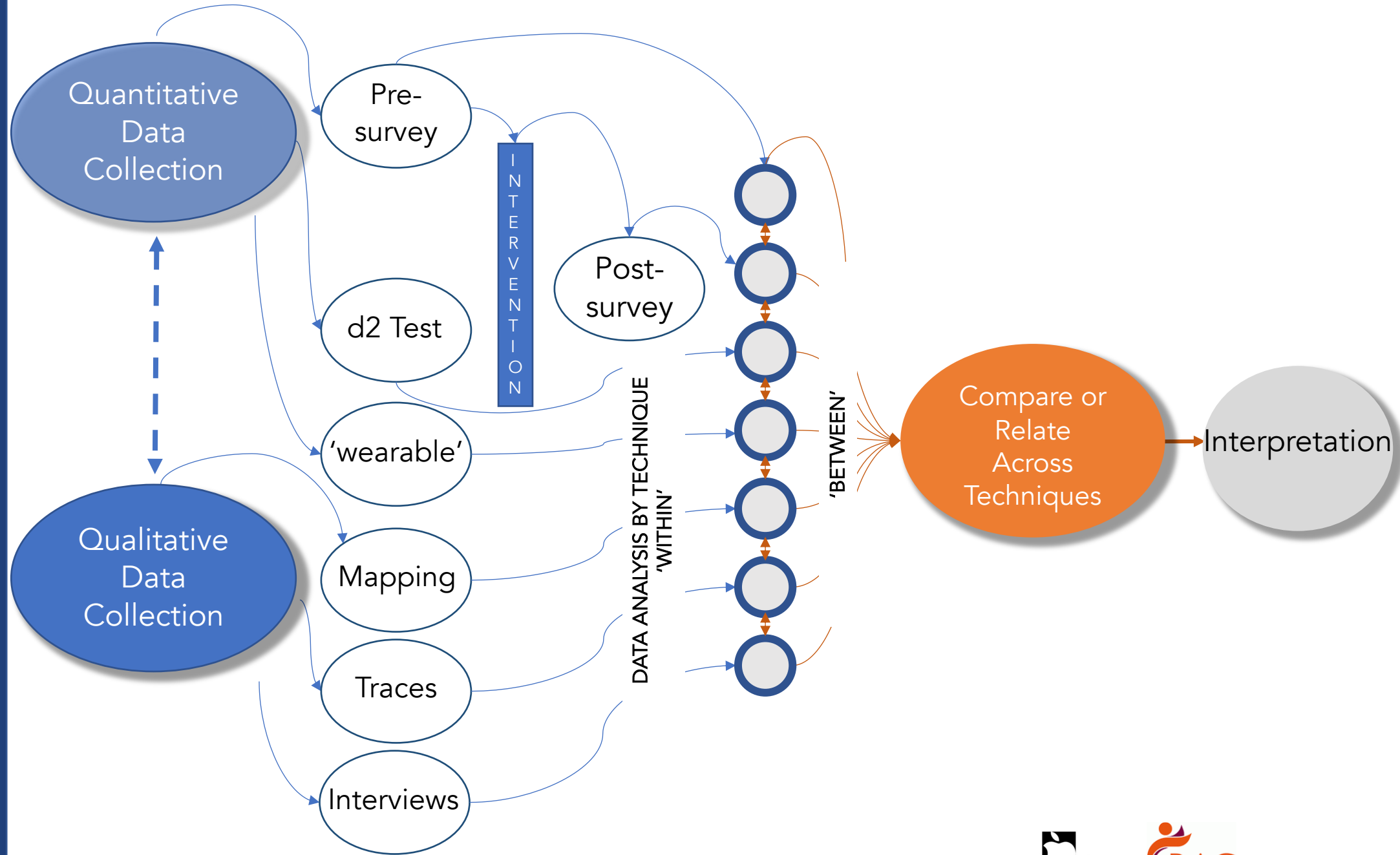
EXPLORATORY STUDY POE

Basic Mixed-Methods Research Design (adapted from (Harvard Catalyst, 2022))

THE RESEARCH METHOD



THE RESEARCH METHOD



'ERGO-DYNAMIC' SOLUTION



WHAT?

WE SAW

ANALYSIS / Observations



VIDE

RM 101 [LOCATION A]

IMG.2757

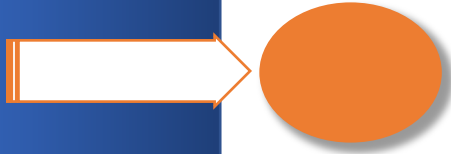
2/28/22

9:21AM

Day 1 Block 1 DMS/AM

- Small group / whole group
- Interactive
- Student-to-Student
- Teacher-to-Student
- **S's: / WL ^ > ~**
- **T: / WL ^ ~**

POSTURE



IMG.2843
12:54PM



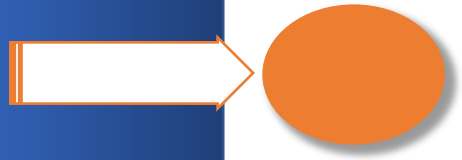
IMG.2847
1:09PM

RM 301 [LOCATION E] DAY 1 BLOCK 3 DMS/PM

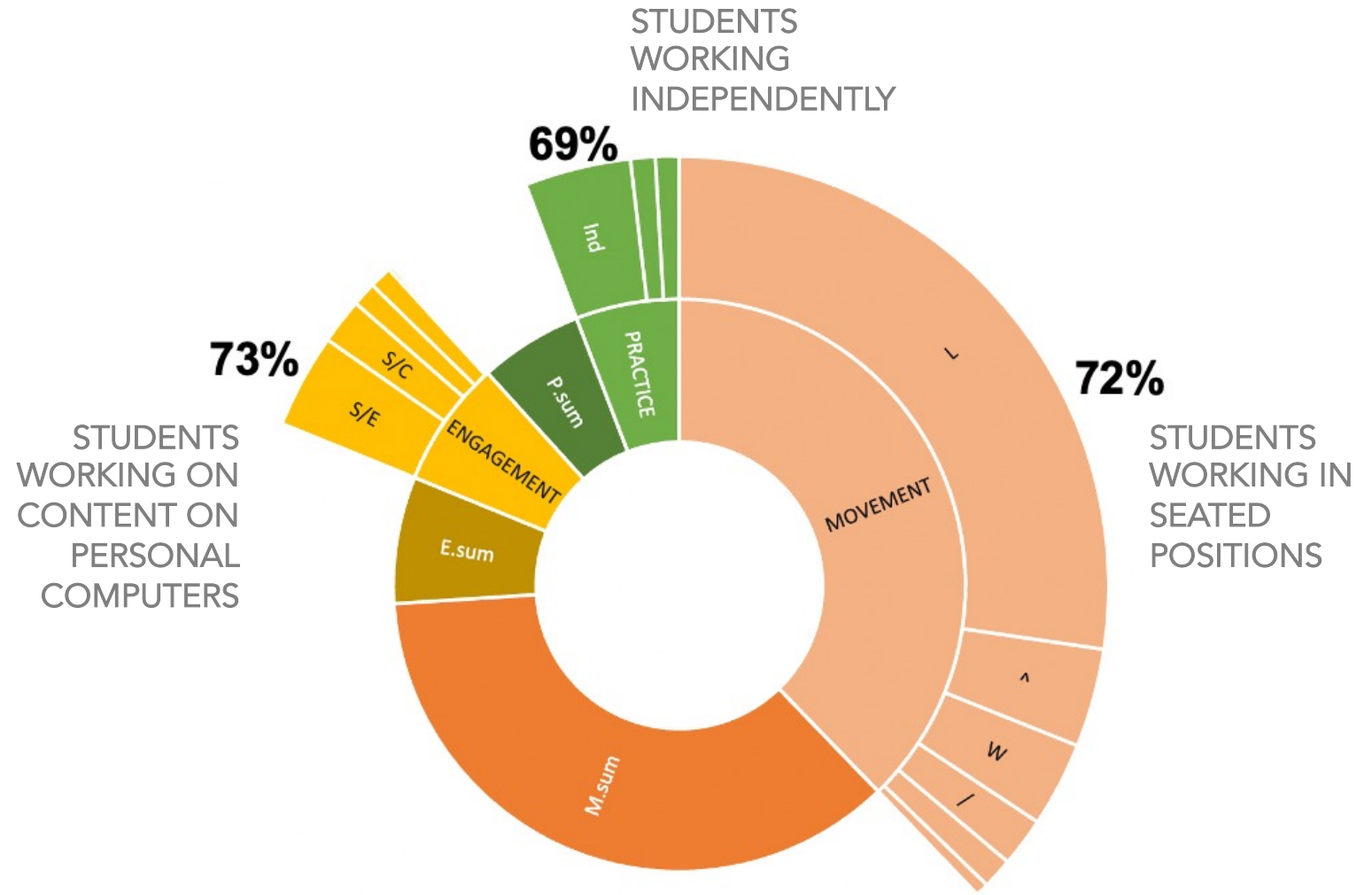


POSTURE

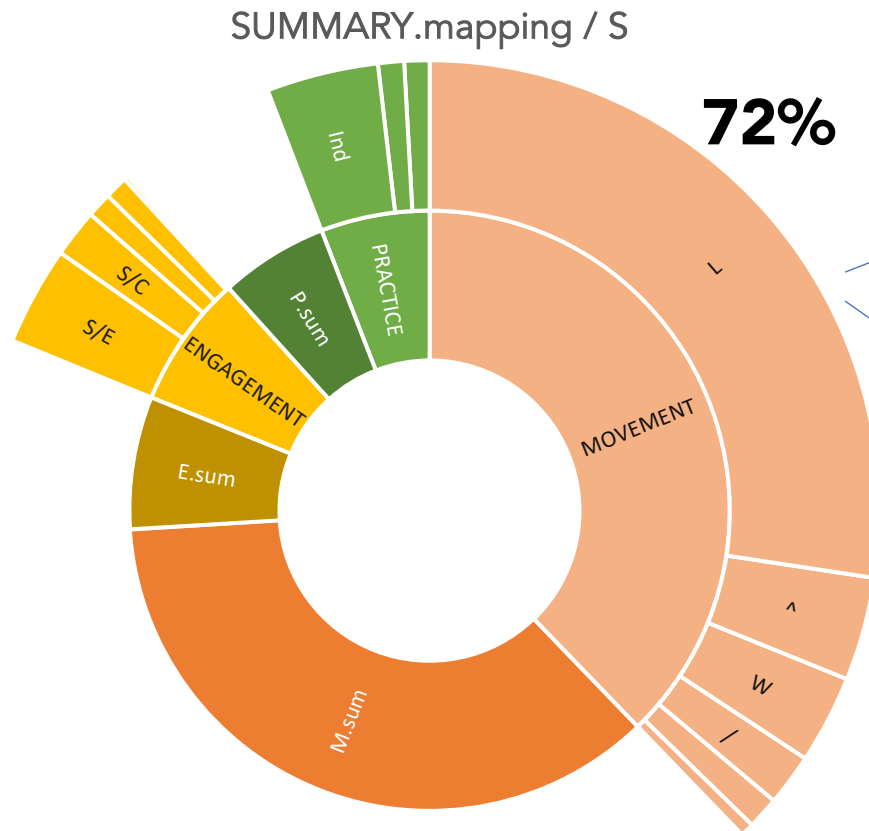
Day 1 Block 3 DMS/PM
▪ S's: / L ^ > ~
▪ T: W ^



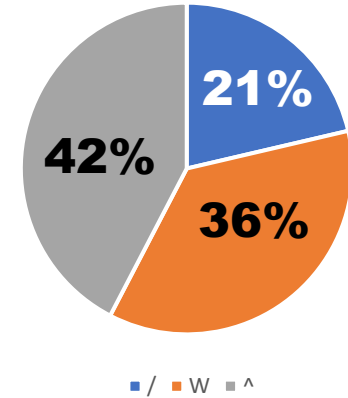
MAPPING ANALYSIS / OVERALL



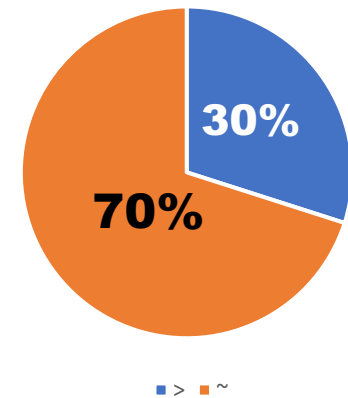
MAPPING ANALYSIS

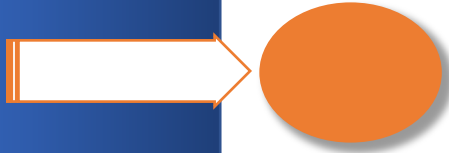


Vls.Macro Movement / Students



Vls.Micro Movement / Students



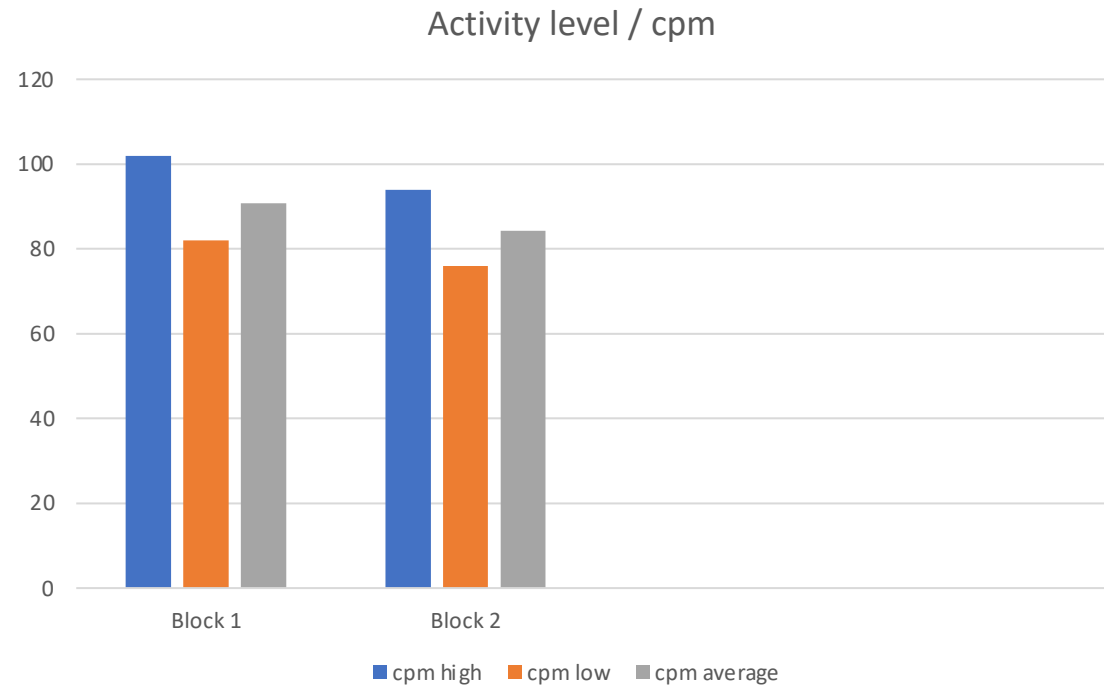


Wearables / Accelerometer

Seated / Mostly Inactive Behaviors



'Wearable' –
Accelerometer



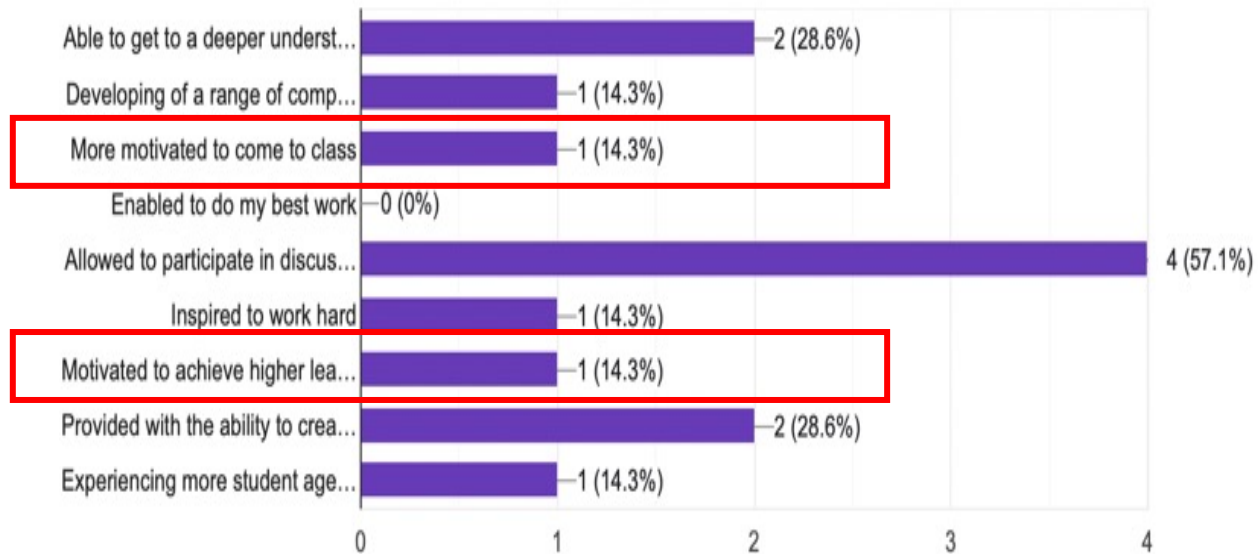
Measured Activity Behaviors

WHAT?

WAS SAID

13) Given there are new furniture and layout in these classrooms, how would say your students would answer: "I am[check all that apply]

7 responses

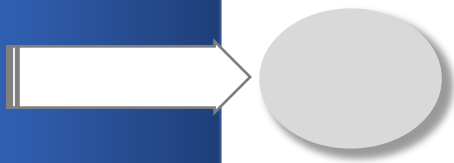


Spatial Design and Purpose-built Furnishings Generated a Higher Motivation for Higher Learning Outcomes for Students



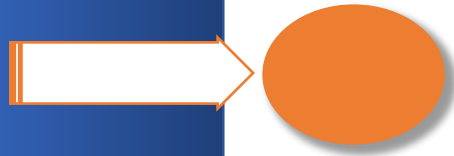
Overall findings recorded...

- 1) Both students and educators continued to be excited to come to school – designs made a difference;
- 2) Far less negative/destructive behavioral issues; and
- 3) A sense of pride/belonging imbued.



Specifically, the data revealed...

- 1) ILE designs at the ergo-dynamic furniture level are not as intuitive, particularly for the educators, as previously assumed;
- 2) Teaching practices guide the utility of use of ergo-dynamic settings and overall ILE design solutions; and
- 3) Students still had too much sedentary time affecting cognitive performance levels negatively.



Post Intervention

"We felt more empowered to allow students to become independent in navigating the classroom."
--- Educators

INTERPRETATIONS

A 9TH GRADE FURNITURE ECOSYSTEM MATTERS /
BUT IT'S NOT ENOUGH!



PRACTICES



ENGAGEMENT



MOVEMENT



**PRACTICE
GUIDES
BEHAVIORS**

INDEPENDENT

**W/CONTENT
ON COMPUTERS**

SITTING POSTURES

FURNITURE AND PEDAGOGY ARE INTERTWINED

LACK OF KNOWLEDGE IMPACTS ALL EFFORTS



WE NEED A CIRCULAR SYSTEM

Implications are significant and impacting multiple decision makers:

- Architecture
- Interior Design / Interior Architecture
- Planning
- Educational leadership
- Facility management
- Professional development for educators.

NEXT STEPS

TAKE AWAYS???



Q & A

DISASTERS, OPPORTUNITIES, VISION: TRANSFORMING LEARNING EXPERIENCE WITH PURPOSE | VIDEO

WITH THANKS!

