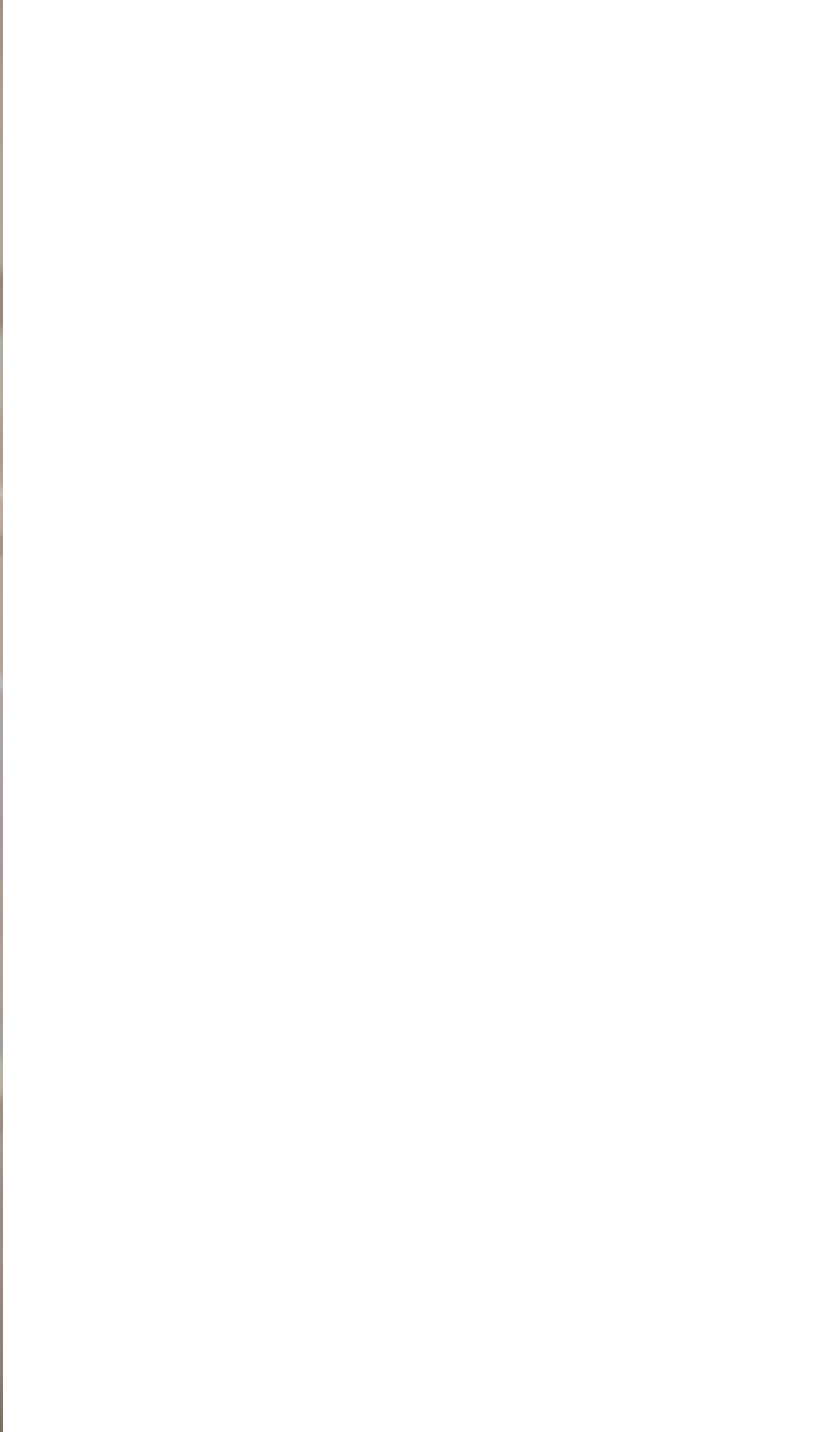


WHY WE NEED TO CREATE  
**BETTER LEARNING  
ENVIRONMENTS**







# I BELIEVE

1.

**EVERY  
CHILD IS  
WORTHY**

2.

QUALITY EDUCATION  
CHANGES THEIR  
TRAJECTORY

3.

SPACE PLAYS  
AN INFLUENTIAL  
ROLE

4.

EDUCATION CAN  
SOLVE THE WORLD'S  
TOUGHEST PROBLEMS

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**EDUCATION CAN  
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TOUGHEST PROBLEMS**

**“I DID THEN WHAT  
I KNEW HOW TO DO.  
NOW THAT I KNOW BETTER,  
I DO BETTER.”**

– MAYA ANGELOU

**THE BUILT  
ENVIRONMENT  
INFLUENCES  
EXPERIENCES.**

EXPERIENCES  
INFLUENCE  
OUTLOOKS  
ON THE WORLD.

THE BUILT  
ENVIRONMENT  
INFLUENCES  
OUTLOOKS  
ON THE WORLD.



















“WE SHAPE OUR  
BUILDINGS; THEREAFTER  
**THEY SHAPE US.**”

– WINSTON CHURCHILL

THE BUILT  
ENVIRONMENT  
INFLUENCES  
EXPERIENCES.

**EXPERIENCES  
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THE BUILT  
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ON THE WORLD.



**“32% OF CUSTOMERS  
STOP DOING BUSINESS  
WITH A BRAND FROM  
ONE BAD EXPERIENCE.”**

– PWC

amazon *Prime*



STITCH FIX

Casper

ally BANK.



University of Phoenix®

wework

Uber  
Eats

 Blue  
Apron

 instacart

MADISON REED®

 PELOTON

 DRIZLY



THE BUILT  
ENVIRONMENT  
INFLUENCES  
EXPERIENCES.

EXPERIENCES  
INFLUENCE  
OUTLOOKS  
ON THE WORLD.

**THE BUILT  
ENVIRONMENT  
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EXPERIENCES.

EXPERIENCES  
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THE BUILT  
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**THE BUILT  
ENVIRONMENT  
INFLUENCES  
LEARNING  
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LEARNING  
EXPERIENCES  
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ON LEARNING.

THE BUILT  
ENVIRONMENT  
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ON LEARNING.



**HOW DO WE PROVE IT?**



**Huckabee** + *Region 12*  
Education Service Center  
*Innovate. Empower. Educate.* + **BU** | Baylor University

# **STUDENT ENGAGEMENT + ELEMENTARY GRADES**

STUDENT ENGAGEMENT IS ABOUT  
**AUTHENTIC LEARNING.**

# STUDENT ENGAGEMENT IN A FLEXIBLE LEARNING ENVIRONMENT

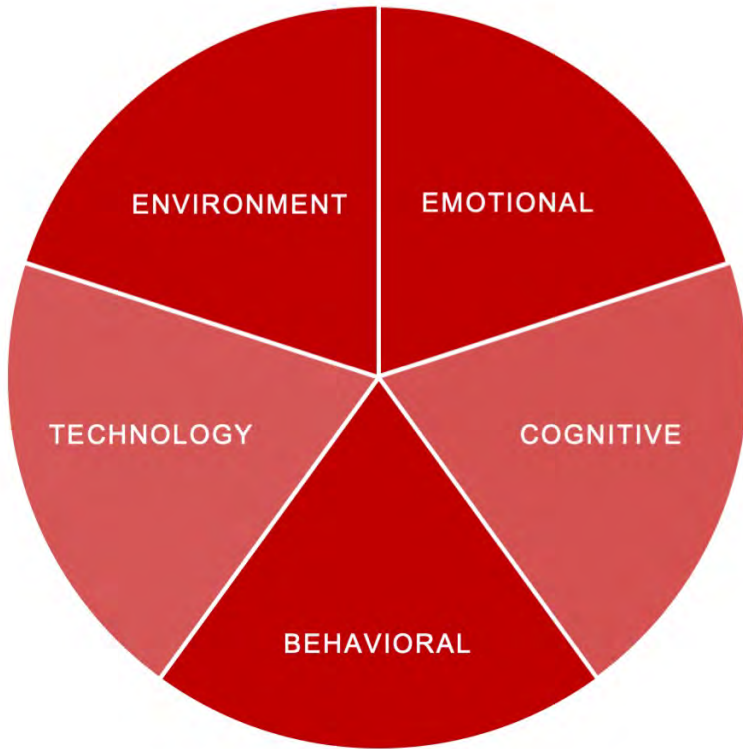
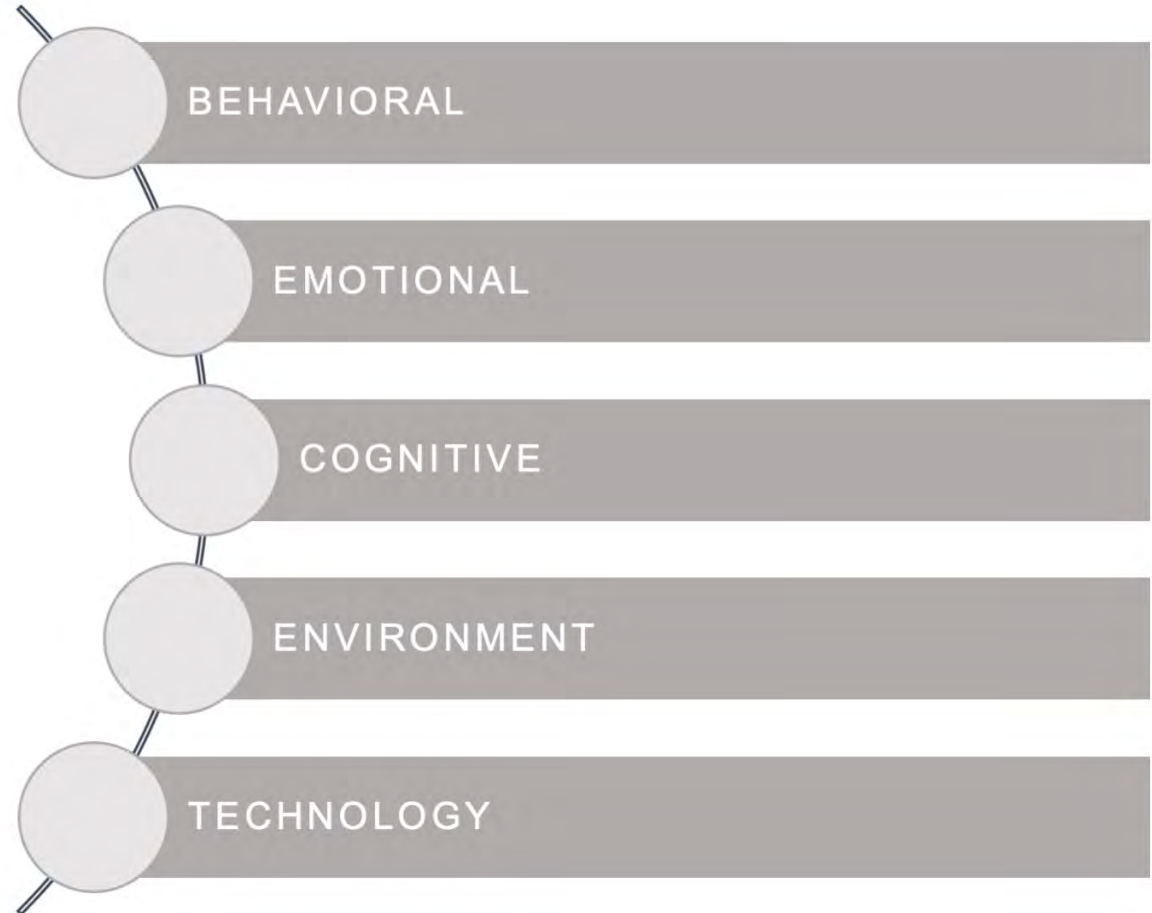
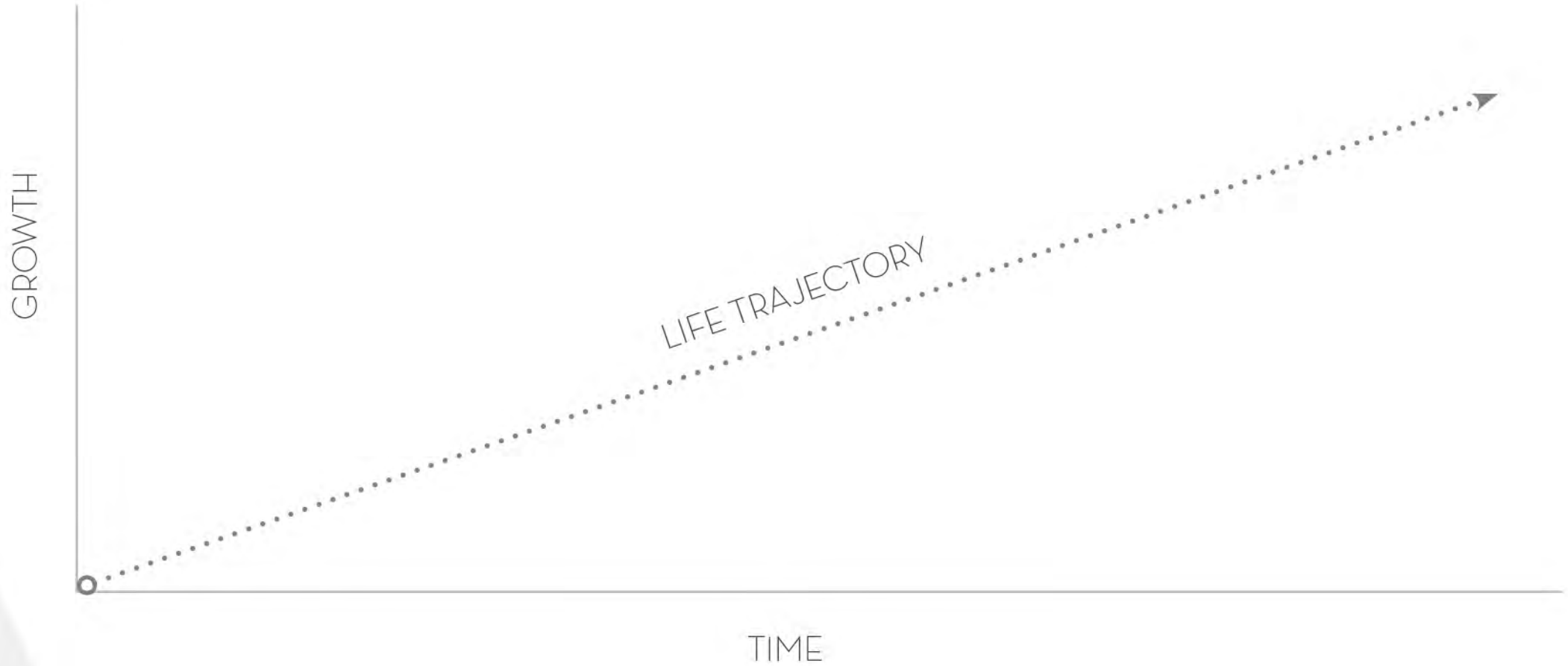


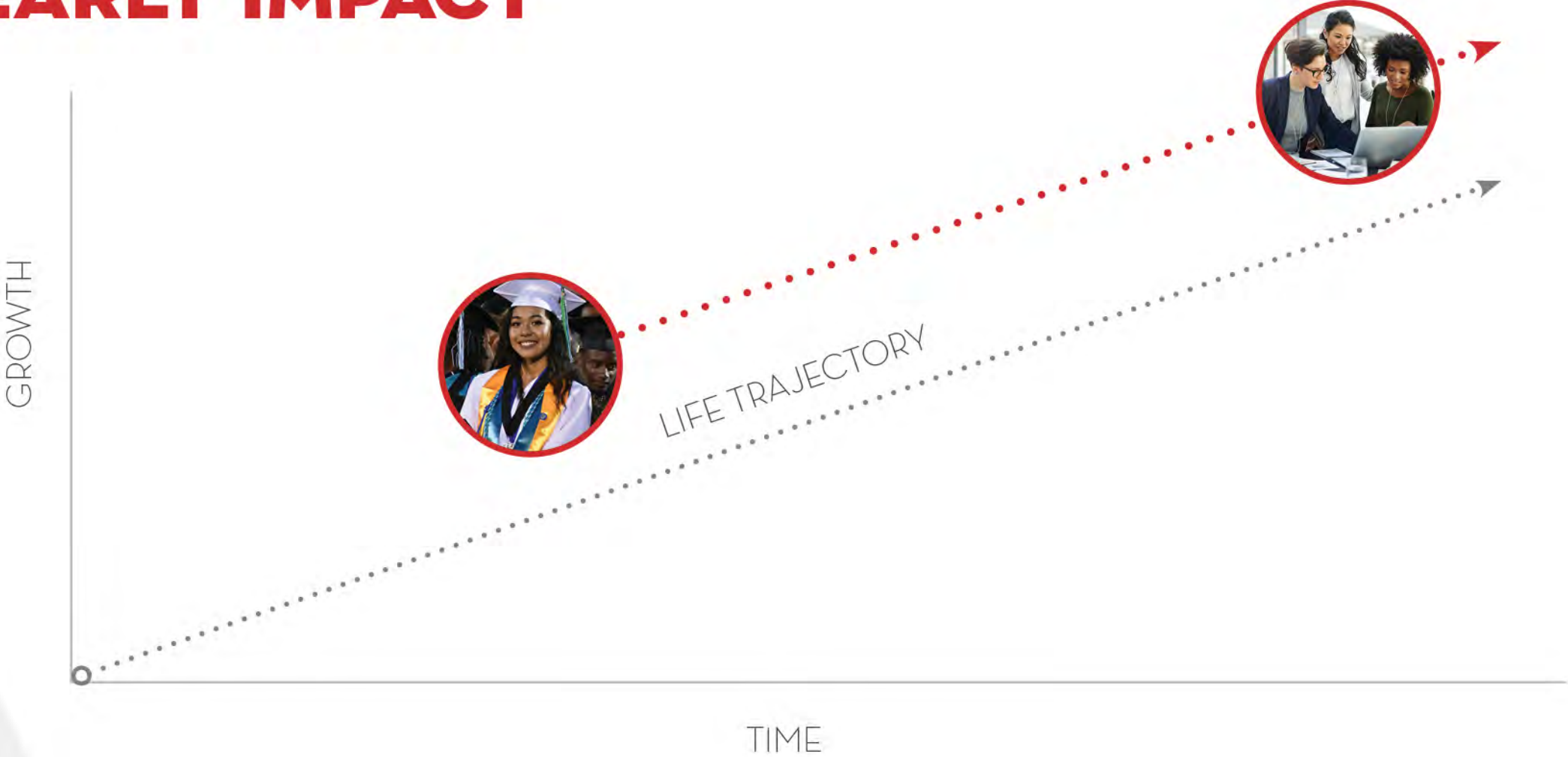
Figure 2: Three definitions of engagement combined



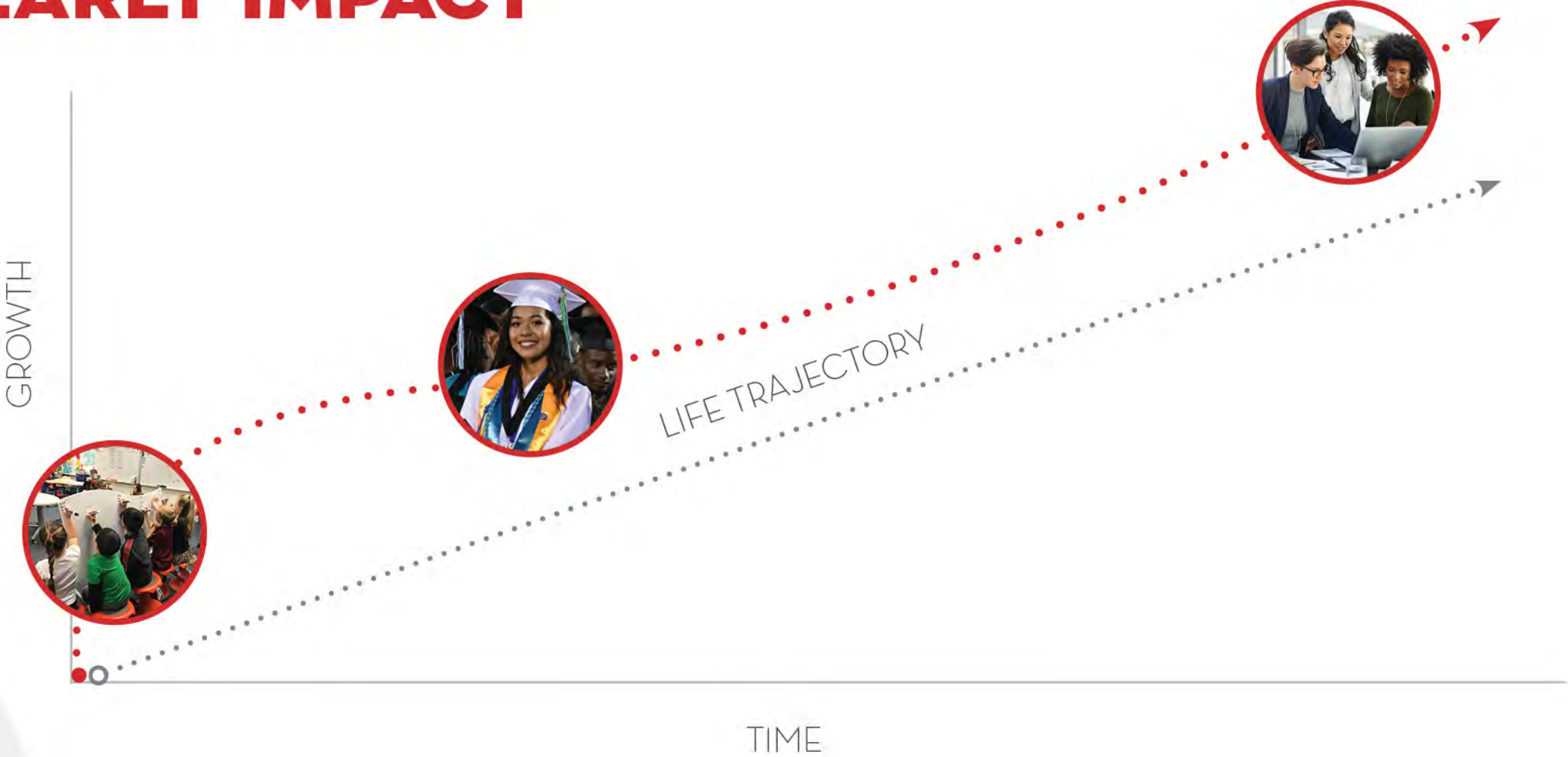
# EARLY IMPACT



# EARLY IMPACT



# EARLY IMPACT



# STUDY 1

**WHAT IS THE IMPACT OF  
FLEXIBLE LEARNING ENVIRONMENTS  
ON STUDENT ENGAGEMENT?**

# GOALS

**PILOT 1**

PILOT 2

LONGITUDINAL  
STUDY

**METHODOLOGIES**

# PILOT I

## WHO + HOW

- Elementary School
- One Semester

### ELEMENTARY SCHOOL

- 2 Control Classrooms
- 2 Intervention Classrooms

Listen to the speaker

In our class, we Follow directions quickly

In our class, we Respect others. Respect yourself. Respect Spring Valley.

In our class, we Be safe. Be kind. Be honest.

SMART SEAT that helps you do your best work!

If a spot isn't working for you... MOVE! (As long as the teacher isn't talking.)

Use each seat the way it is intended to be used.

When you move, leave the spot clean and ready for the next student.

Any adult has the right to move any student, at any time, for any reason.

QUICK CHECK
Are you FOCUSED?
Are you ON TASK?
Are you doing your BEST WORK?

how to FOCUS
little to no distraction
good lighting
comfortable space

ON TASK behavior
proper eye contact
acting responsibly
good time management

do your BEST!
neat handwriting
thoughtful responses
good attitude

FLEX Seating
Responsible Choices
-Picking a seat that may not be the "coolest", but is best for your learning
-Find a spot right away
-Work quietly others
-Use the seat the it's intended to be used.

you'll heed

Expanded form: 400 + 60 + 5
Word form: four hundred sixty-five
Standard form: 465
Medal form: 4 hundreds, 6 tens, 5 ones
Unit form: 4 hundreds, 6 tens, 5 ones

PREDICTIONS

common cat
any person, place, thing

Proper Pete
a specific person, place, thing

Character Traits of Babu
maker
brown skin

NOUNS
Person or animal
Place
Thing
Chair



# Responsible Choices

# Irresponsible Choices

- Choose a smart seat that helps you do your best work.
- Use the red chair to turn and see the speaker.
  - Kindly remind your friend to get back to work.
  - Make sure you can see.
  - Work quietly next to others.
  - Pick a seat that might not be the "coolest" but is the best for you.
  - Stay focused when others around you are not.
  - Pick your spot right away!
  - Stay there for that lesson.
  - Move if it is not working for your learning!

- Spinning around and around in the red chair.
- Leave your area messy.
- Forget to gather all of your supplies.
- Sit too close to someone.
- Walk around talking to friends instead of picking a seat.
- RUN to find a seat. • face away
- Argue over an area
- Cry because you did not get the seat you wanted.
- Save a seat for a friend
- Leave clipboard on the floor.
- Tell someone they can't sit by you.
- Damage furniture
- Wander around looking for a spot.

We're Flexible...  
Sit where you like!

Choose a SMART SEAT that helps you do your best work!

If a spot isn't working for you... MOVE!  
(As long as the teacher isn't talking.)

Use each seat the way it is intended to be used.

When you move, leave the spot clean and ready for the next student.

Any adult has the right to move any student, at any time, for any reason.

## FLEXIBLE SEATING QUICK CHECK

- ✓ Are you FOCUSED?
- ✓ Are you ON TASK?
- ✓ Are you doing your BEST WORK?

## how to FOCUS

- ✓ little to no distractions
- ✓ good lighting
- ✓ comfortable space

## ON TASK behavior

- ✓ proper eye contact
- ✓ acting responsibly
- ✓ good time management

## do your BEST!

- ✓ neat handwriting
- ✓ thoughtful responses
- ✓ good attitude





Nicole Fanning @fanning\_nicole · 23 May 2017

They find new ways to use our flex seating each day! #engagemidway #flexibleseating #gamechanger



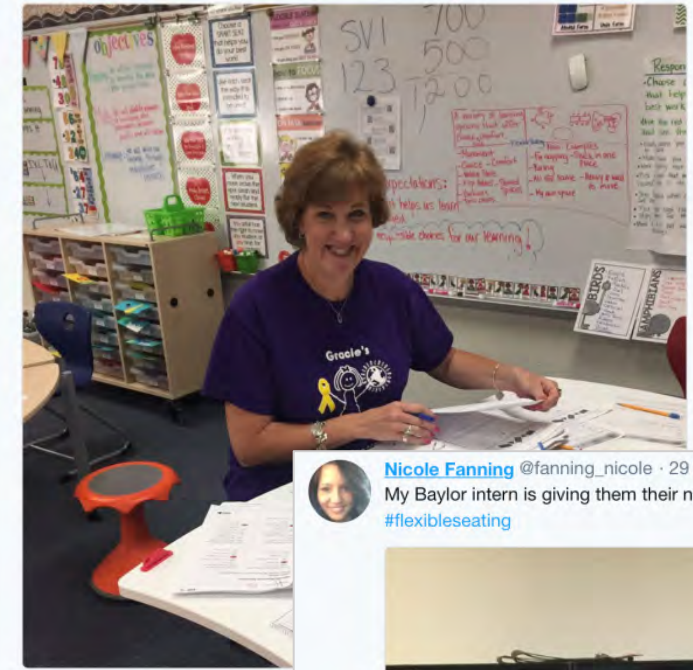
1 retweet 2 likes

Huckabee



Nicole Fanning @fanning\_nicole · 18 Apr 2017

Look who prefers to do her grading in flexible seating! #engagemidway #flexibleseating



2 comments 1 retweet 10 likes



Nicole Fanning @fanning\_nicole · 29 Mar 2017

My Baylor intern is giving them their next play! Let's move! #engagemidway #flexibleseating



1 retweet 6 likes



# GOALS



# PILOT 2

## WHO + HOW

- Elementary School
- 1 Full Day Professional Development
- Teacher Survey
- Student Survey
- Classroom Observations

### GROUP A

4 Classrooms  
8 Weeks FLEX Furniture  
8 Weeks Traditional Furniture

### GROUP B

4 Classrooms  
8 Weeks FLEX Furniture  
8 Weeks Traditional Furniture

### CONTROL

6 Classrooms  
16 Weeks Traditional Furniture



Place Value Objectives

Homework

Rules



IMPOSSIBLE  
"If you can dream it, you can do it!"

Addition

Irregular Plural Nouns

Library

Transition  
No running! No fear  
No pushing! No bumping

Math-WPW/Mon  
(due Thurs)

Rdg-Study voc

Teacher's...

Learning Paper  
Mathesia





# INSTRUMENTS DEVELOPED

	8 Constructs of Engagement	4 Cs + Reflection	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>
Student Engagement Observation Form	✓	✓	✓	✓	✓
Flexible Environment Student Survey	✓		✓	✓	✓
Adapted – Flexible Environment Student Survey	✓		✓		
Flexible Environment Teacher Survey	✓		✓	✓	✓

Figure 4: Overview of Instruments Developed from the Student Engagement Project (SEP)

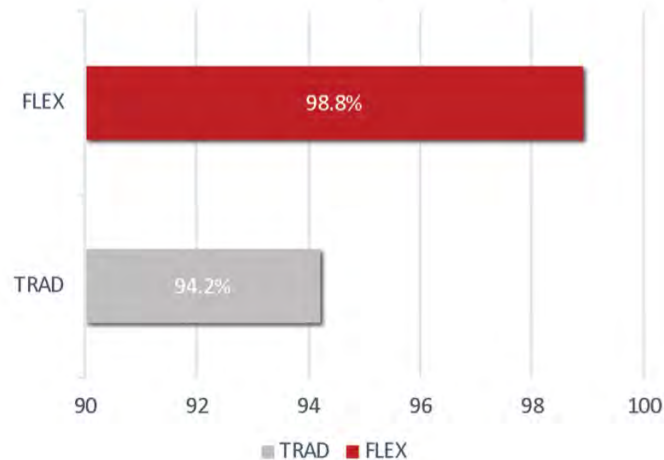
# FROM OUR REPORT

## Cognitive: Autonomy



### Key Findings from Observation Data – across all grades over entire Fall semester.

**Observation Item:** The student is able to initiate work independently.



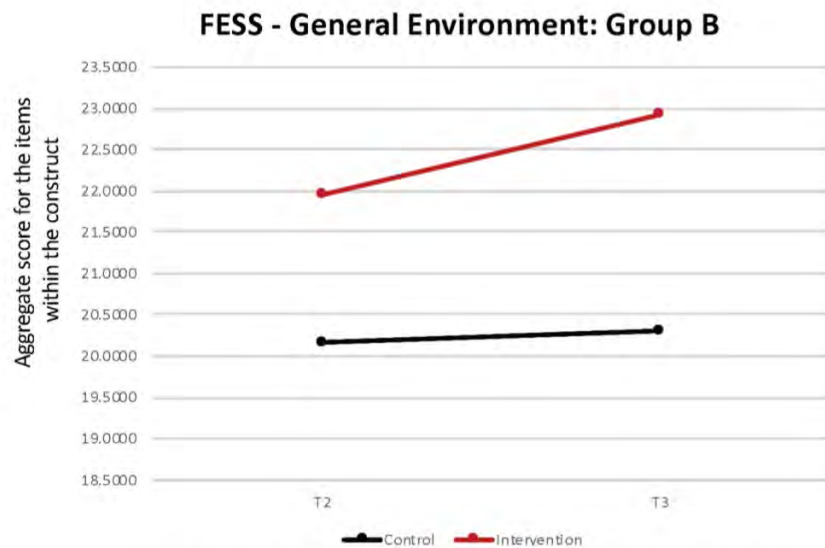
**Interpretation:** Students in a flexible learning environment initiate work independently 98.8% of the observed time. In other words, students are working more independently in a flexible learning environment than in a traditional environment;  $p\text{-value} = 0.065$ .

# FROM OUR REPORT

## Environment: General Environment



### Key Findings from Survey Data – across 3<sup>rd</sup> and 4<sup>th</sup> grade



T2 - 2<sup>nd</sup> Survey administration date after exposure to traditional furniture  
 T3 - 3<sup>rd</sup> Survey administration date after exposure to flexible furniture  
 Group B - TRAD furniture first 8 Weeks, FLEX furniture second 8 weeks.

**Interpretation:** Students in intervention classrooms reported an increase in engagement in regards to the general classroom environment after exposure to flexible furniture. Students in intervention classrooms express more comfort after exposure to flexible furniture.

- **Characteristics included:** physically comfortable in classroom and focused (does not complain and is not easily distracted by furniture), enjoys the environment and likes furniture, thinks classroom is fun.

Over time, students in control classrooms reported the same levels of engagement in regards to the environment; \**p-value* = .000, with pre-test covariate \**p-value* = .002.

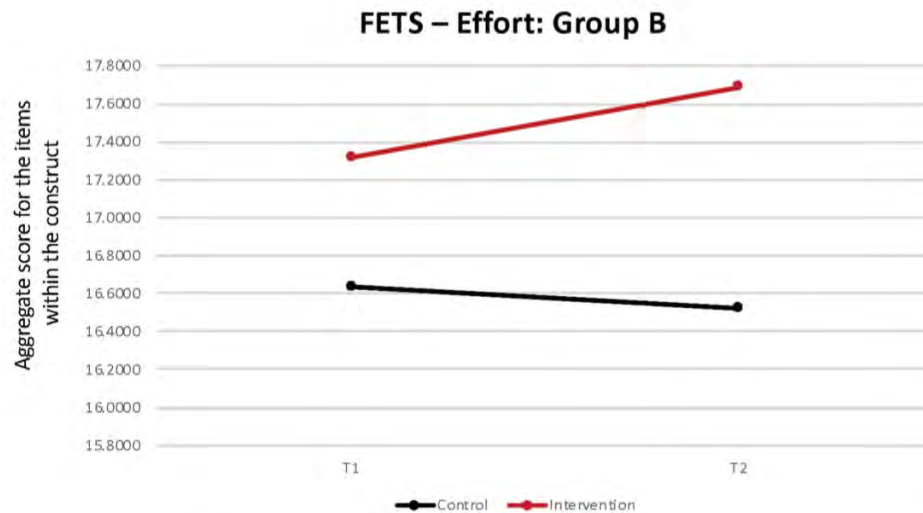
LEx

# FROM OUR REPORT

## Behavioral: Effort



### Key Findings from Survey Data – across 3<sup>rd</sup> and 4<sup>th</sup> grade



T1 - 2<sup>nd</sup> Survey administration date after exposure to traditional furniture  
 T2 - 3<sup>rd</sup> Survey administration date after exposure to flexible furniture  
 Group B - TRAD furniture first 8 Weeks, FLEX furniture second 8 weeks.

**Interpretation:** Teachers in the intervention classrooms reported an increase in behavioral engagement after students were exposed to flexible furniture. Intervention teachers surveyed reported students appeared to exhibit more effort in the classroom after exposure to flexible furniture.

- **Behavioral effort characteristics included:** good work habits, attentiveness during class, on task, works hard, shows effort, and good role model.

Over time, teachers in control classrooms reported a decrease in behavioral engagement among students; *p-value* = .283.

# 4 Cs + REFLECTION

## Communication

- Activity provided by teacher (42.7%, \*p < .000)
- Engages student (95.3%, \* p< .014)

## Collaboration

- Activity provided by teacher (53.3%, \*p < . 000)
- Engages student (87.5%, p<.149)

## Creativity

- Activity provided by teacher (10.4%, p<.629)
- Engages student (95.2%, \*p<.037)

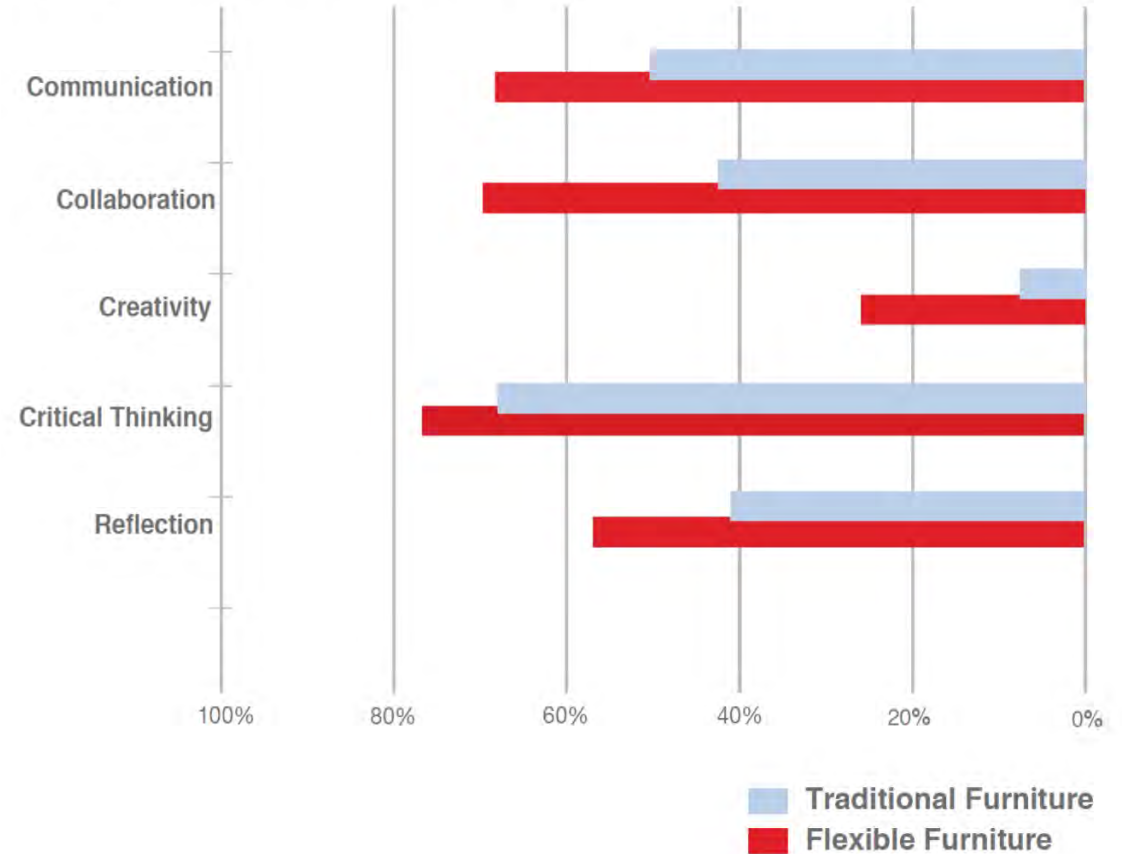
## Critical Thinking

- Activity provided by teacher (62.5%, \*p<.045)
- Engages student (95.2%, \*p<.037)

## Reflection

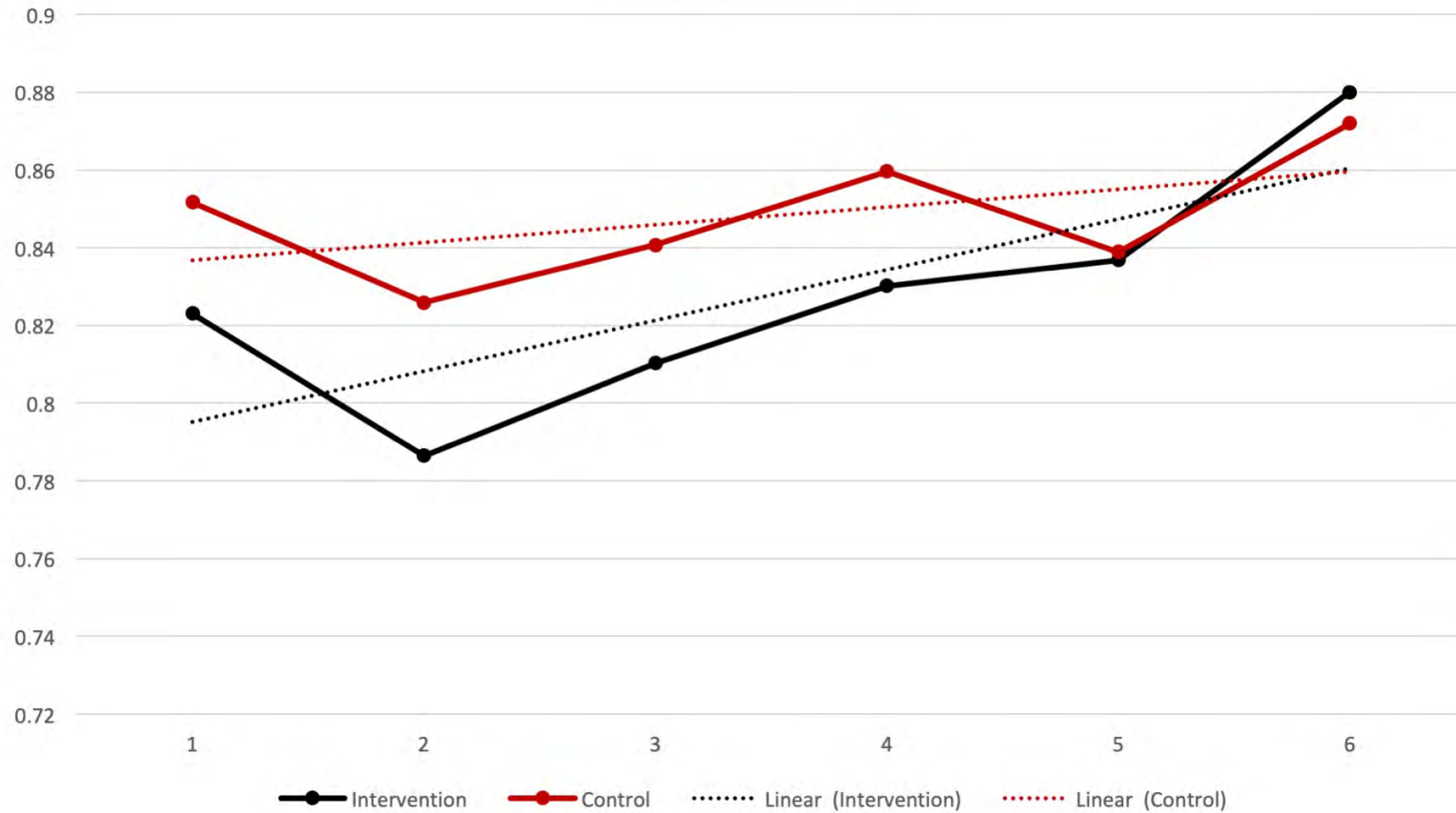
- Activity provided by teacher (43.3%, \*p<.039)
- Engages student (73.1%, p<.081)

Components of Modern Learning



# IMPACT ON ACADEMIC OUTCOMES

Math Achievement



Repeated measure *p-value* = 0.063

# GOALS



# LONGITUDINAL STUDY

## WHO + HOW

- Elementary School
- 2019-2020
- 12 Hours Professional Development
- Teacher Survey
- Student Survey
- Classroom Observations

### **ELEMENTARY SCHOOL 1**

15 Teachers

2nd – 4th Grade

8 FLEX Classrooms

7 Traditional control classrooms

330 Students

### **ELEMENTARY SCHOOL 2**

15 Teachers

2nd – 4th Grade

8 FLEX Classrooms

7 Traditional control classrooms

330 Students

# WHAT IS THE “LEARNING EXPERIENCE?”



**LEARNING**

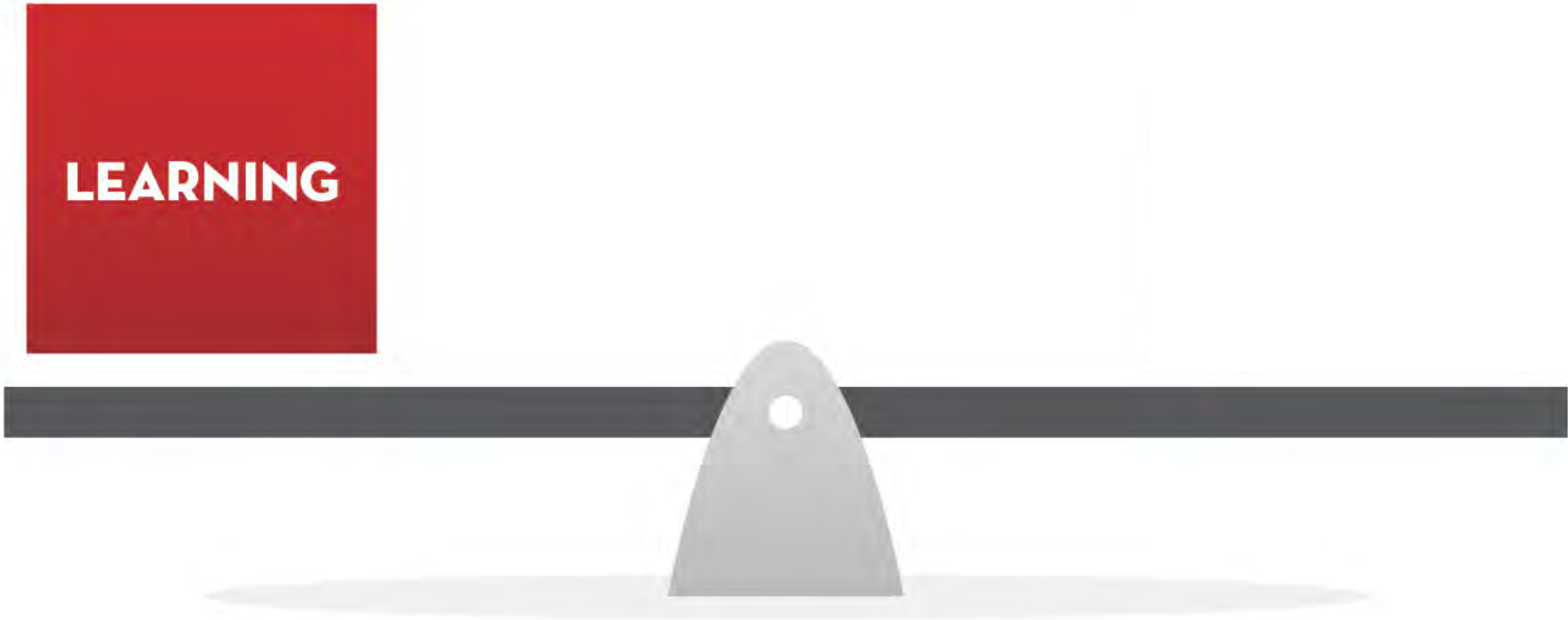
INTELLECTUAL  
LAYER



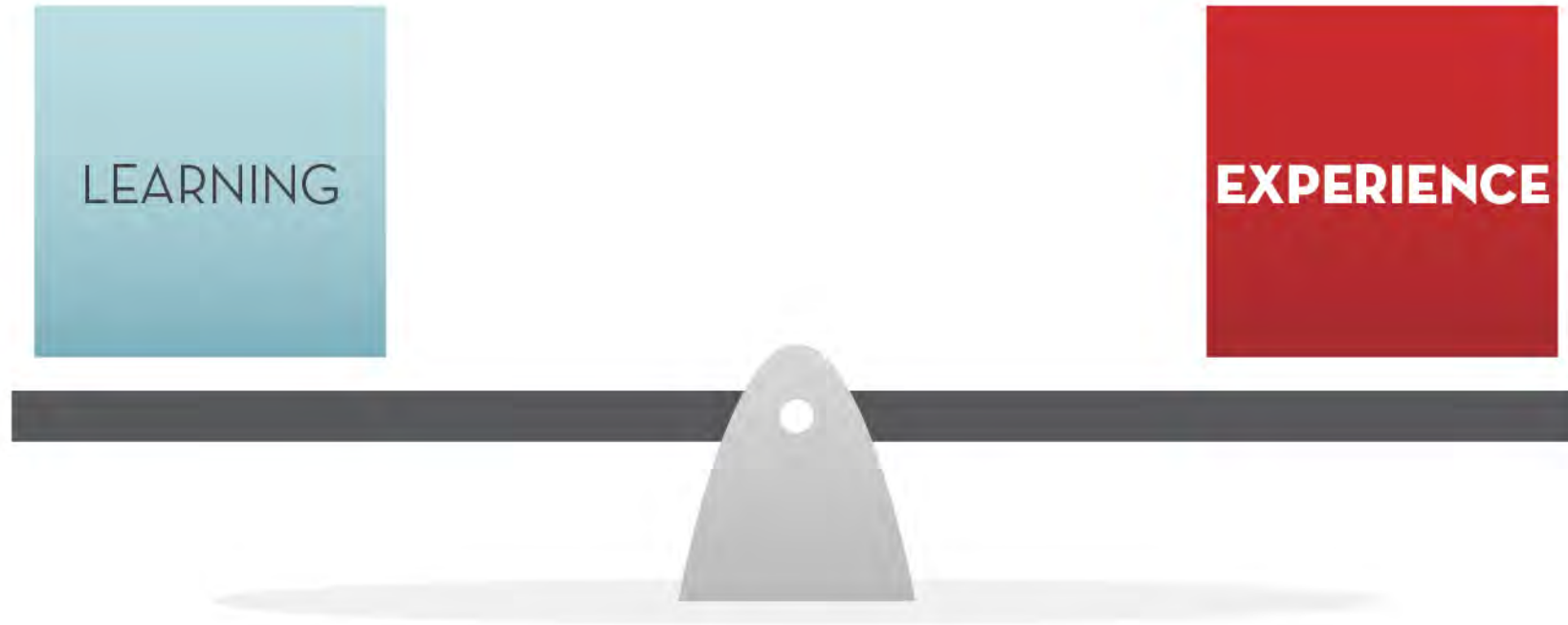
**EXPERIENCE**

LIVED  
EXPERIENCE

**WE WANT TO MAXIMIZE LEARNING IN OUR BUILDINGS.**



**WE ARE INFLUENCING THE LIVES OF PEOPLE.**



**BIRTH**

**PK-12**

**“REAL LIFE”**





The diagram consists of two overlapping arrow-shaped boxes pointing to the right. The first box is light blue and contains the word 'BIRTH'. The second box is dark red and contains the words 'REAL LIFE'. The red box overlaps the blue box on its right side, suggesting a progression or continuation from birth to real life.

**BIRTH**

**REAL LIFE**

**“EDUCATION IS NOT  
PREPARATION FOR LIFE;  
EDUCATION IS LIFE ITSELF.”**

– JOHN DEWEY

**FRIENDS**

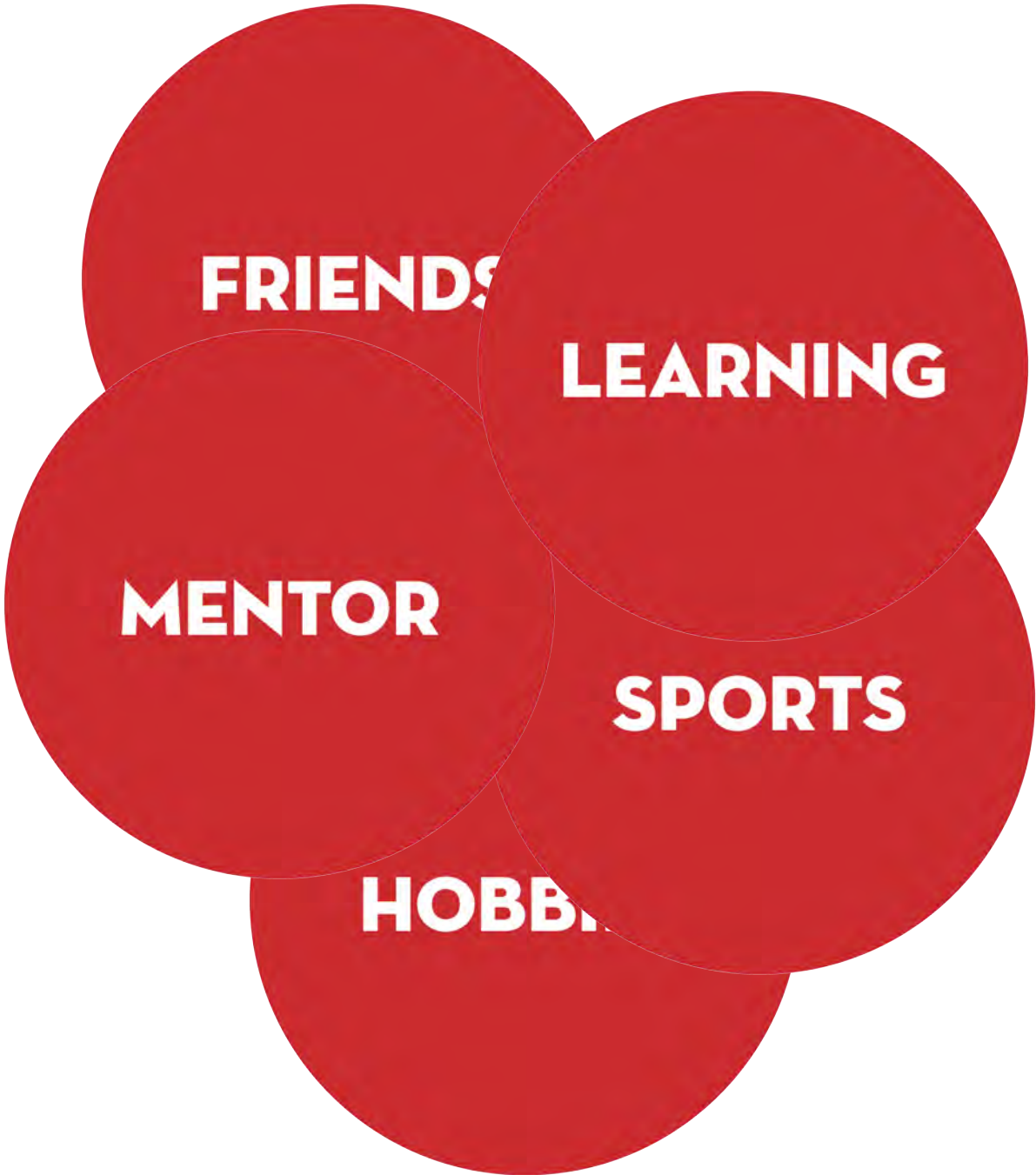
**LEARNING**

**FAMILY**

**MENTOR**

**SPORTS**

**HOBBIES**



## FRIENDS



## LEARNING



## MENTORS



## SPORTS



## HOBBIES



**WE MUST RE-CALIBRATE**  
OUR DEFINITION OF THE  
LEARNING EXPERIENCE.





# WHAT'S THE IMPACT OF THE BUILT ENVIRONMENT?

**FURNITURE**

**TRANSPARENCY**

**LIGHTING**

**TECHNOLOGY**

# FURNITURE



Huckabee



# TRANSPARENCY

Huckabee



# LIGHTING



# TECHNOLOGY



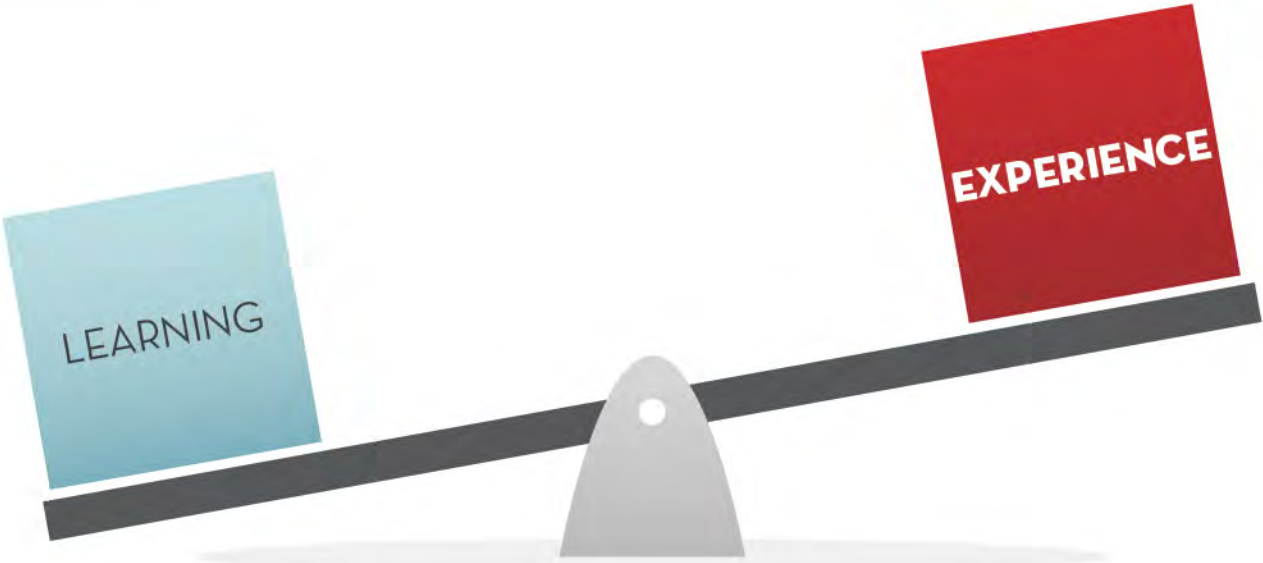
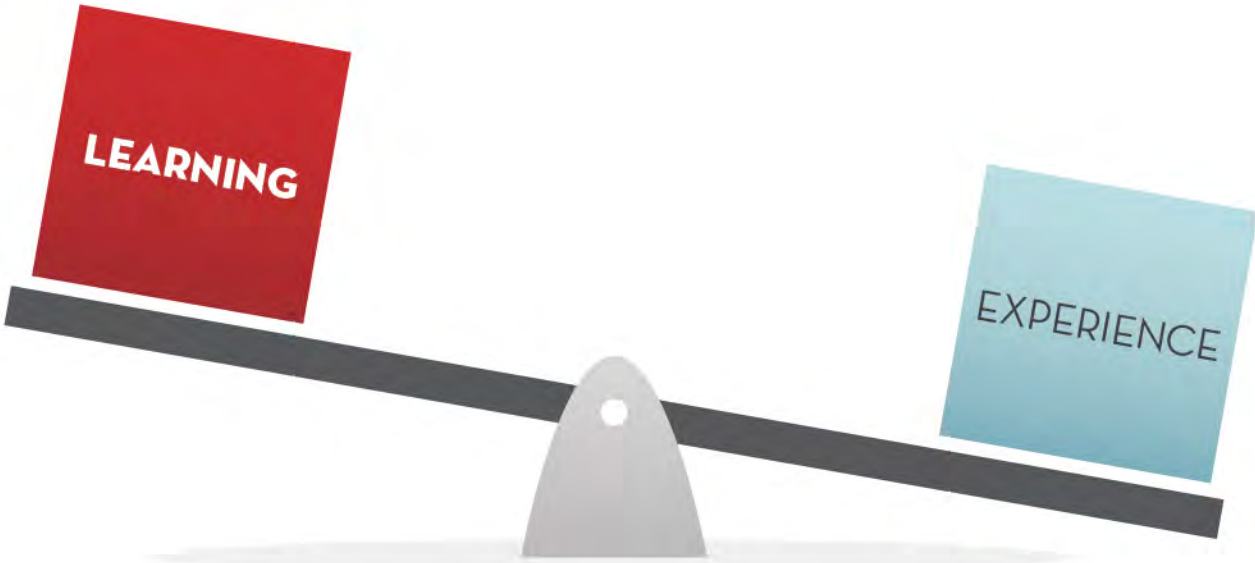


THE BUILT  
ENVIRONMENT  
INFLUENCES  
LEARNING  
EXPERIENCES.

**LEARNING  
EXPERIENCES  
INFLUENCE  
OUTLOOKS  
ON LEARNING.**

THE BUILT  
ENVIRONMENT  
INFLUENCES  
OUTLOOKS  
ON LEARNING.







THE LEARNING EXPERIENCE NEEDS TO BE

**POSITIVE,  
MEANINGFUL  
AND FUN.**





THE BUILT  
ENVIRONMENT  
INFLUENCES  
LEARNING  
EXPERIENCES.

LEARNING  
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INFLUENCE  
OUTLOOKS  
ON LEARNING.

**THE BUILT  
ENVIRONMENT  
INFLUENCES  
OUTLOOKS  
ON LEARNING.**




**“EDUCATION IS THE MOST  
POWERFUL WEAPON  
IN WHICH YOU CAN USE TO  
CHANGE THE WORLD.”**

- NELSON MANDELA

THE BUILT  
ENVIRONMENT  
INFLUENCES  
OUTLOOKS ON  
LEARNING.





THE BUILT  
ENVIRONMENT  
INFLUENCES  
OUTLOOKS ON  
LEARNING.

WE INFLUENCE  
THE BUILT  
ENVIRONMENT.





THE BUILT  
ENVIRONMENT  
INFLUENCES  
OUTLOOKS ON  
LEARNING.

WE INFLUENCE  
THE BUILT  
ENVIRONMENT.

**WE INFLUENCE  
OUTLOOKS ON  
LEARNING.**



**OWN IT**