



**International Center for
Leadership in Education**

Transforming Education Using Personalized Learning

Bill Daggett
Founder and Chairman
August 1, 2017



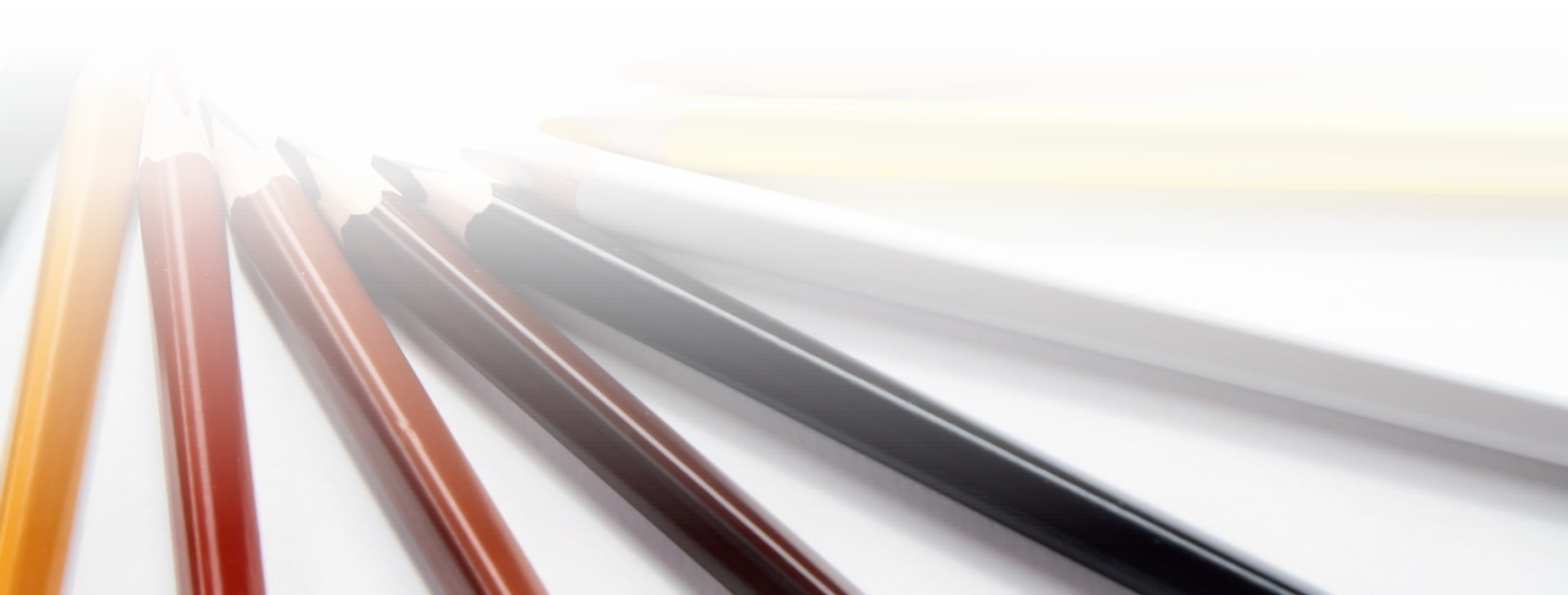
**International Center for
Leadership in Education**

Making Schools Work

Bill Daggett
Founder and Chairman
July 19, 2017

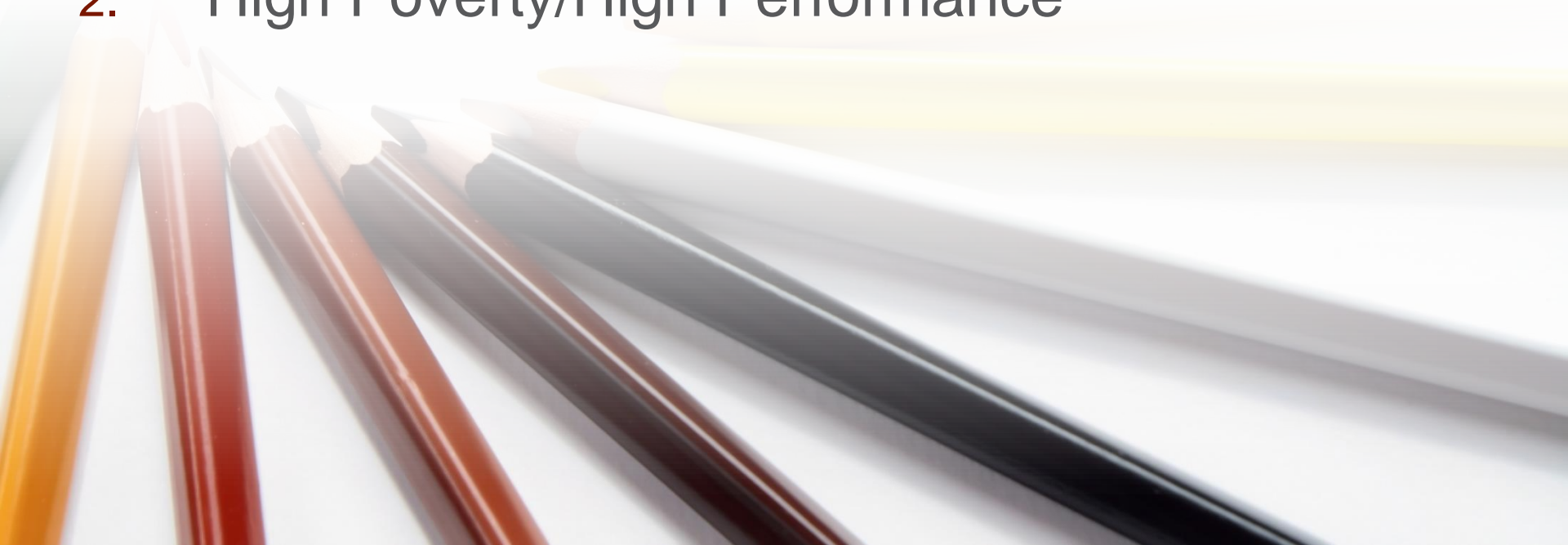
Ongoing Research

1. Good to Great

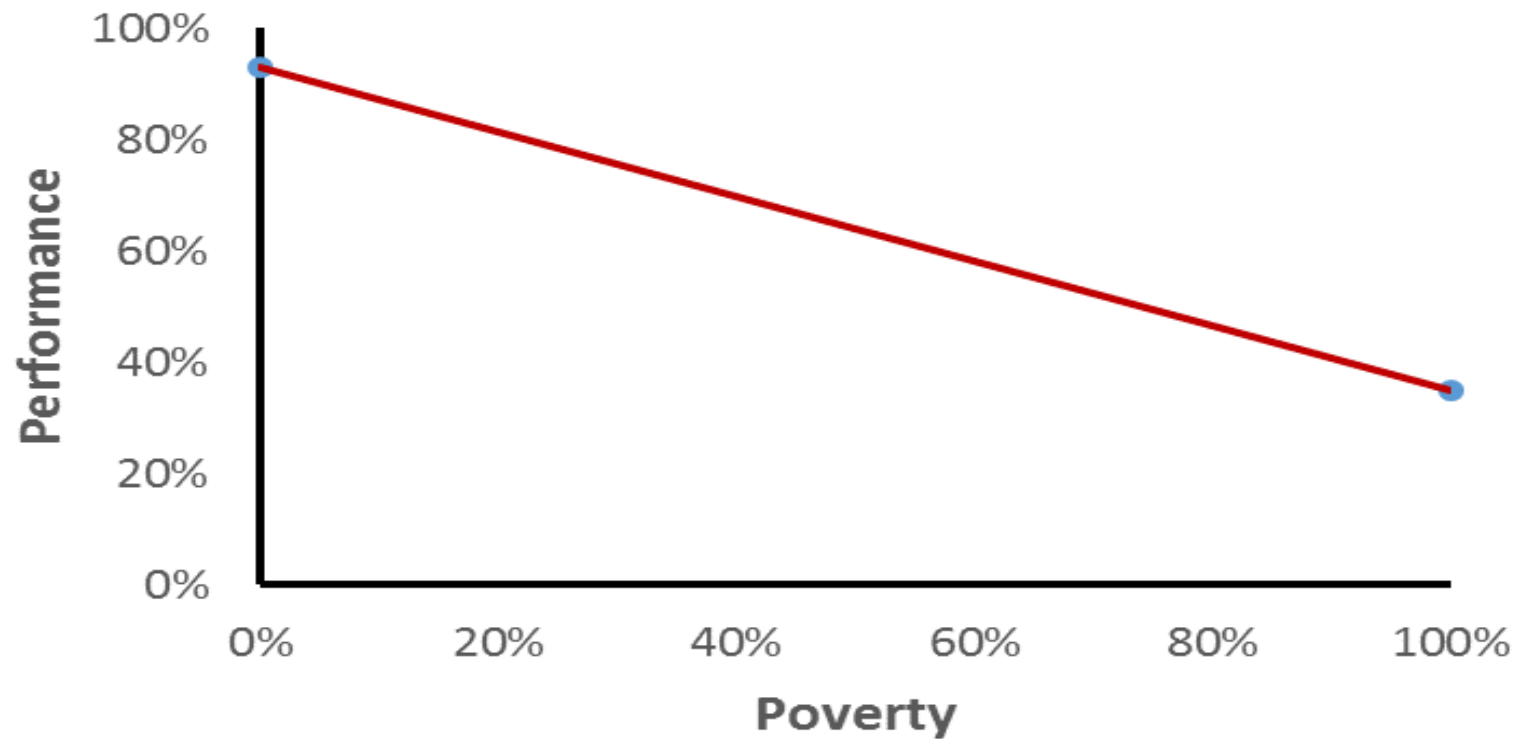


Ongoing Research

1. Good to Great
2. High Poverty/High Performance

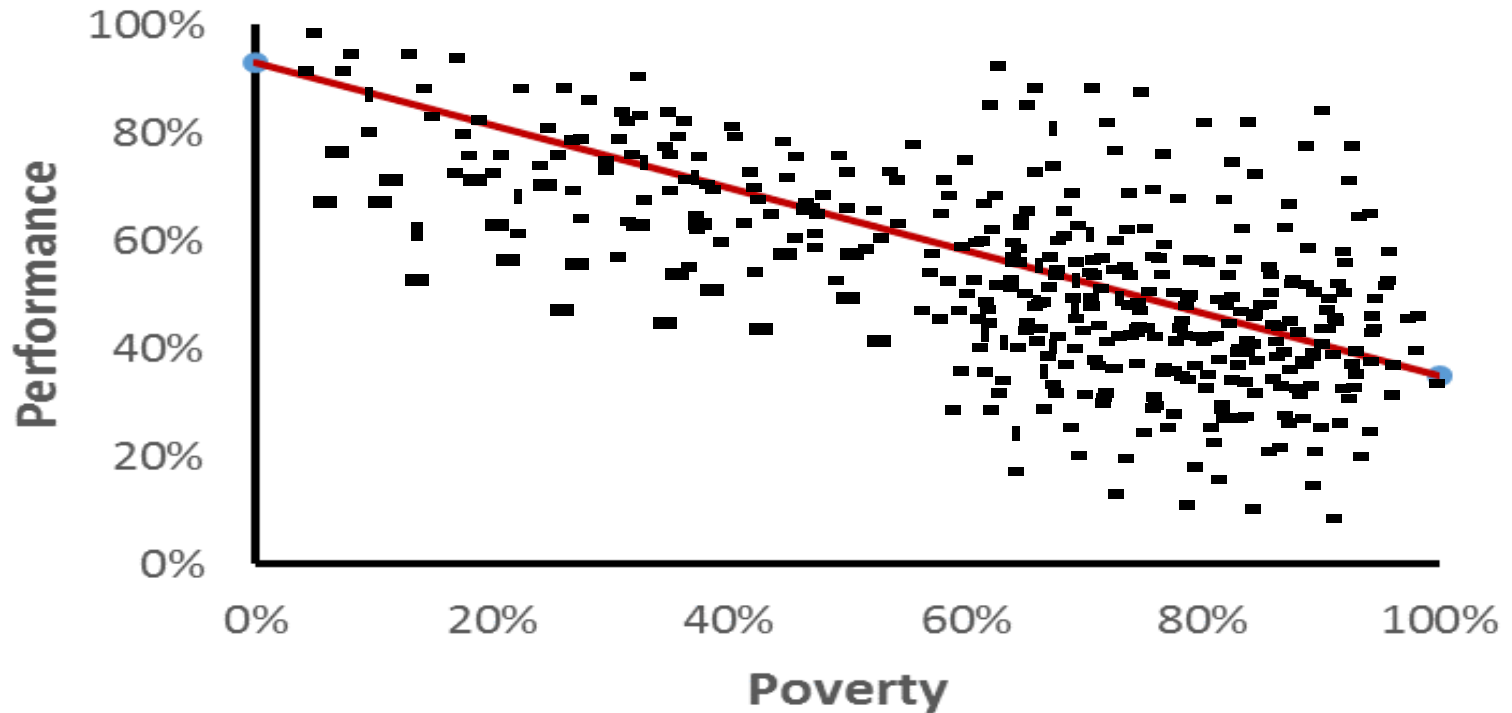


Nation's Most Rapidly Improving Schools



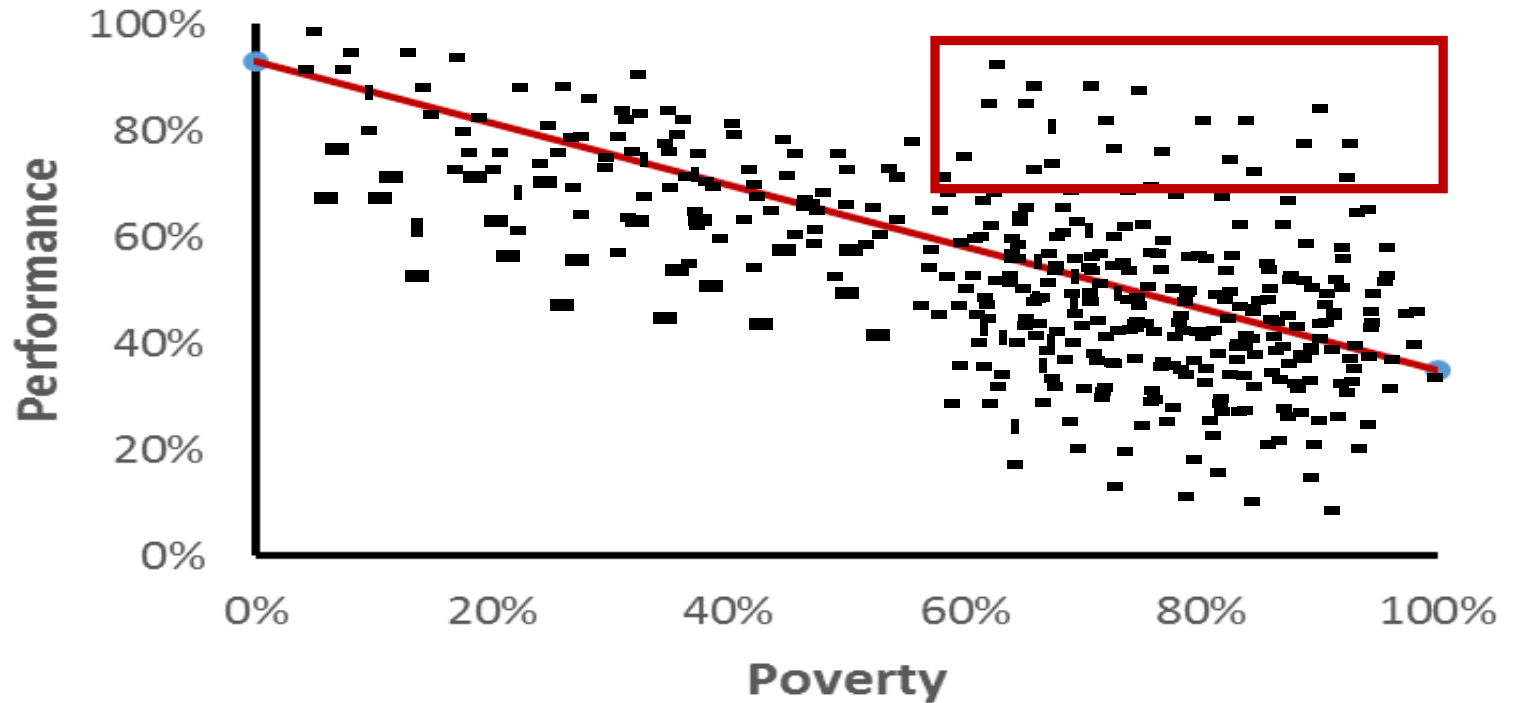
Source: Publicly available performance and enrollment data

Nation's Most Rapidly Improving Schools



Source: Publicly available performance and enrollment data

Nation's Most Rapidly Improving Schools



Source: Publicly available performance and enrollment data

Culture Trumps Strategy



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt



STANDARDS

TESTS

TEACHER
EVALUATIONS

Future?



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt



STANDARDS

TESTS

**TEACHER
EVALUATIONS**





STANDARDS

TESTS

**TEACHER
EVALUATIONS**

WHY

WHY – WHAT



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

WHY – WHAT – HOW



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

Lessons Learned

1. Culture Trumps Strategy

Lessons Learned

1. Culture Trumps Strategy

2. It is More than Content



Lessons Learned

1. Culture Trumps Strategy

2. It is More than Content

3. Actionable Data

Lessons Learned

1. Culture Trumps Strategy

2. It is More than Content

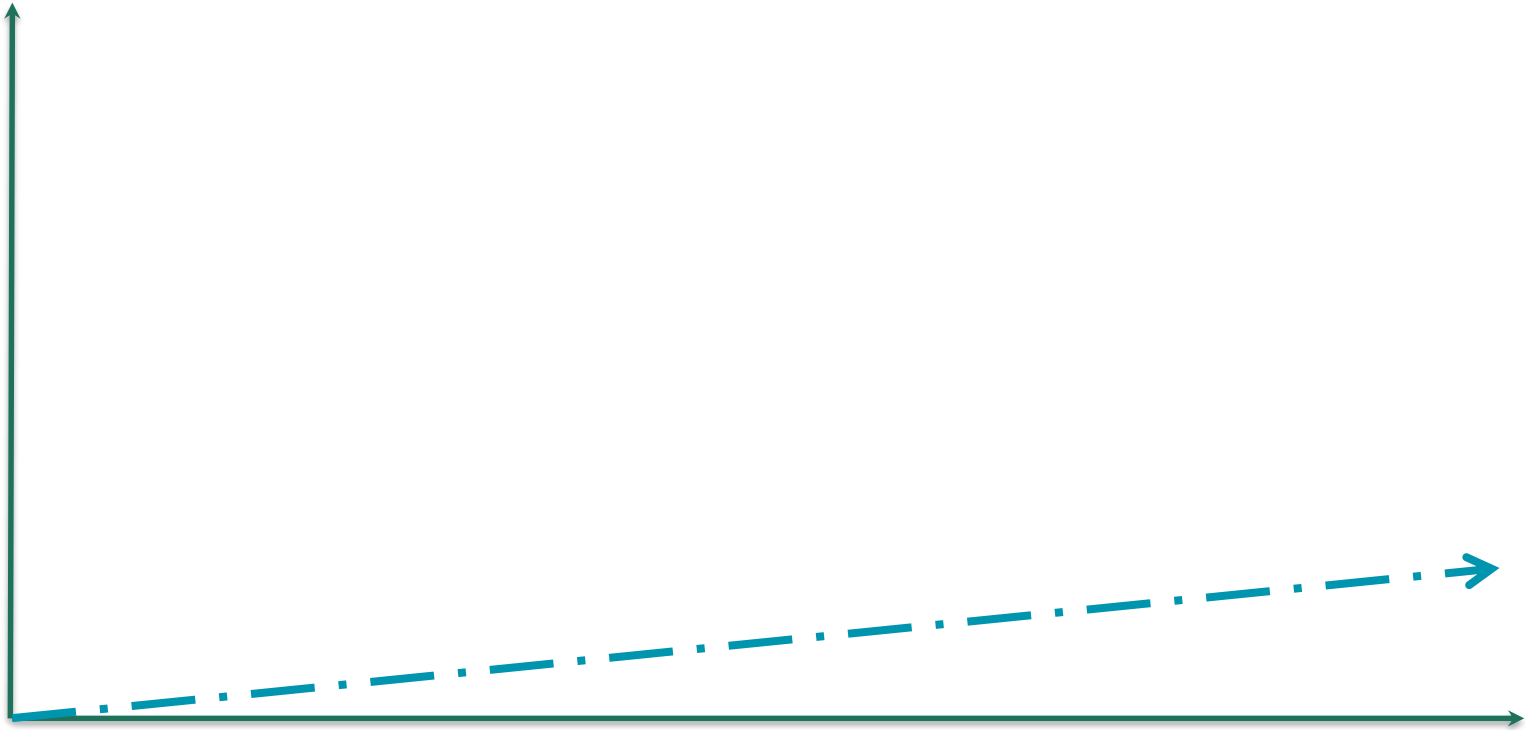
3. Actionable Data

4. It is not a series of “Events”

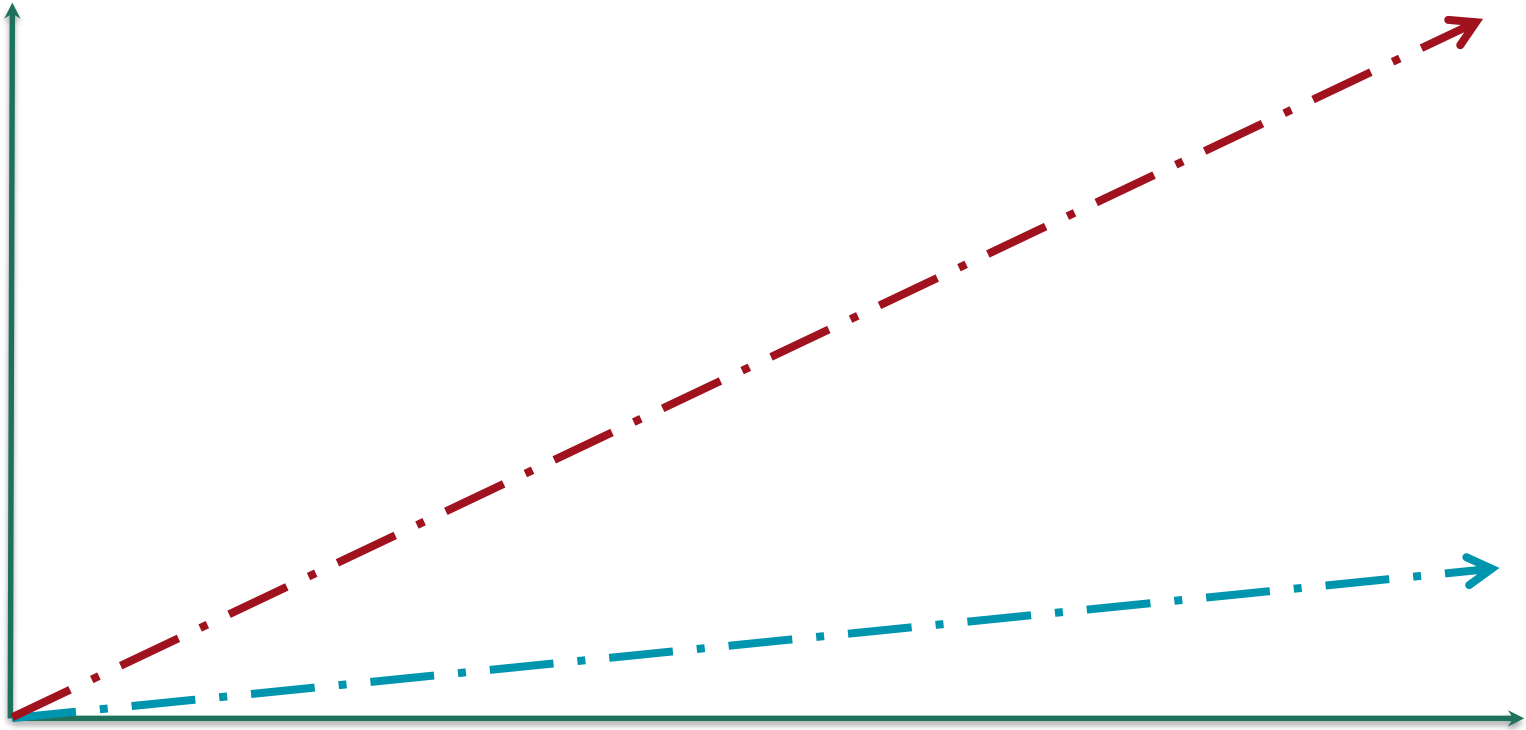


WHY

Rate of Change



Rate of Change



The Winds of Change

Accelerating
Impact of
Technology



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

1st Industrial Revolution

1st Industrial Revolution

2nd Industrial Revolution



Industrial Revolution transformed both the expectations and model of public education

#



STANDARDS

TESTS

**TEACHER
EVALUATIONS**

1st Industrial Revolution

2nd Industrial Revolution

3rd Industrial Revolution



Web 1.0 - Informational Web

Web 1.0 - Informational Web

Web 2.0 – Relational Web

Web 1.0 – Informational Web

Web 2.0 – Relational Web

Web 3.0 – Anticipatory Web



**International Center for
Leadership in Education**

A division of
Houghton Mifflin Harcourt

“Harvard Yanks Acceptance Letters Over Offensive Facebook Posts”

-Fortune

Source: Fortune, June 5, 2017

“Colleges Eyeing Social Media—Big Time”

-South Coast Today

Source: Fortune, June 5, 2017



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

**“They Loved Your G.P.A.
Then They Saw Your
Tweets.”**

-The New York Times

Source: Fortune, June 5, 2017



**International Center for
Leadership in Education**

A division of
Houghton Mifflin Harcourt

“One in Ten Young People Have Been Rejected For Jobs Because of Their Social Media History”

-Business Insider

Source: Fortune, June 5, 2017



**International Center for
Leadership in Education**

A division of
Houghton Mifflin Harcourt

5 Largest Companies

2007

1. Exxon Mobil (\$540B)
2. General Electric (\$463B)
3. Microsoft (\$355B)
4. Citigroup (\$331B)
5. Bank of America (\$290B)

2017

1. Apple (\$794B)
2. Google (\$593B)
3. Microsoft (\$506B)
4. Amazon (\$429B)
5. Facebook (\$414B)

Source: S & P Dow Jones Indices



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

1st Industrial Revolution
2nd Industrial Revolution
3rd Industrial Revolution
4th Industrial Revolution



4th Industrial Revolution



3rd Revolution



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

4th Industrial Revolution

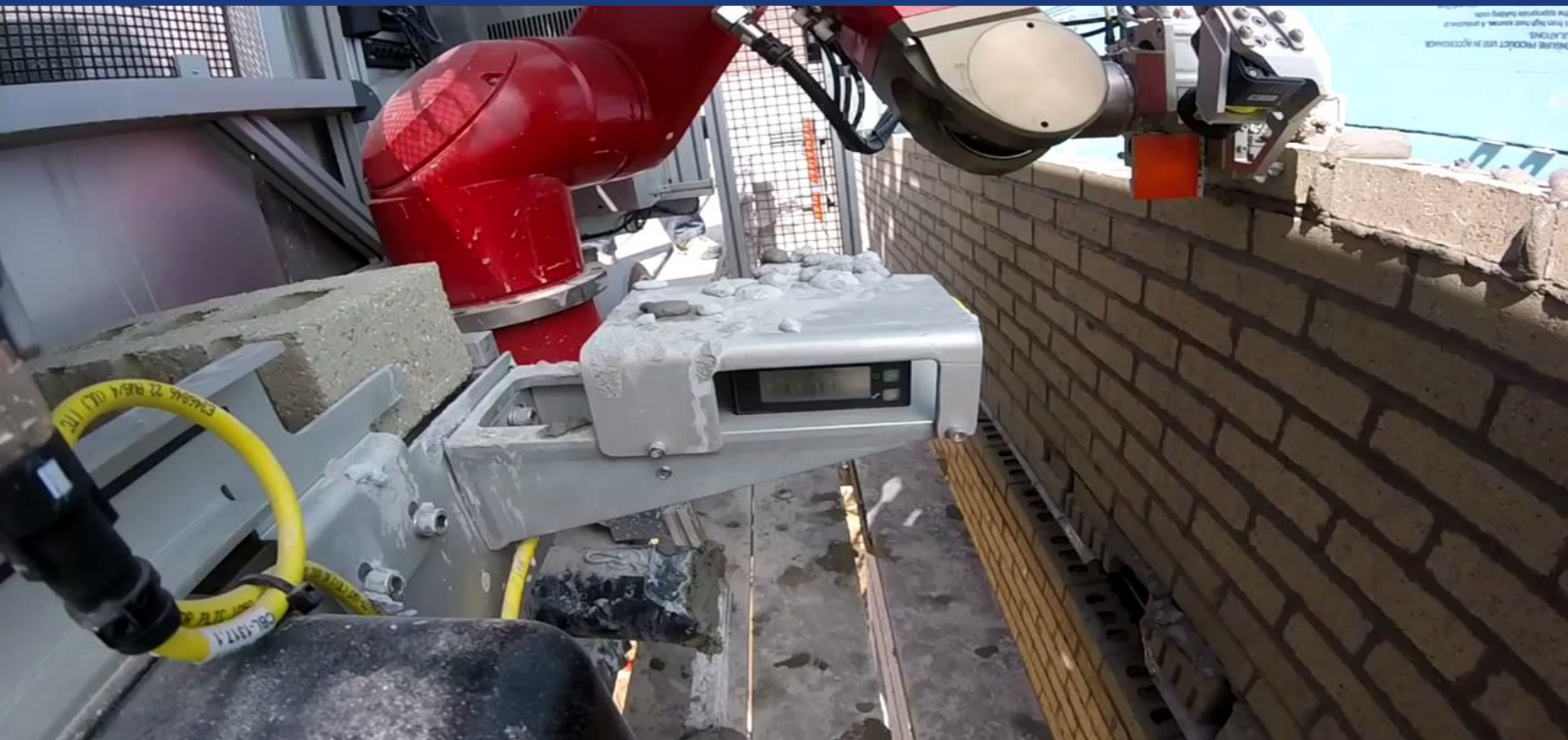
PHYSICAL

Nanotech

- 1/100th
- 10 times
- Jell-O



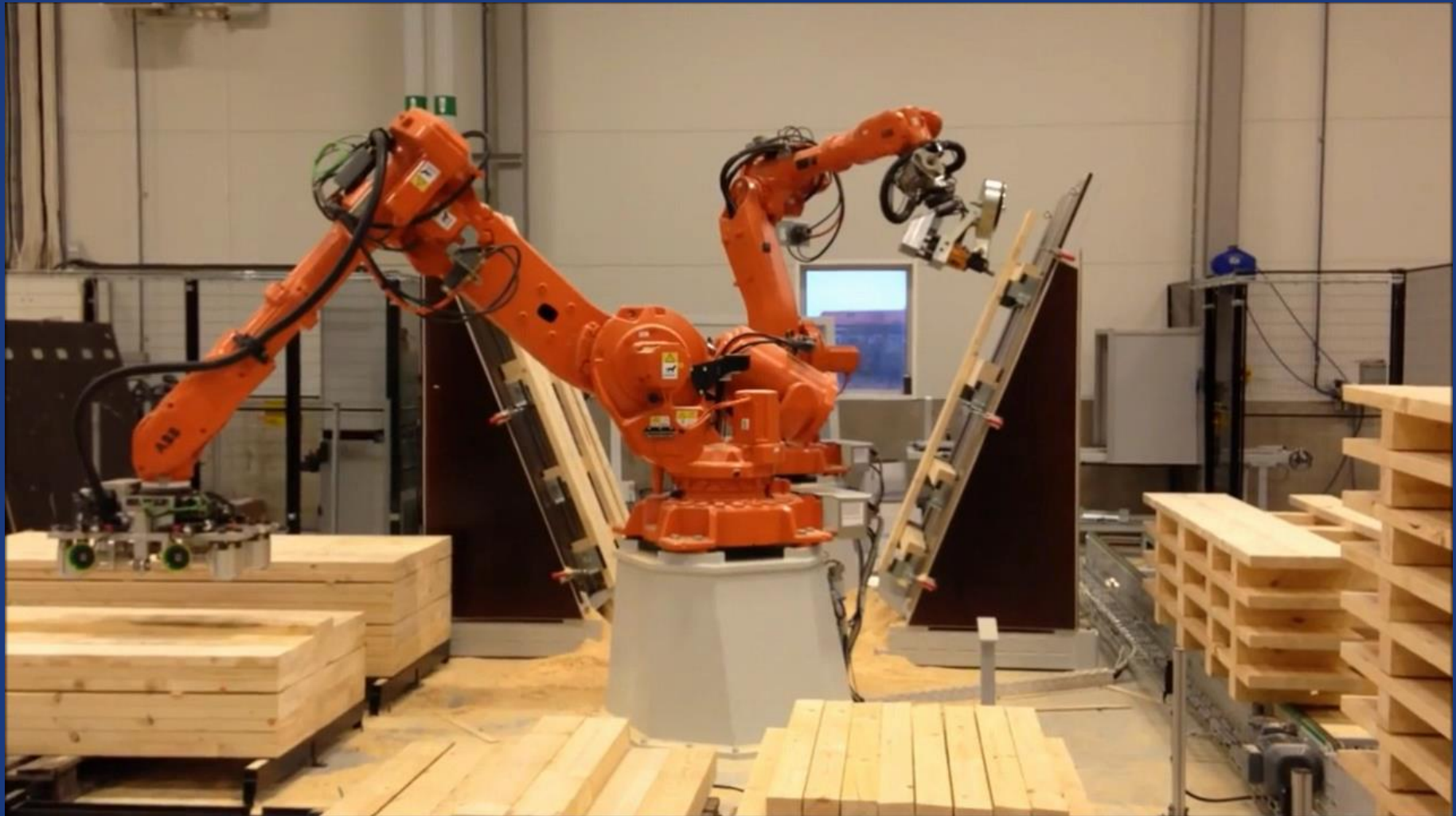
3rd Revolution



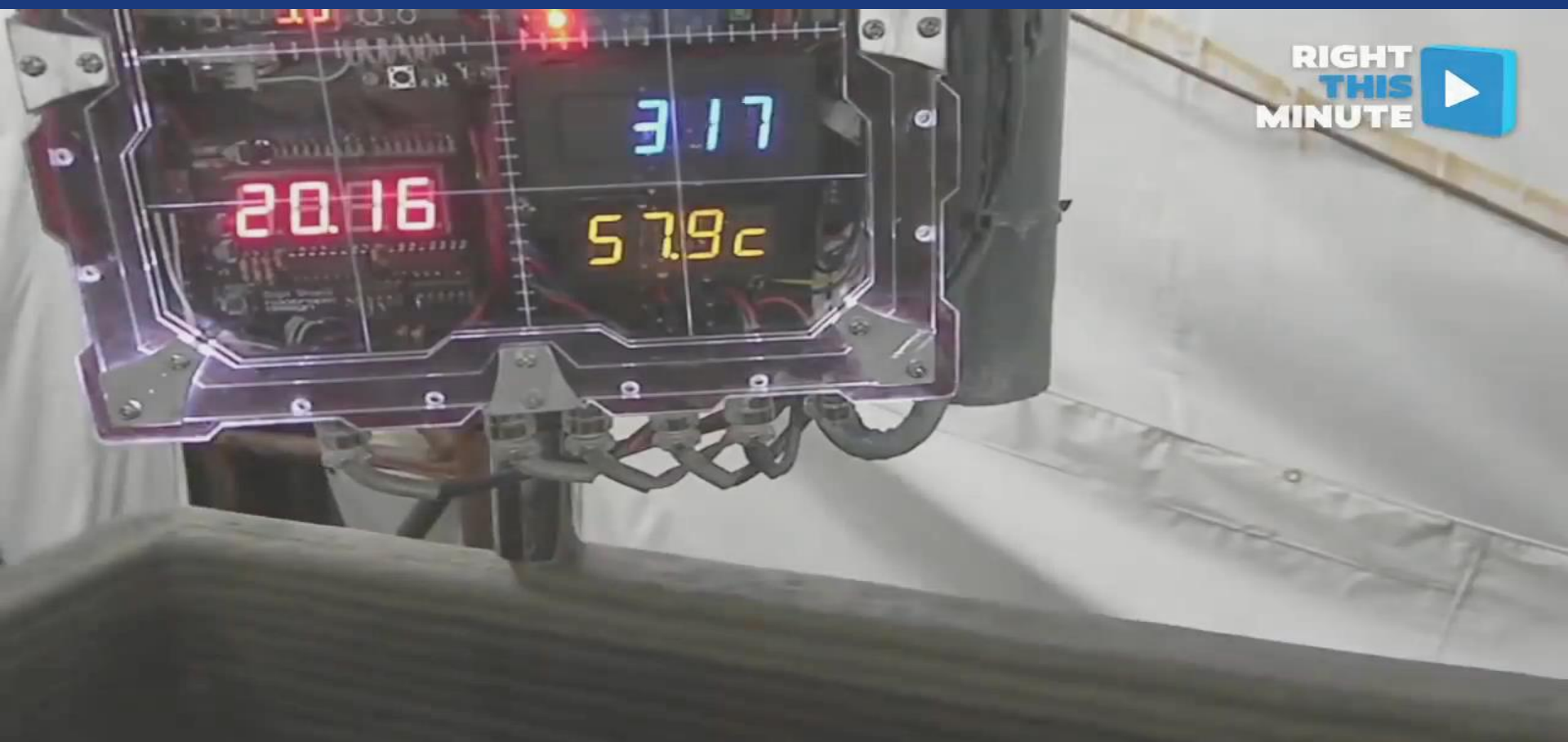


International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt







RIGHT
THIS
MINUTE 





Driverless Cars



International Center for
Leadership in Education

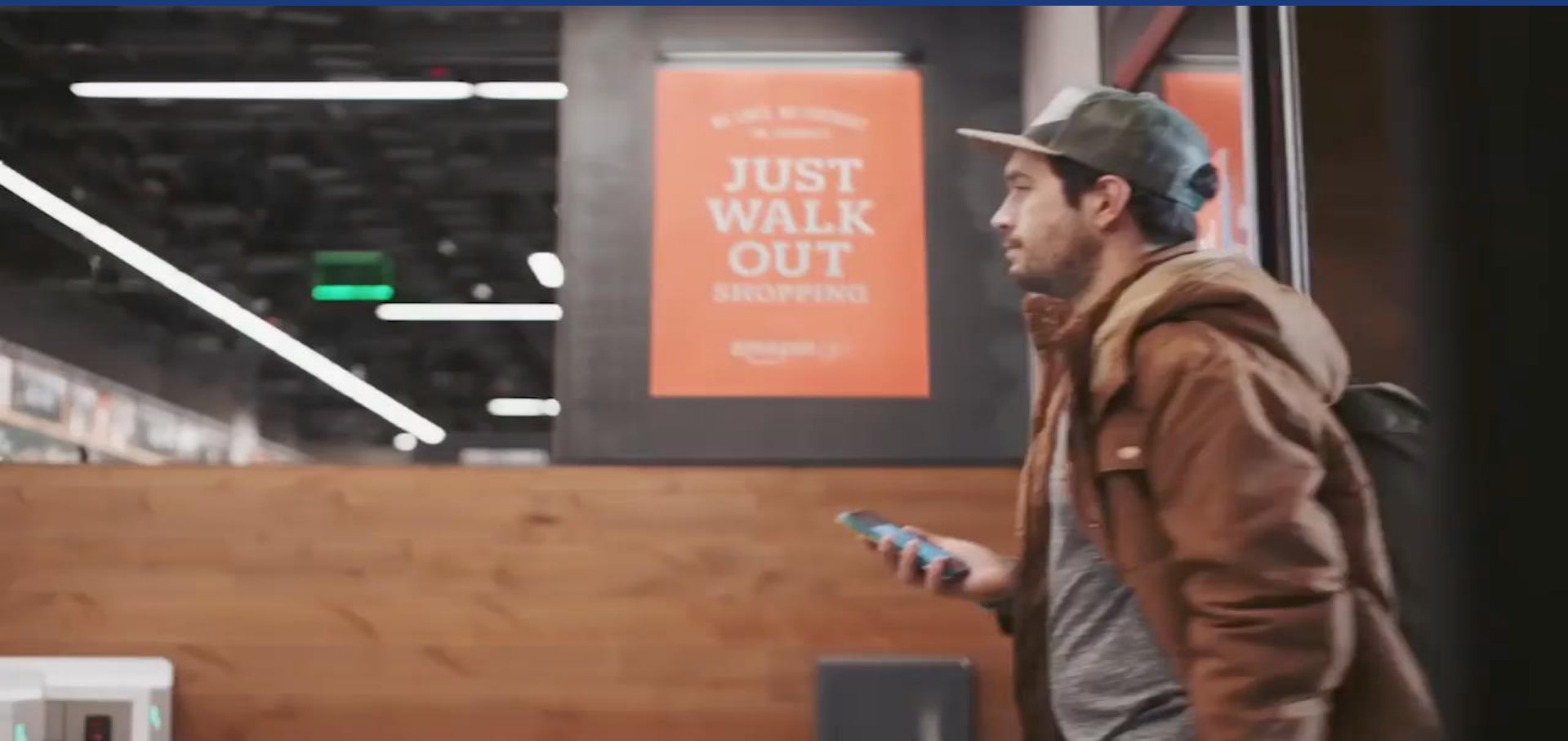
A division of
Houghton Mifflin Harcourt

40% of cost of a
car today is electronics.
It will soon be 60%.



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt





International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

G.E. Schenectady R.D. Center

- Engine Part

G.E. Schenectady R.D. Center

■ Engine Part

1. Concept



G.E. Schenectady R.D. Center

■ Engine Part



1. Concept
2. Design Team

G.E. Schenectady R.D. Center

■ Engine Part



1. Concept
2. Design Team
3. Build Machine Tool

G.E. Schenectady R.D. Center

■ Engine Part



1. Concept
2. Design Team
3. Build Machine Tool
4. Build Prototype

G.E. Schenectady R.D. Center

■ Engine Part



1. Concept
2. Design Team
3. Build Machine Tool
4. Build Prototype
5. Test

G.E. Schenectady R.D. Center

■ Engine Part



2 years

1. Concept
2. Design Team
3. Build Machine Tool
4. Build Prototype
5. Test

G.E. Schenectady R.D. Center

- Engine Part
- 2 Years
- **Now**
 - 3-D computer-aided software
 - 3-D printer using steel chips



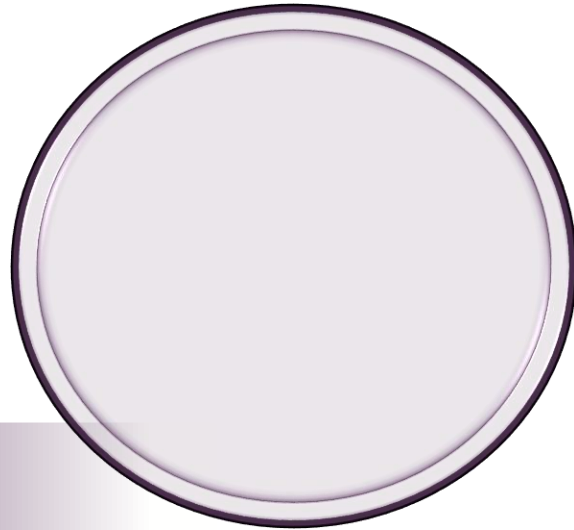
G.E. Schenectady R.D. Center

- Engine Part
- 2 Years
- **Now**
 - 3-D computer-aided software
 - 3-D printer using steel chips

From 2 years to 2 days



4th Industrial Revolution



3rd Revolution

4th Industrial Revolution

PHYSICAL

Nanotech

- 1/100th
- 10 times
- Jell-O



3rd Revolution



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

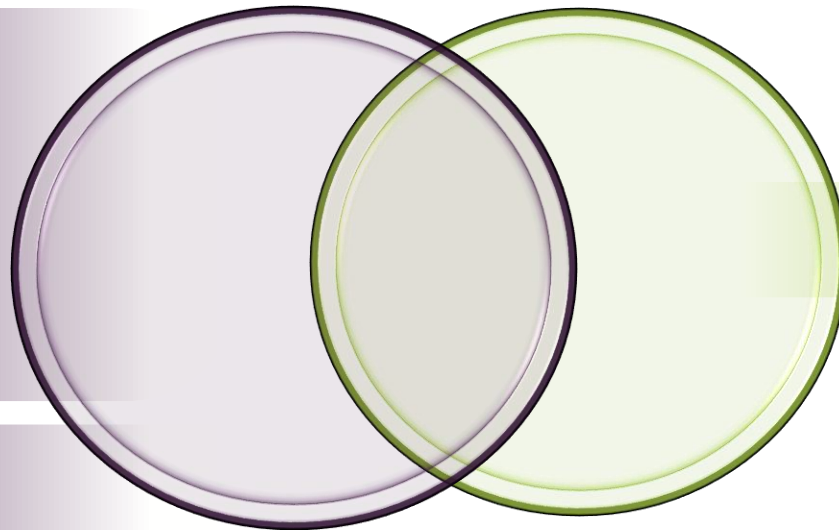
4th Industrial Revolution

PHYSICAL

Nanotech

- 1/100th
- 10 times
- Jell-O

3rd Revolution



BIOLOGICAL



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

4th Industrial Revolution

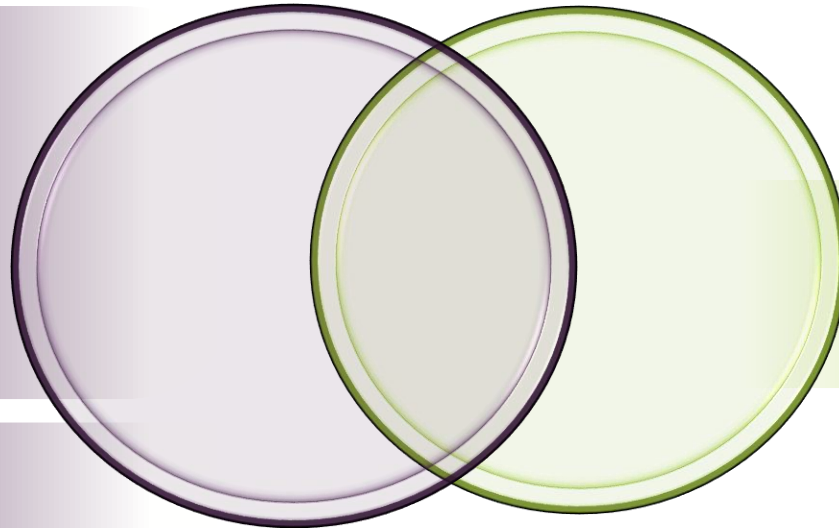
PHYSICAL

Nanotech

- 1/100th
- 10 times
- Jell-O

3rd Revolution

BIOLOGICAL Biotech



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

4th Industrial Revolution

PHYSICAL

Nanotech

- 1/100th
- 10 times
- Jell-O

3rd Revolution

BIOLOGICAL
Biotech

DIGITAL



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

Health Care

Precision Medicine

Customization of health care
with medical decisions,
practices, and products tailored
to the individual patient



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

Precision Medicine



Sequencing of
the human
genome



Improved
technologies
for biomedical
analysis



New tools for
using large
datasets

Internet of Things



Microprocessors
traverse the
digestive tract and
circulatory system
to pinpoint
and later *treat*
medical issues.

Schools



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

**If you can write an
algorithm for a task,
the job is gone.**



Paid for Unique Knowledge

- Lawyers
- Accountants
- Stock Brokers
- Doctors

In the immediate future...

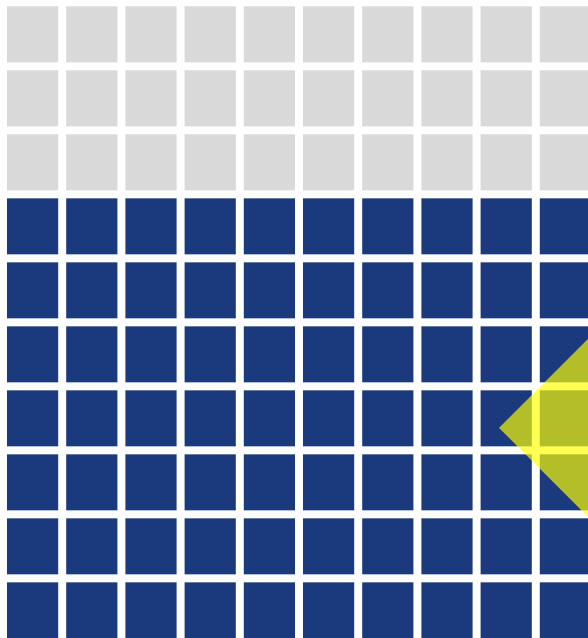


Middle-Level Skilled Jobs 1980 - 2040

1980

2010

2040

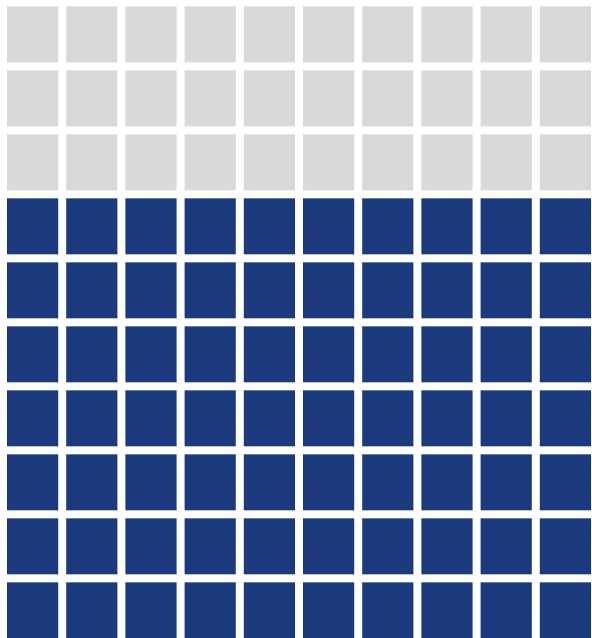


70%

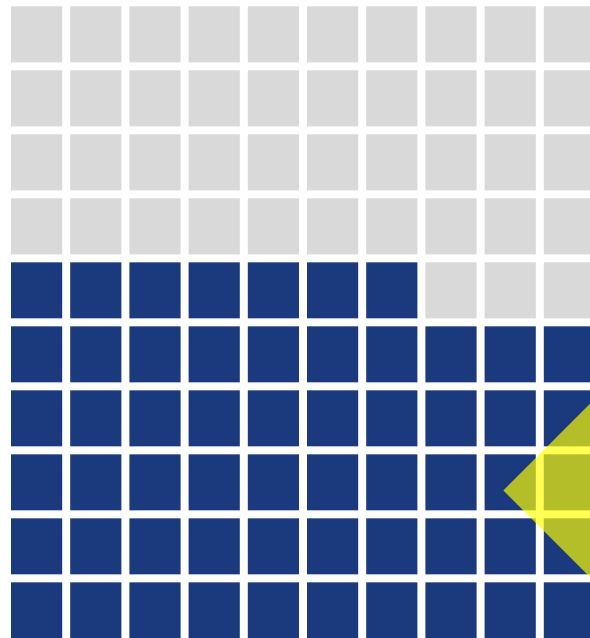
Source: NY Fed Calculations, U.S. Census Bureau

Middle-Level Skilled Jobs 1980 - 2040

1980



2010



2040

57%

Source: NY Fed Calculations, U.S. Census Bureau

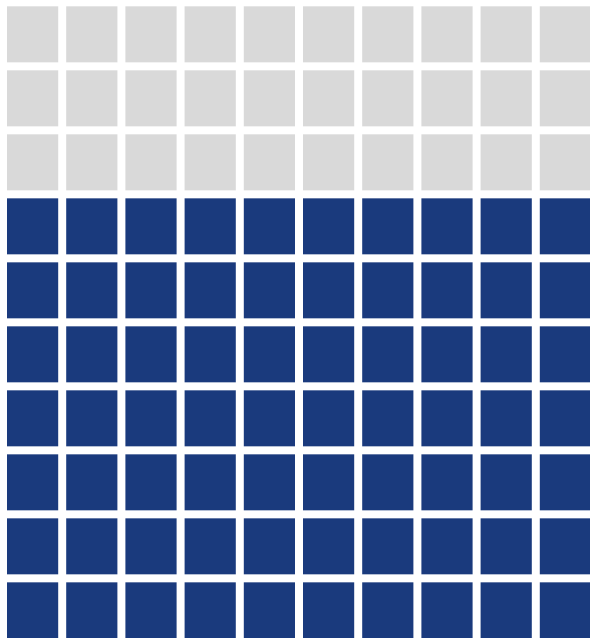


International Center for
Leadership in Education

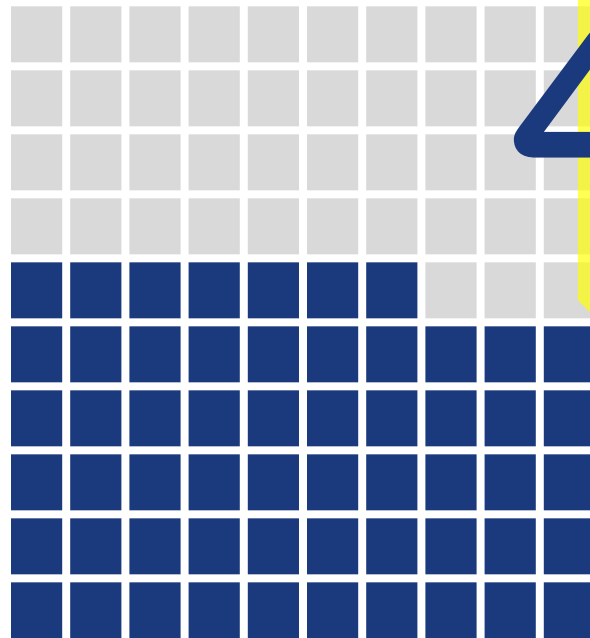
A division of
Houghton Mifflin Harcourt

Middle-Level Skilled Jobs 1980 - 2040

1980

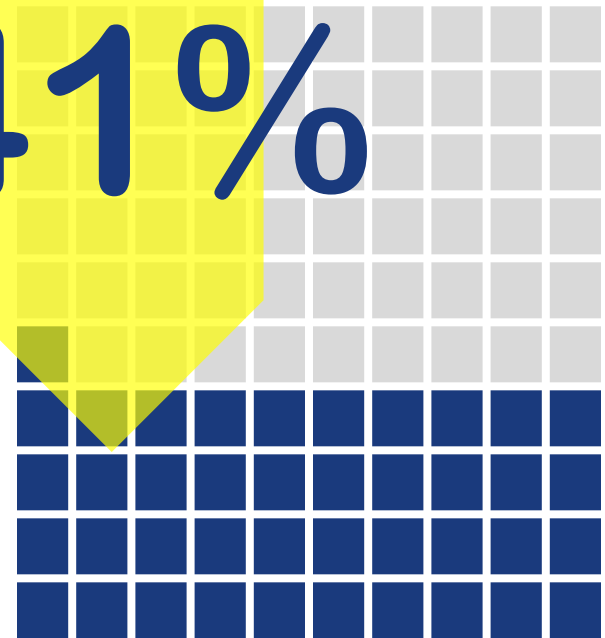
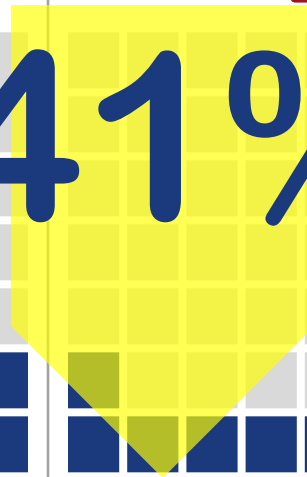


2010



2040

41%



Source: NY Fed Calculations, U.S. Census Bureau

Middle-Level Skilled Jobs 1980 - 2040

1980

2010

2040

-30%

Source: NY Fed Calculations, U.S. Census Bureau

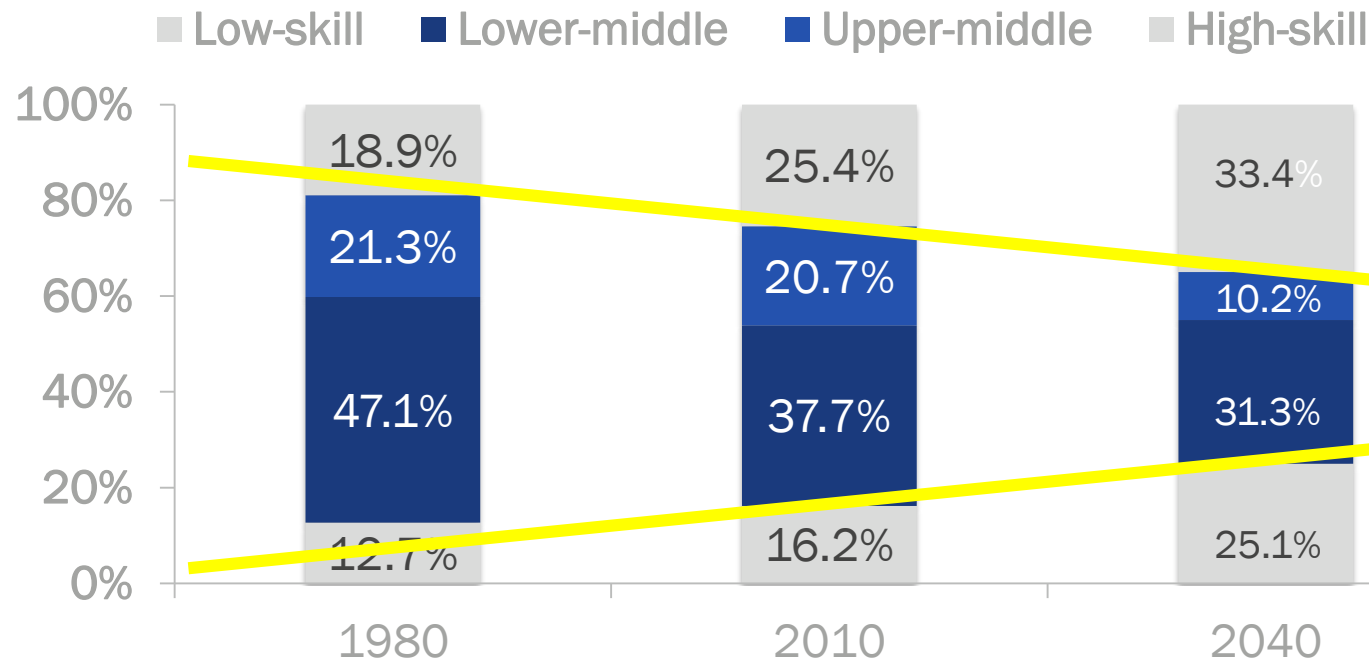


International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

Job Shares by Skill Group

1980 - 2040



Source: NY Fed Calculations, U.S. Census Bureau

5 Largest Companies

2007

1. Exxon Mobil
2. General Electric
3. Microsoft
4. Citigroup
5. Bank of America

2017

1. Apple
2. Google
3. Microsoft
4. Amazon
5. Facebook


2027

Bio/Nano/Info
Technology

Source: S & P Dow Jones Indices

The rate of change caused by technology is faster than larger organizations can adapt to.

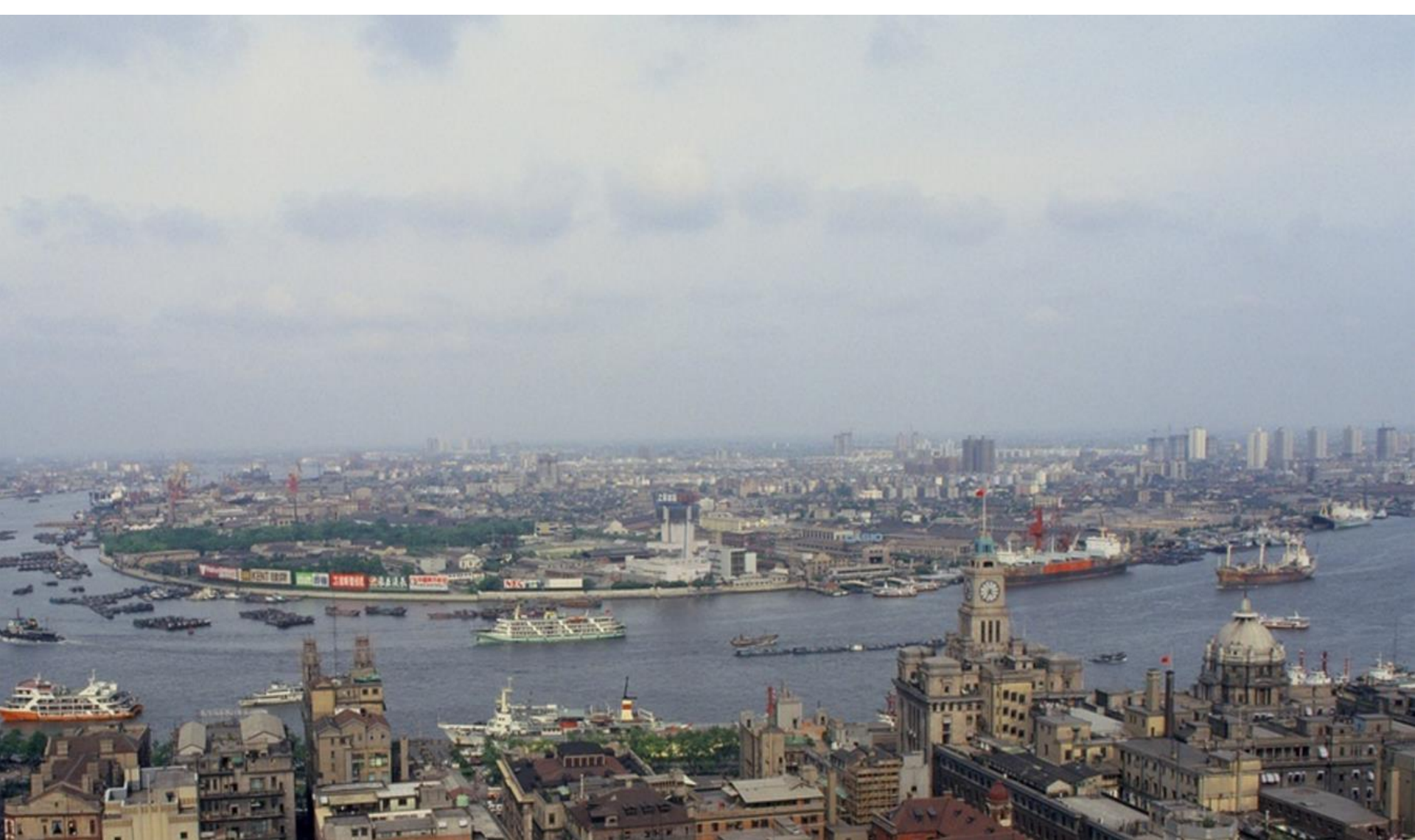




**Entrepreneurs are more
effective in this changing
environment than
large/bureaucratic
organizations**

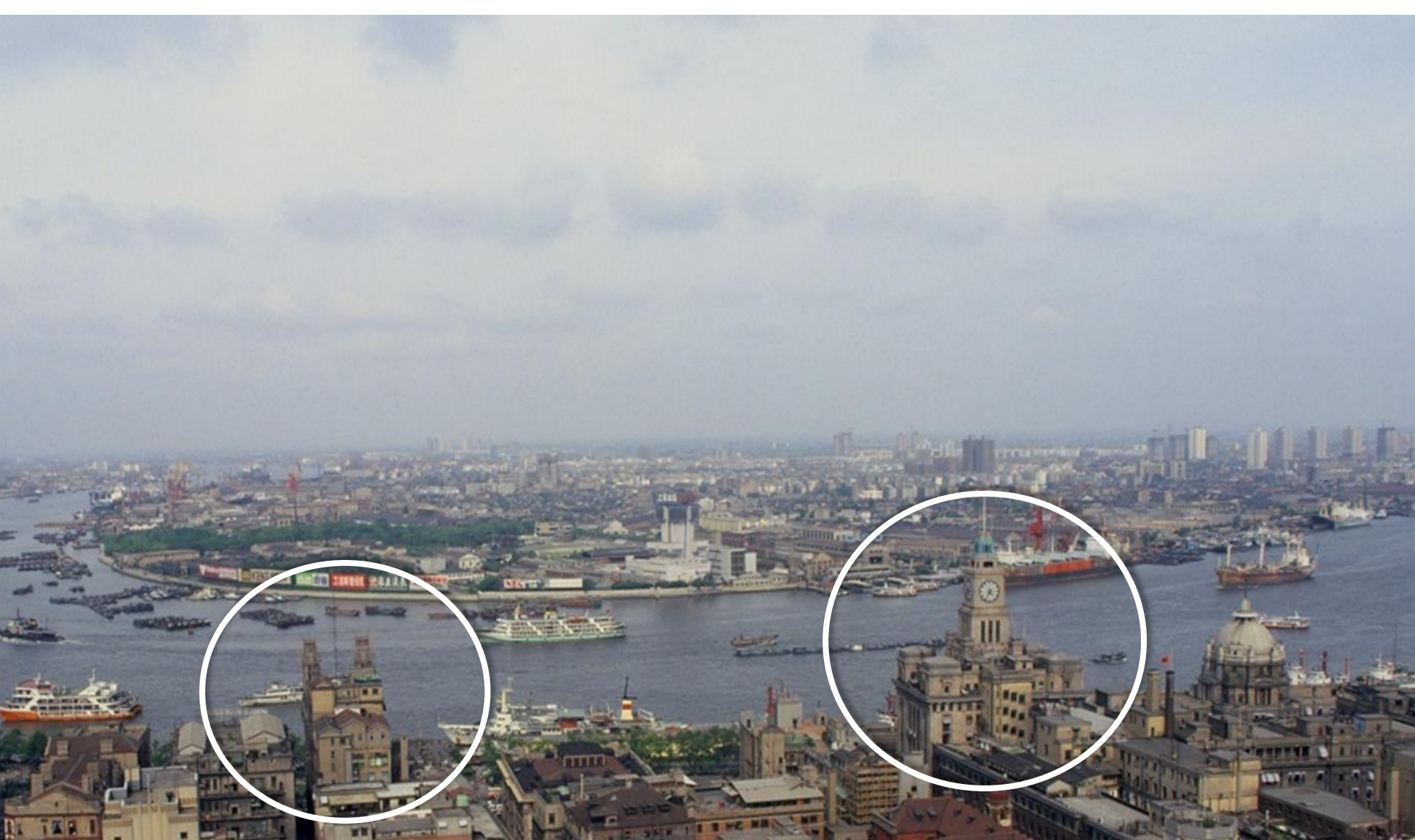


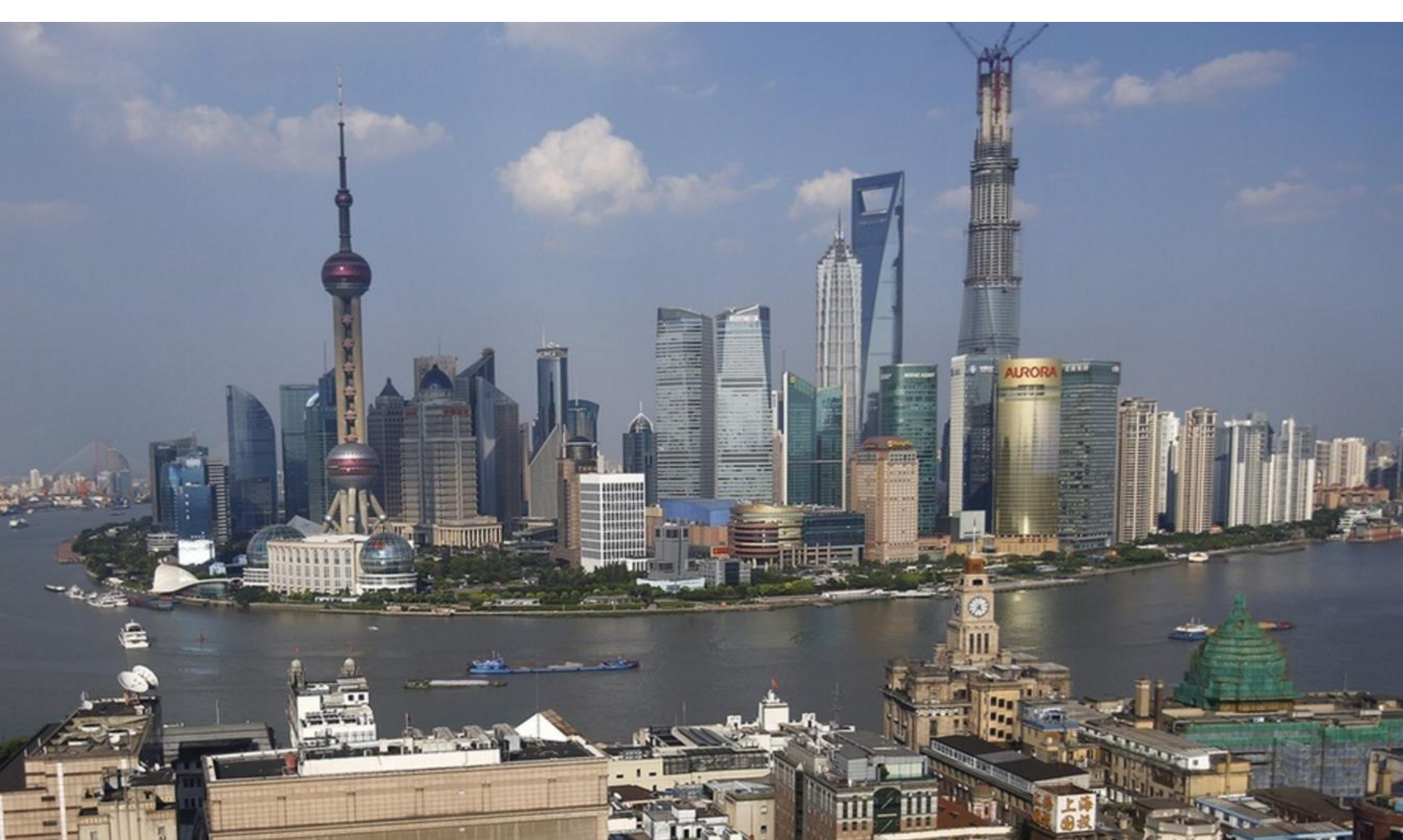
Work to Worker



**International Center for
Leadership in Education**

A division of
Houghton Mifflin Harcourt





2005



Now





**International Center for
Leadership in Education**

A division of
Houghton Mifflin Harcourt



**International Center for
Leadership in Education**

A division of
Houghton Mifflin Harcourt

**Six billion of the 7 billion people
on Earth have a mobile phone.
More than those who have
access to toilets.**

Source: * Industries of the Future



**International Center for
Leadership in Education**

A division of
Houghton Mifflin Harcourt

**Developing nations do not
need to be freed from the
structures of the past.**



**The internet has reduced the
barriers of time and distance.**



**International Center for
Leadership in Education**

A division of
Houghton Mifflin Harcourt

**The internet has reduced the
barriers of time and distance
everywhere except education.**



The Winds of Change

Accelerating
Impact of
Technology

Higher
Education
Challenge



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

College Dropout Rate 2016

First to Second Year

34.8%

Four-Year Colleges

44.5%

Two-Year Colleges



Source: <http://www.air.org/sites/default/files/downloads/report/AIR-CALDER-Understanding-the-College-Dropout-Population-Jan14.pdf>

Average Graduation Rate 2016

1983 - 2016

36.6%

Four-Year Colleges in 5 years

29.1%

Two-Year Colleges in 3 years



Source: <http://www.air.org/sites/default/files/downloads/report/AIR-CALDER-Understanding-the-College-Dropout-Population-Jan14.pdf>



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

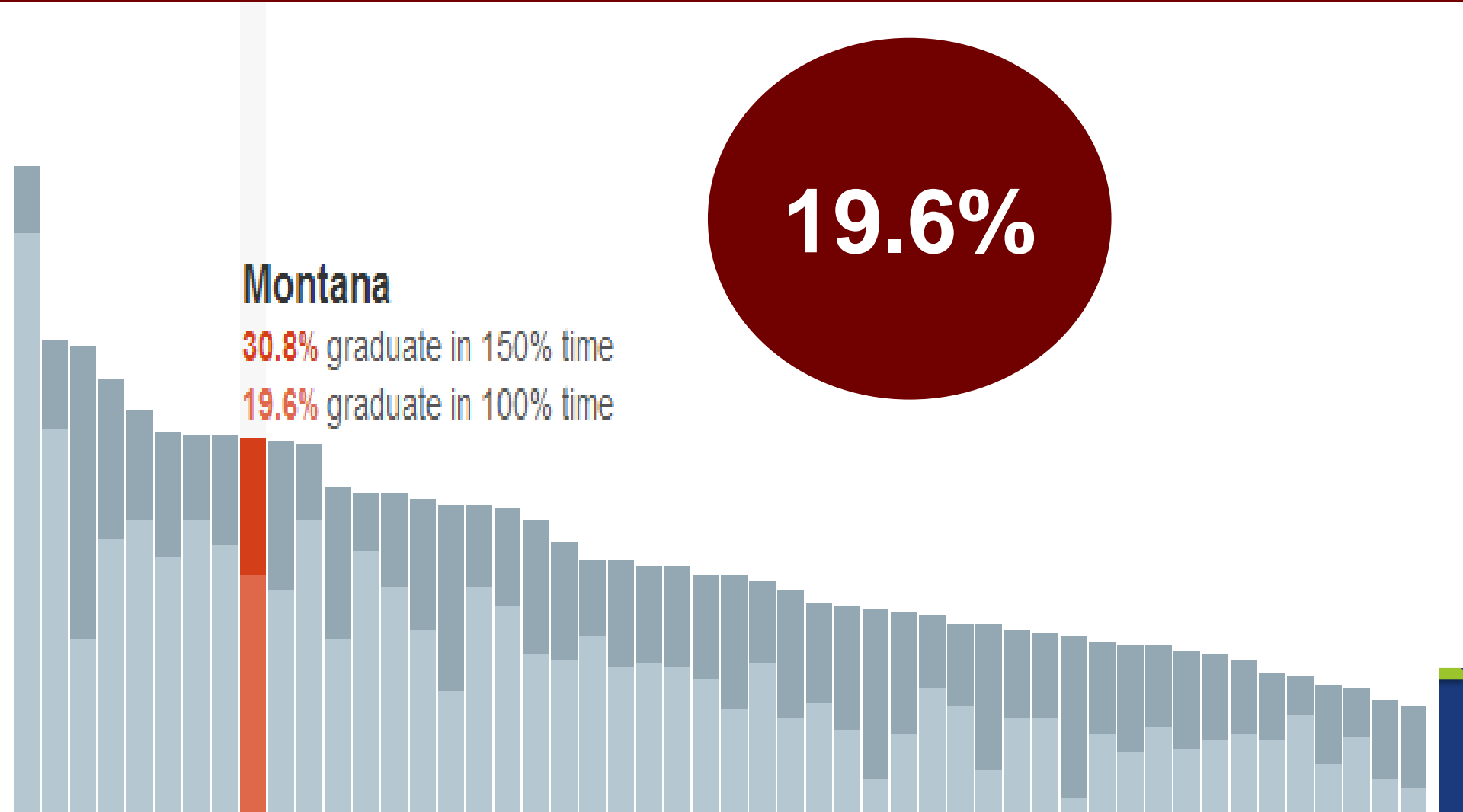
Montana Two-Year Public College

19.6%

Montana

30.8% graduate in 150% time

19.6% graduate in 100% time



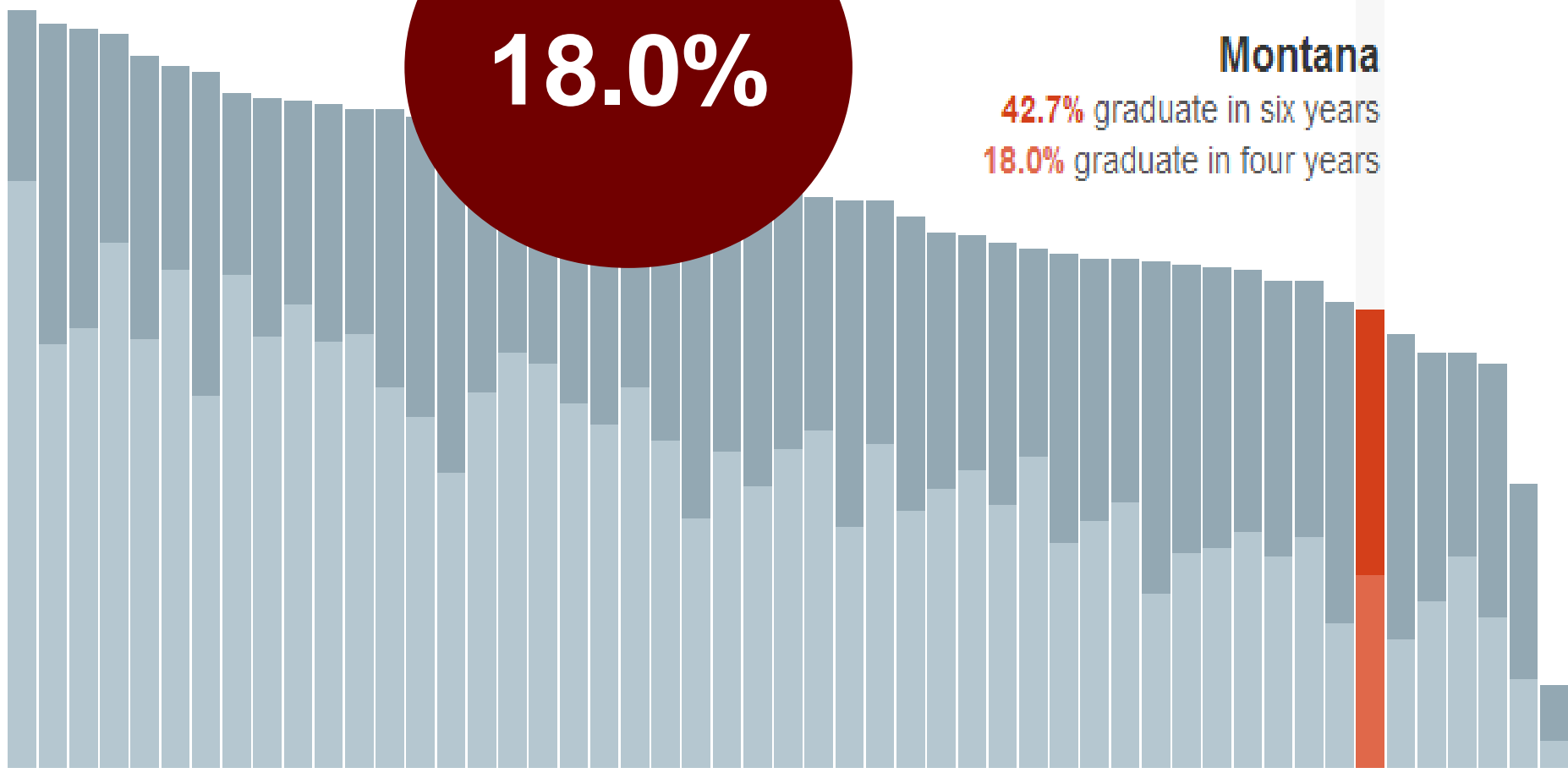
Montana Four-Year Public College

18.0%

Montana

42.7% graduate in six years

18.0% graduate in four years



Your Major Matters A LOT

2-Year College Graduates

OCCUPATION	STARTING	AVERAGE
Management Info Systems	\$45,100	\$72,100
Electrical and Chemical Engineers	\$45,100	\$69,800
Occ. Health and Safety	\$50,300	\$68,200
Diagnostic Medical Specialist	\$50,200	\$66,800
Computer Programmer	\$42,300	\$65,300

Payscale.com



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

4-Year College Graduates

OCCUPATION	STARTING	AVERAGE
Human Development	\$35,900	\$48,000
Athletic Trainer	\$34,800	\$46,900
Social Worker	\$33,000	\$46,600
Recreation and Leisure	\$32,200	\$45,300
Child and Family Studies	\$30,300	\$37,200

Payscale.com



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

4-Year College Graduates

OCCUPATION	STARTING	AVERAGE
Petroleum Engineer	\$103,000	\$160,000
Actuarial Math	\$58,700	\$120,000
Nuclear Engineer	\$67,600	\$117,000
Chemical Engineer	\$68,200	\$117,000
Aerospace Engineer	\$62,800	\$109,000

Payscale.com



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

The Winds of Change

Accelerating
Impact of
Technology

Higher
Education
Challenge

College
and
Career
Ready



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

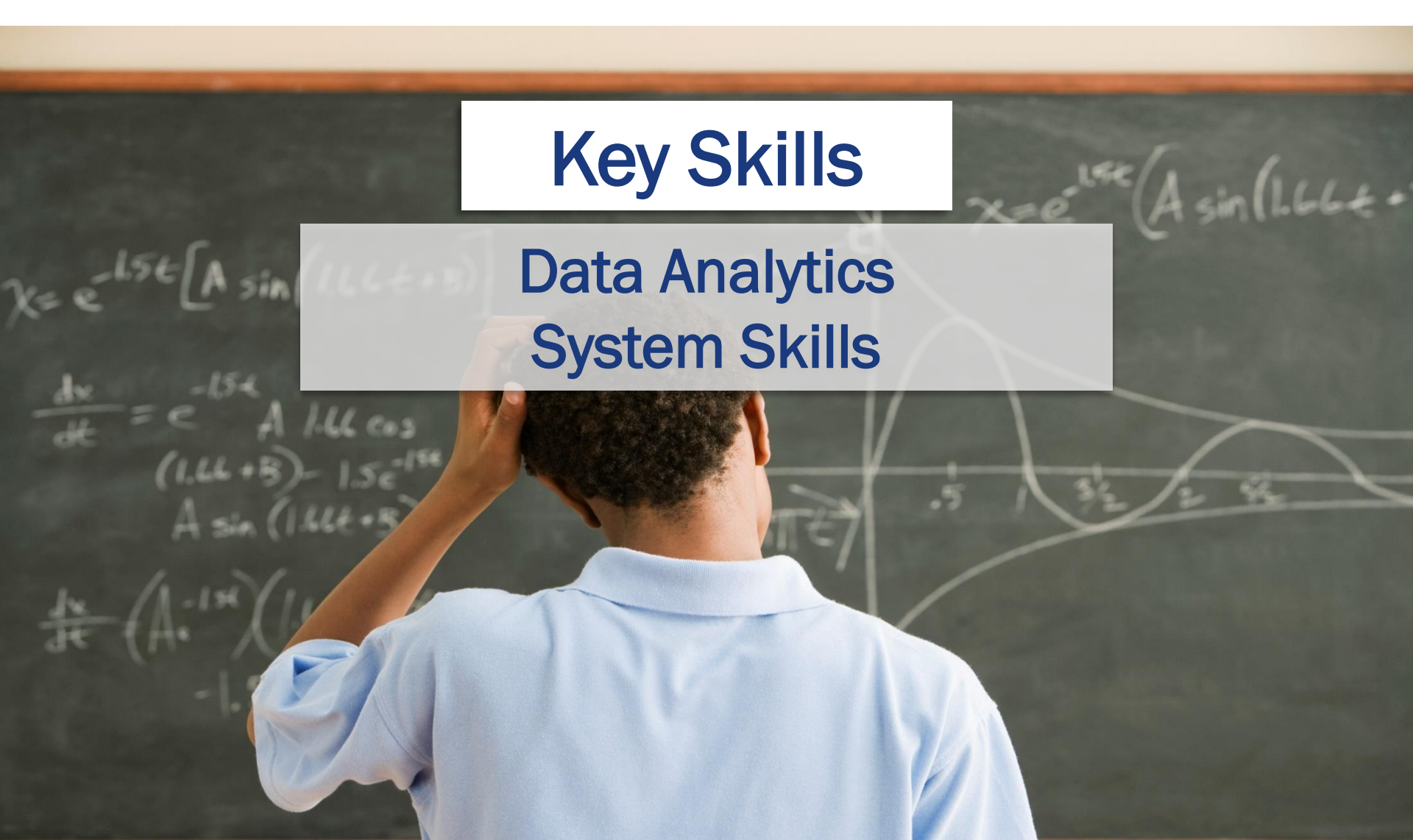
Key Skills

Data Analytics



Key Skills

Data Analytics System Skills



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

Key Skills

Data Analytics
System Skills
Complex Problem Solving



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

Key Skills

Data Analytics
System Skills
Complex Problem Solving
Personal Skills

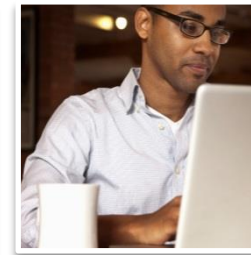
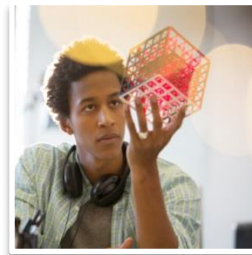
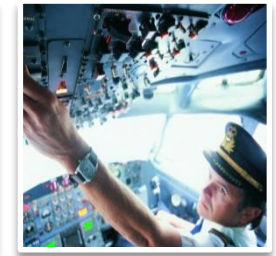


International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

1. Complex Problem Solving

Top 10 Skills

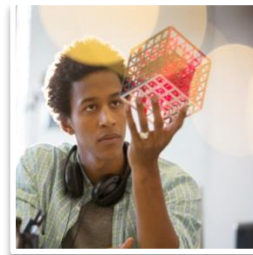
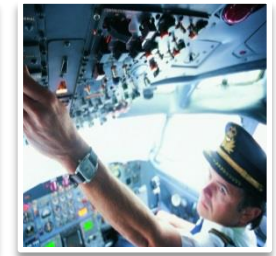


Source: Future of Jobs Report, World Economic Forum

1. Complex Problem Solving

2. Critical Thinking

Top 10 Skills



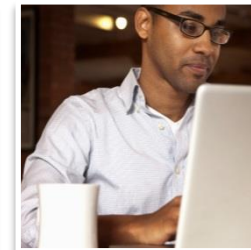
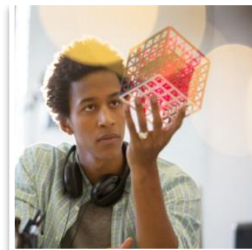
Source: Future of Jobs Report, World Economic Forum

1. Complex Problem Solving

2. Critical Thinking

3. Creativity

Top 10 Skills



Source: Future of Jobs Report, World Economic Forum

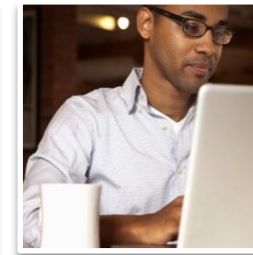
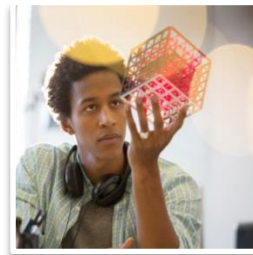
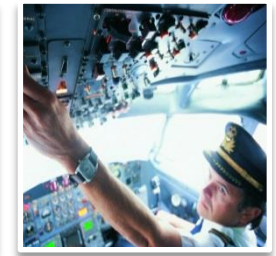
1. Complex Problem Solving

2. Critical Thinking

3. Creativity

4. People Management

Top 10 Skills



Source: Future of Jobs Report, World Economic Forum

Top 10 Skills

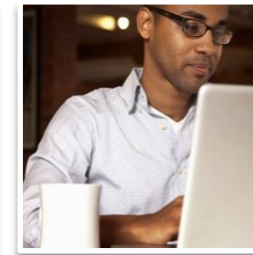
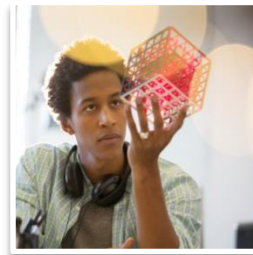
1. Complex Problem Solving

2. Critical Thinking

3. Creativity

4. People Management

5. Coordinating with Others



Source: Future of Jobs Report, World Economic Forum

Top 10 Skills

1. Complex Problem Solving

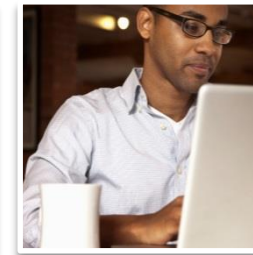
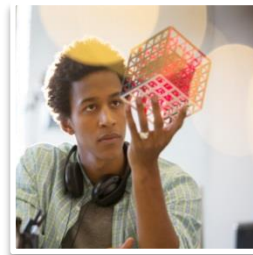
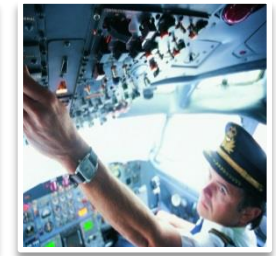
2. Critical Thinking

3. Creativity

4. People Management

5. Coordinating with Others

6. Emotional Intelligence



Source: Future of Jobs Report, World Economic Forum

Top 10 Skills

1. Complex Problem Solving

2. Critical Thinking

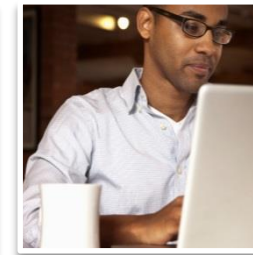
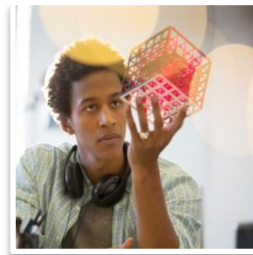
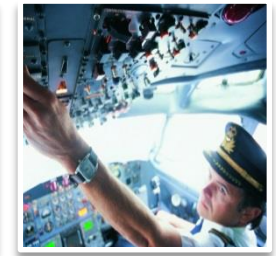
3. Creativity

4. People Management

5. Coordinating with Others

6. Emotional Intelligence

7. Active Listening



Source: Future of Jobs Report, World Economic Forum

Top 10 Skills

1. Complex Problem Solving

2. Critical Thinking

3. Creativity

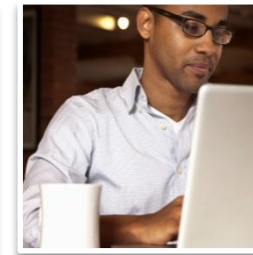
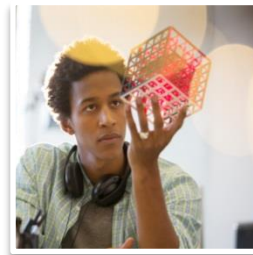
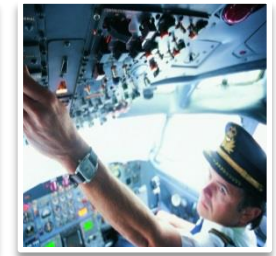
4. People Management

5. Coordinating with Others

6. Emotional Intelligence

7. Active Listening

8. Service Orientation



Source: Future of Jobs Report, World Economic Forum

Top 10 Skills

1. Complex Problem Solving

2. Critical Thinking

3. Creativity

4. People Management

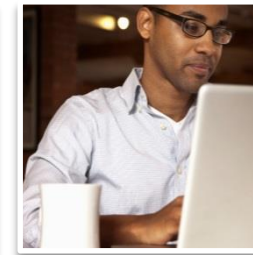
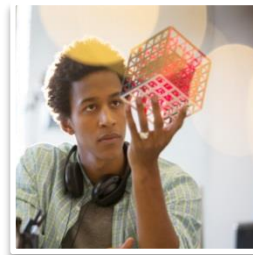
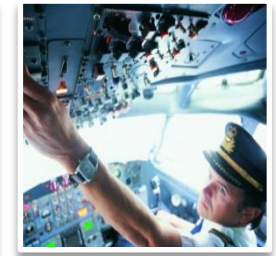
5. Coordinating with Others

6. Emotional Intelligence

7. Active Listening

8. Service Orientation

9. Negotiation



Source: Future of Jobs Report, World Economic Forum

Top 10 Skills

1. Complex Problem Solving

2. Critical Thinking

3. Creativity

4. People Management

5. Coordinating with Others

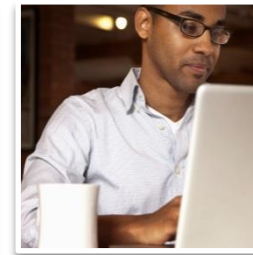
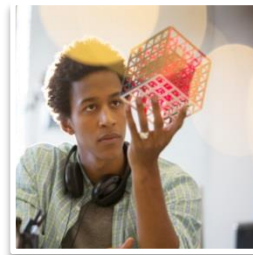
6. Emotional Intelligence

7. Active Listening

8. Service Orientation

9. Negotiation

10. Cognitive Flexibility



Source: Future of Jobs Report, World Economic Forum

WHAT



**International Center for
Leadership in Education**

A division of
Houghton Mifflin Harcourt

Application Model



1. Knowledge in one discipline

2. Application within discipline

3. Application across disciplines

4. Application to real-world
predictable situations

5. Application to real-world
unpredictable situations



Knowledge Taxonomy

Creating | 6

Evaluating | 5

Analyzing | 4

Applying | 3

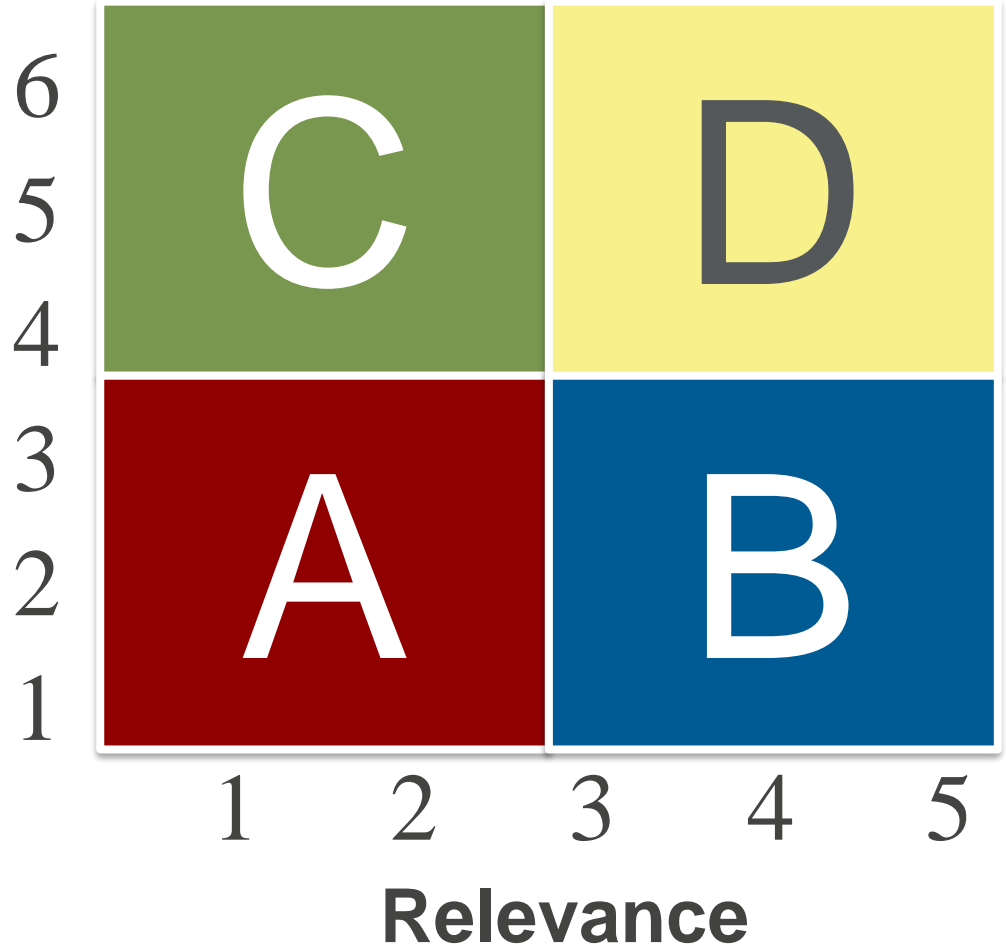
Understanding | 2

Remembering | 1

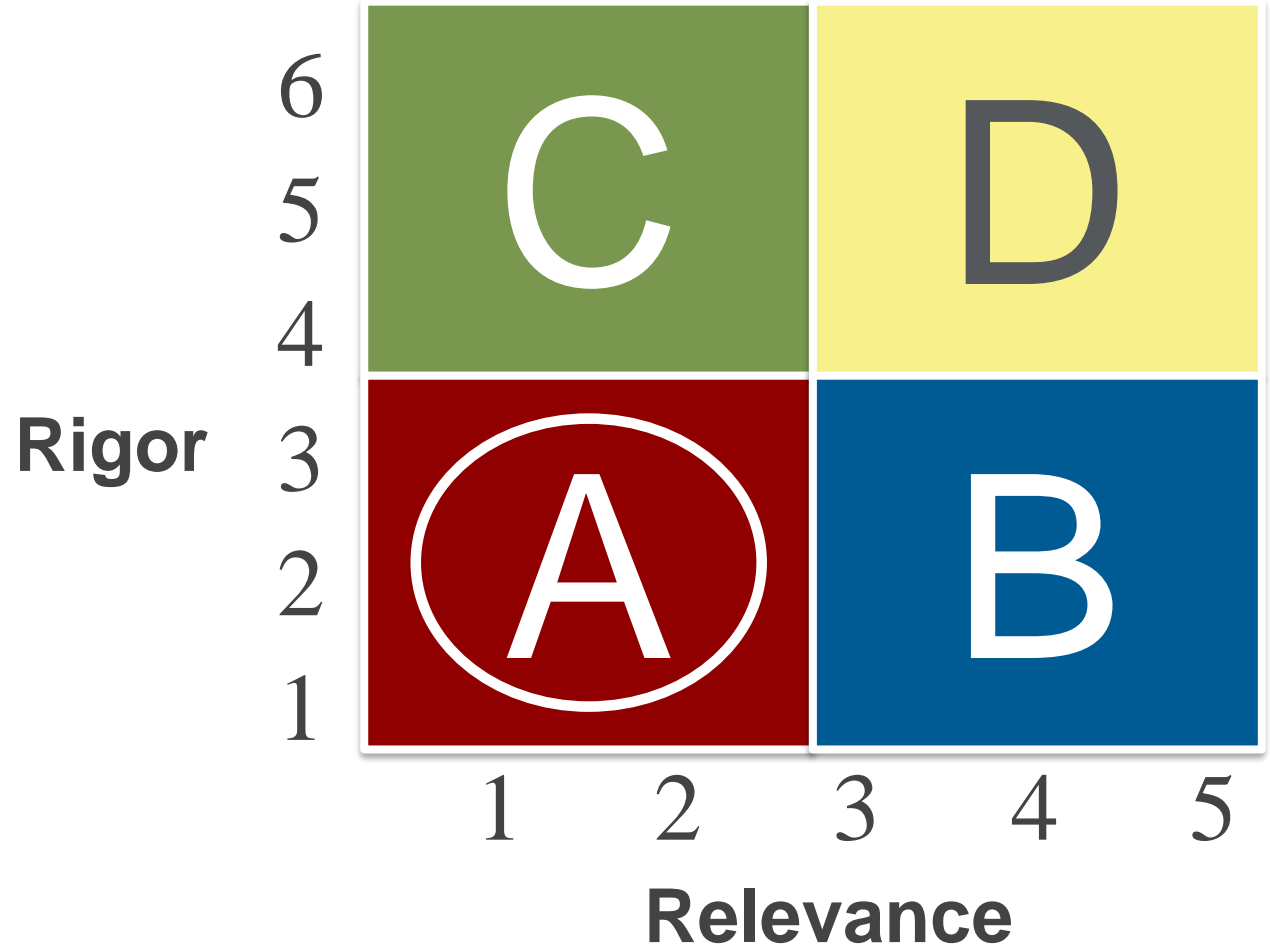


Rigor/ Relevance Framework®

Rigor

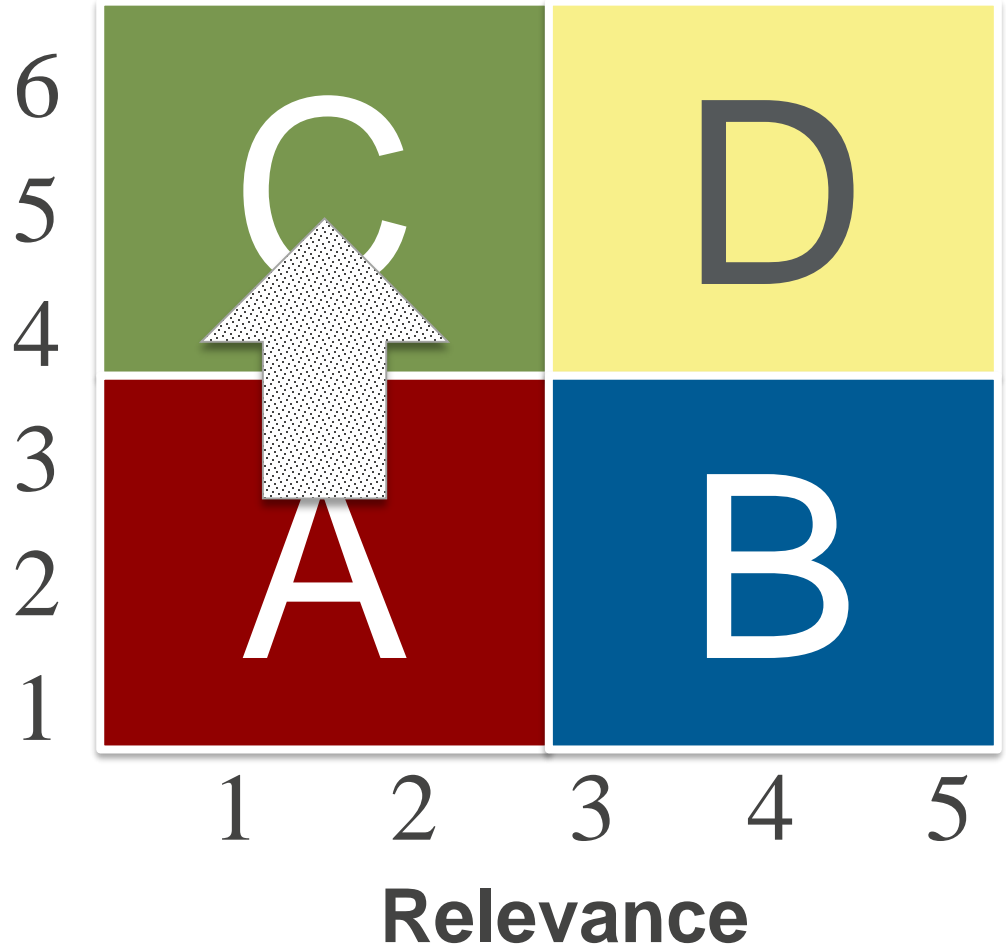


Levels



College Ready (College Prep)

Rigor

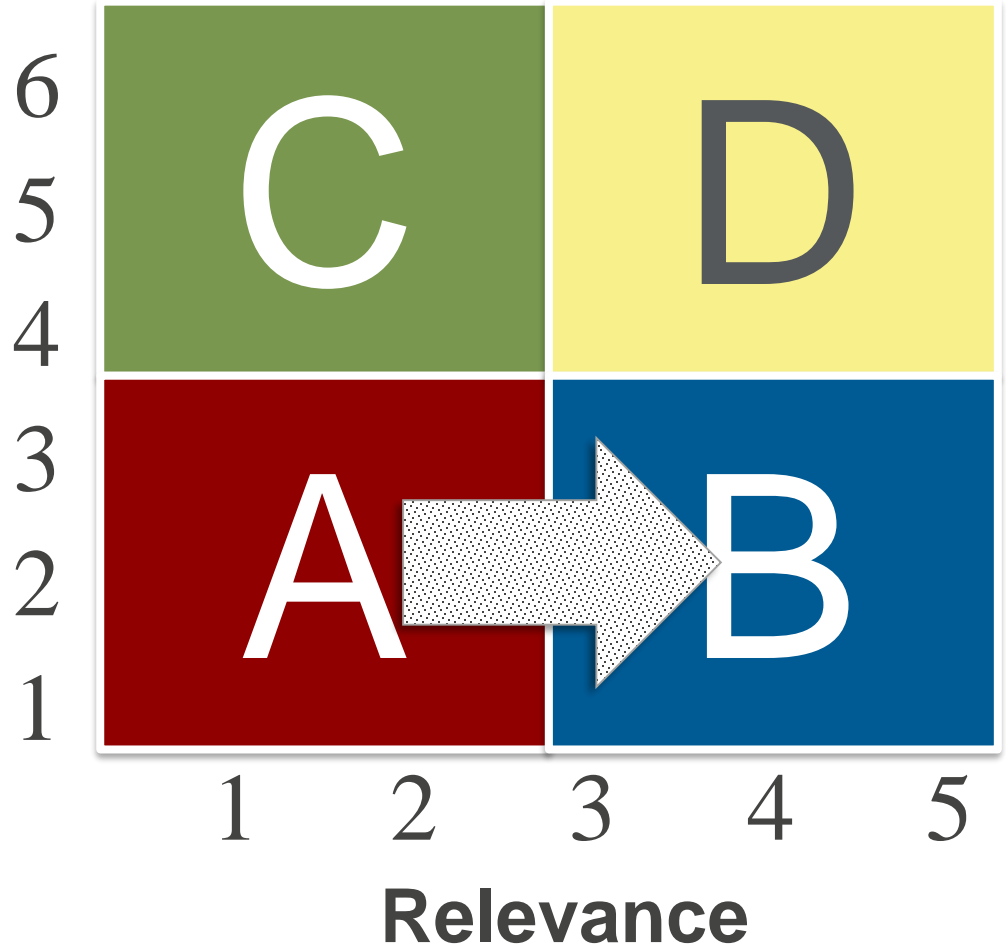


International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

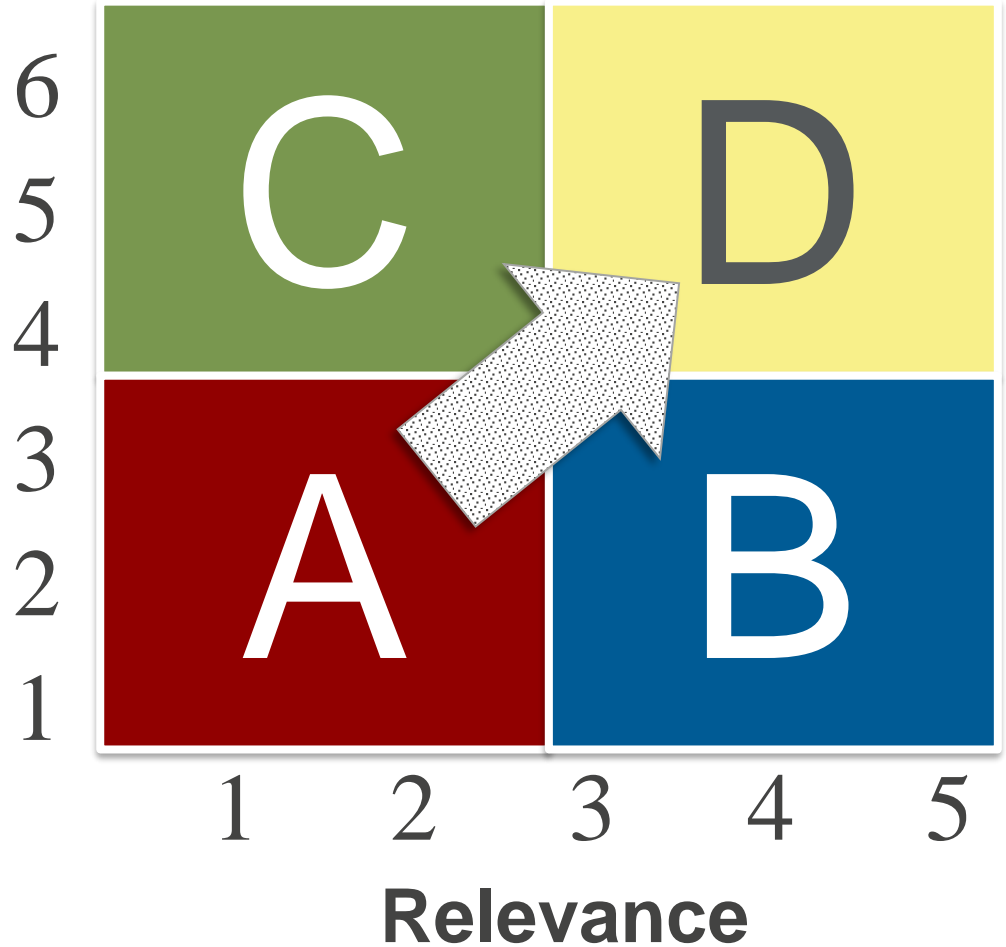
Job Ready (CTE)

Rigor



Career Ready

Rigor



Key Skills

Data Analytics
System Skills
Complex Problem Solving
Personal Skills



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

Top 10 Skills

1. Complex Problem Solving

2. Critical Thinking

3. Creativity

4. People Management

5. Coordinating with Others

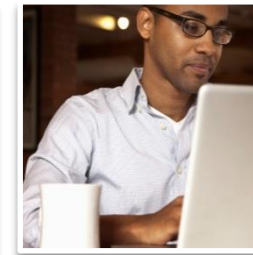
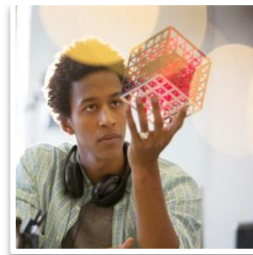
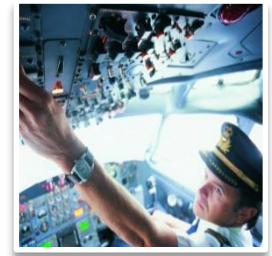
6. Emotional Intelligence

7. Active Listening

8. Service Orientation

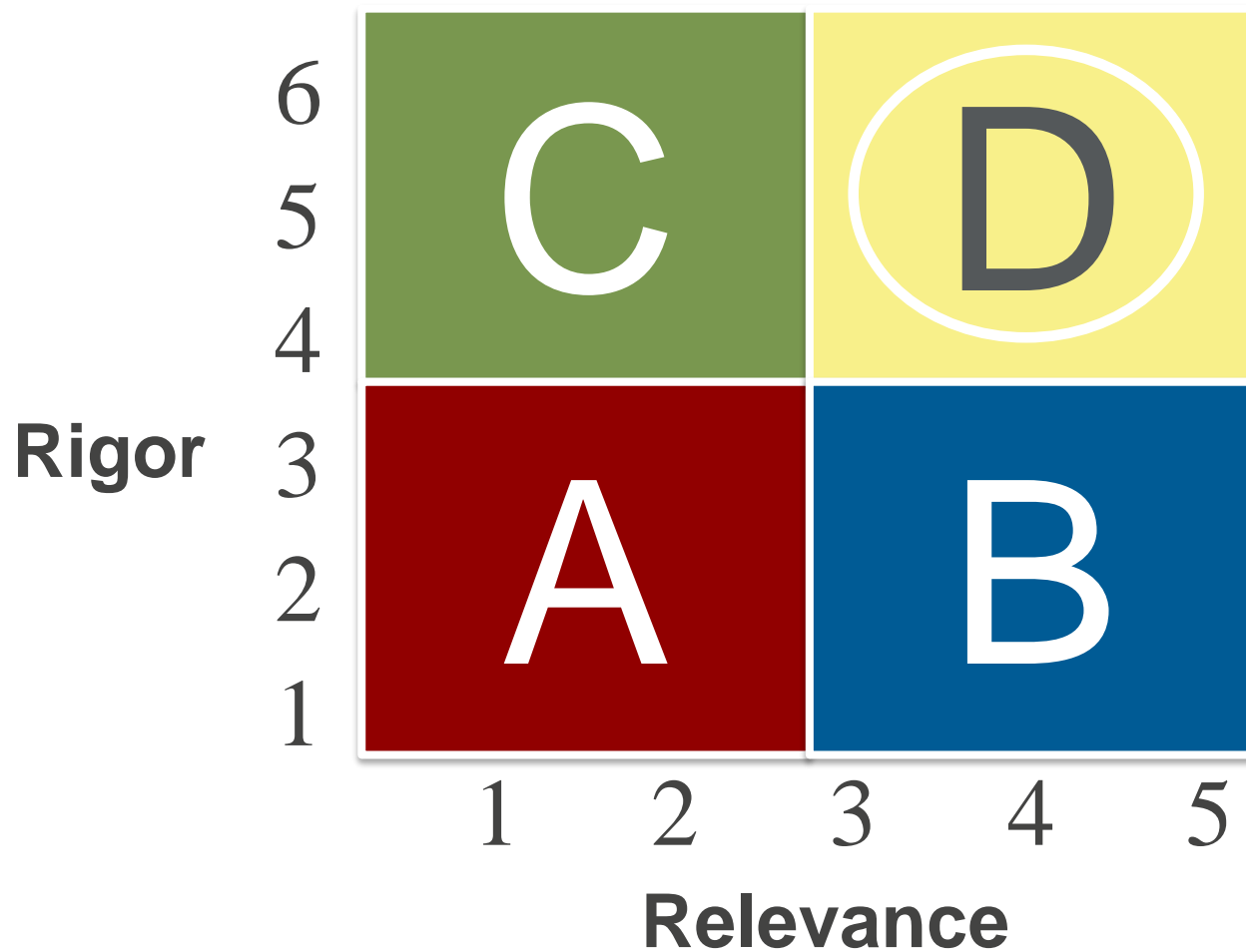
9. Negotiation

10. Cognitive Flexibility



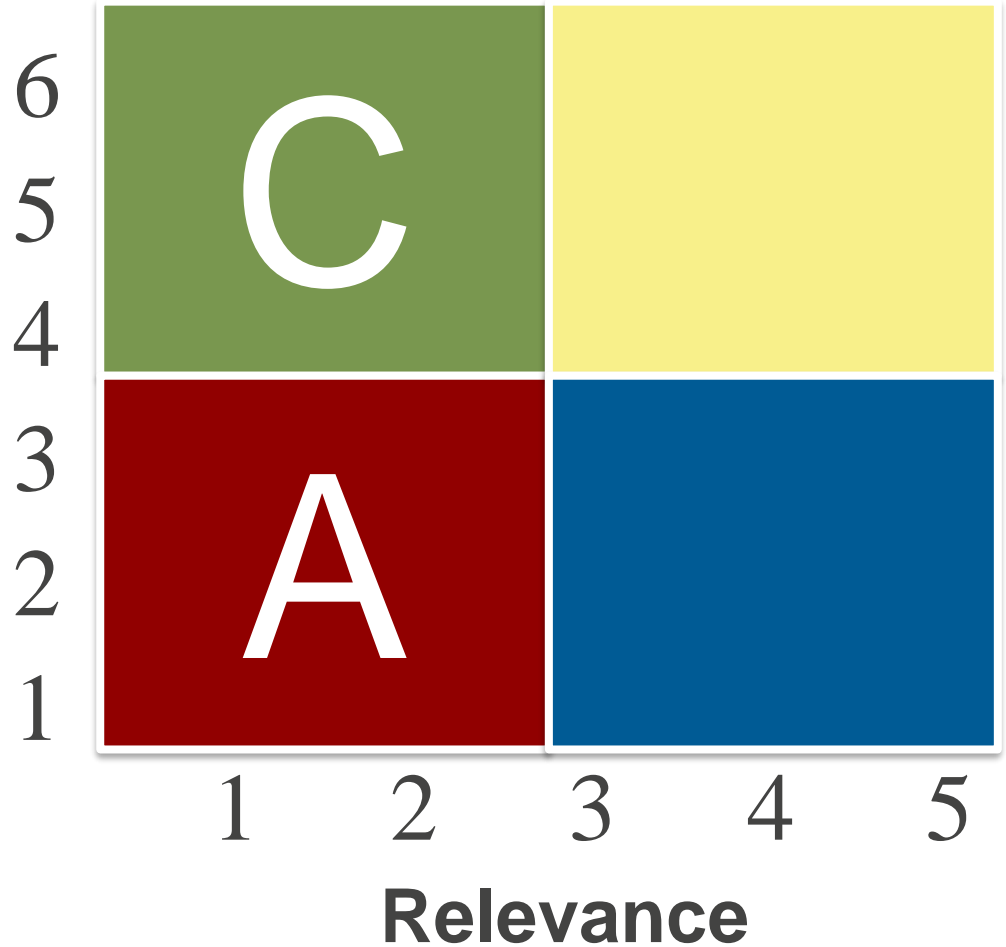
Source: Future of Jobs Report, World Economic Forum

Levels



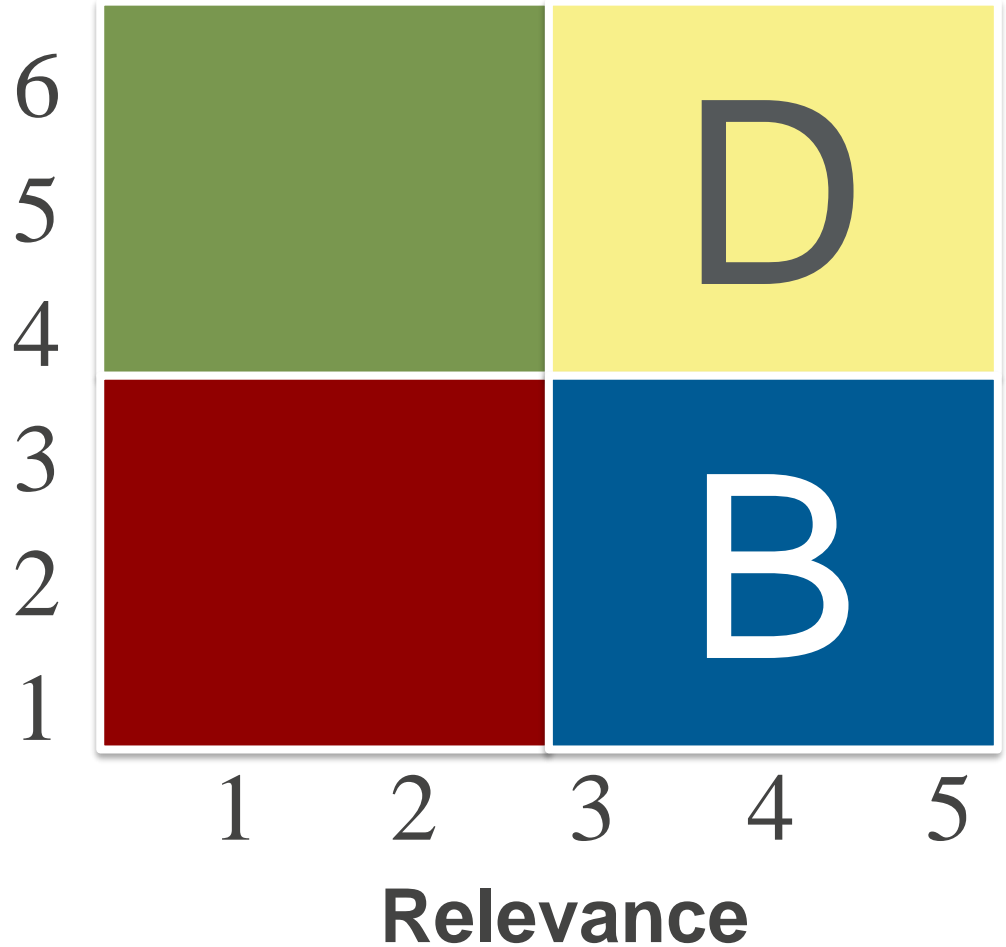
A and C were Needed Pre-Internet

Rigor



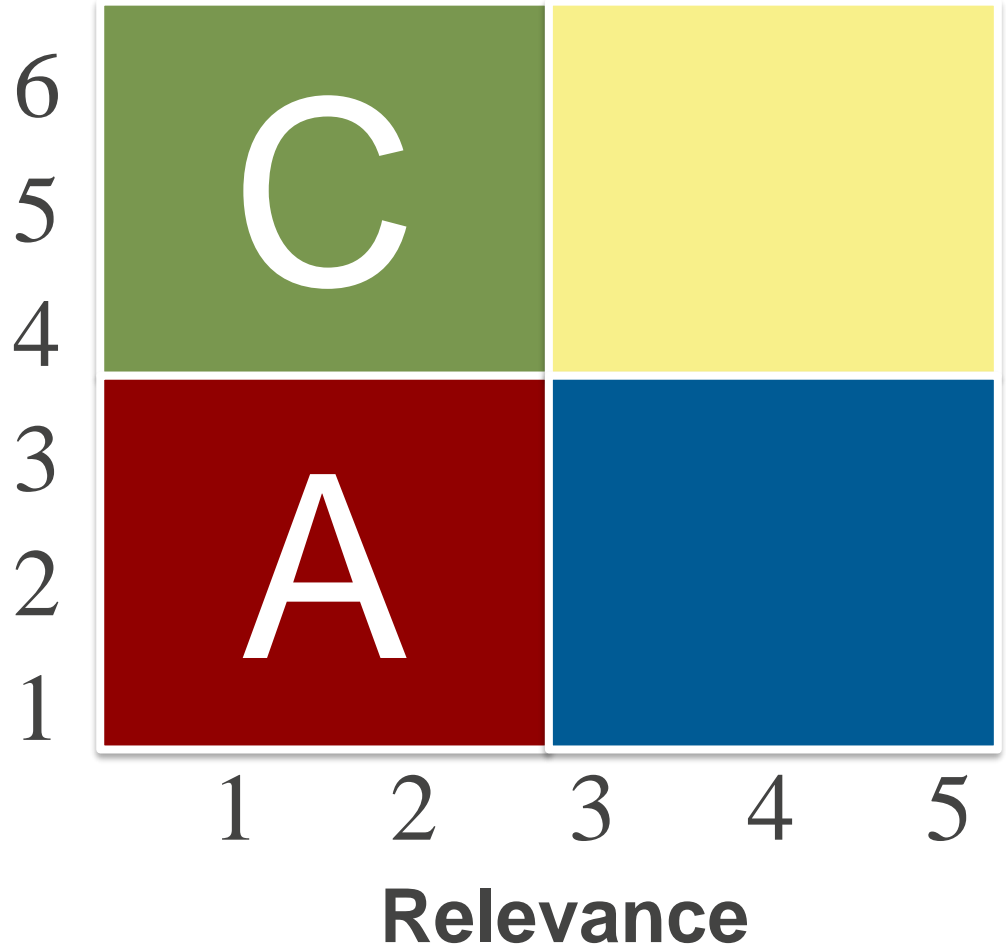
B and D are Required in the Internet Age

Rigor



**Regulated,
Certified,
Tenured,
and
Contracted**

Rigor



**Make all children all they
are capable of being,
BUT
it is about more than
standards and tests.**

Personal Skills

- Responsibility
- Contemplation
- Initiative
- Perseverance
- Optimism
- Courage
- Respect
- Compassion
- Adaptability
- Honesty
- Trustworthiness
- Loyalty



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

**It all begins with the focus on
the students, not the standards.**



**International Center for
Leadership in Education**

A division of
Houghton Mifflin Harcourt



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt



HOW

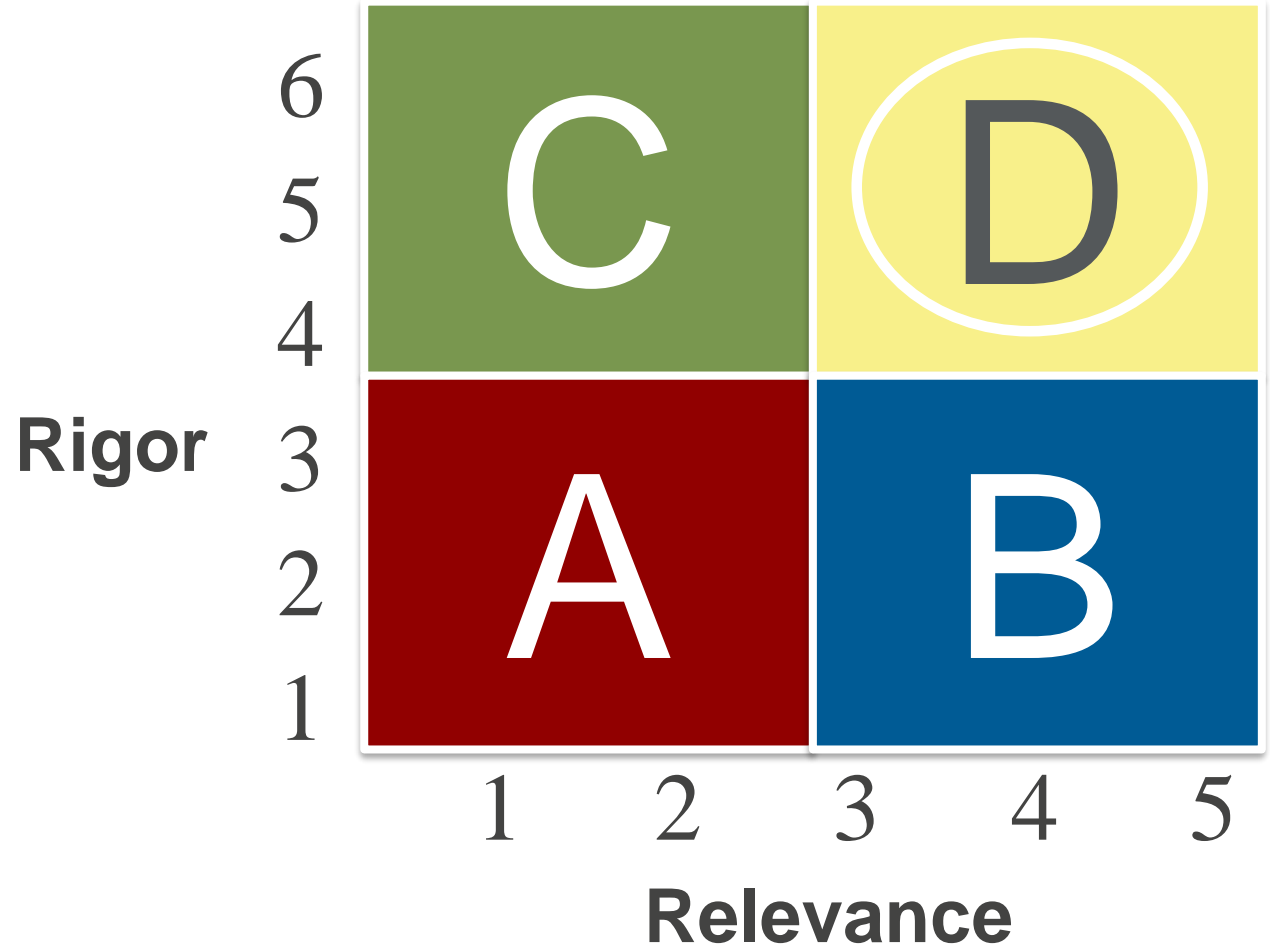
Effective use of Data



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

Levels



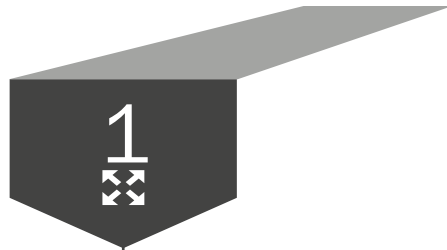
**The achievement of RIGOR
begins with RELATIONSHIPS
and is anchored in RELEVANCE.**

**Quad D does require a
fundamental shift in both
instructional focus and
methodology.**



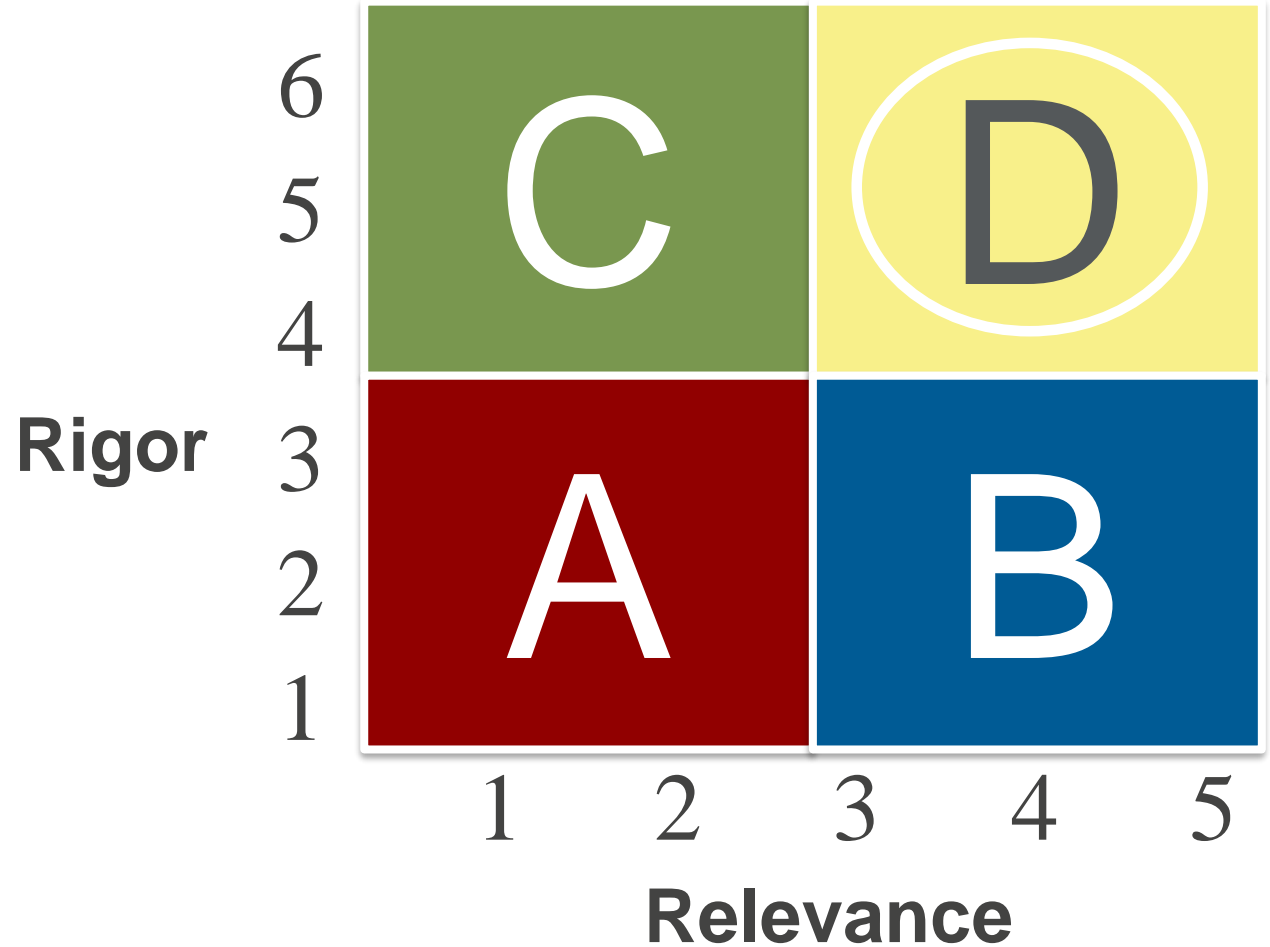
Seven Interrelated Fundamental Shifts

Seven Interrelated Fundamental Shifts

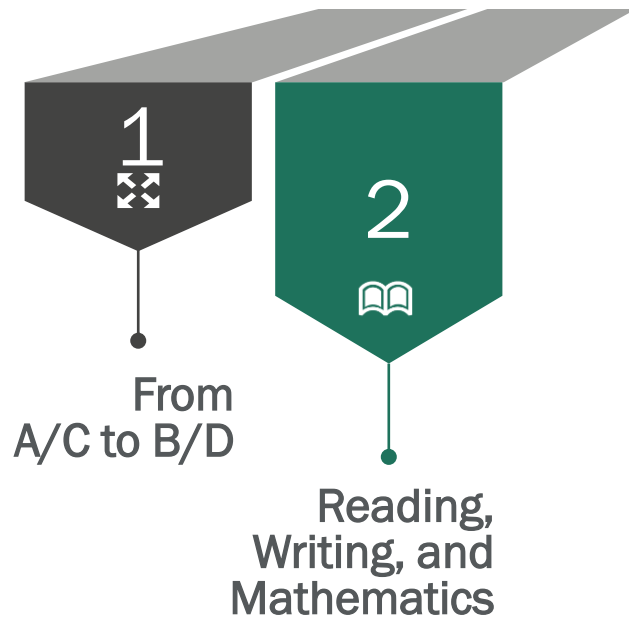


From
A/C to B/D

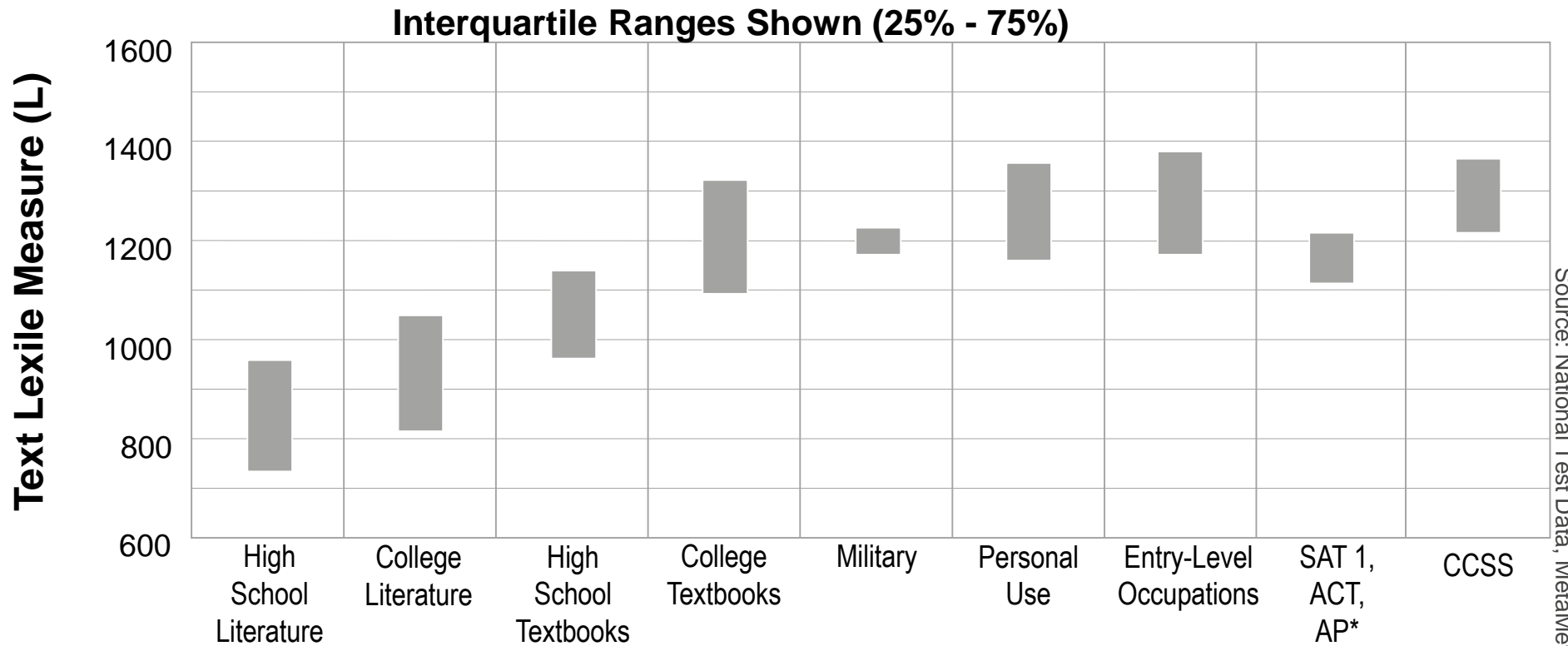
Levels



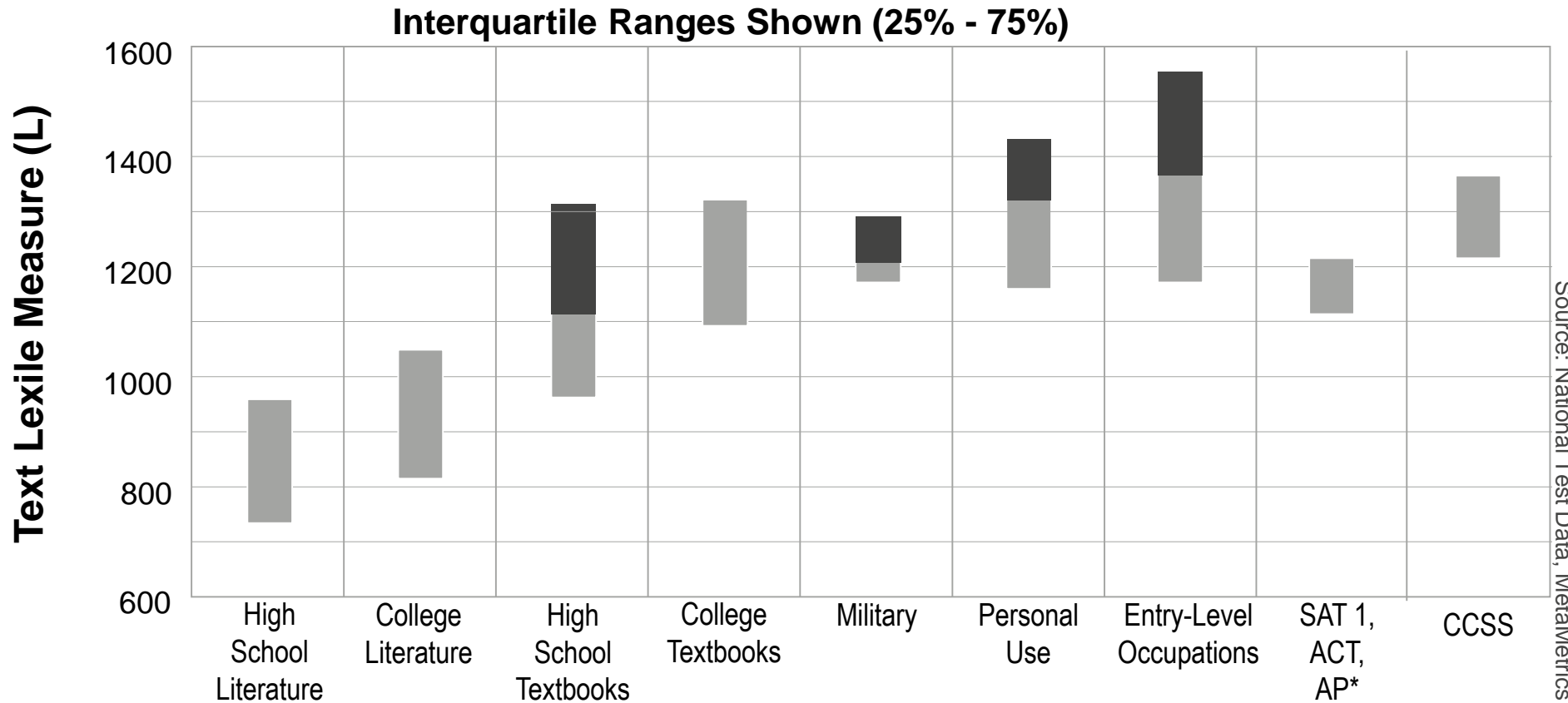
Seven Interrelated Fundamental Shifts



Reading Study Summary

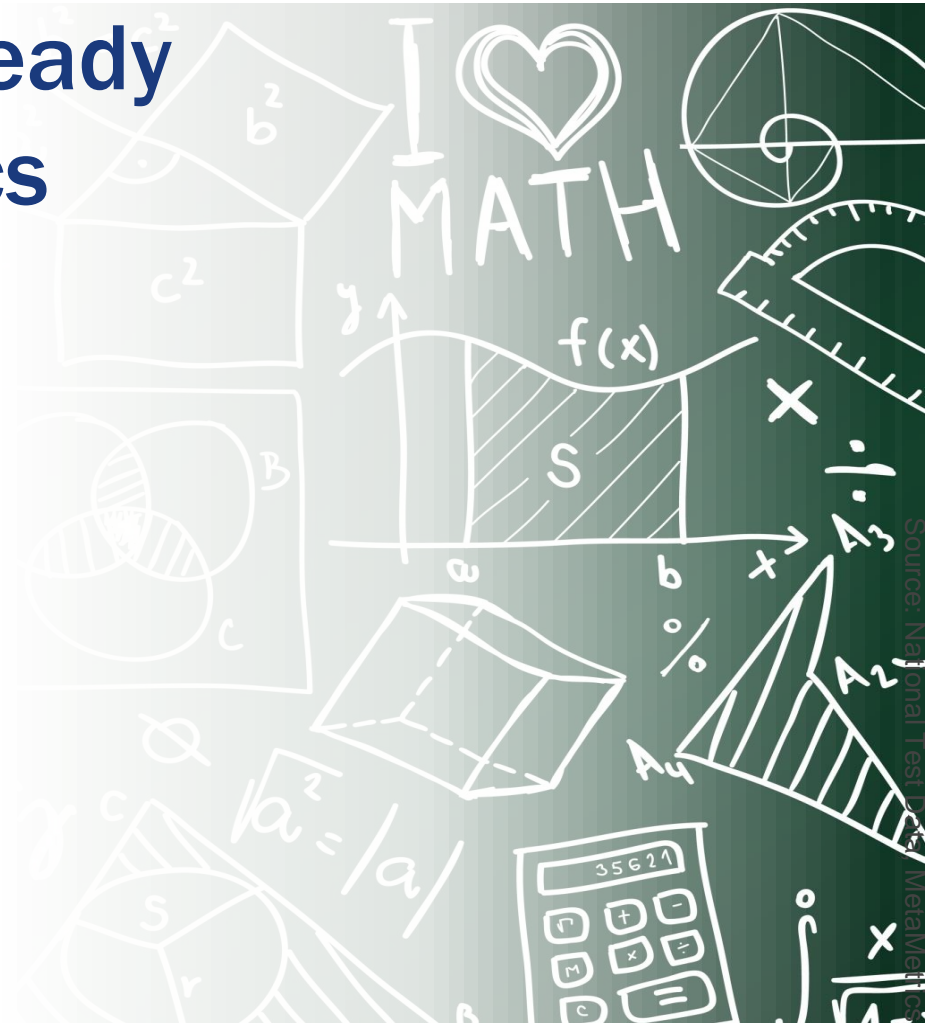


Reading Study Summary



College and Career Ready Required Mathematics

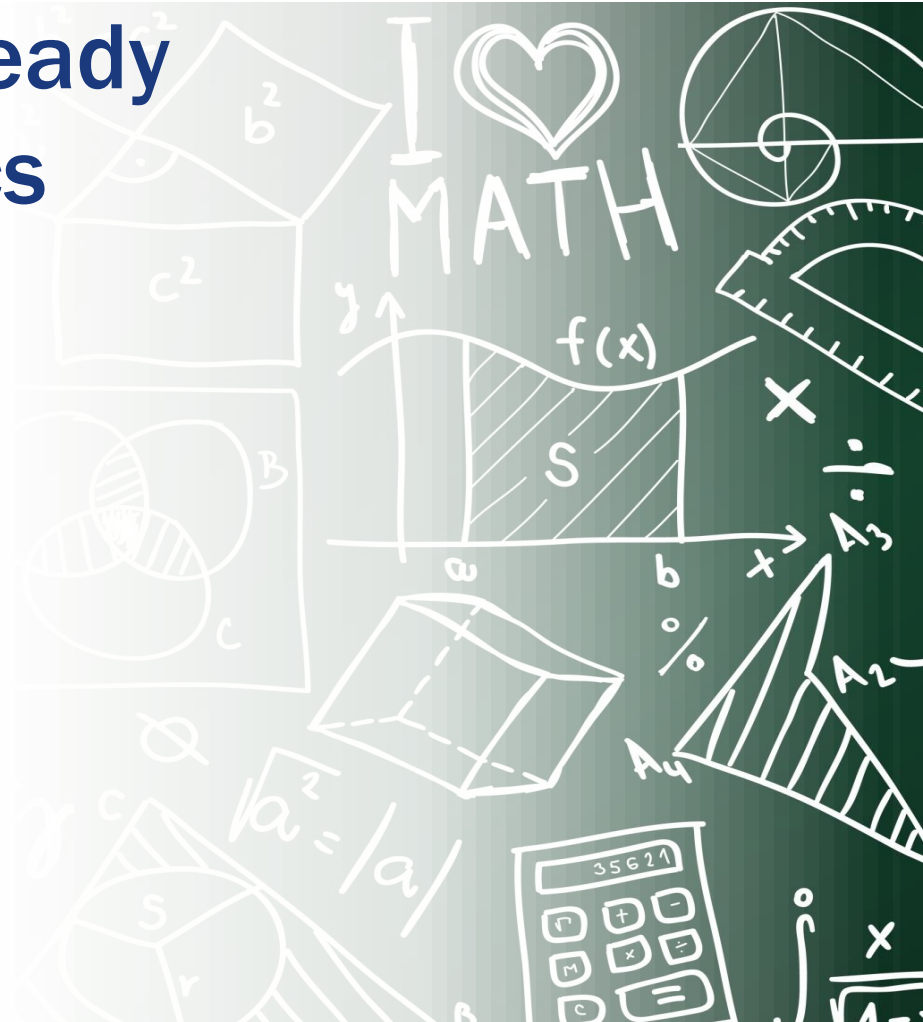
Existing Curriculum



College and Career Ready Required Mathematics

Existing Curriculum

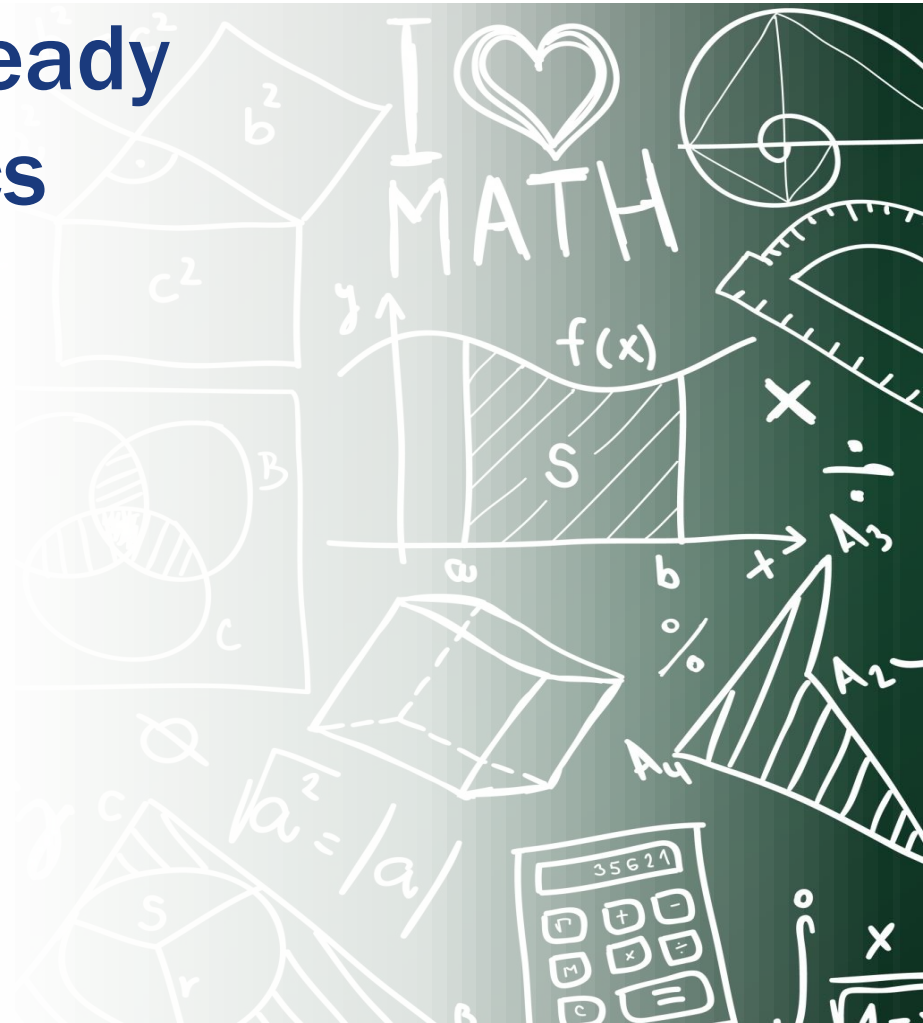
- Algebra I



College and Career Ready Required Mathematics

Existing Curriculum

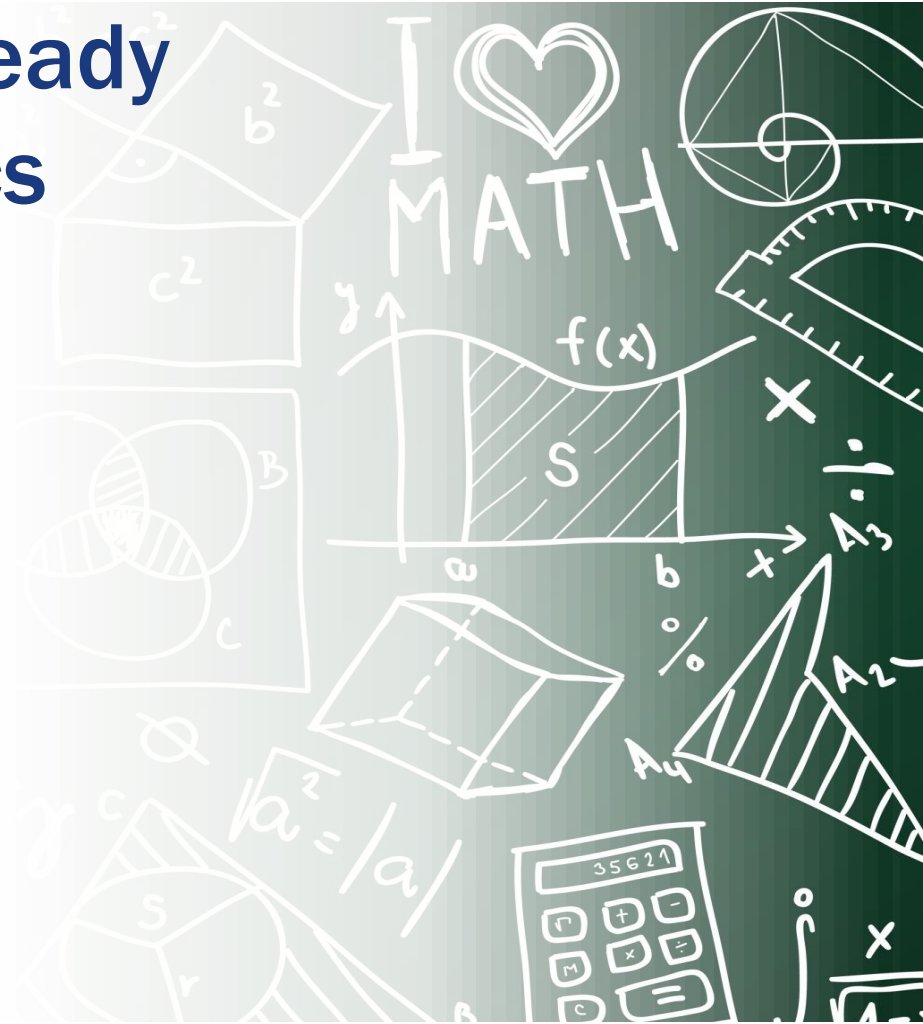
- Algebra I
- Geometry



College and Career Ready Required Mathematics

Existing Curriculum

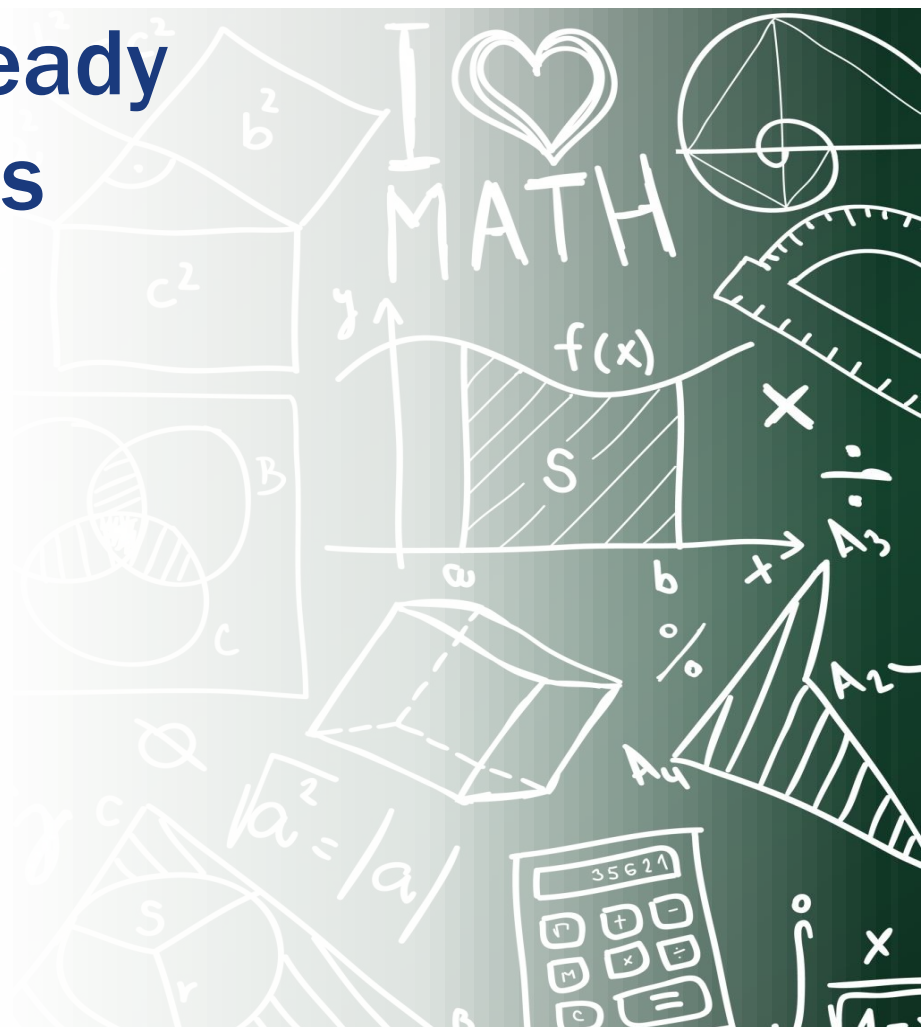
- Algebra I
- Geometry
- Algebra II



College and Career Ready Required Mathematics

Existing Curriculum

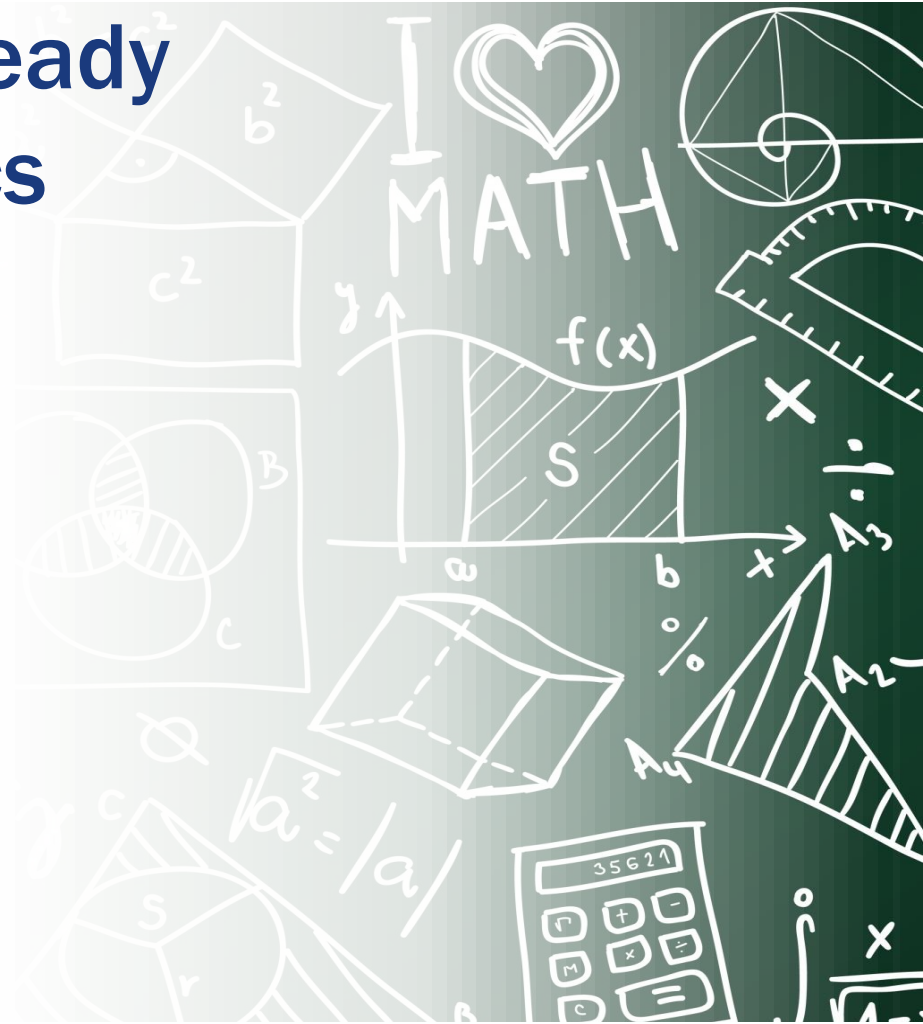
- Algebra I
- Geometry
- Algebra II
- Pre-Calculus



College and Career Ready Required Mathematics

Existing Curriculum

- Algebra I
- Geometry
- Algebra II
- Pre-Calculus
- Calculus

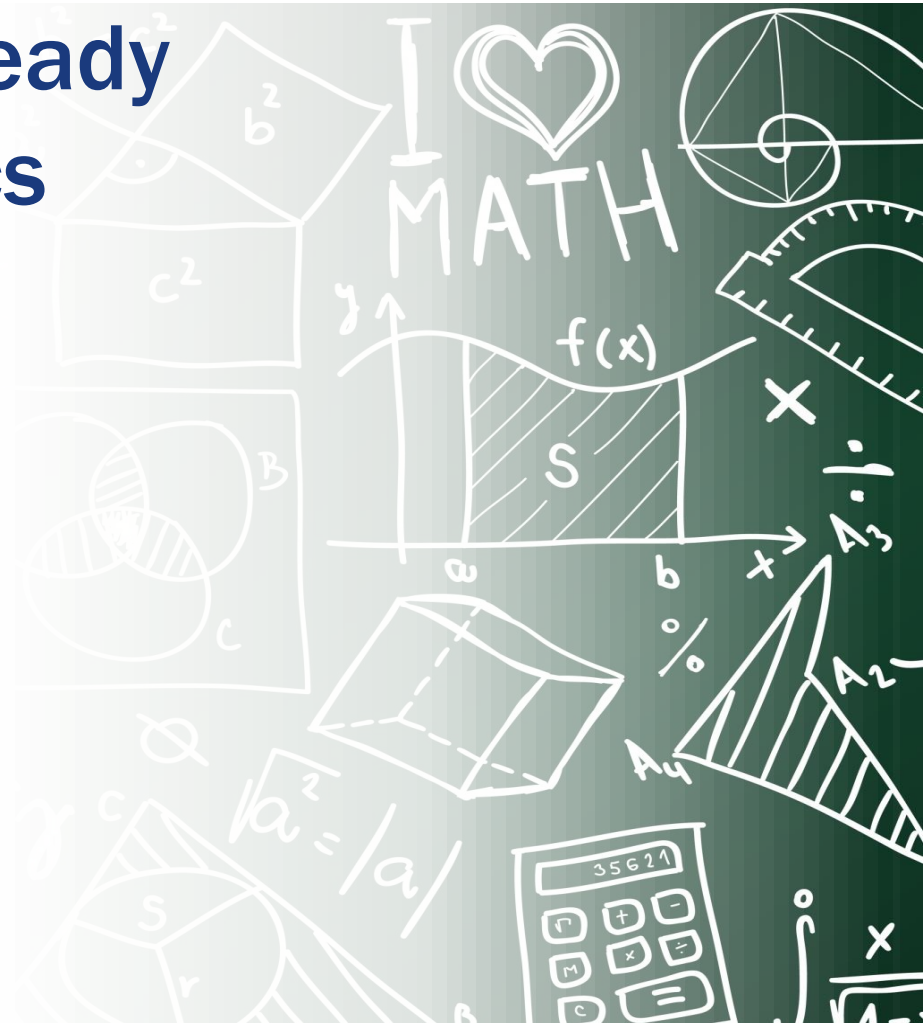


College and Career Ready Required Mathematics

Existing Curriculum

- Algebra I
- Geometry
- Algebra II
- Pre-Calculus
- Calculus

5% of the U.S.
Workforce



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

College and Career Ready Required Mathematics

Existing Curriculum

- Algebra I
- Geometry
- Algebra II
- Pre-Calculus
- Calculus

Workplace Ready

**5% of the U.S.
Workforce**



College and Career Ready Required Mathematics

Existing Curriculum

- Algebra I
- Geometry
- Algebra II
- Pre-Calculus
- Calculus

**5% of the U.S.
Workforce**

Workplace Ready

- Proportional Relationships



College and Career Ready Required Mathematics

Existing Curriculum

- Algebra I
- Geometry
- Algebra II
- Pre-Calculus
- Calculus

**5% of the U.S.
Workforce**

Workplace Ready

- Proportional Relationships
 - Percentages



College and Career Ready Required Mathematics

Existing Curriculum

- Algebra I
- Geometry
- Algebra II
- Pre-Calculus
- Calculus

**5% of the U.S.
Workforce**

Workplace Ready

- Proportional Relationships
 - Percentages
 - Graphical Representations



College and Career Ready Required Mathematics

Existing Curriculum

- Algebra I
- Geometry
- Algebra II
- Pre-Calculus
- Calculus

**5% of the U.S.
Workforce**

Workplace Ready

- Proportional Relationships
 - Percentages
 - Graphical Representations
 - Functions

College and Career Ready Required Mathematics

Existing Curriculum

- Algebra I
- Geometry
- Algebra II
- Pre-Calculus
- Calculus

**5% of the U.S.
Workforce**

Workplace Ready

- Proportional Relationships
 - Percentages
 - Graphical Representations
 - Functions
 - Expressions

College and Career Ready Required Mathematics

Existing Curriculum

- Algebra I
- Geometry
- Algebra II
- Pre-Calculus
- Calculus

**5% of the U.S.
Workforce**

Workplace Ready

- Proportional Relationships
 - Percentages
 - Graphical Representations
 - Functions
 - Expressions
 - Equations



Mastery of middle school math at the Quad B/D levels

Existing Curriculum

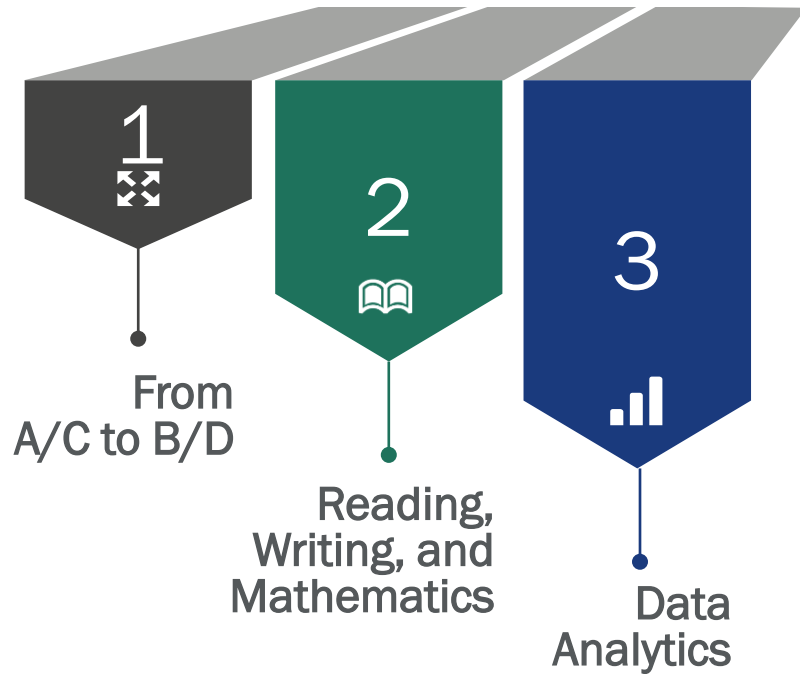
- Algebra I
- Geometry
- Algebra II
- Pre-Calculus
- Calculus

**5% of the U.S.
Workforce**

Workplace Ready

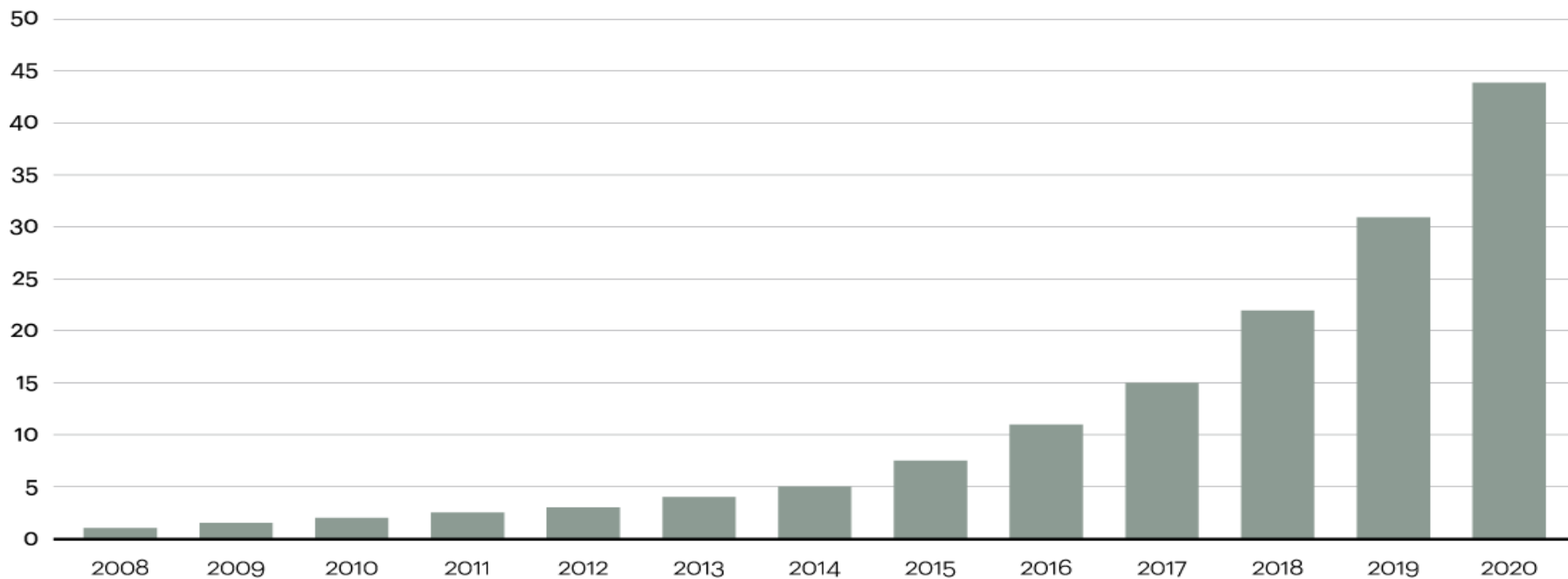
- Proportional Relationships
 - Percentages
 - Graphical Representations
 - Functions
 - Expressions
 - Equations

Seven Interrelated Fundamental Shifts



Data is growing at a 40 percent compound annual rate, reaching nearly 45 ZB by 2020

Data in zettabytes (ZB)




Source: Oracle, 2012



**International Center for
Leadership in Education**

A division of
Houghton Mifflin Harcourt



Data analytics requires you to
reduce, refine and manage
information.



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

Data Analytics

Like a Microscope: Examine smaller details than we can quickly observe (your personal shopping habits).

AND

Like a Telescope: See things in large scale showing connections not recognized before (people who buy one product and then buy another).

Data Analytics



Tables



Charts



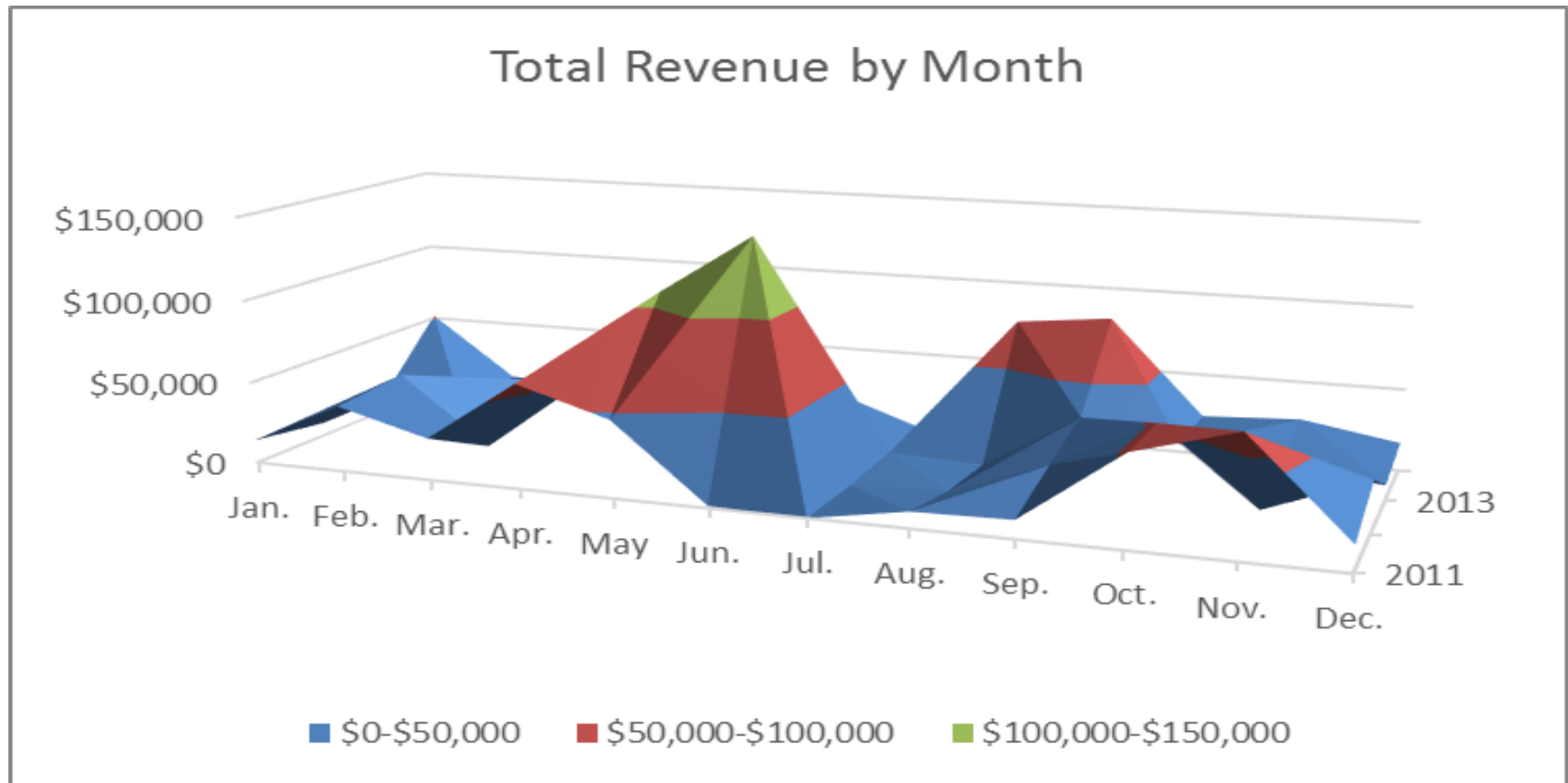
Graphs



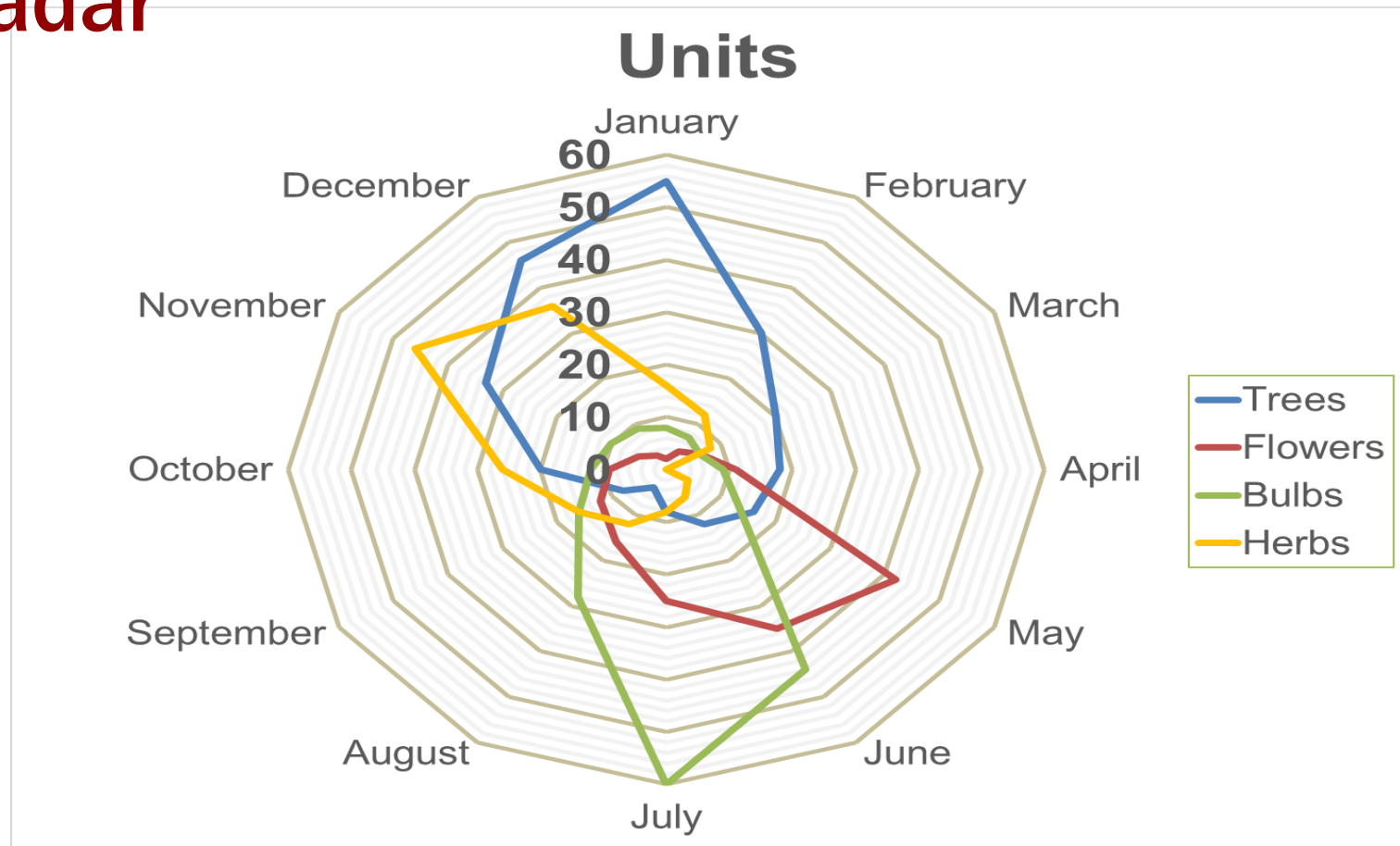
International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

3-D Surface

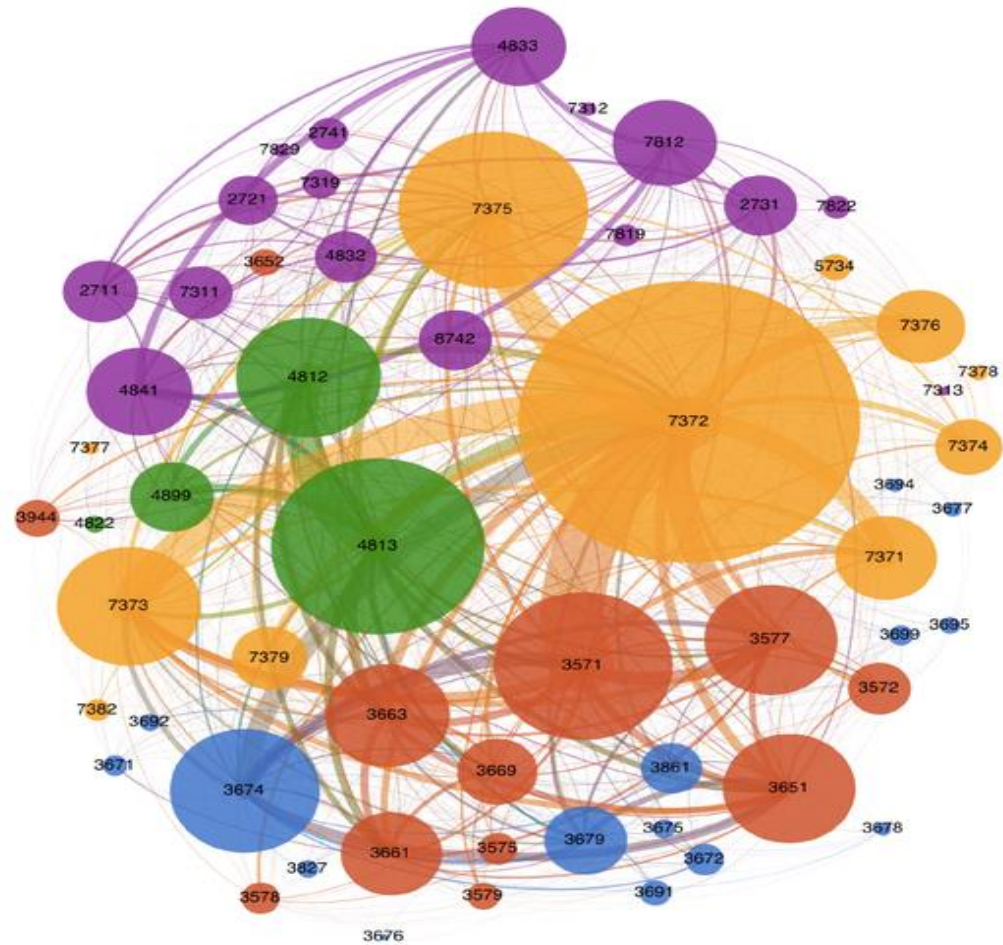


Radar



Big Data

A graphic visualization of the mobile industry.

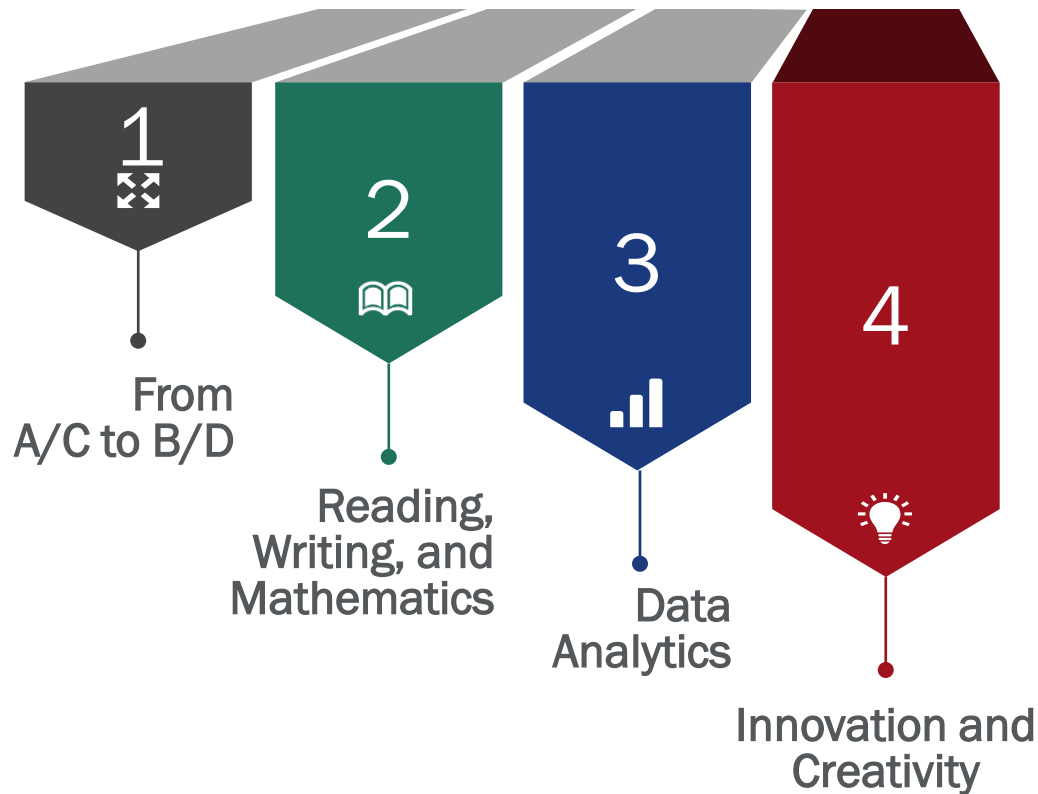


Source:
http://bits.blogs.nytimes.com/2014/09/20/making-big-data-think-bigger/?_r=0

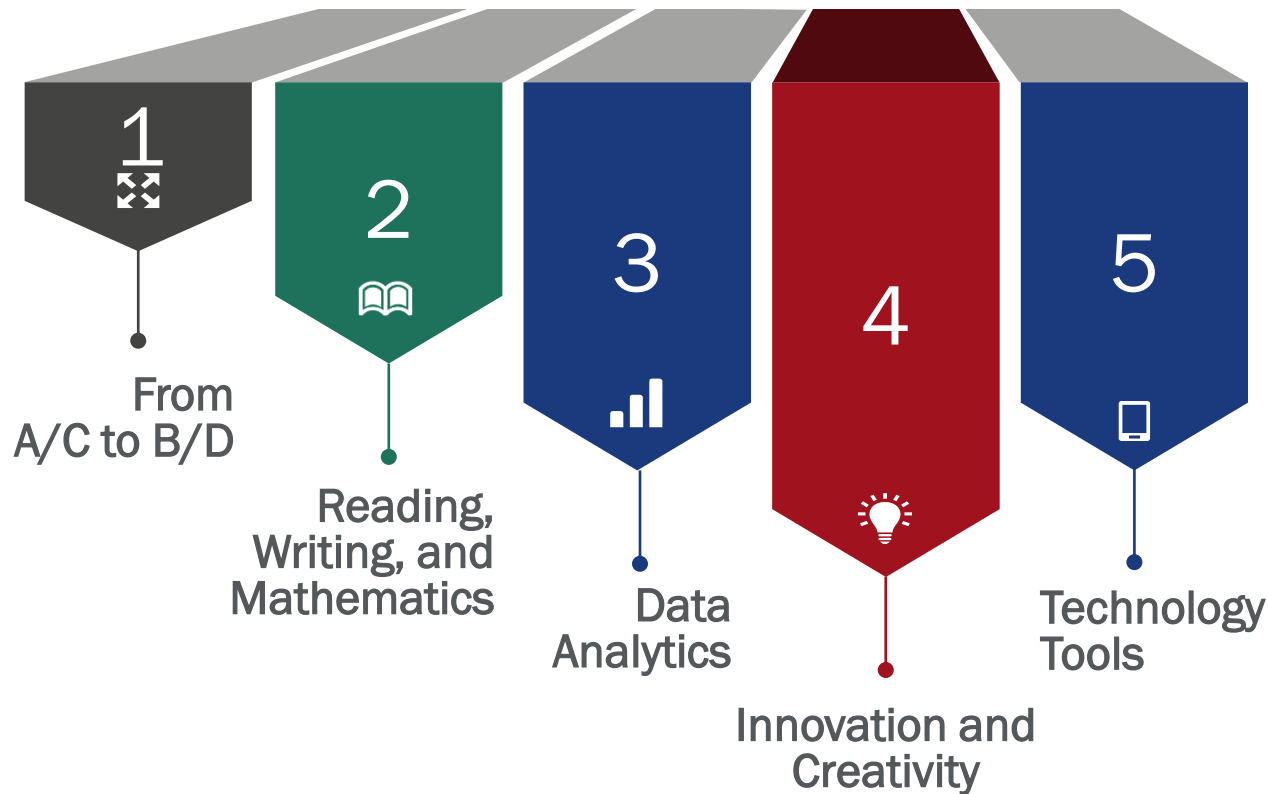
DATA ANALYTICS IS INTERDISCIPLINARY

But that is not how we are organized,
certified, tenured, or contracted.

Seven Interrelated Fundamental Shifts



Seven Interrelated Fundamental Shifts



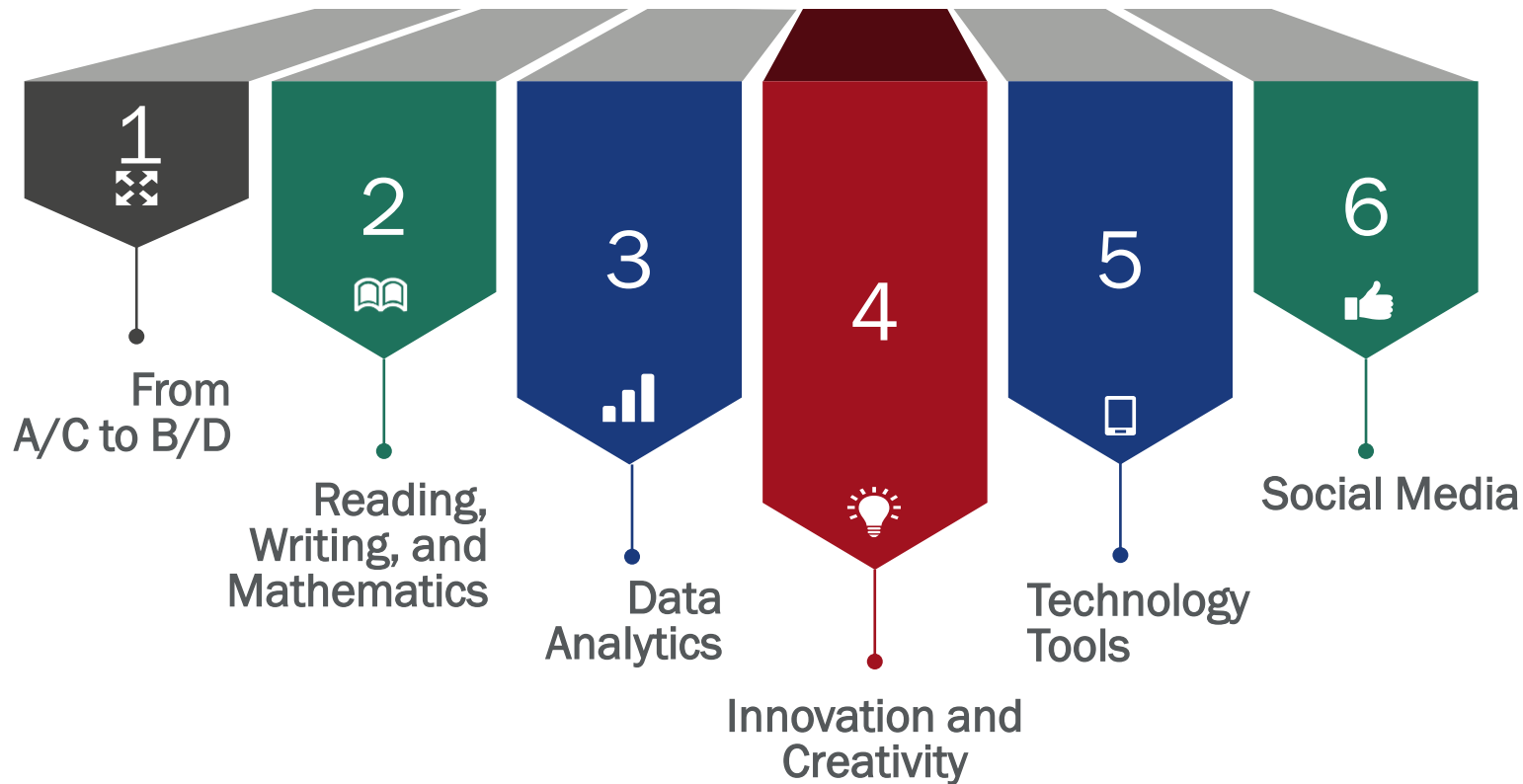


International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt



Seven Interrelated Fundamental Shifts



Social Issues

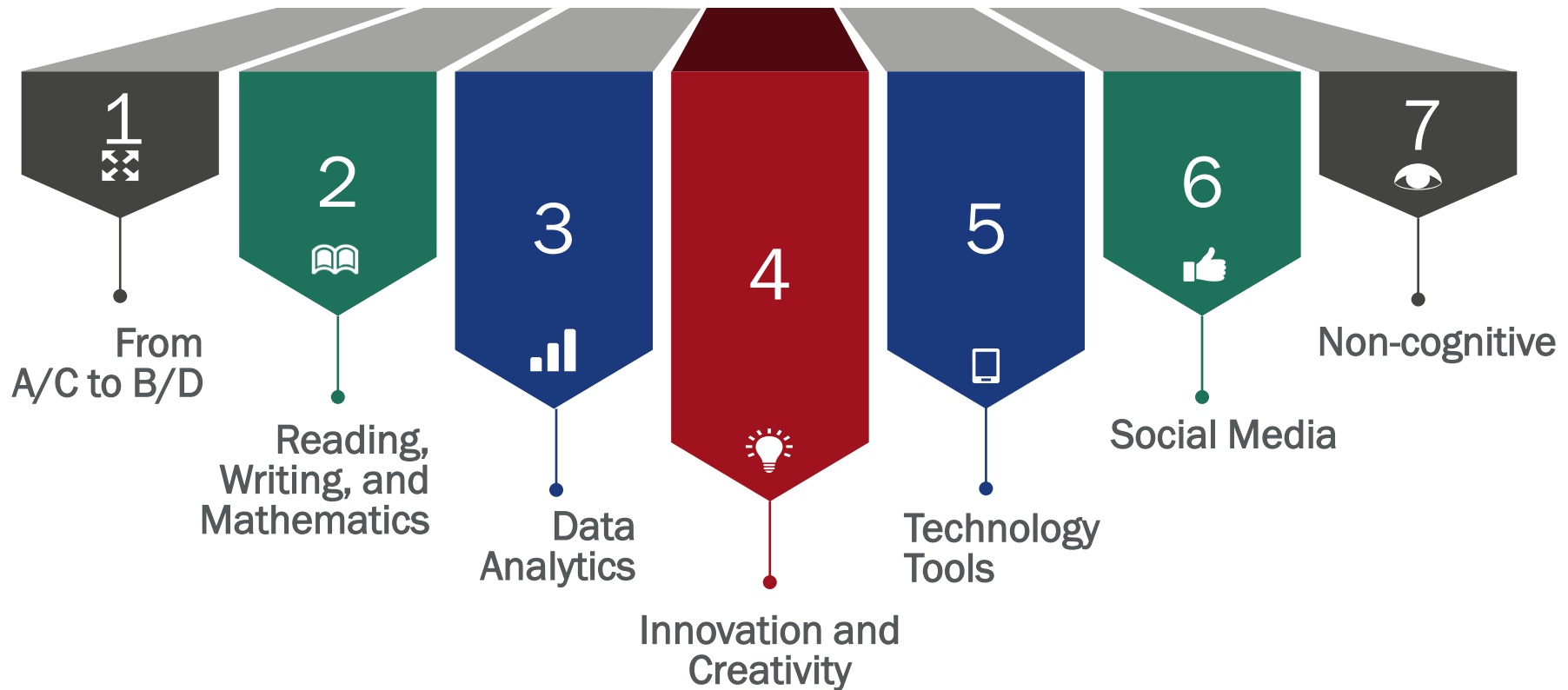


Sex Education

Drug Addiction

Social Media
Education

Seven Interrelated Fundamental Shifts



Personal Skills

- Responsibility
- Contemplation
- Initiative
- Perseverance
- Optimism
- Courage
- Respect
- Compassion
- Adaptability
- Honesty
- Trustworthiness
- Loyalty

Fundamental Shift in Instruction



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

Fundamental Shift in Instruction



Open Educational Resources



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

Open Educational Resources

Teachers Pay Teachers



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

Scope and Sequence



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

Fundamental Shift in Instruction



Open Educational Resources



Text to Digital

Fundamental Shift in Instruction



Open Educational Resources



Text to Digital



Virtual to Augmented Reality

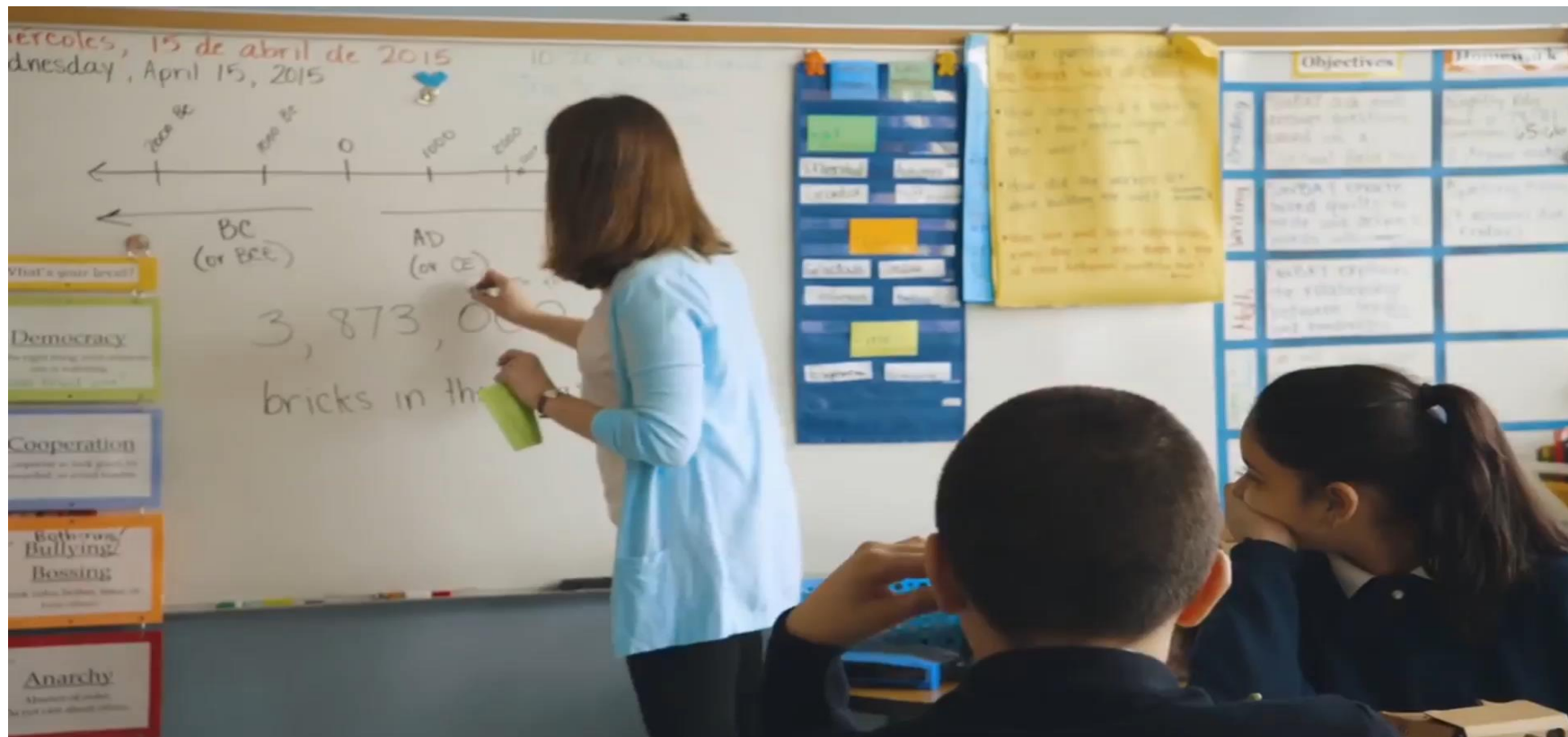
Google Cardboard



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt





Augmented Reality



Fundamental Shift in Instruction



Open Educational Resources



Text to Digital



Virtual to Augmented Reality



Gamification

Gamification



Engaging



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

Gamification



Engaging

Personalized



Gamification



Engaging

Personalized

Built on Growth Model



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

Gamification



Engaging

Personalized

Built on Growth Model

Tied to Standards



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

Fundamental Shift in Instruction



Open Educational Resources



Text to Digital



Virtual to Augmented Reality



Gamification

Online



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

**Florida, Michigan, Virginia and
Alabama require one online
course as a graduation
requirement.
Idaho requires two.**



Fundamental Shift in Instruction



Open Educational Resources



Text to Digital



Virtual to Augmented Reality



Gamification

Online



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt



STANDARDS

TESTS

**TEACHER
EVALUATIONS**



**Let's help every teacher
become successful at
making all students all
they are capable of being.**



**International Center for
Leadership in Education**

A division of
Houghton Mifflin Harcourt

It all begins with the teacher.



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt



**The achievement of RIGOR
begins with RELATIONSHIPS
and is anchored in RELEVANCE.**



**Let's help every teacher
become successful at
making all students all
they are capable of being.**



**International Center for
Leadership in Education**

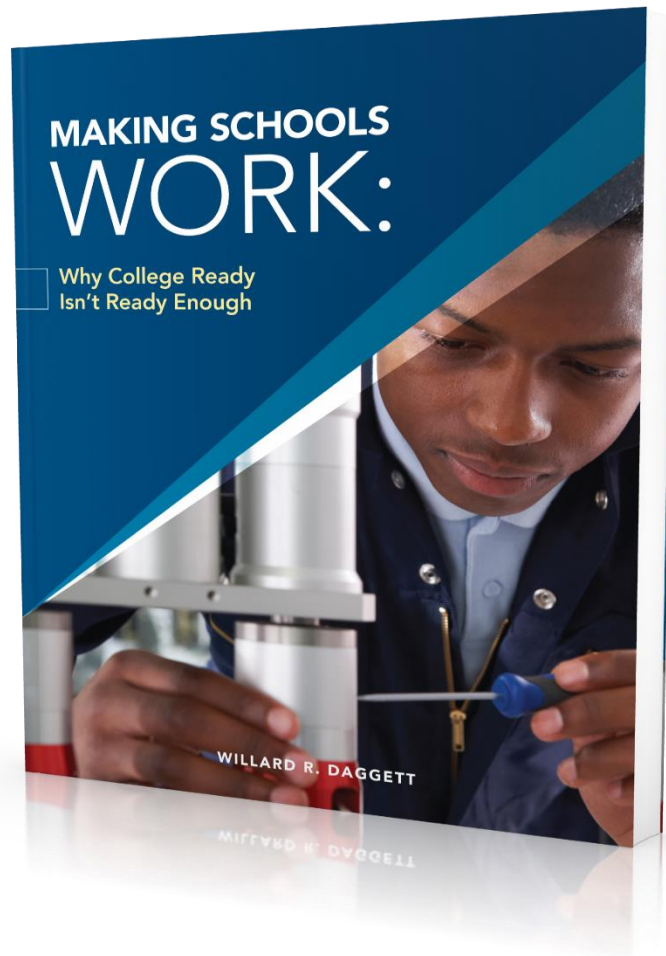
A division of
Houghton Mifflin Harcourt

WHY - WHAT - HOW



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt



Begin With the End in Mind



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

Learning Criteria

Foundation Learning

(Achievement in the core subjects of English language arts, math and science, and others identified by the school)

Learning Criteria

Foundation Learning	Stretch Learning
(Achievement in the core subjects of English language arts, math and science, and others identified by the school)	(Demonstration of rigorous and relevant learning beyond the minimum requirements)

Learning Criteria

Foundation Learning	Stretch Learning	Learner Engagement
(Achievement in the core subjects of English language arts, math and science, and others identified by the school)	(Demonstration of rigorous and relevant learning beyond the minimum requirements)	(The extent to which students are motivated and committed to learning; have a sense of belonging and accomplishment; and have relationships with adults, peers, and parents that support learning)





International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt



Learning Criteria

Foundation Learning	Stretch Learning	Learner Engagement	Personal Skill Development
(Achievement in the core subjects of English language arts, math and science, and others identified by the school)	(Demonstration of rigorous and relevant learning beyond the minimum requirements)	(The extent to which students are motivated and committed to learning; have a sense of belonging and accomplishment; and have relationships with adults, peers, and parents that support learning)	(Measures of personal, social, service, and leadership skills and demonstrations of positive behaviors and attitudes)



Personal Skills

- Responsibility
- Contemplation
- Initiative
- Perseverance
- Optimism
- Courage
- Respect
- Compassion
- Adaptability
- Honesty
- Trustworthiness
- Loyalty



International Center for
Leadership in Education

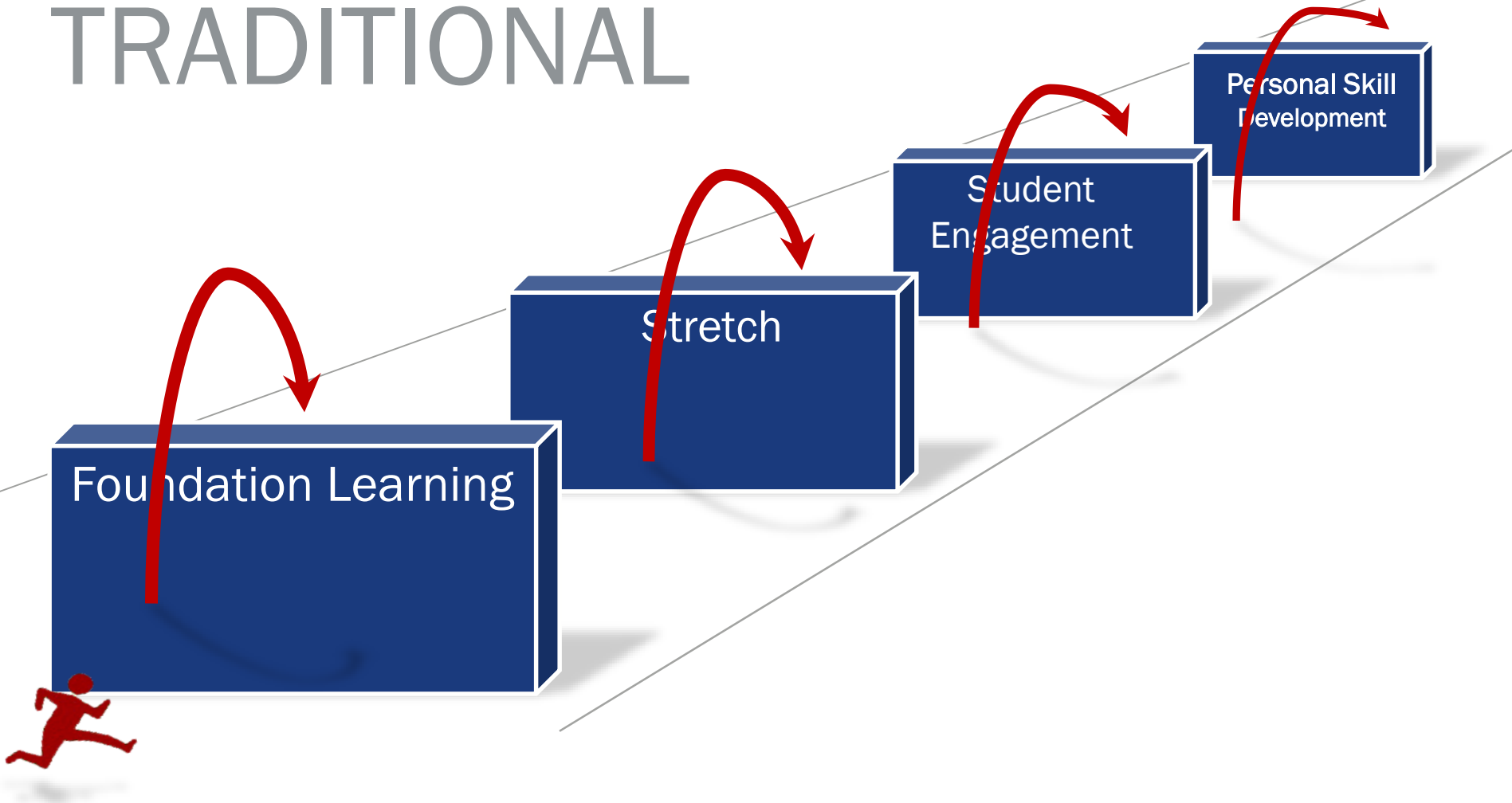
A division of
Houghton Mifflin Harcourt

Learning Criteria

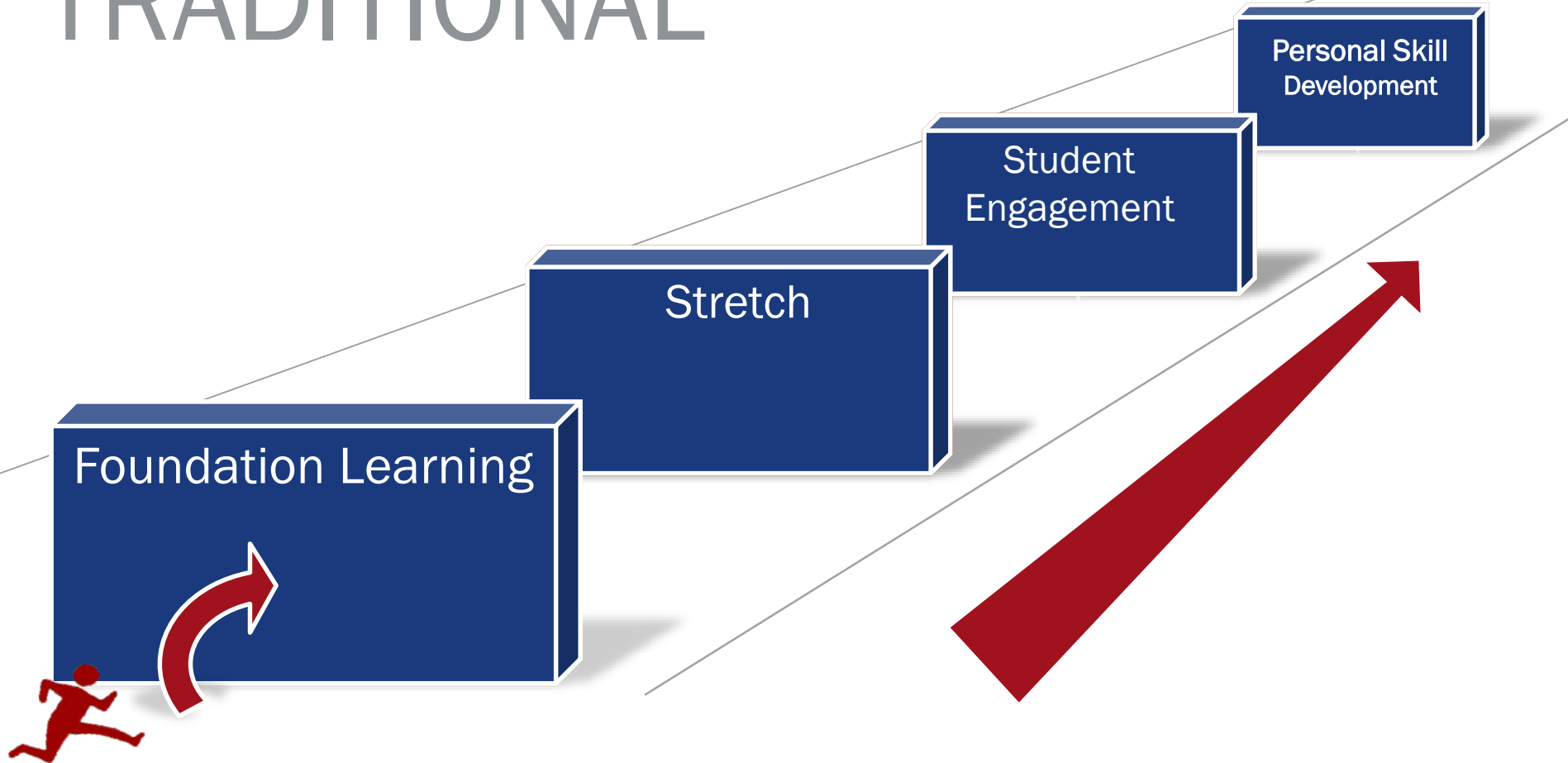
Foundation Learning	Stretch Learning	Learner Engagement	Personal Skill Development
(Achievement in the core subjects of English language arts, math and science, and others identified by the school)	(Demonstration of rigorous and relevant learning beyond the minimum requirements)	(The extent to which students are motivated and committed to learning; have a sense of belonging and accomplishment; and have relationships with adults, peers, and parents that support learning)	(Measures of personal, social, service, and leadership skills and demonstrations of positive behaviors and attitudes)



TRADITIONAL



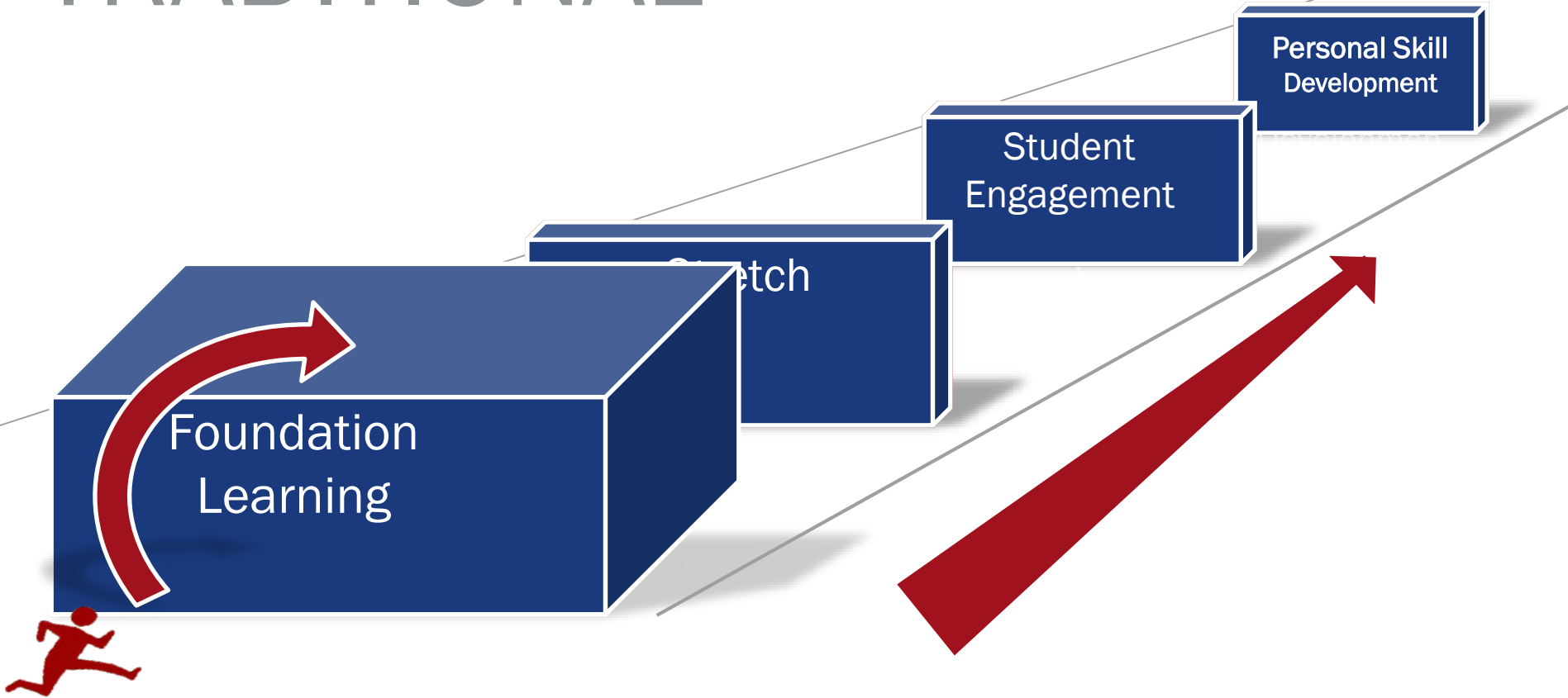
TRADITIONAL



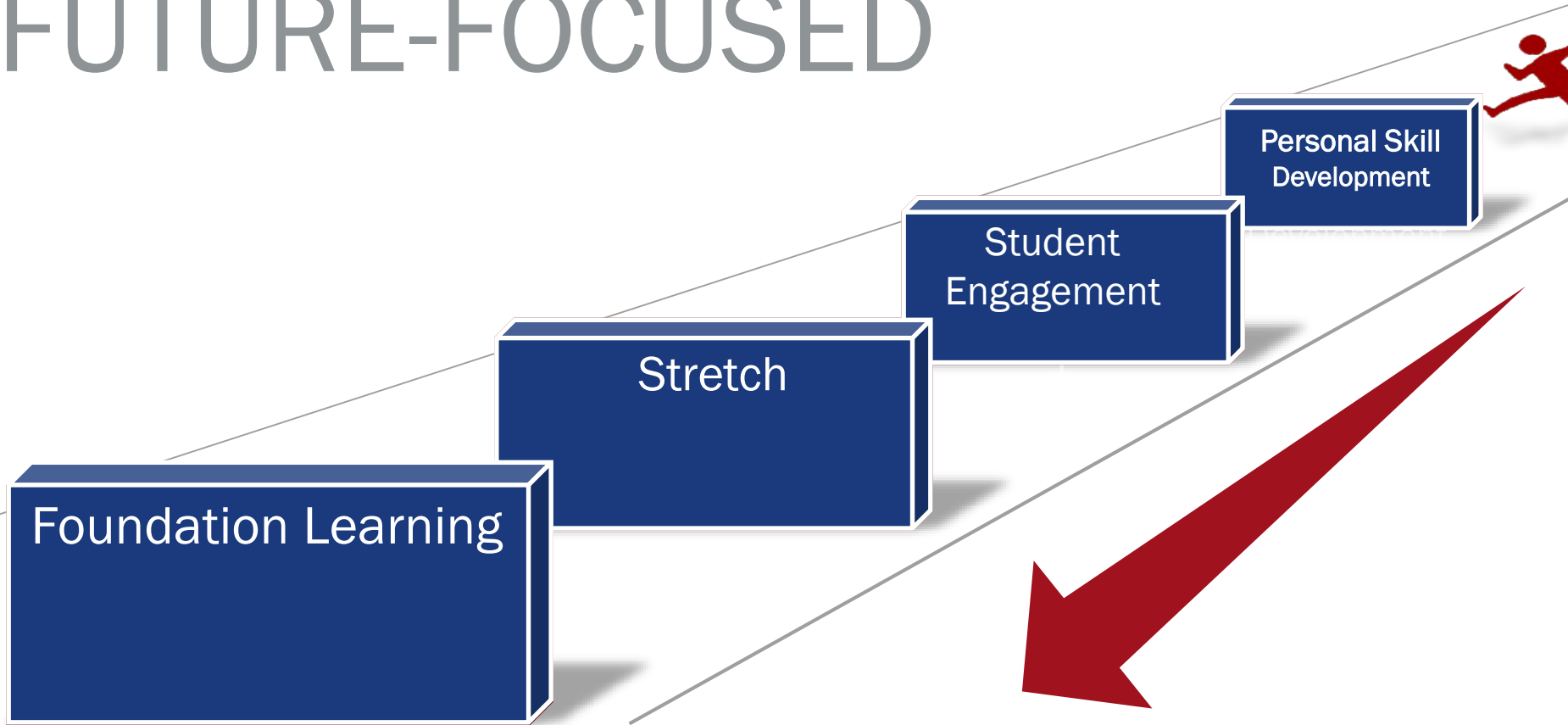
International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

TRADITIONAL



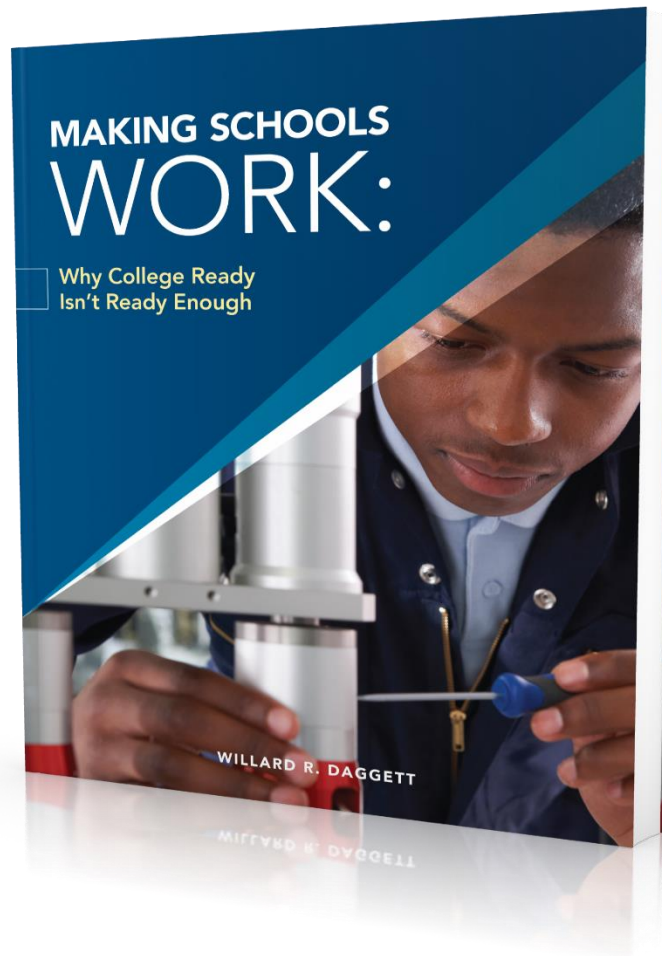
FUTURE-FOCUSED





International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt



Systemwide

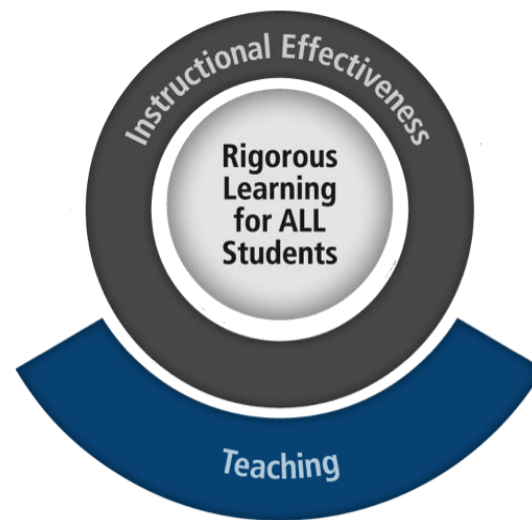
**Rigorous
Learning
for ALL
Students**

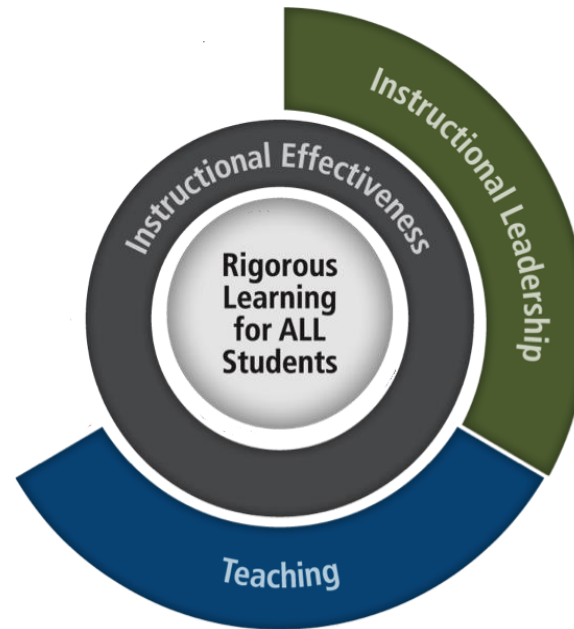


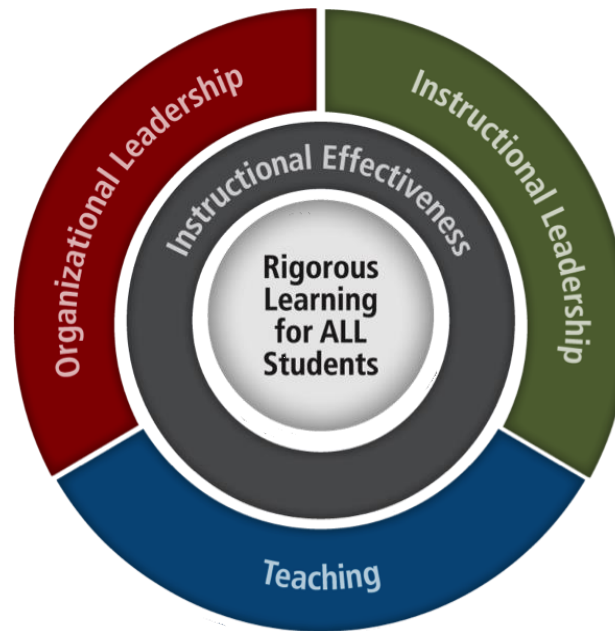
**International Center for
Leadership in Education**

A division of
Houghton Mifflin Harcourt









Focus

What is
effective?



Hattie's Research



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

Focus

What is
effective?

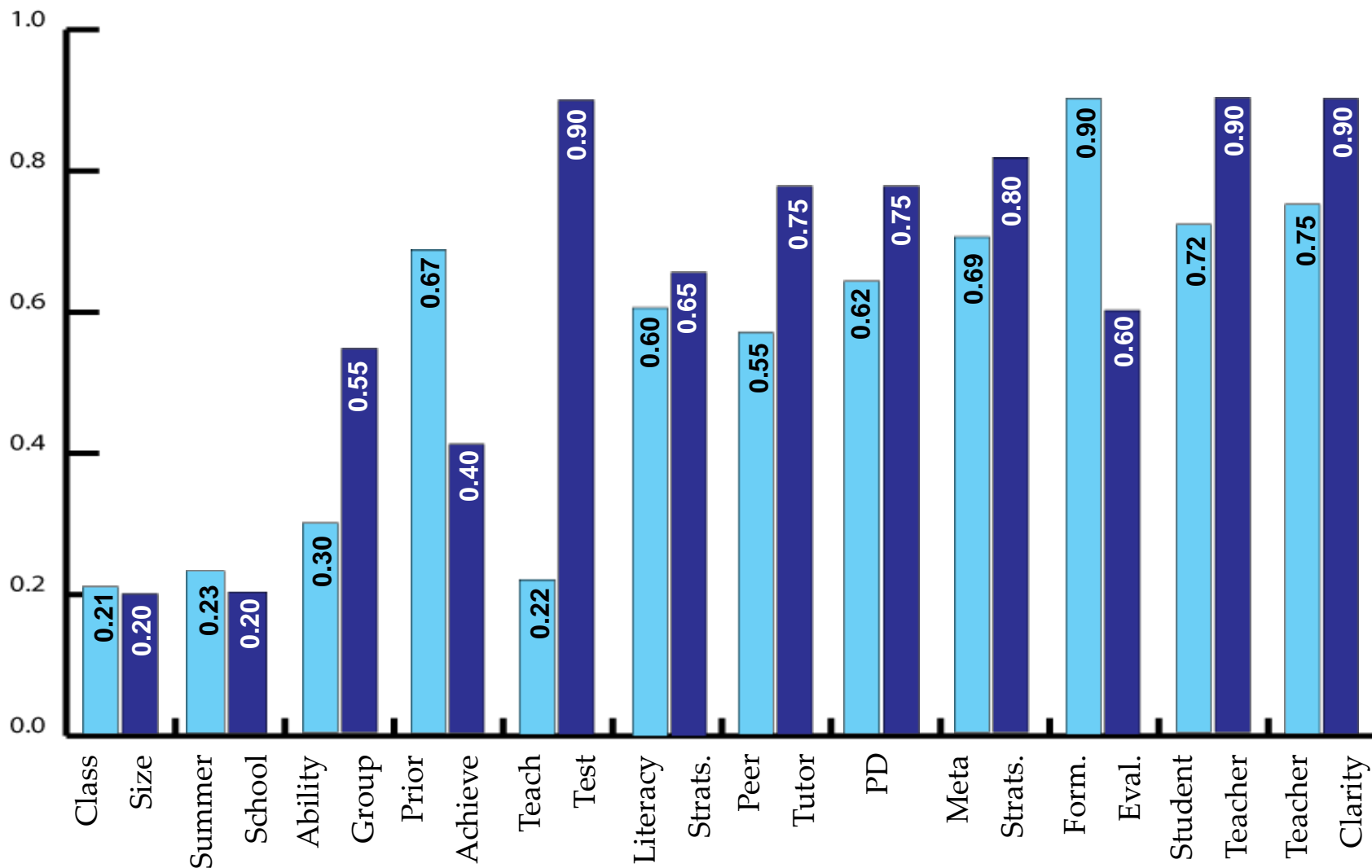
What can you
impact?

What is most
efficient?



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt



Greatest Impact

Culture of
High
Expectations

Relevance
of
Instruction

Strong
Relationships

Findings

Teachers are our greatest hope



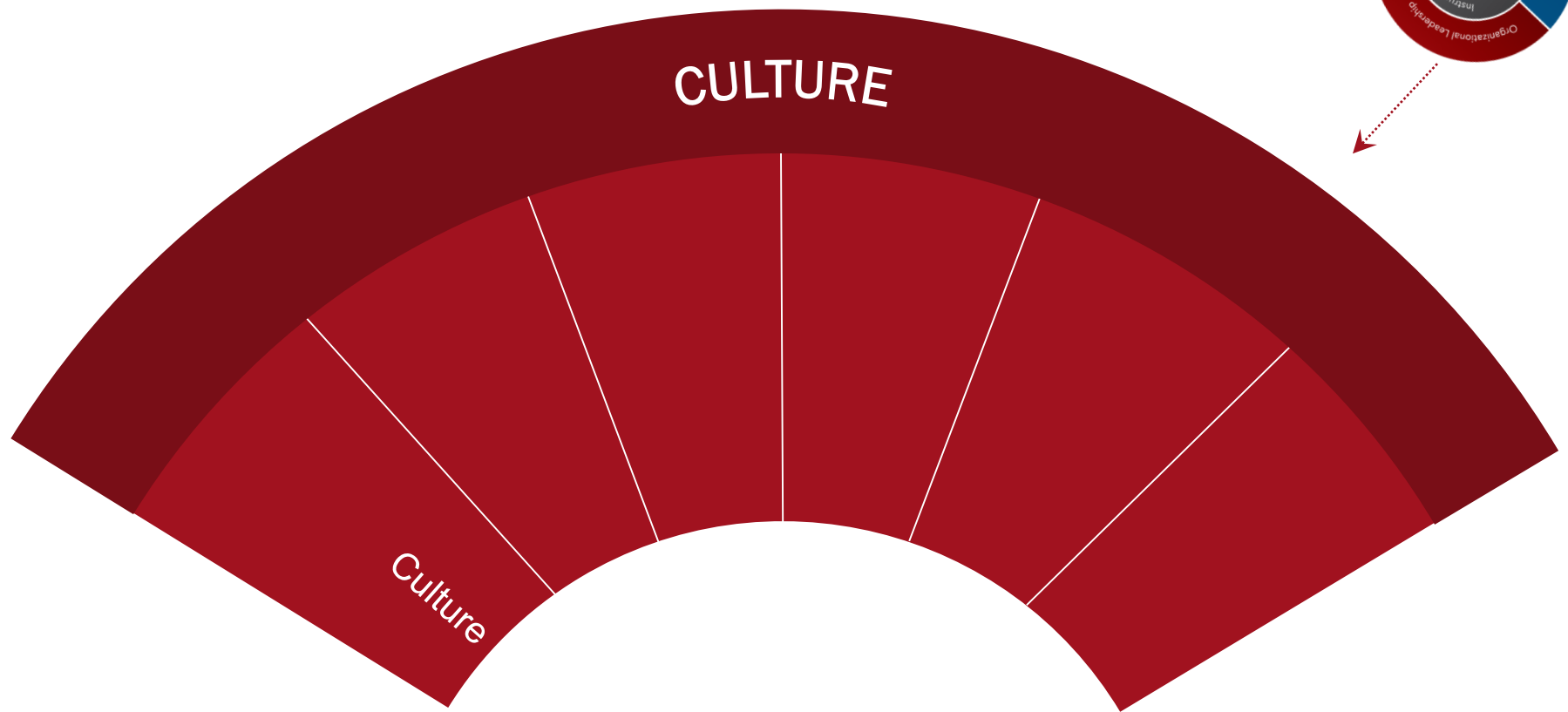
20-Day Plan



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

Organizational Leadership



The Winds of Change



Accelerating
Impact of
Technology



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

The Winds of Change

Accelerating
Impact of
Technology

Higher
Education
Challenge



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

The Winds of Change

Accelerating
Impact of
Technology

Higher
Education
Challenge

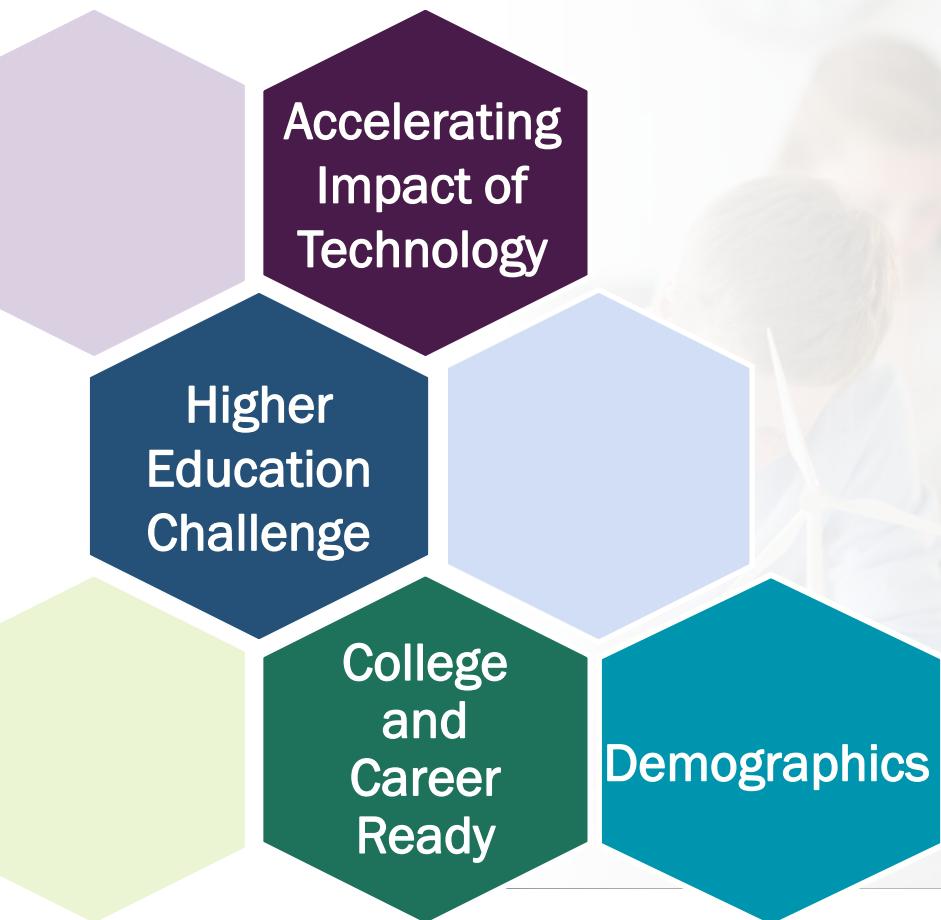
College
and
Career
Ready



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

The Winds of Change



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

Life Expectancy

Birth	Female	Male
1950	71.1	65.6
1960	73.1	66.6
1970	74.7	67.1
1980	77.4	70.0
1990	78.9	72.0
2000	79.5	73.9
2010	81.4	75.5

Source: International Monetary Fund

**45 Million,
Growing to
80 Million by 2030**



**International Center for
Leadership in Education**

A division of
Houghton Mifflin Harcourt

**Today's 30-year-old is
yesterday's 20-year-old.**



**International Center for
Leadership in Education**

A division of
Houghton Mifflin Harcourt

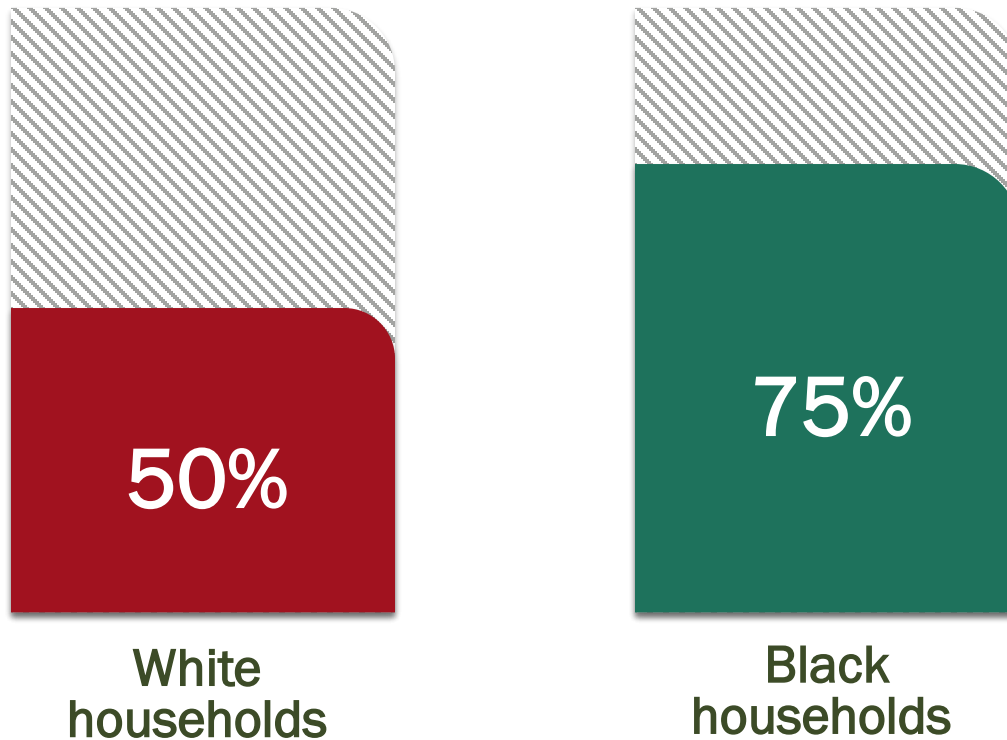
Retirement Savings - Less than \$10,000



White
households

Sources: *Time*, May 18, 2015
National Institute on Retirement Security

Retirement Savings - Less than \$10,000

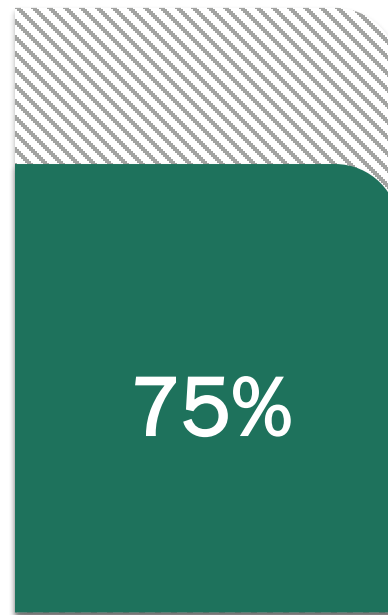


Sources: *Time*, May 18, 2015
National Institute on Retirement Security

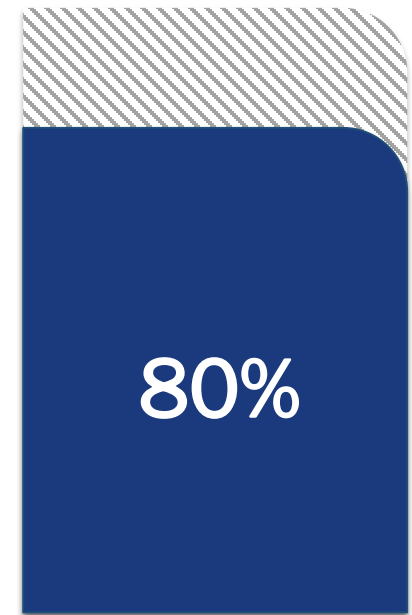
Retirement Savings - Less than \$10,000



White
households



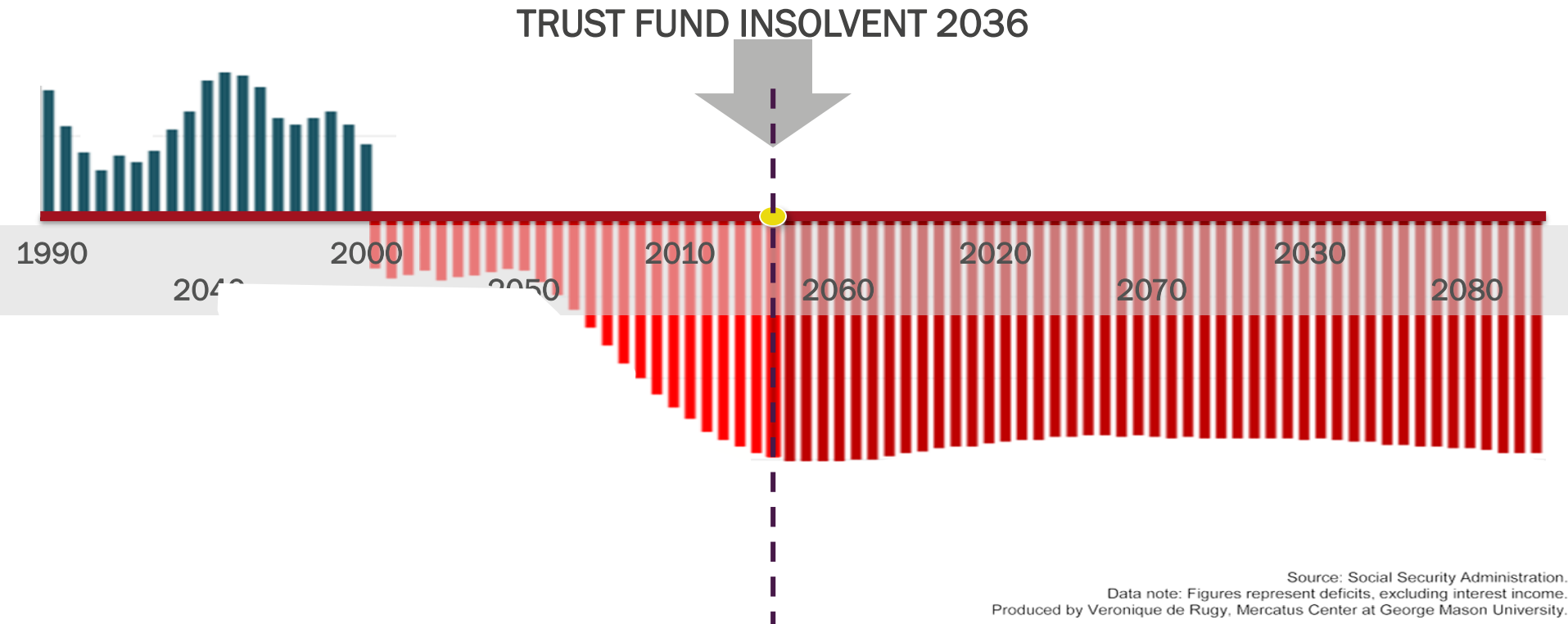
Black
households



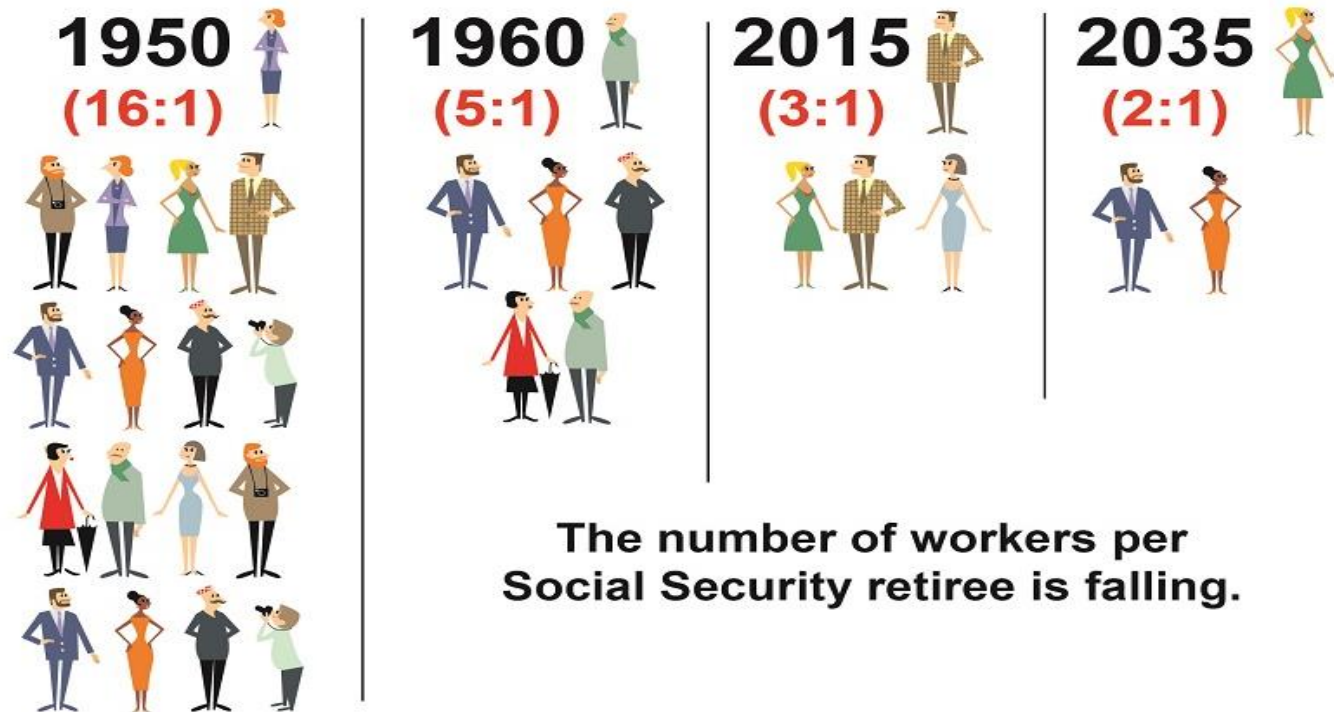
Hispanic
households

Sources: *Time*, May 18, 2015
National Institute on Retirement Security

Social Security Solvency

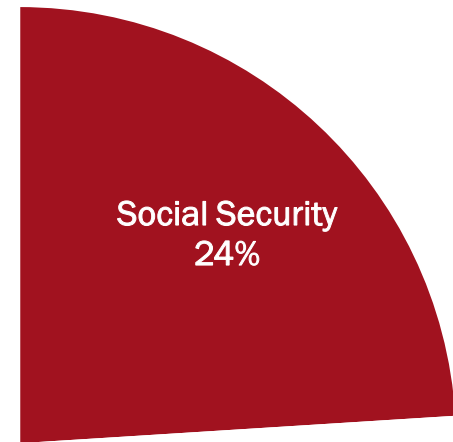


The Population is Aging

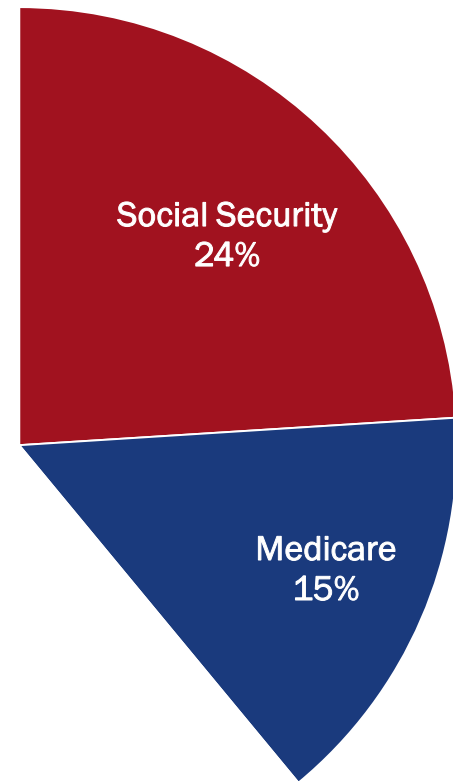


Source: 2016 Social Security Trustees Report

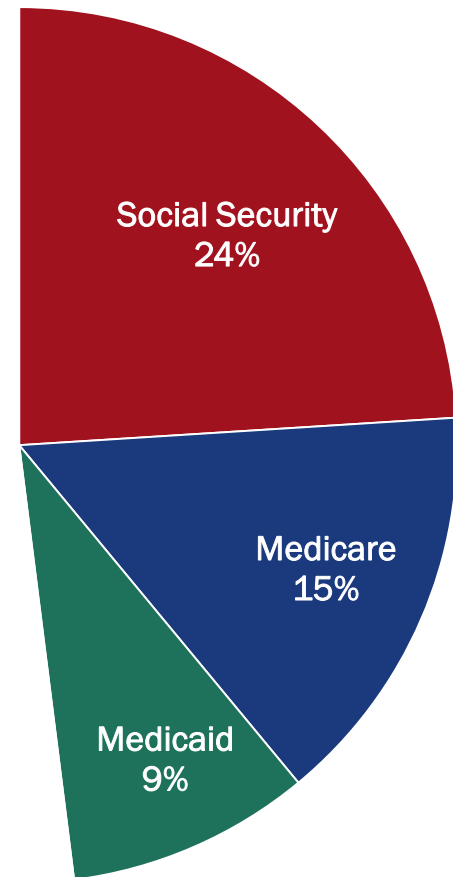
Federal Budget



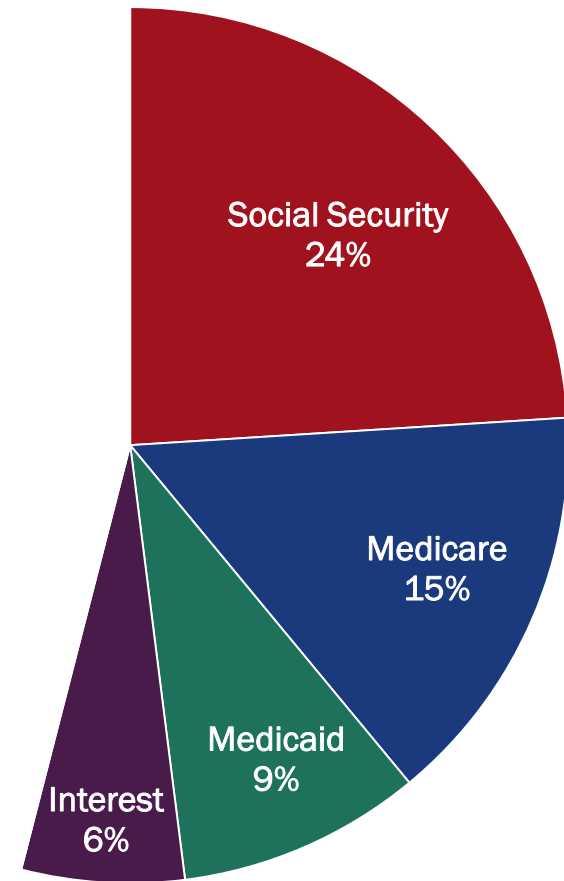
Federal Budget



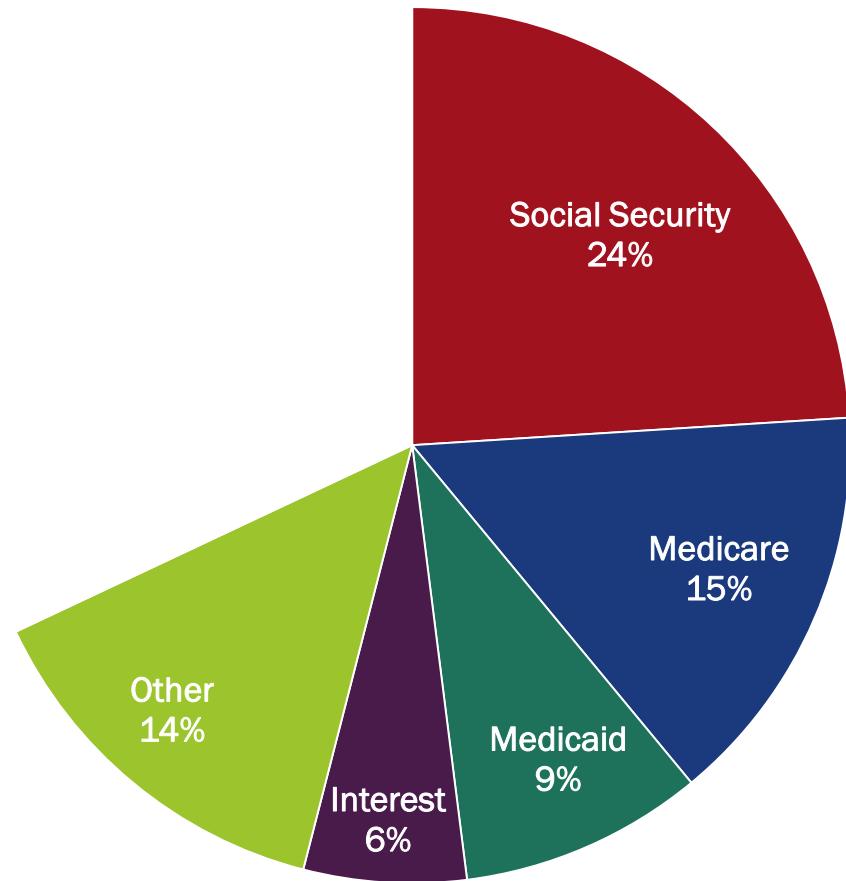
Federal Budget



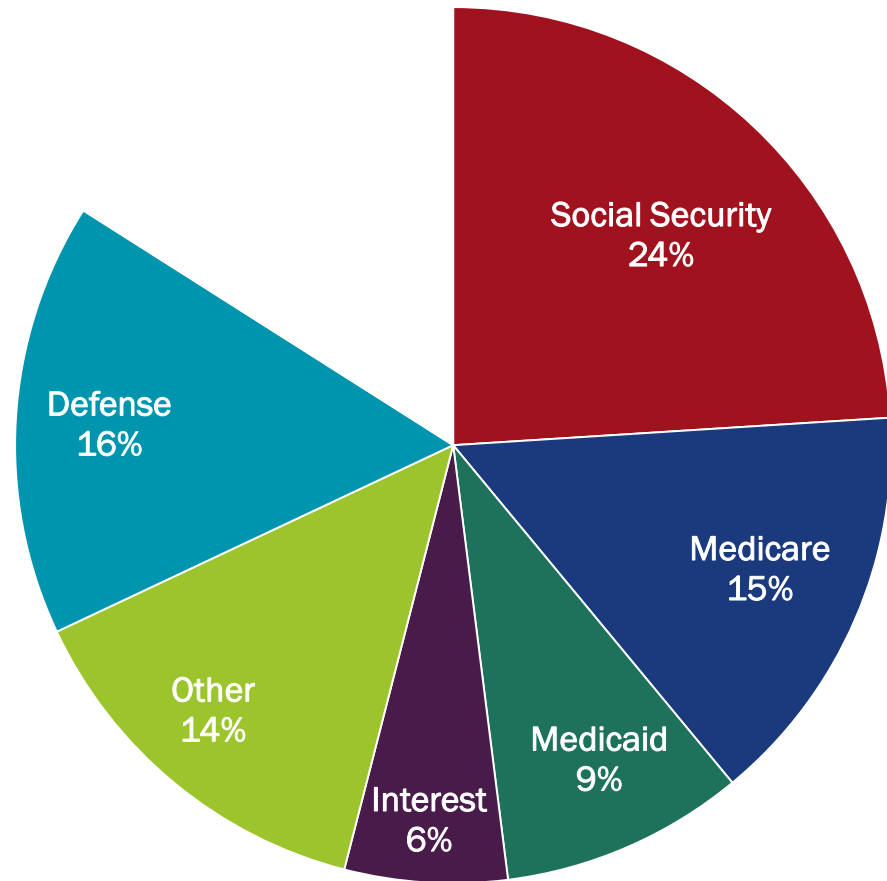
Federal Budget



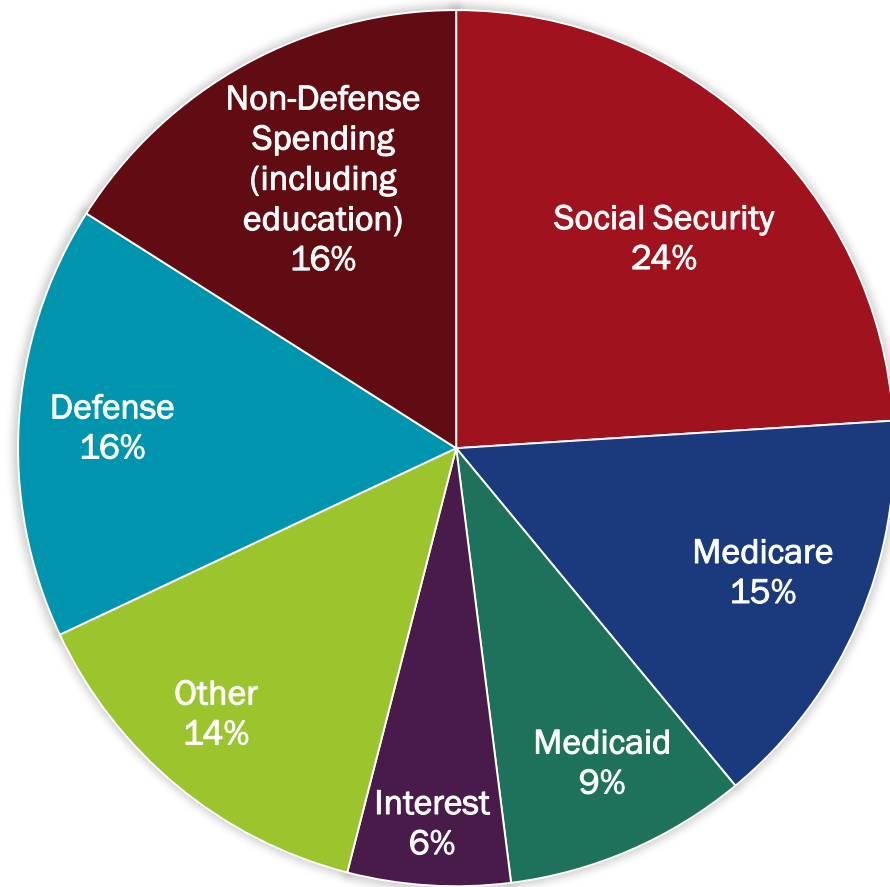
Federal Budget



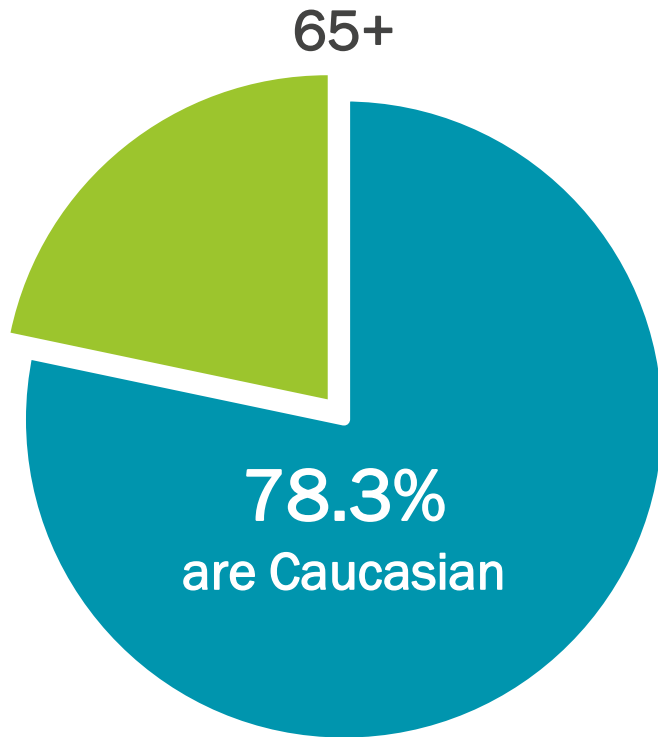
Federal Budget



Federal Budget

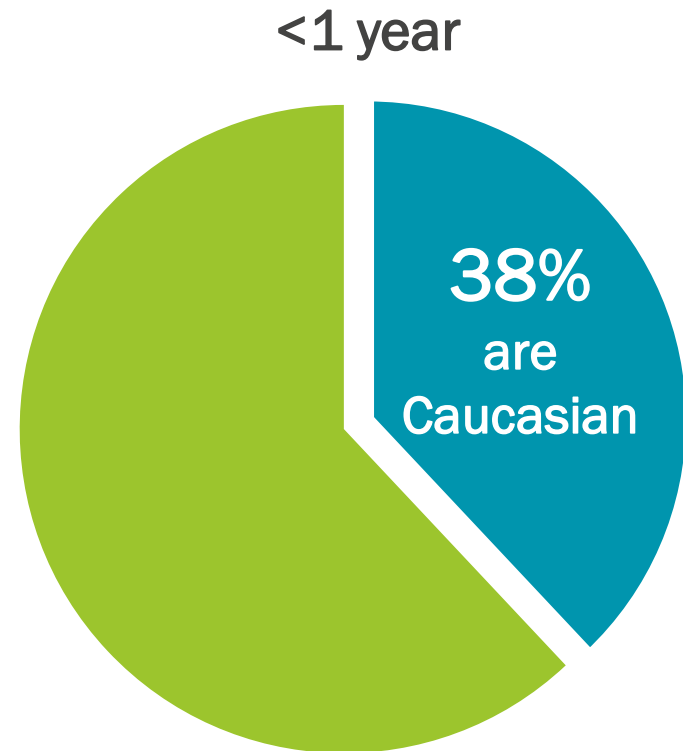
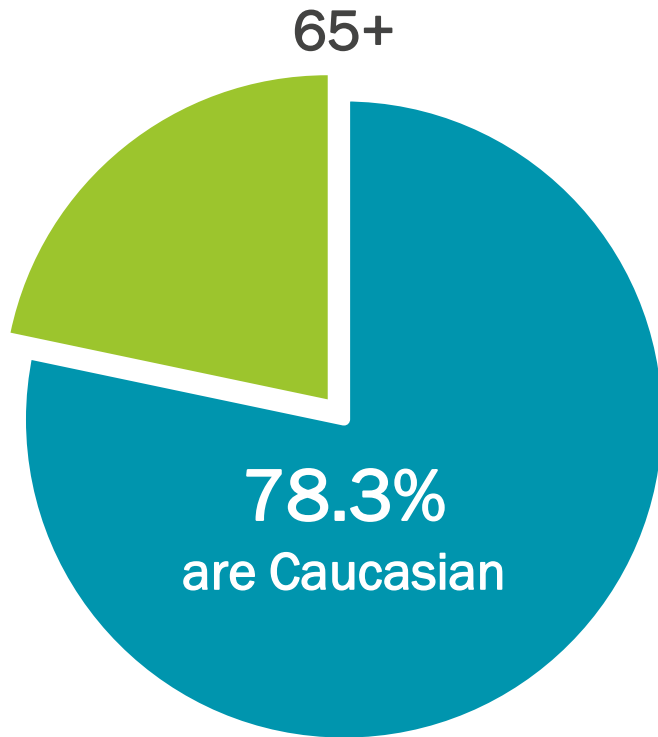


Changing Demographics



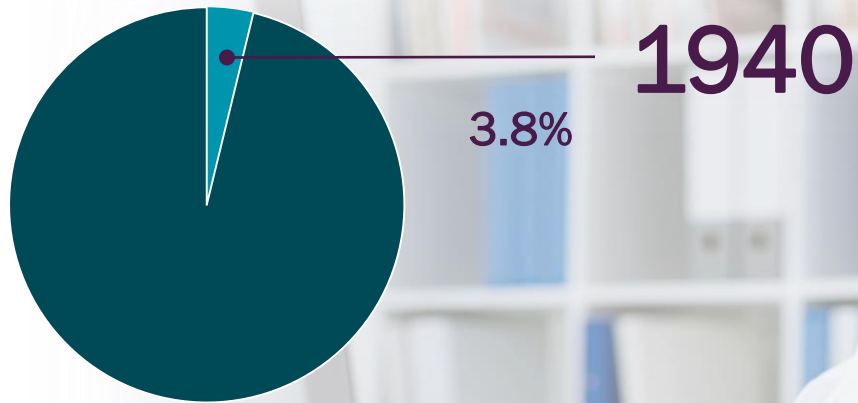
Source: U.S. Census Bureau

Changing Demographics



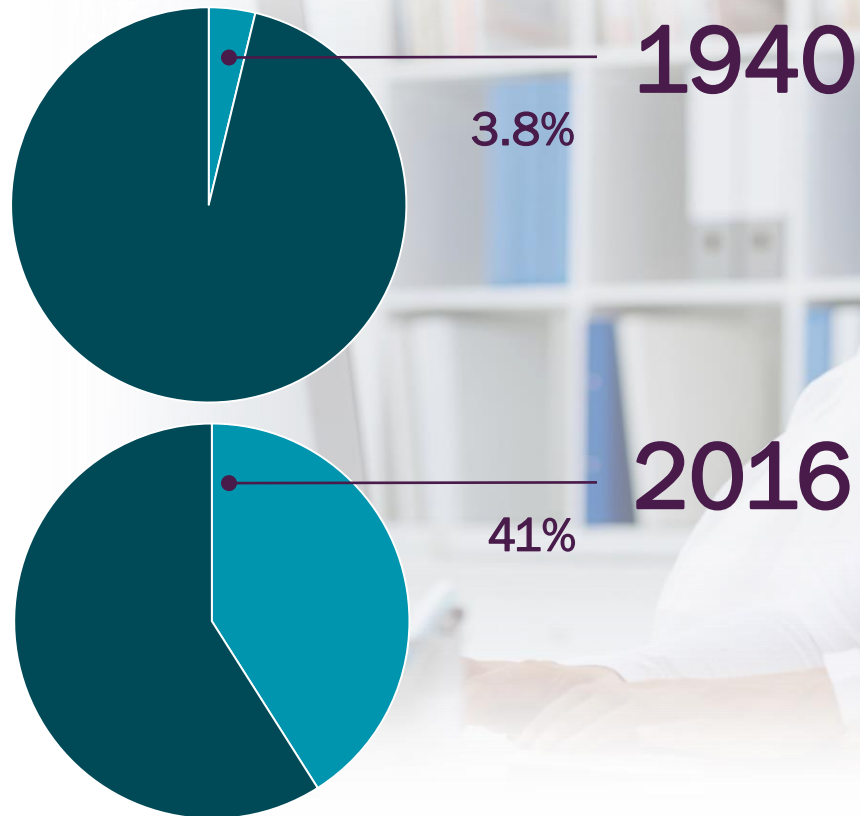
Source: U.S. Census Bureau

Children born to single parents



U.S. Census Bureau, 2014

Children born to single parents



U.S. Census Bureau, 2014

Over 50% of public school students qualify for free and reduced lunch.

1 in 5 speak a language other than English at home.

Nearly 1 in 4 are foreign born or have a parent who is.

80% of public school teachers are white.



Source: America's Schools are Majority-Minority. Now What? State.com 5. June 2016



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

Create a Culture

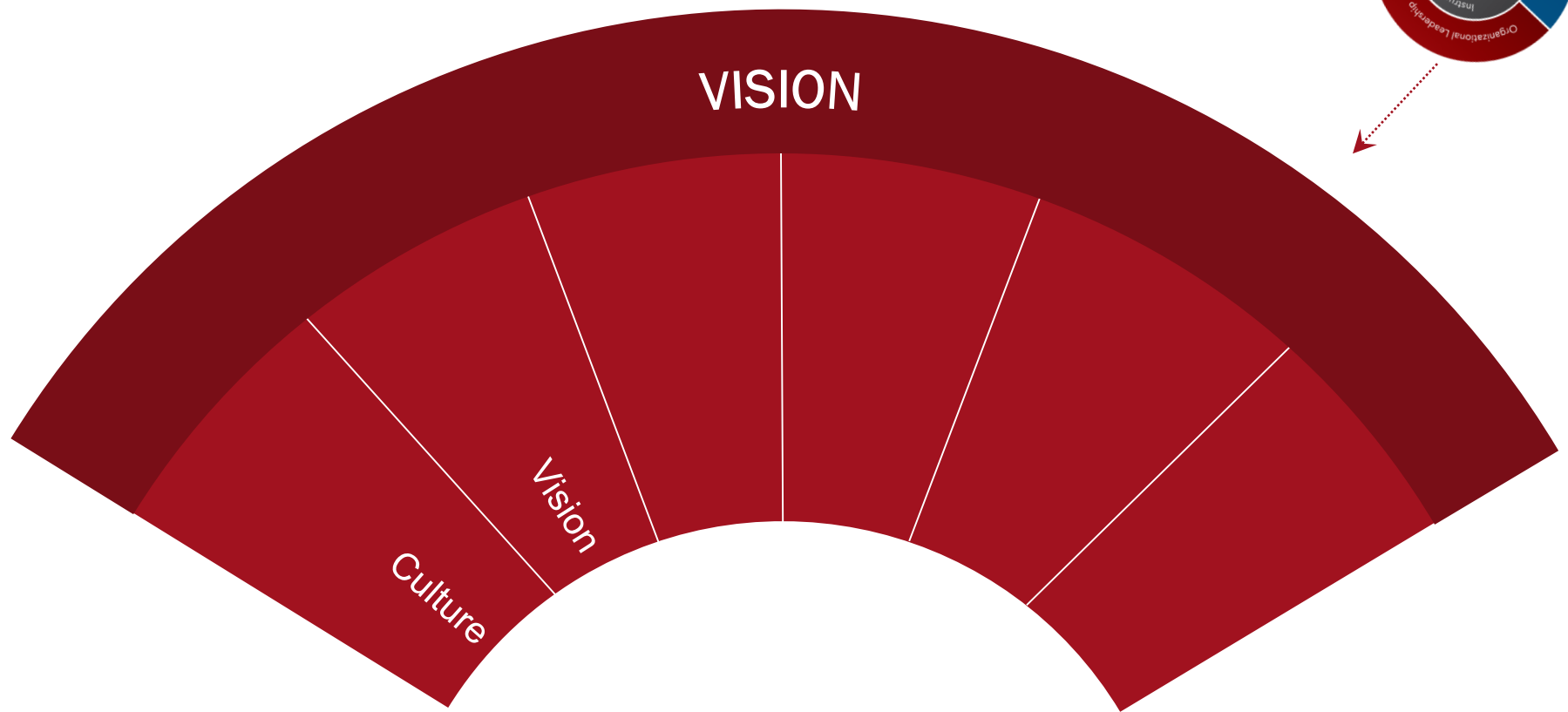
Make it
personal.

Keep it simple.

It is a journey,
not an event.

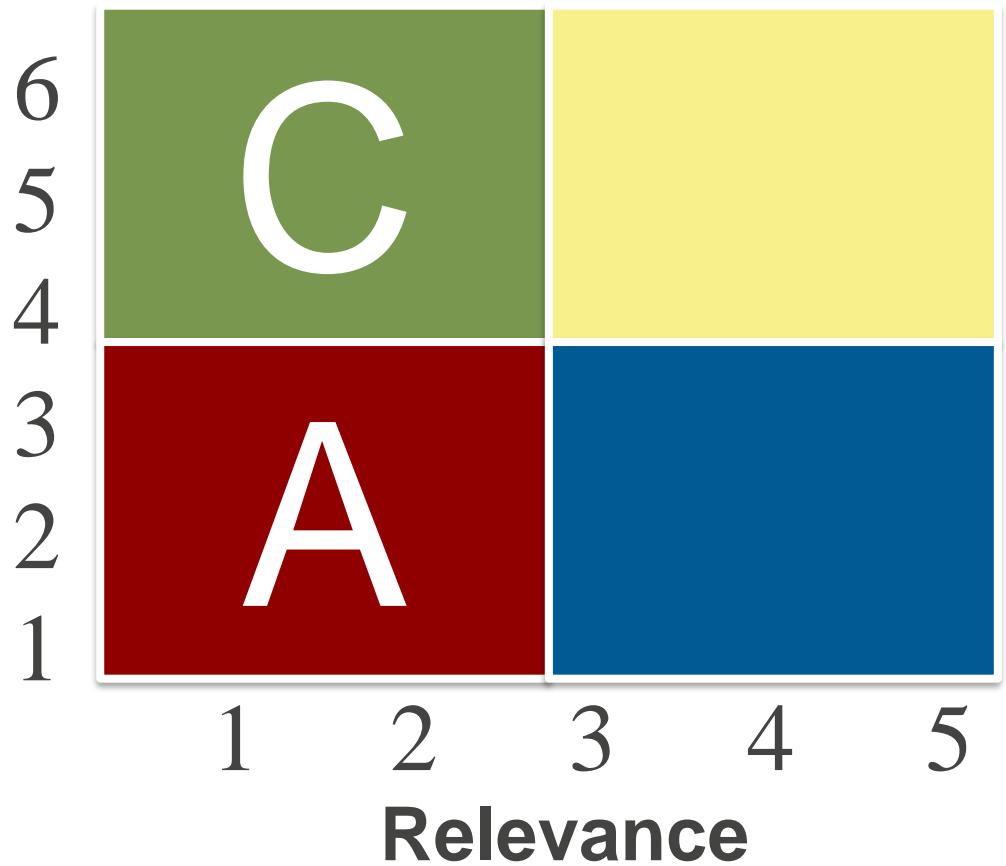


Organizational Leadership



**A and C were
Needed
Pre-Internet**

Rigor



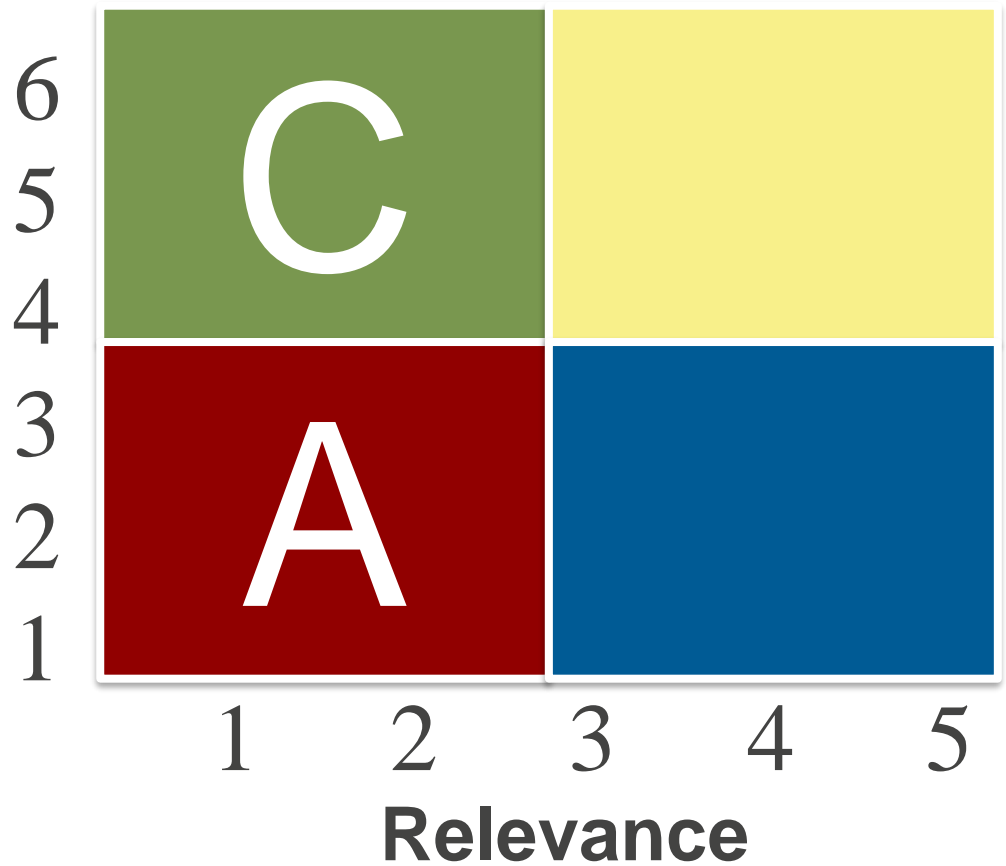
**B and D are
Required in the
Internet Age**

Rigor

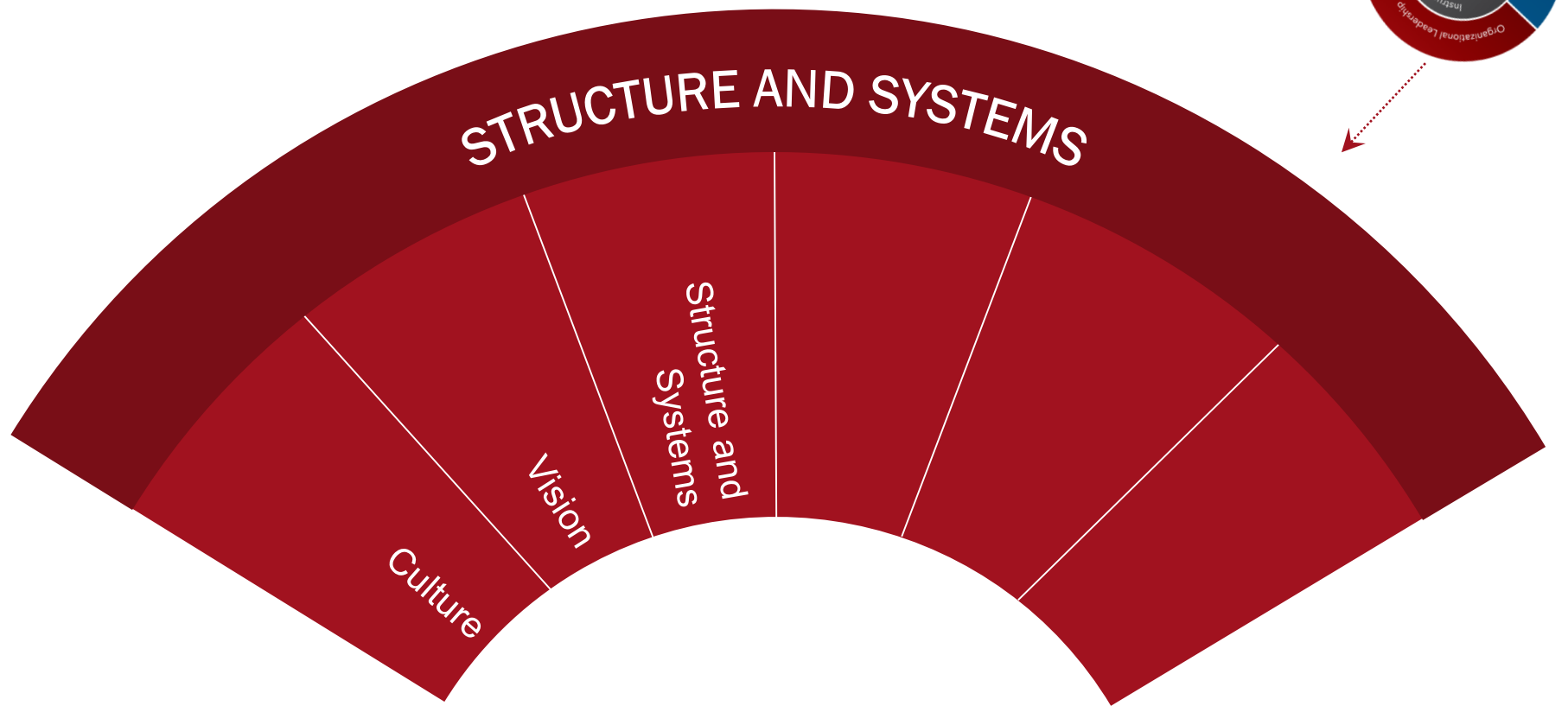


**Regulated,
Certified,
Tenured,
and
Contracted**

Rigor



Organizational Leadership



Organizational Changes

Looping



Organizational Changes

Looping

Department
Chairs



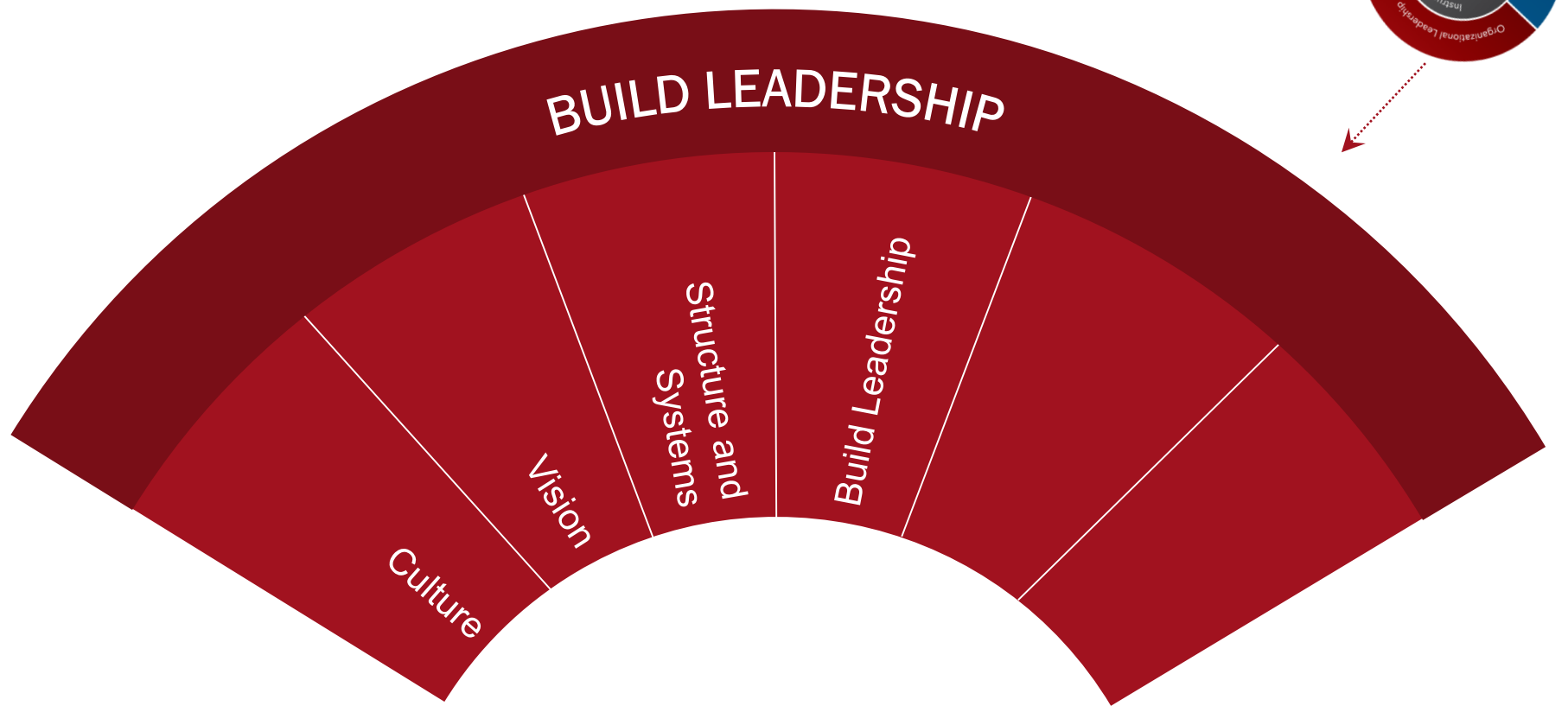
Organizational Changes

Looping

Department
Chairs

9th Grade
Electives

Organizational Leadership



Leadership is NOT a Position.



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

1/3

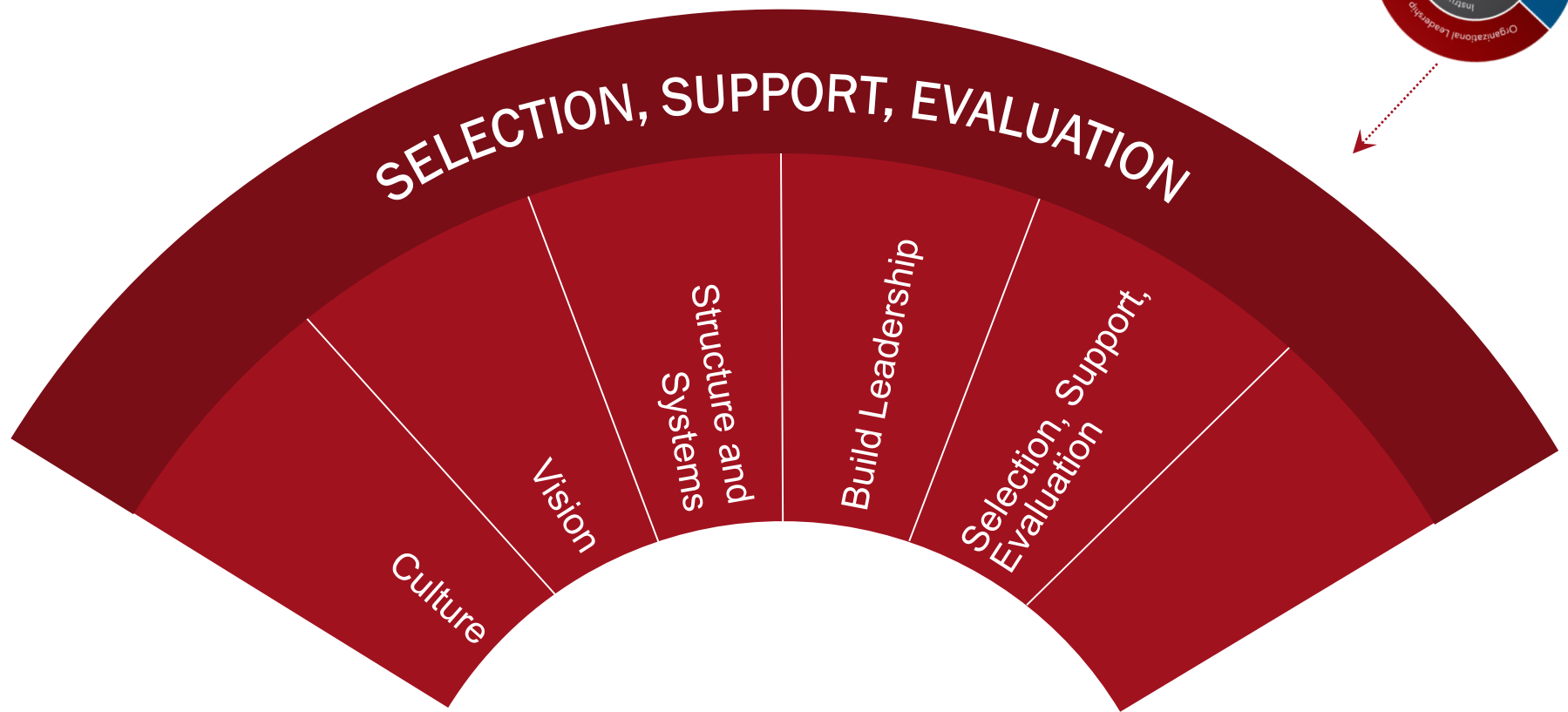
Executive Coaching



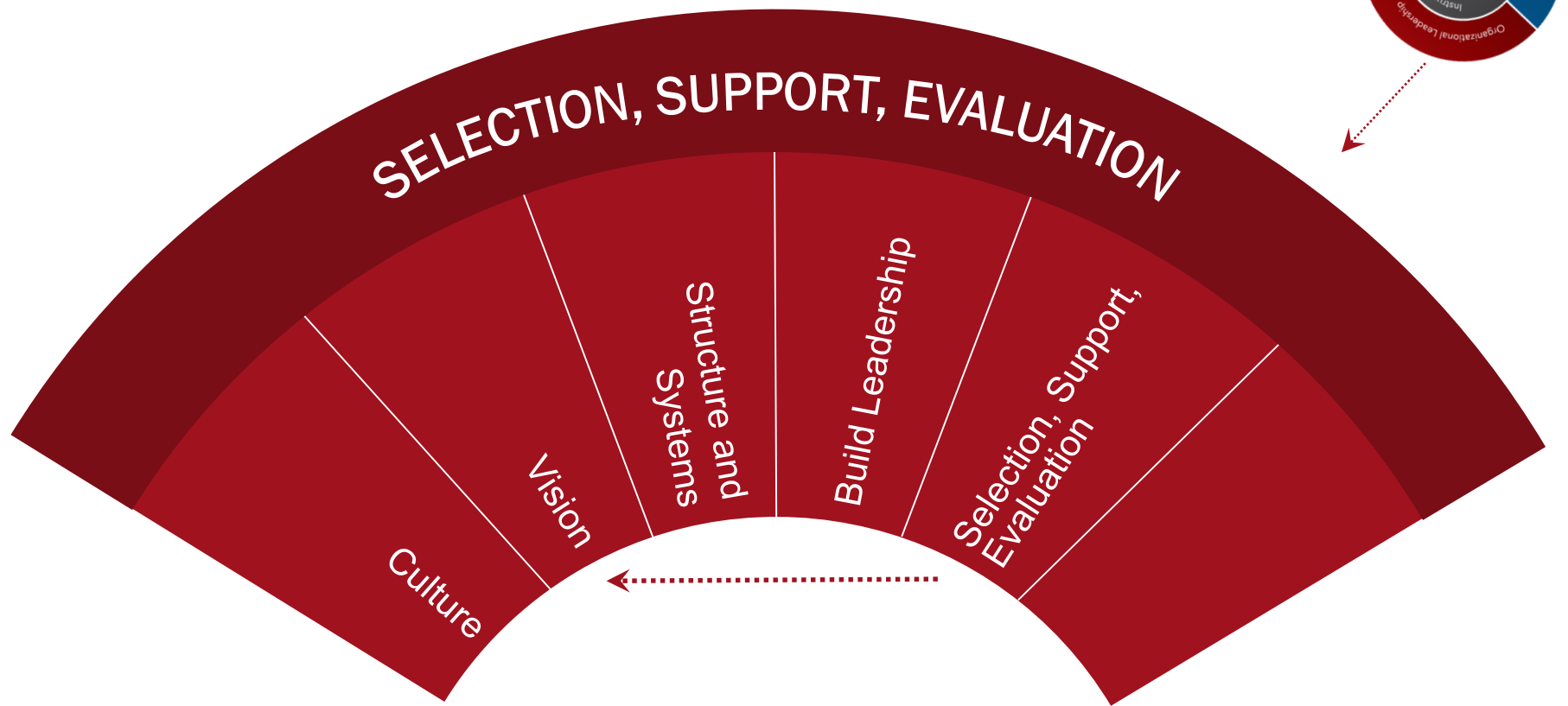
International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

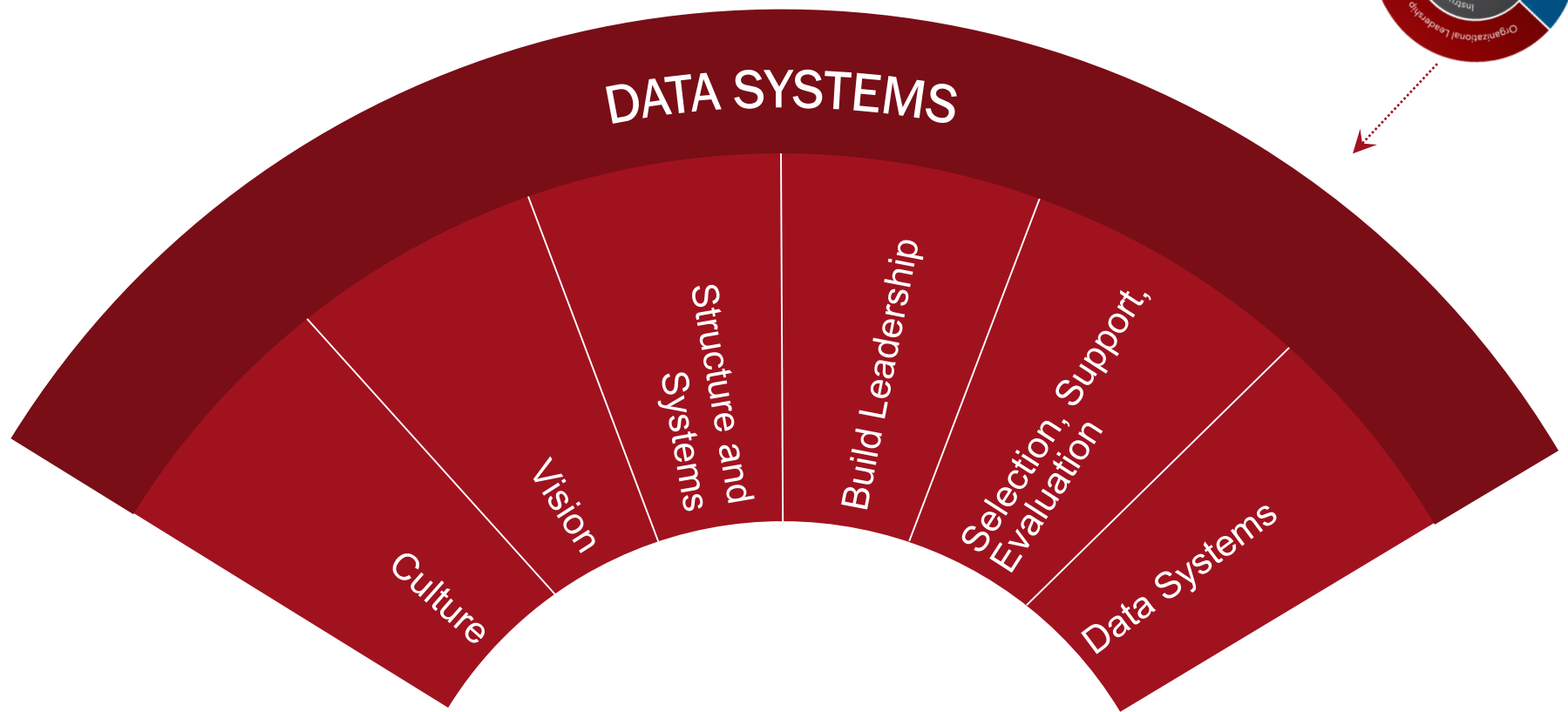
Organizational Leadership



Organizational Leadership



Organizational Leadership



Actionable Data

Survey Tools

for Measuring What Matters

We Learn™

Student
Survey

We Teach™

Instructional Staff
Survey

We Lead™

Whole Staff
Survey

We Succeed™

Student
Survey

We Inspire™

Instructional Staff
Survey

We Support™

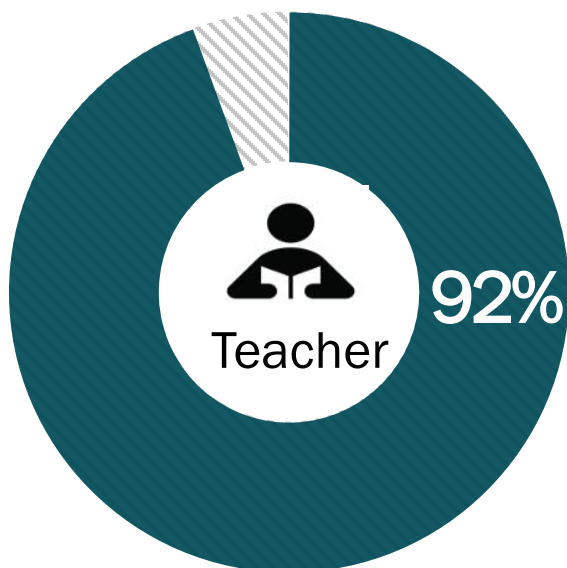
Parent/Community
Survey



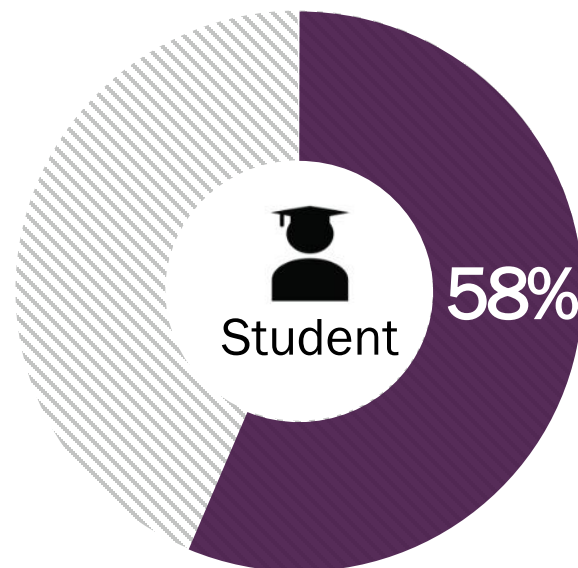
International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

Teacher vs. Student Comparison

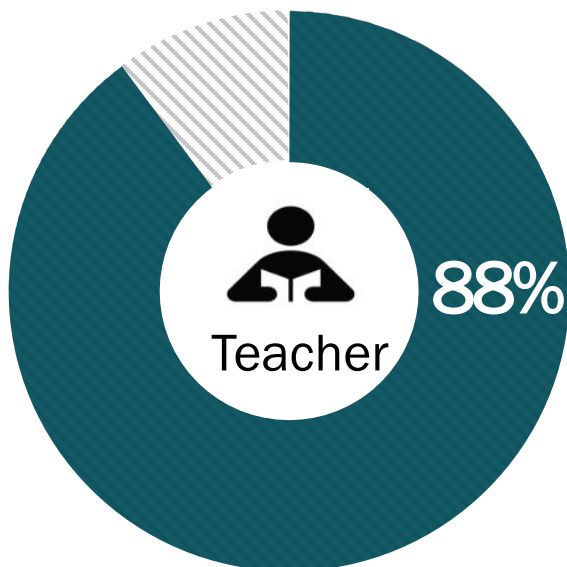


Students can apply what I am teaching to their everyday lives.

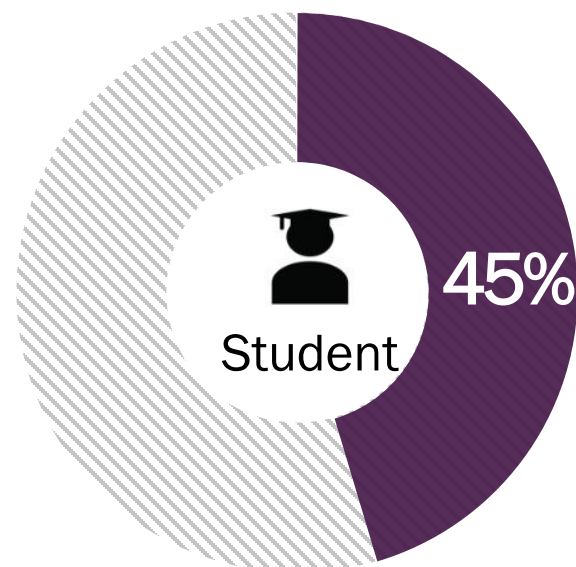


I can apply what I learn to my everyday life.

Teacher vs. Student Comparison

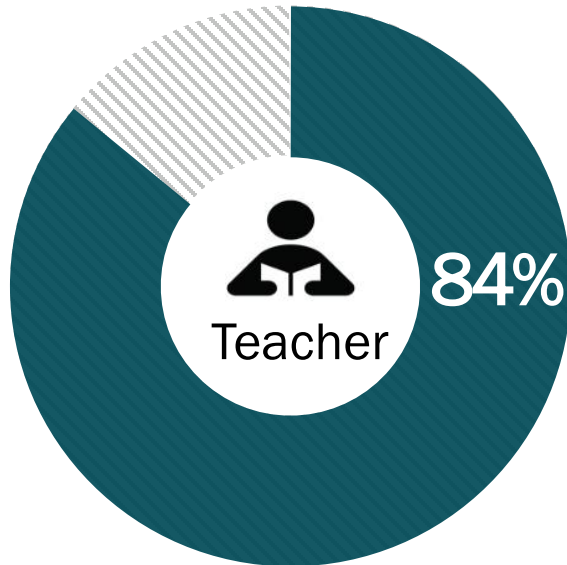


Students in my classroom engage in hands-on activities.

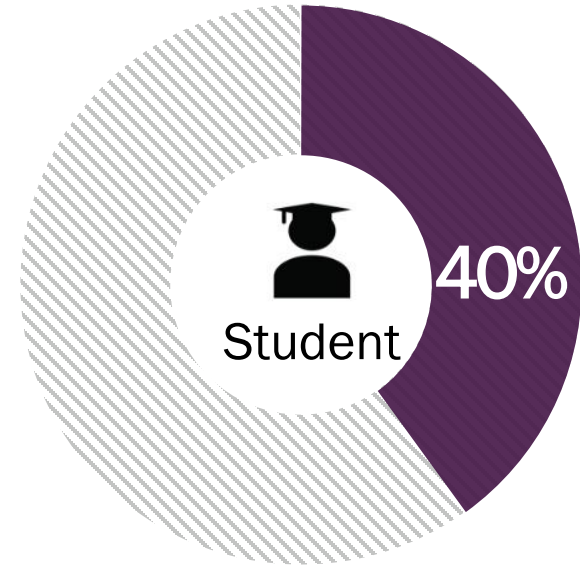


We do lots of hands-on activities in my classes.

Teacher vs. Student Comparison

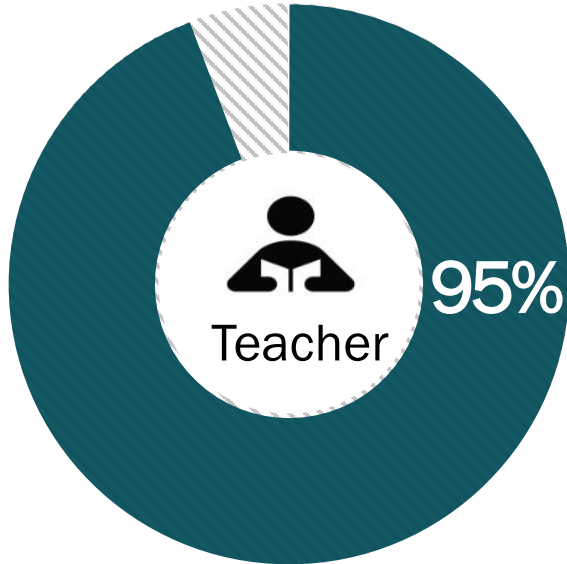


I make learning exciting
for my students.

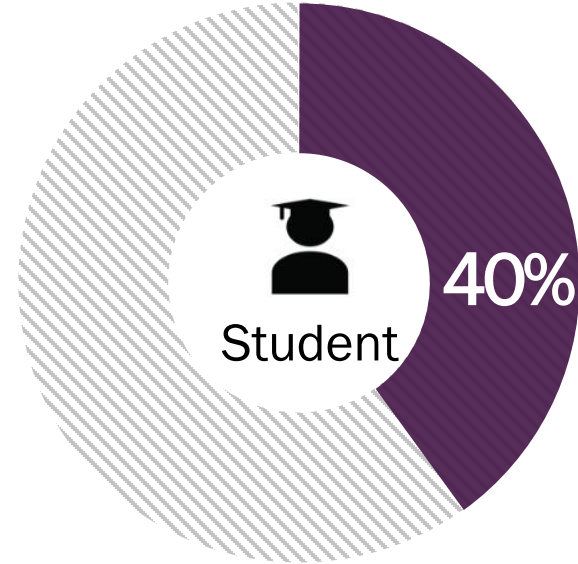


My teachers make
learning exciting.

Teacher vs. Student Comparison



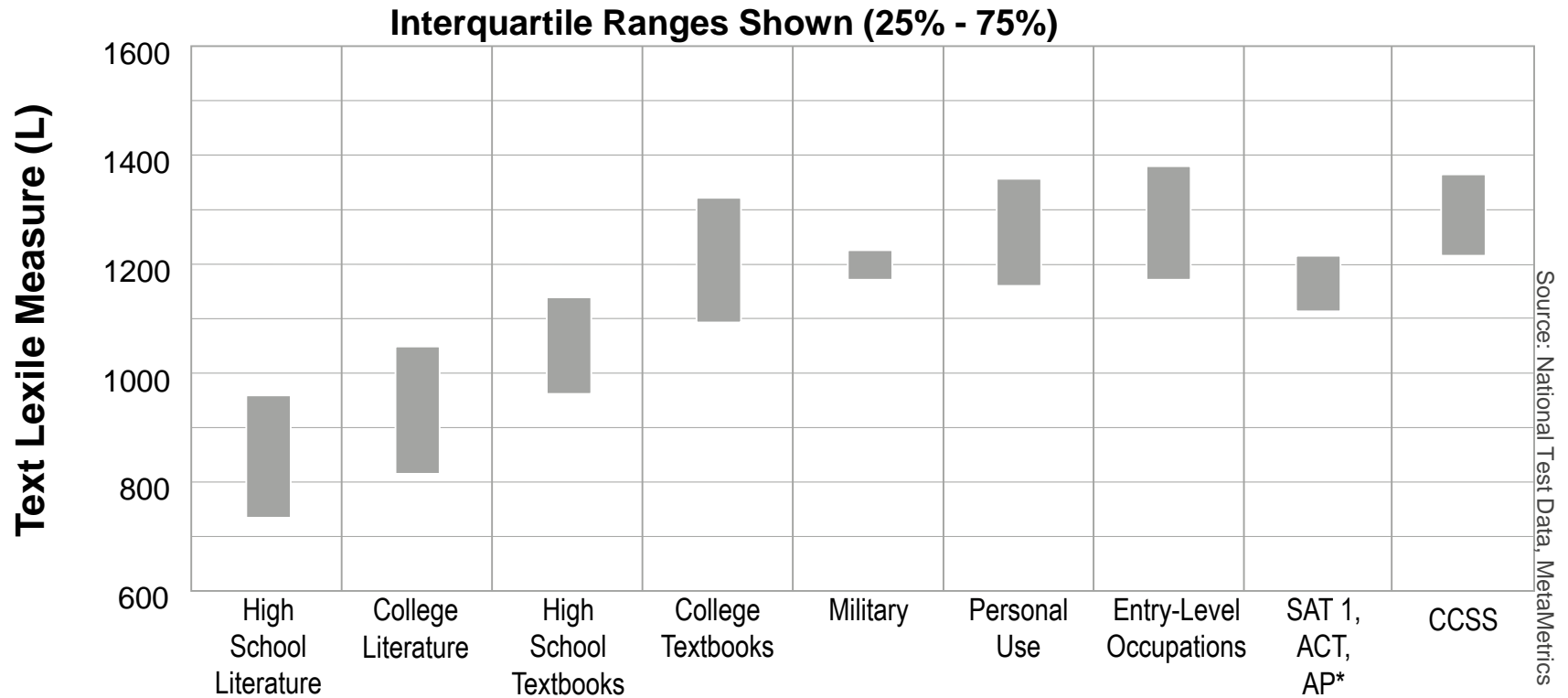
I recognize students when they demonstrate positive behavior in school.



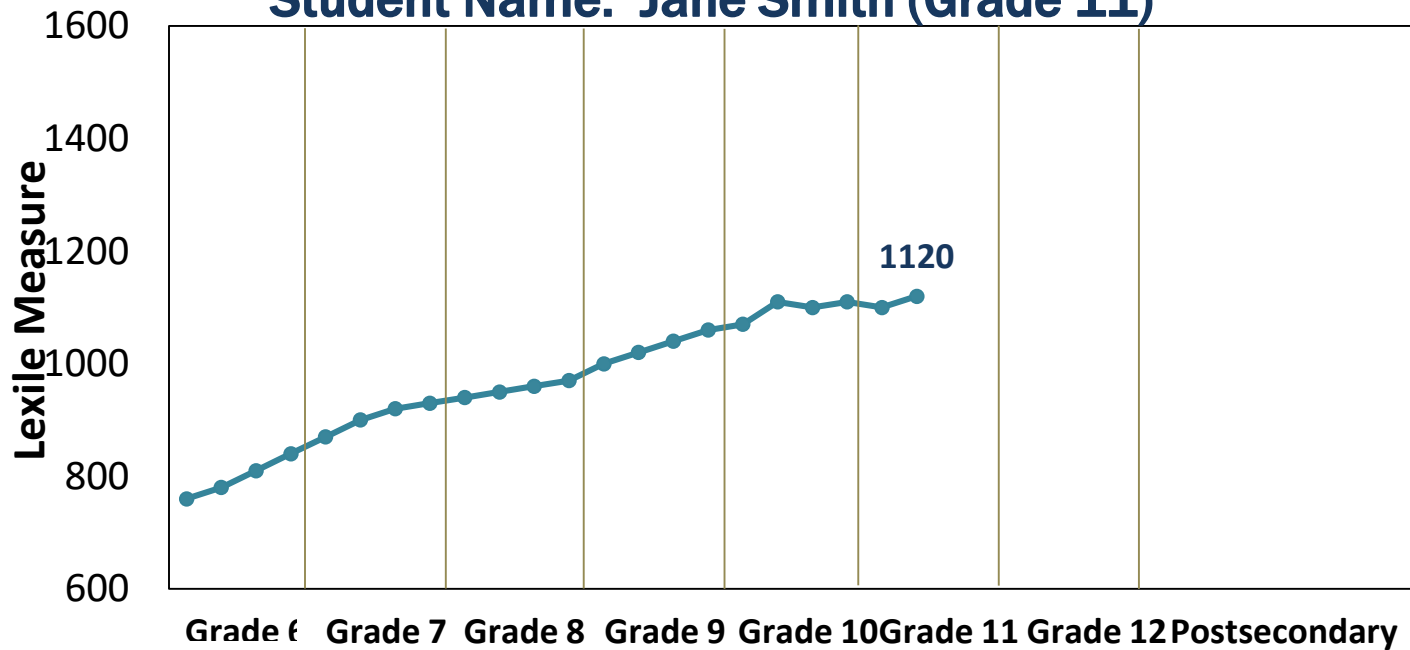
Good citizenship is rewarded in this school.

Student Profile

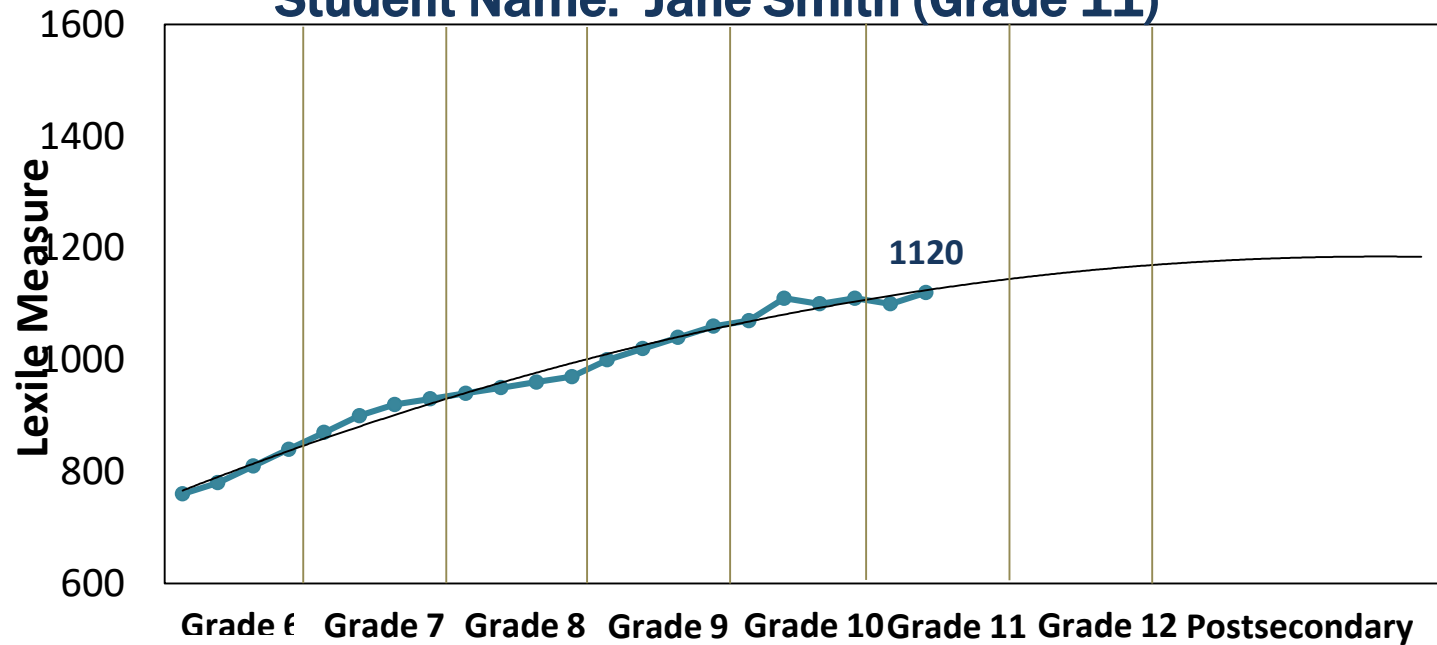
Reading Study Summary



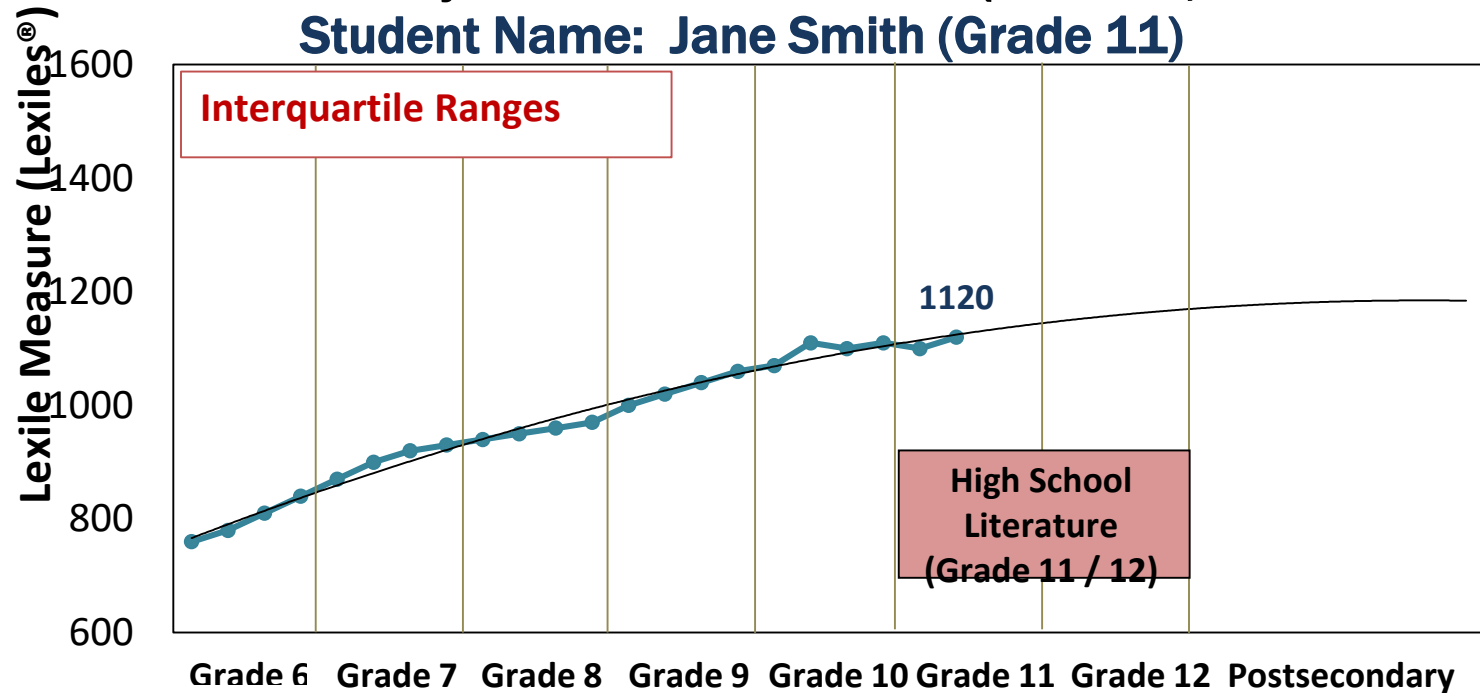
Student Report Card
Literacy Profile Across Grades (Lexiles®)
Student Name: Jane Smith (Grade 11)



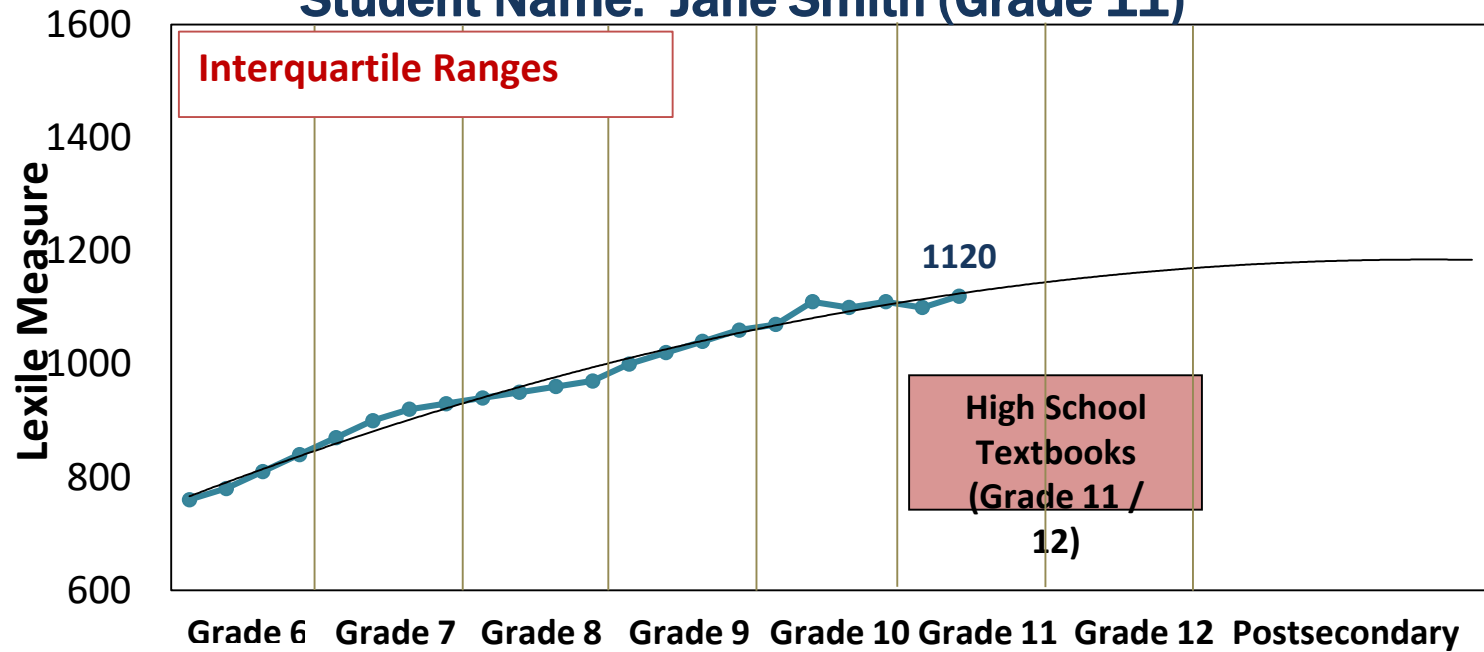
Student Report Card
Literacy Profile Across Grades (Lexiles®)
Student Name: Jane Smith (Grade 11)



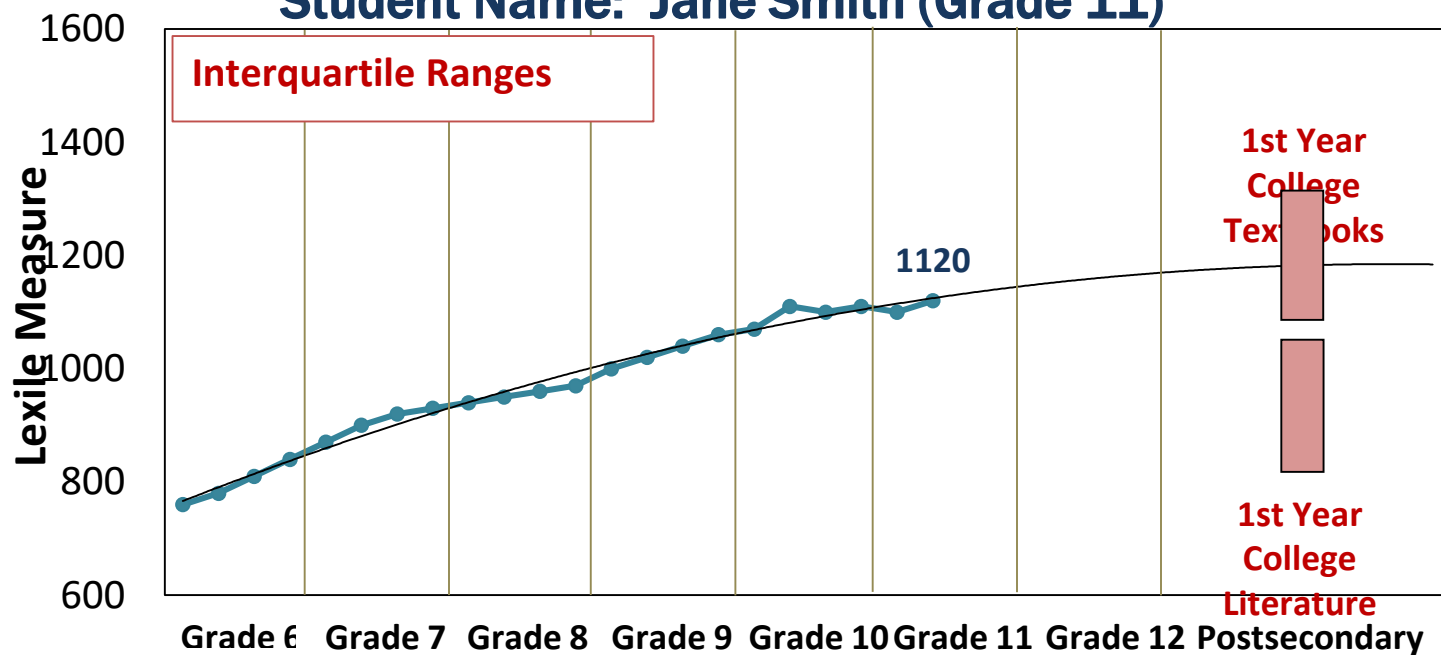
Student Report Card
Literacy Profile Across Grades (Lexiles®)
Student Name: Jane Smith (Grade 11)



Student Report Card
Literacy Profile Across Grades (Lexiles®)
Student Name: Jane Smith (Grade 11)



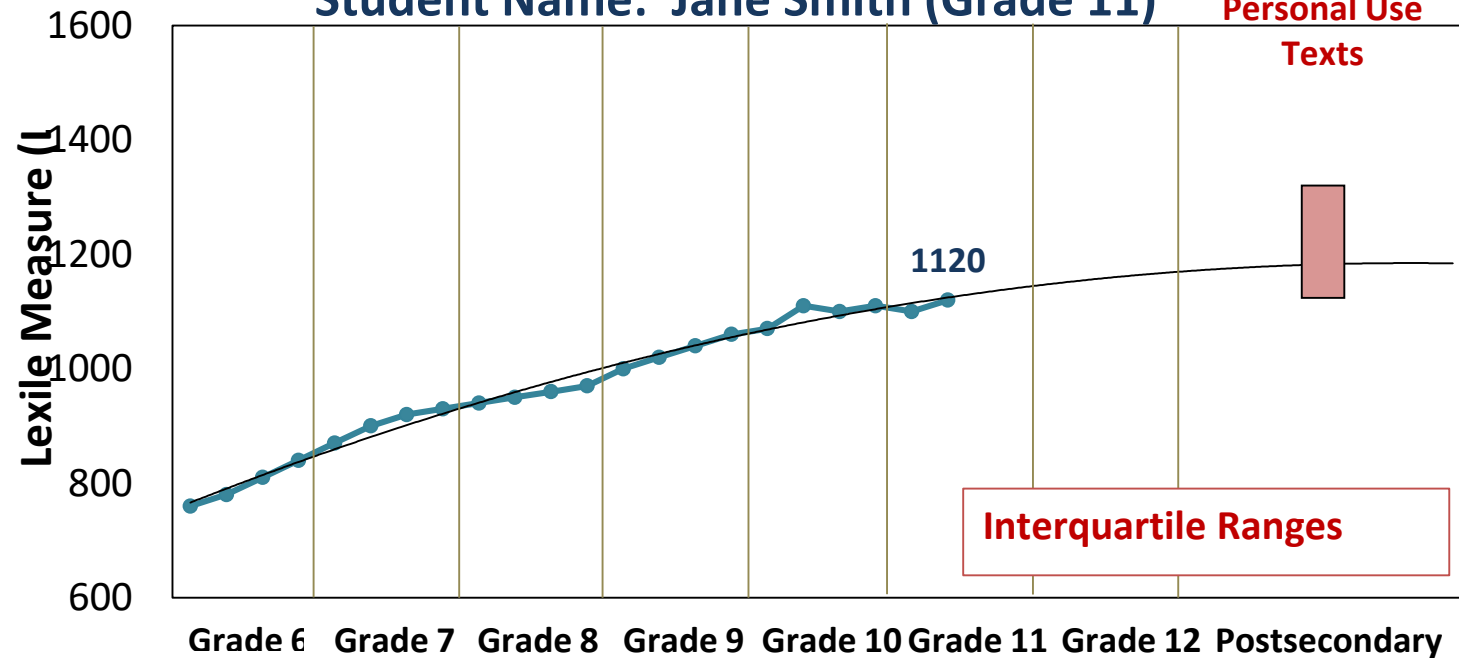
Student Report Card
Literacy Profile Across Grades (Lexiles®)
Student Name: Jane Smith (Grade 11)



Student Report Card

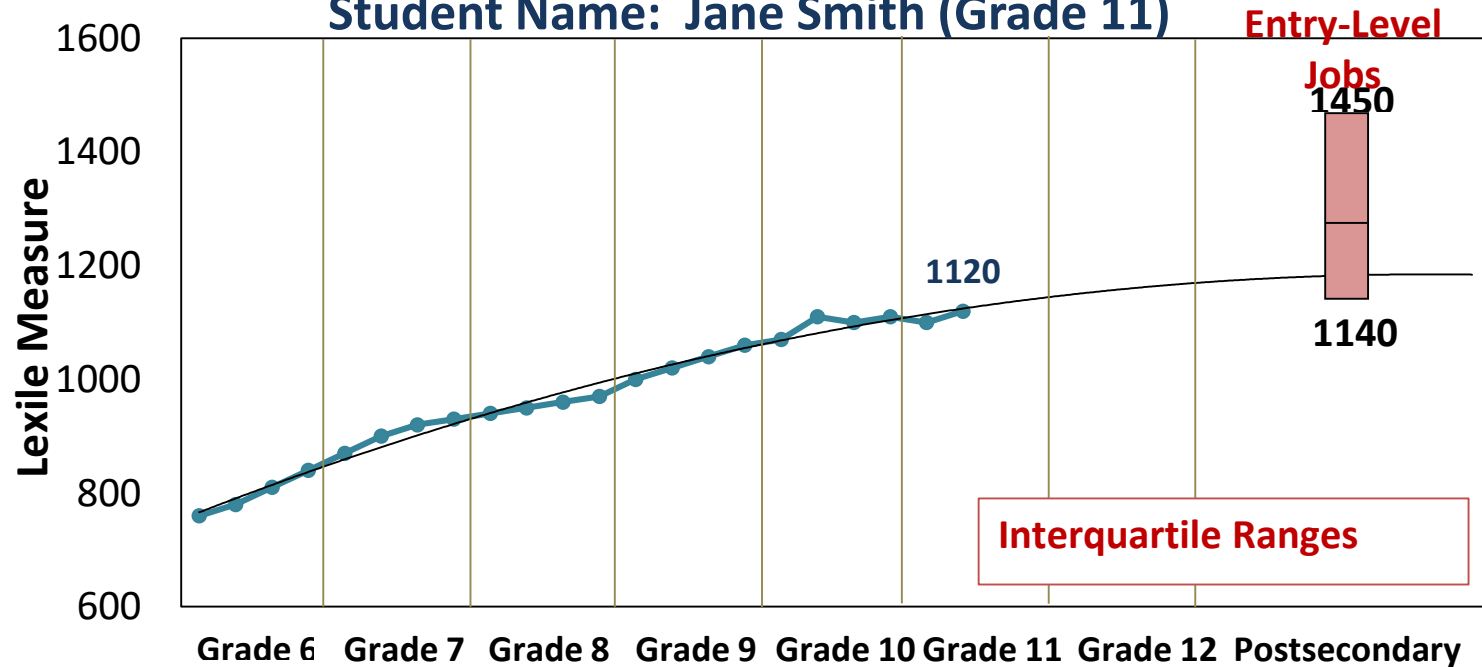
Literacy Profile Across Grades (Lexiles®)

Student Name: Jane Smith (Grade 11)



Student Report Card Literacy Profile Across Grades (Lexiles®)

Student Name: Jane Smith (Grade 11)



Student Literacy Profile

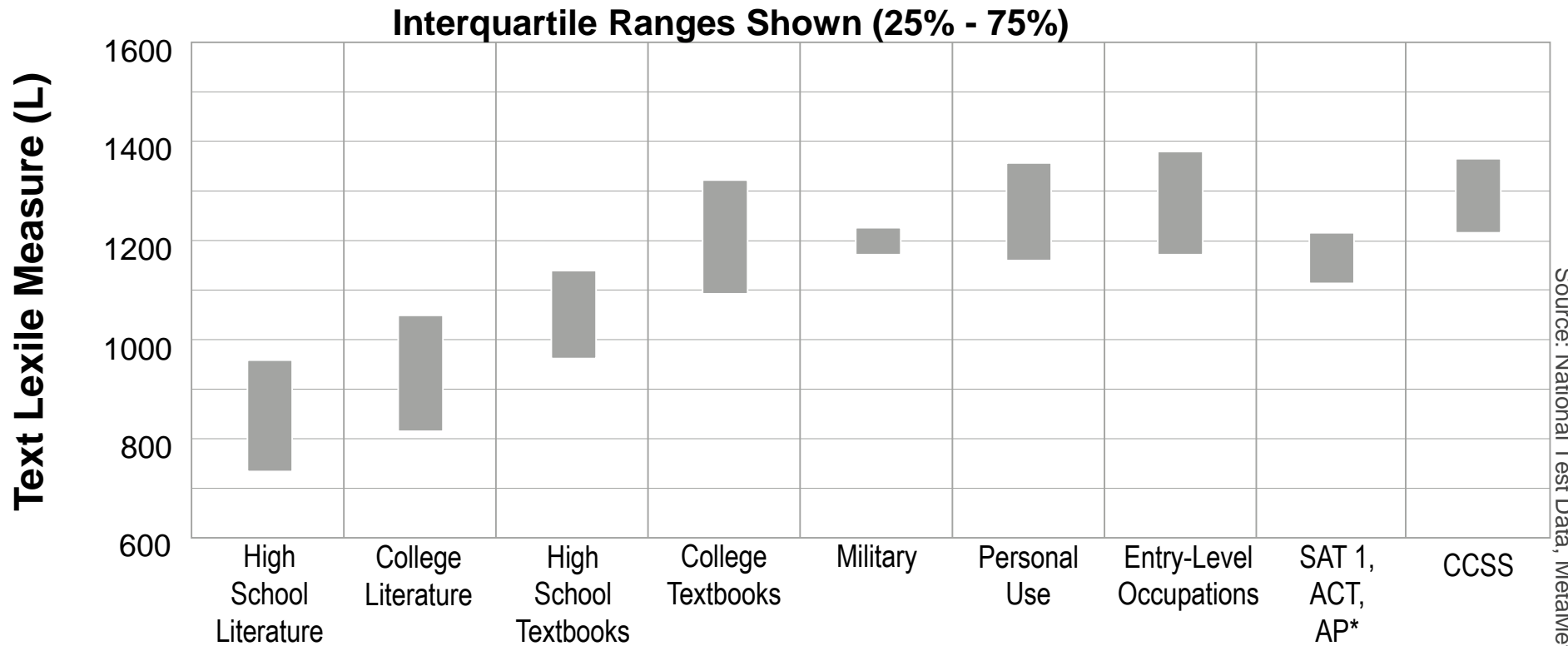
#MODELSCHOOLS



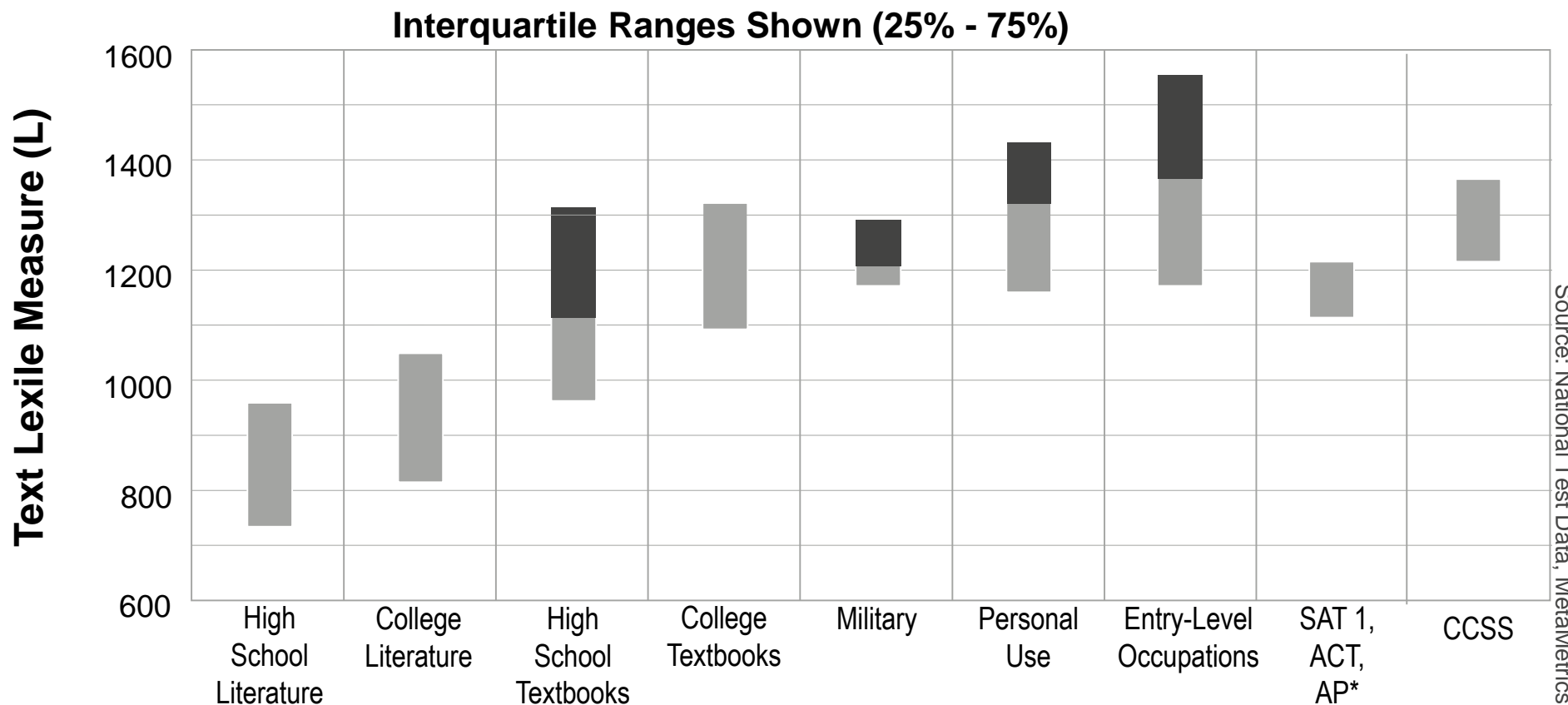
International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

Reading Study Summary



Reading Study Summary



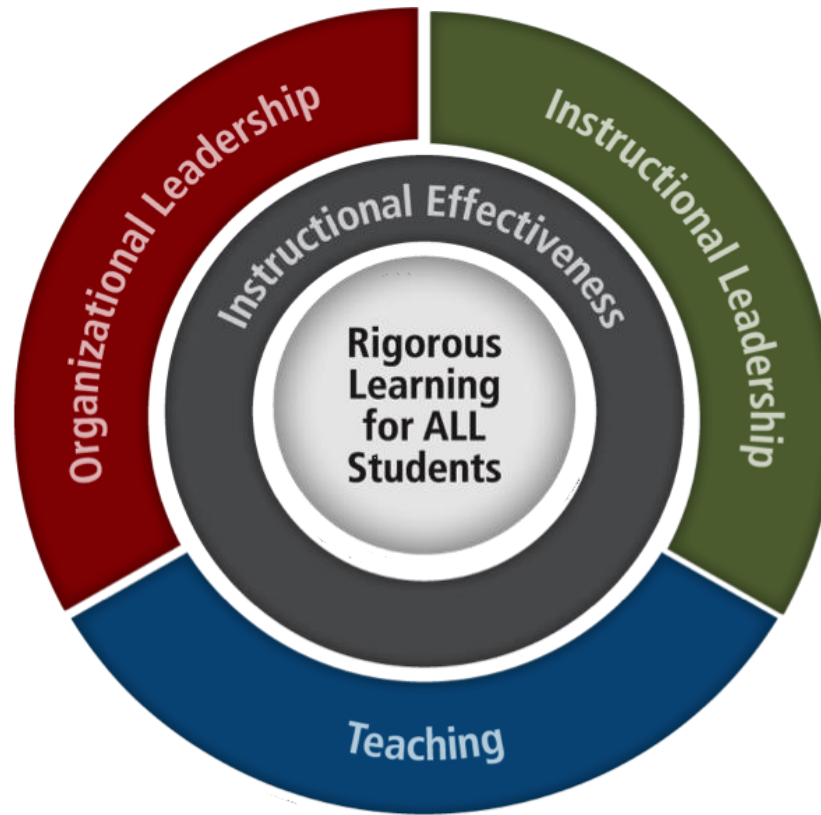
Instructional Practice Review

#MODELSCHOOLS

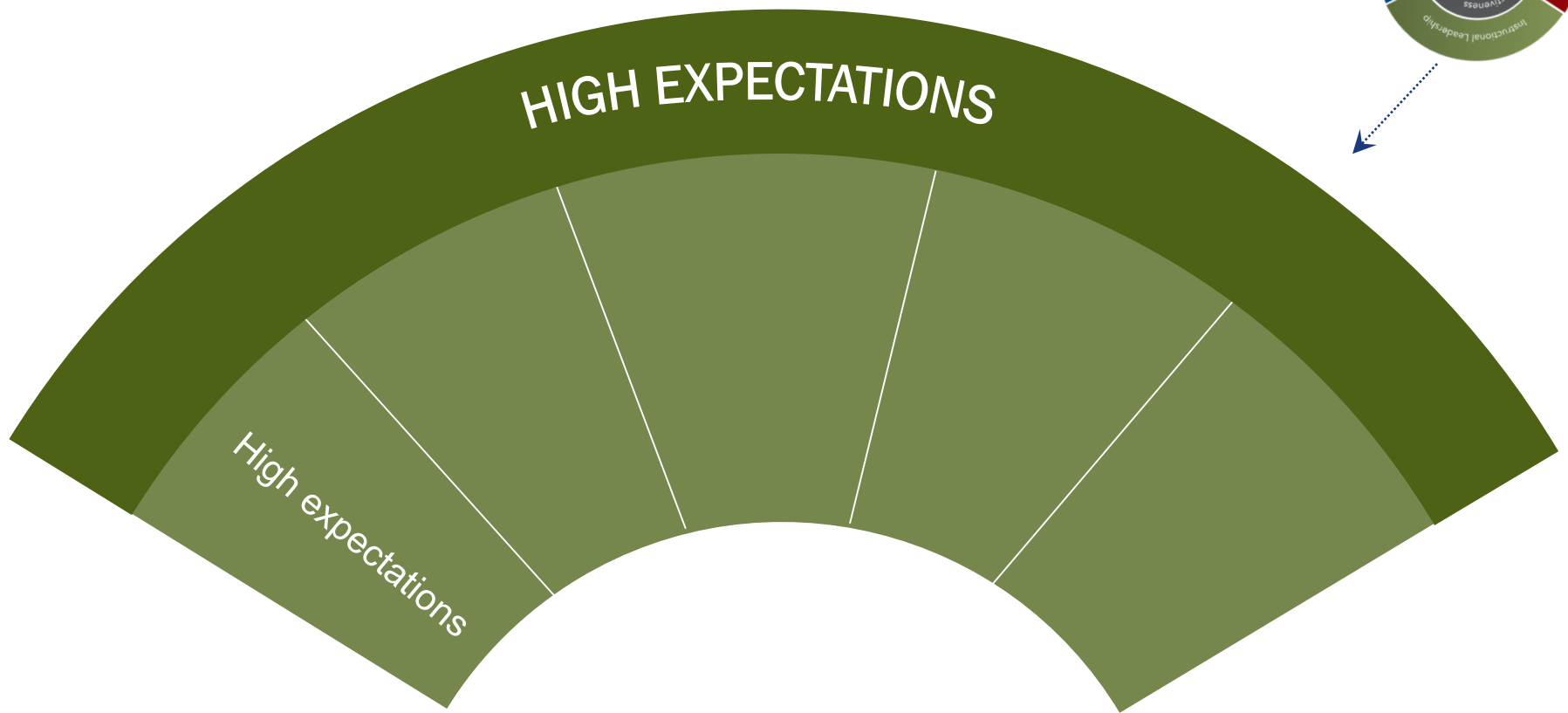


International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

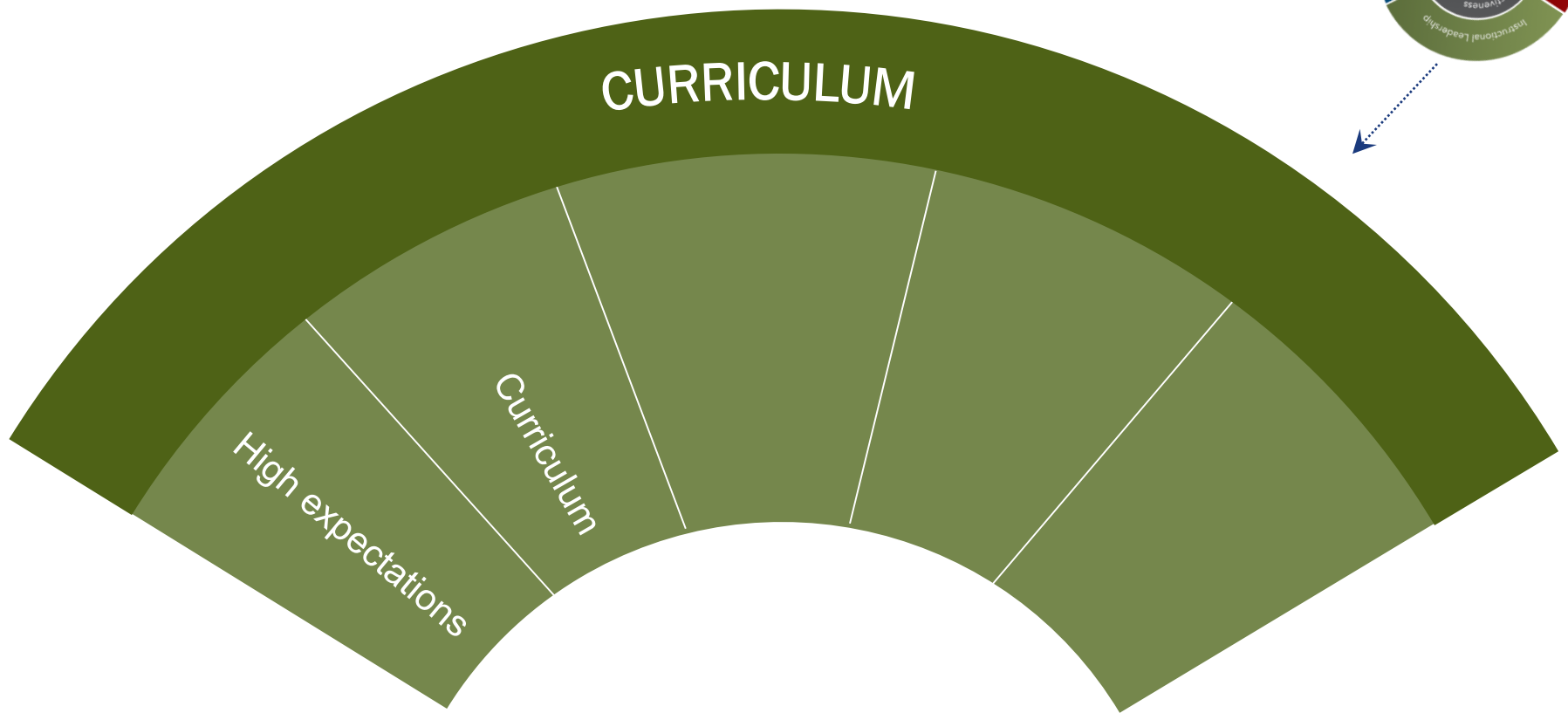


Instructional Leadership

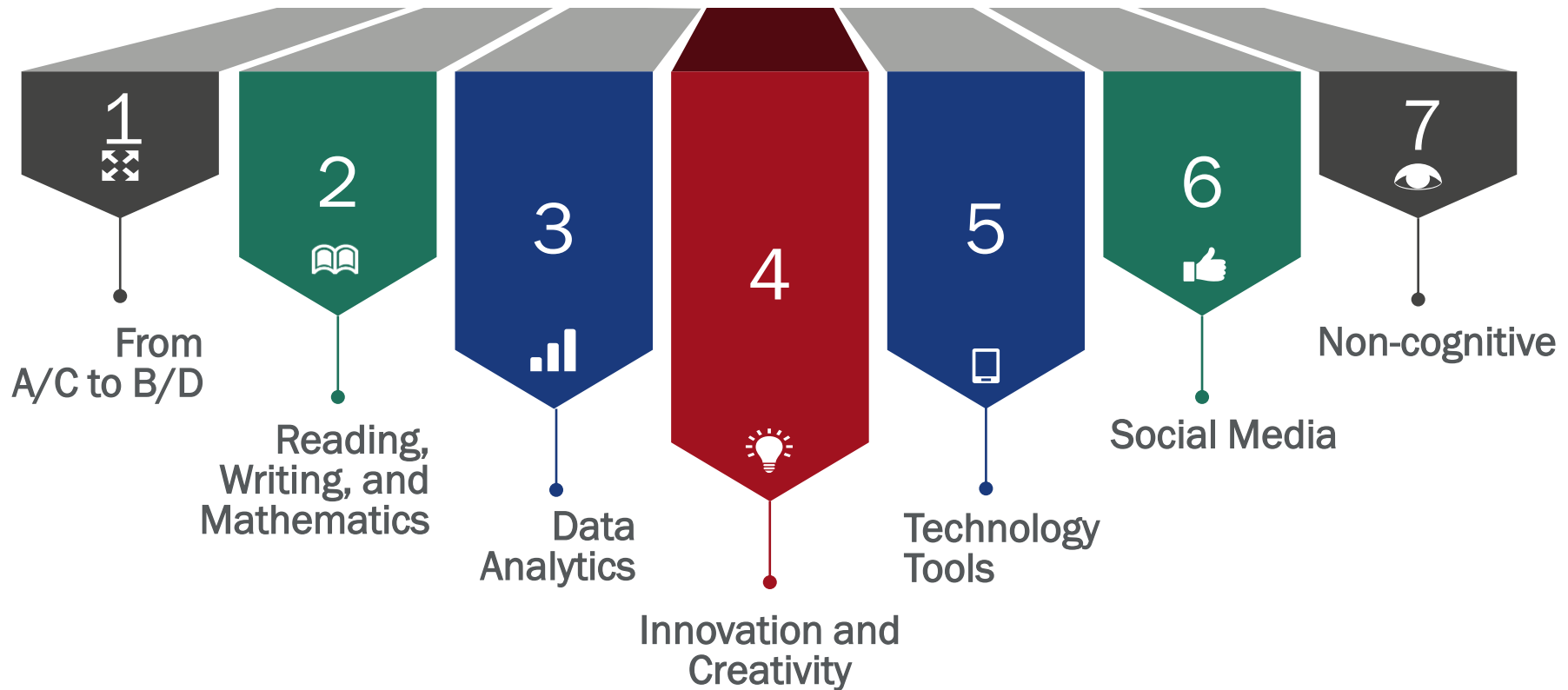


**Do not confuse a lot of
expectations with high
expectations.**

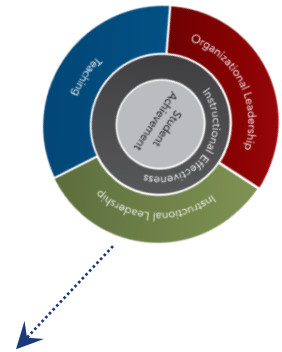
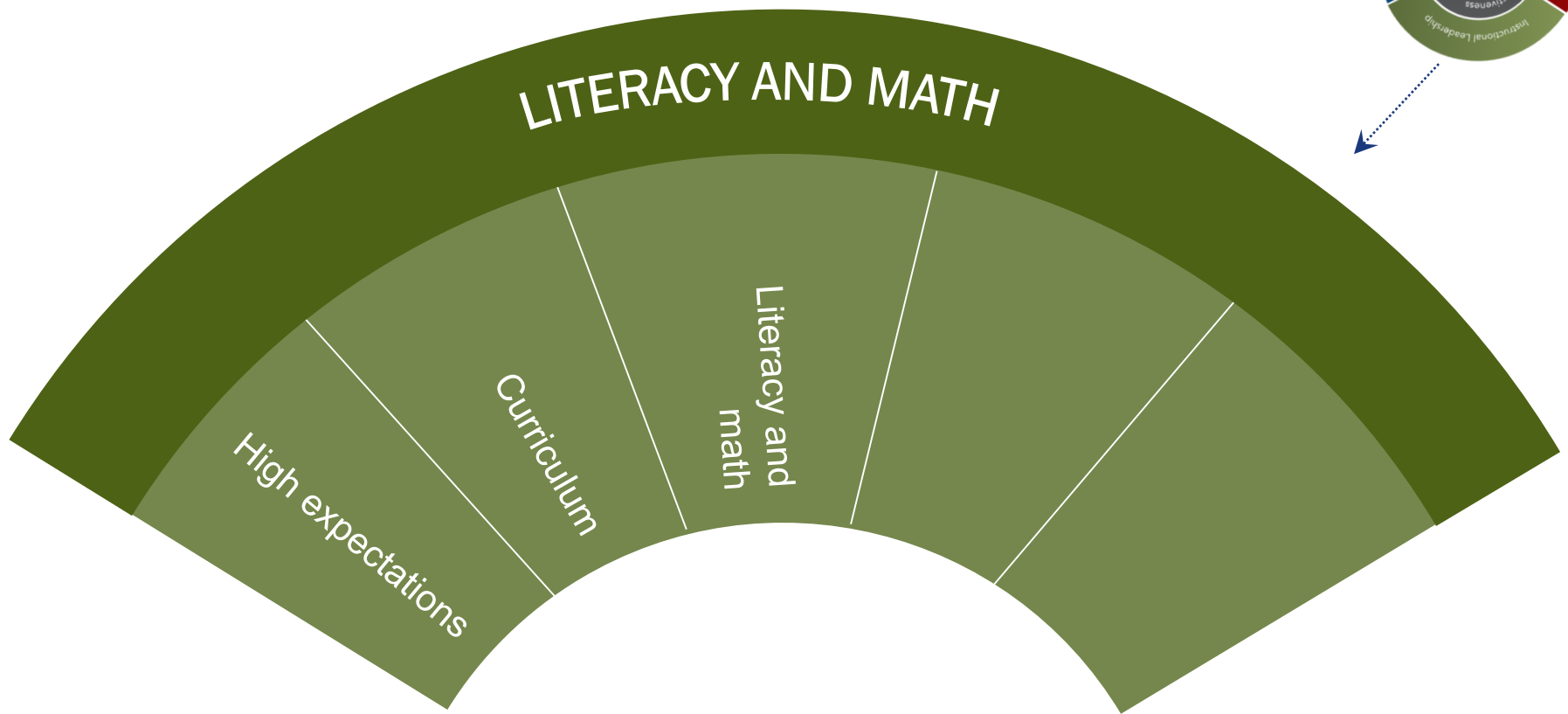
Instructional Leadership



Seven Interrelated Fundamental Shifts



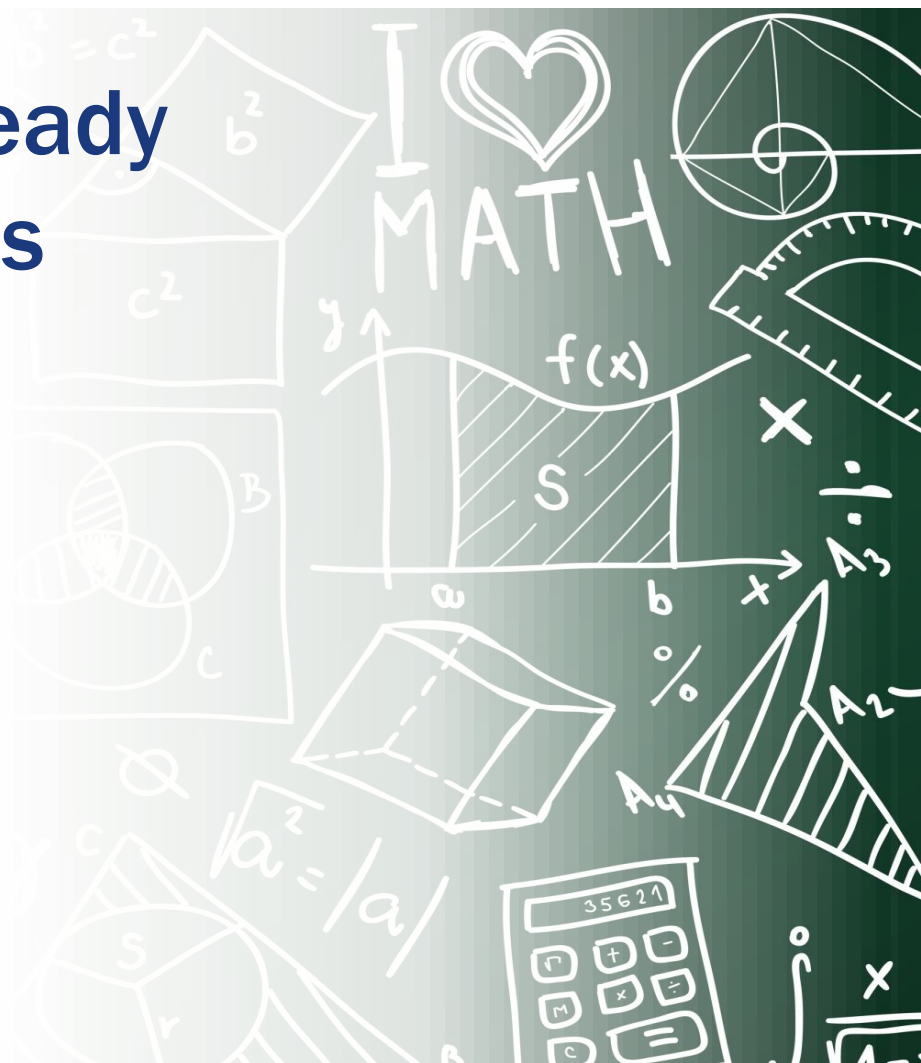
Instructional Leadership



Always in Beta

College and Career Ready Required Mathematics

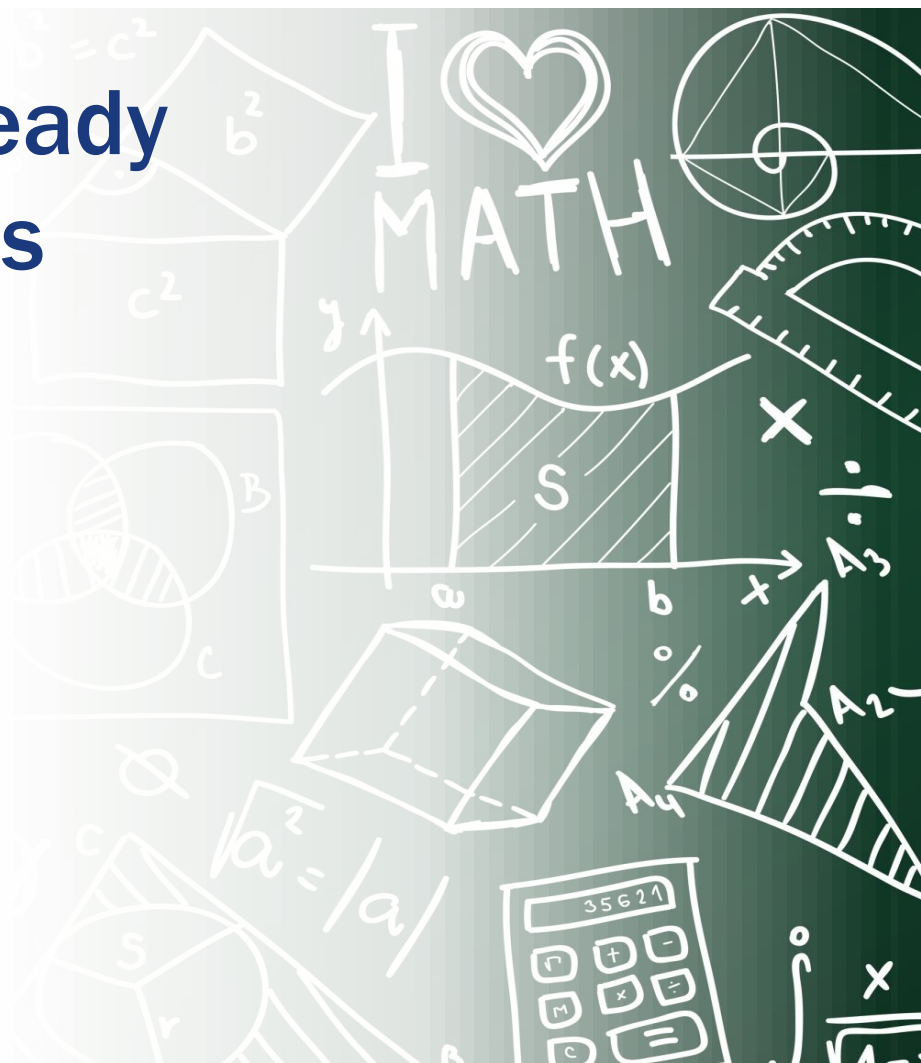
Existing Curriculum



College and Career Ready Required Mathematics

Existing Curriculum

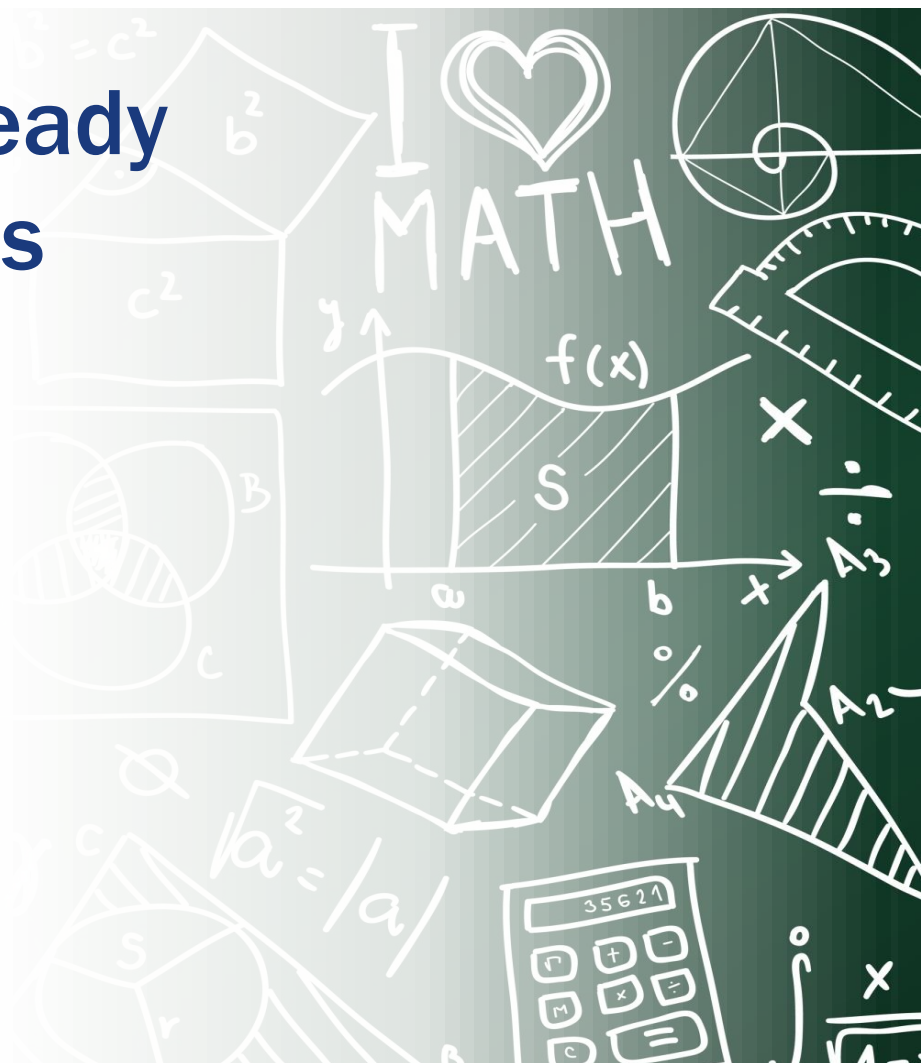
- Algebra I



College and Career Ready Required Mathematics

Existing Curriculum

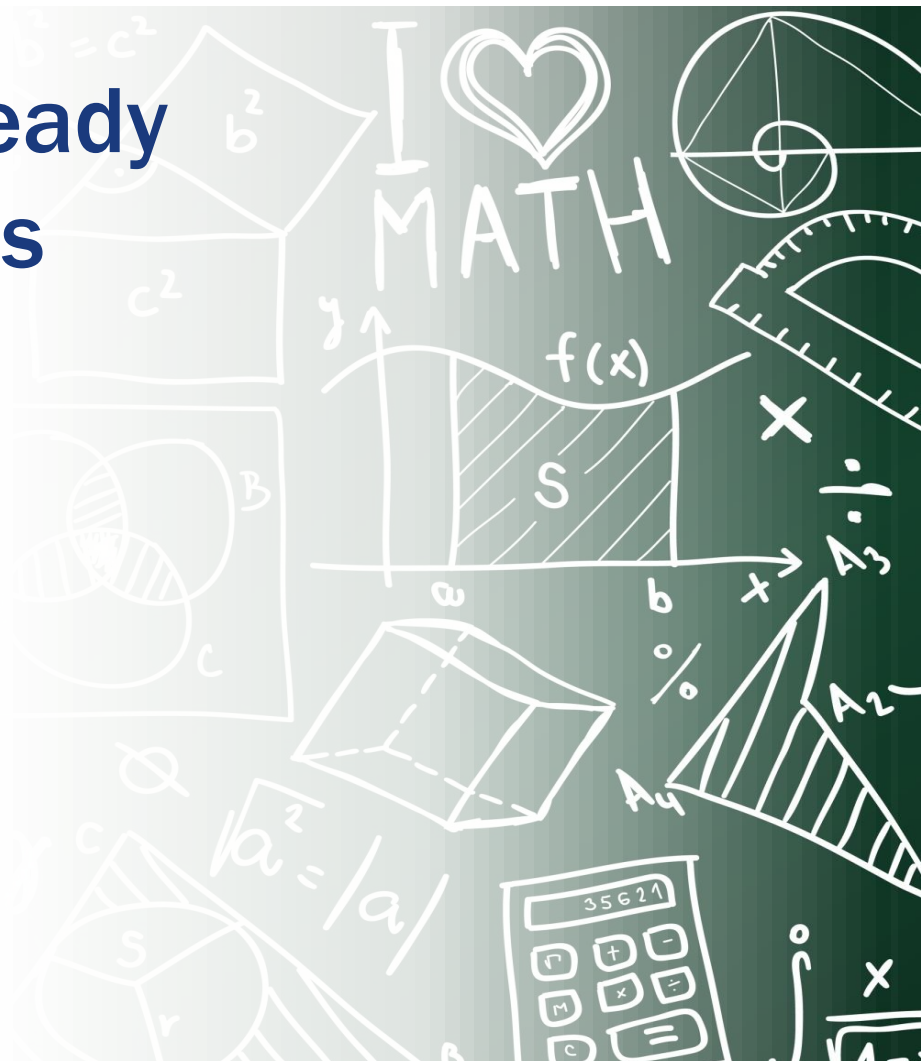
- Algebra I
- Geometry



College and Career Ready Required Mathematics

Existing Curriculum

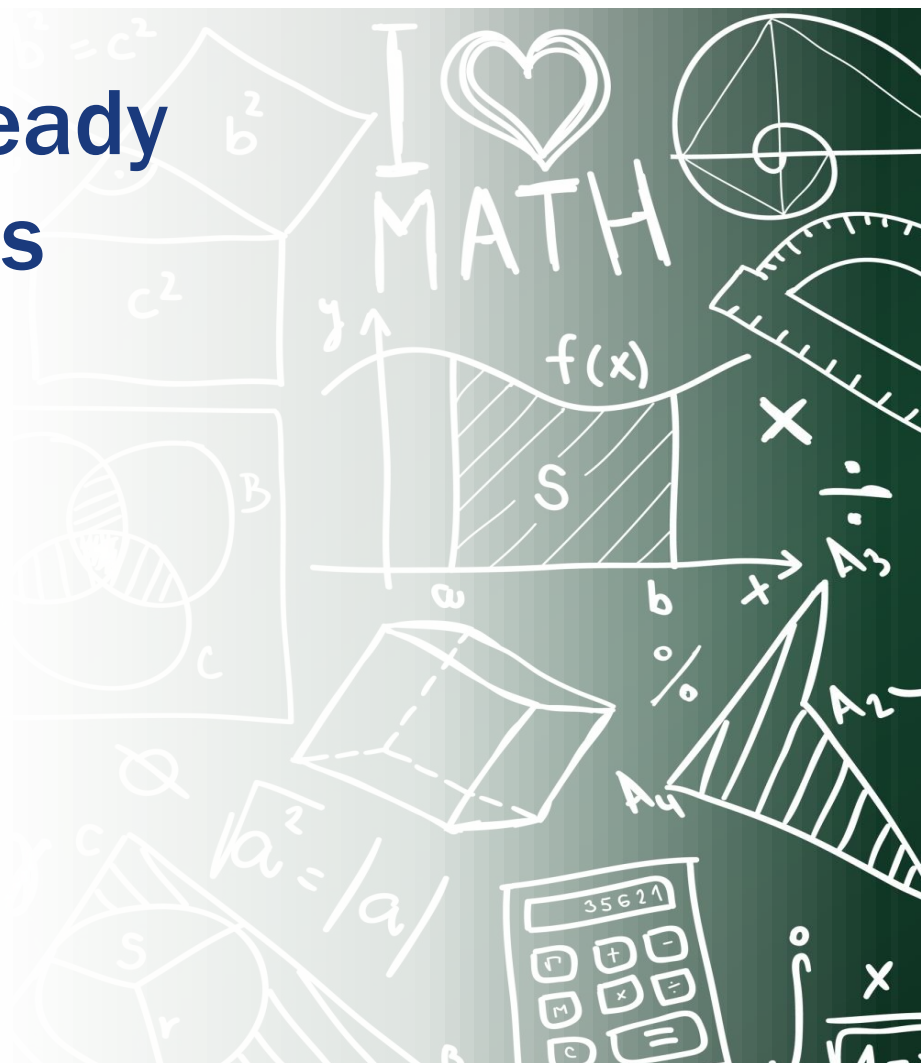
- Algebra I
- Geometry
- Algebra II



College and Career Ready Required Mathematics

Existing Curriculum

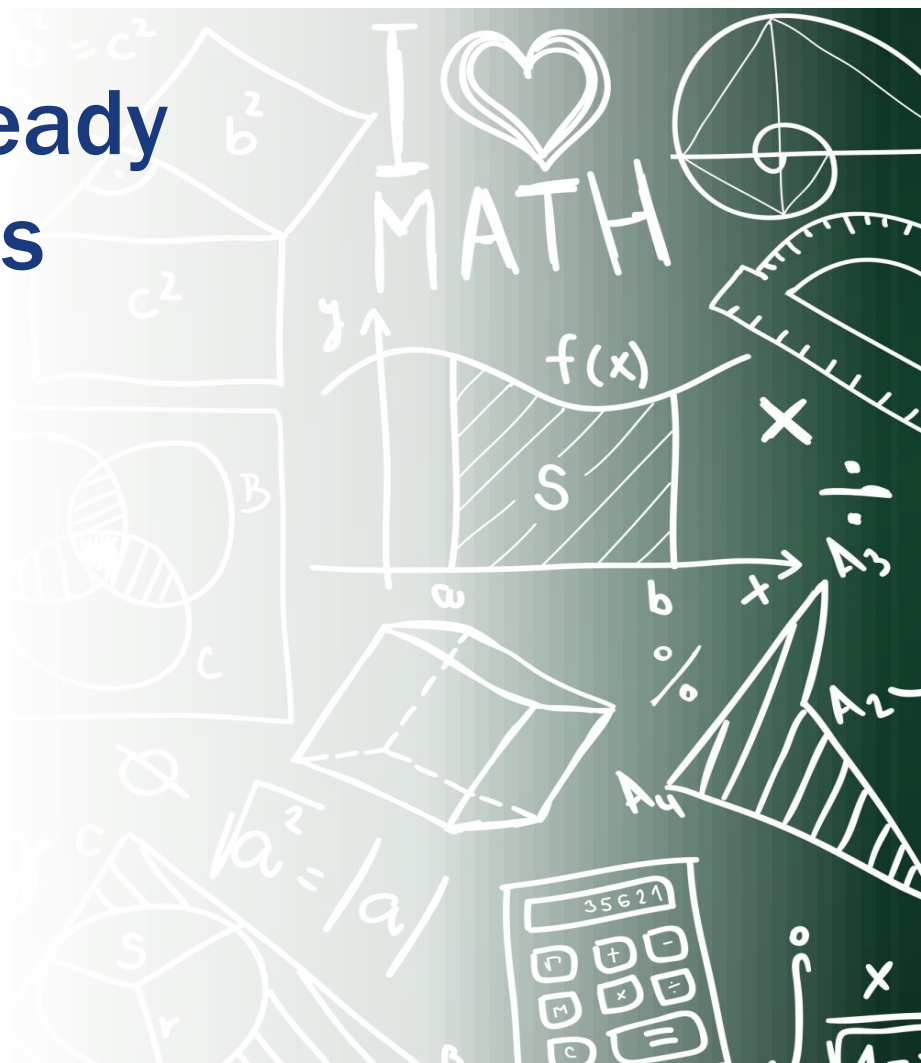
- Algebra I
- Geometry
- Algebra II
- Pre-Calculus



College and Career Ready Required Mathematics

Existing Curriculum

- Algebra I
- Geometry
- Algebra II
- Pre-Calculus
- Calculus

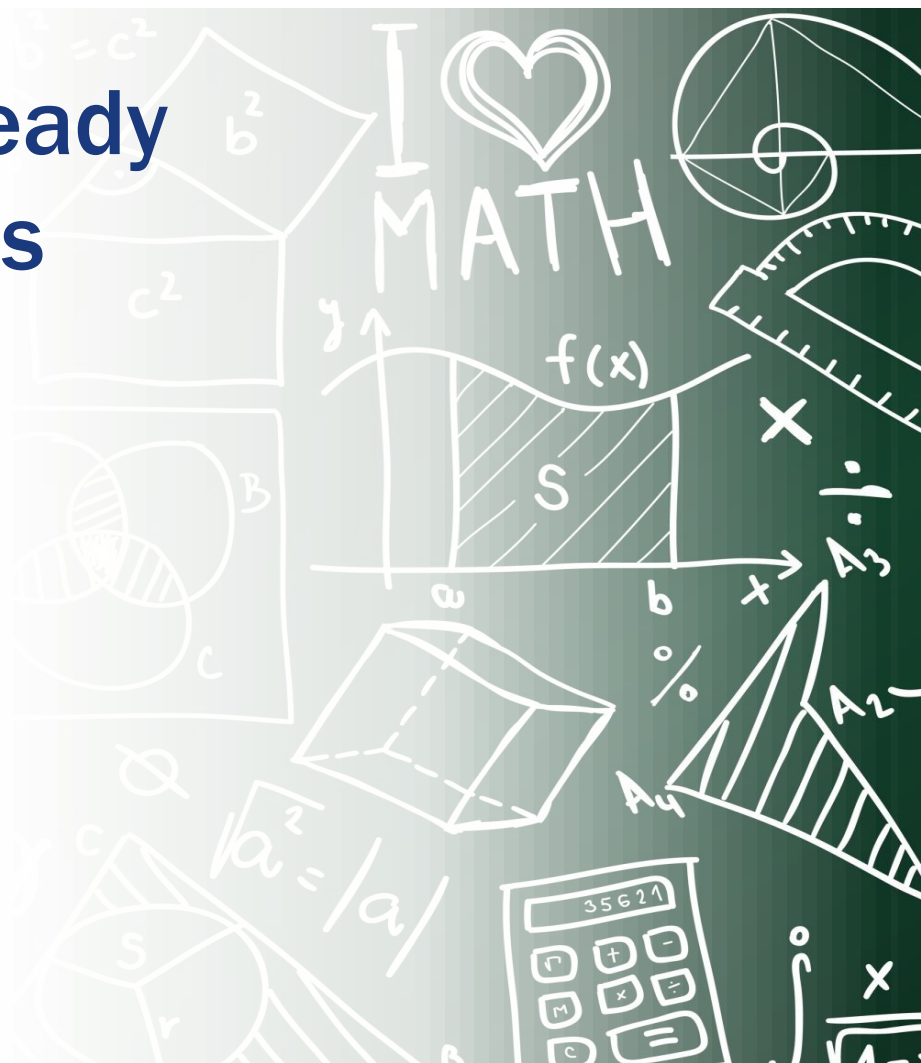


College and Career Ready Required Mathematics

Existing Curriculum

- Algebra I
- Geometry
- Algebra II
- Pre-Calculus
- Calculus

5% of the U.S. Workforce



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

College and Career Ready Required Mathematics

Existing Curriculum

- Algebra I
- Geometry
- Algebra II
- Pre-Calculus
- Calculus

5% of the U.S. Workforce

Workplace Ready



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

College and Career Ready Required Mathematics

Existing Curriculum

- Algebra I
- Geometry
- Algebra II
- Pre-Calculus
- Calculus

5% of the U.S. Workforce

Workplace Ready

- Proportional Relationships



College and Career Ready Required Mathematics

Existing Curriculum

- Algebra I
- Geometry
- Algebra II
- Pre-Calculus
- Calculus

5% of the U.S. Workforce

Workplace Ready

- Proportional Relationships
 - Percentages



College and Career Ready Required Mathematics

Existing Curriculum

- Algebra I
- Geometry
- Algebra II
- Pre-Calculus
- Calculus

5% of the U.S. Workforce

Workplace Ready

- Proportional Relationships
 - Percentages
 - Graphical Representations



College and Career Ready Required Mathematics

Existing Curriculum

- Algebra I
- Geometry
- Algebra II
- Pre-Calculus
- Calculus

5% of the U.S. Workforce

Workplace Ready

- Proportional Relationships
 - Percentages
 - Graphical Representations
 - Functions

College and Career Ready Required Mathematics

Existing Curriculum

- Algebra I
- Geometry
- Algebra II
- Pre-Calculus
- Calculus

5% of the U.S. Workforce

Workplace Ready

- Proportional Relationships
 - Percentages
 - Graphical Representations
 - Functions
 - Expressions

College and Career Ready Required Mathematics

Existing Curriculum

- Algebra I
- Geometry
- Algebra II
- Pre-Calculus
- Calculus

5% of the U.S. Workforce

Workplace Ready

- Proportional Relationships
 - Percentages
 - Graphical Representations
 - Functions
 - Expressions
 - Equations

Mastery of middle school math at the Quad B/D levels

Existing Curriculum

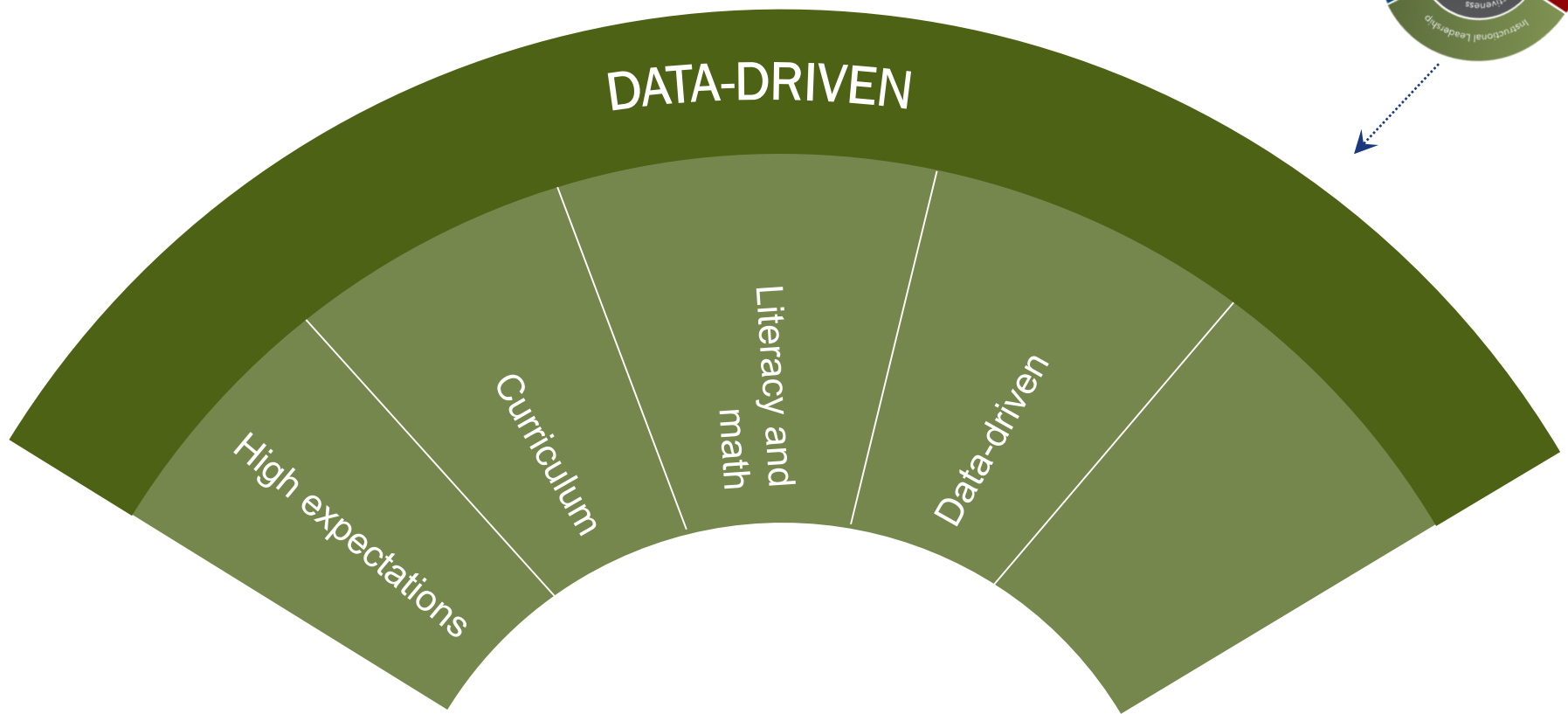
- Algebra I
- Geometry
- Algebra II
- Pre-Calculus
- Calculus

5% of the U.S. Workforce

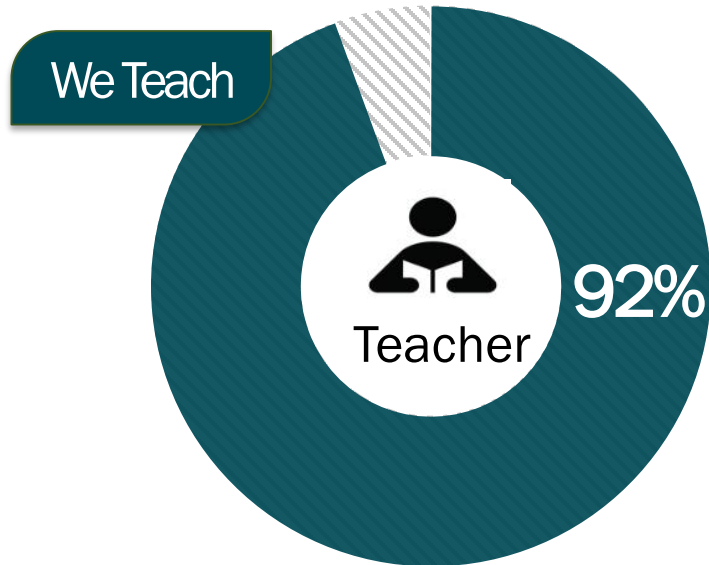
Workplace Ready

- Proportional Relationships
 - Percentages
 - Graphical Representations
 - Functions
 - Expressions
 - Equations

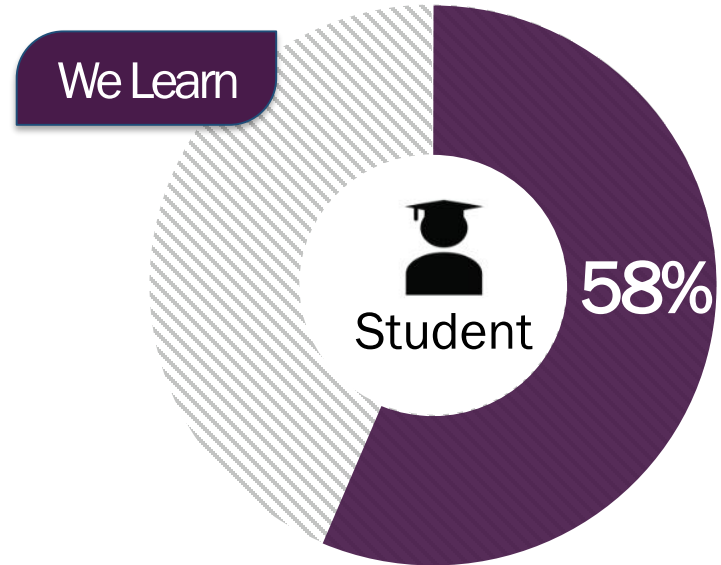
Instructional Leadership



Teacher vs. Student Comparison



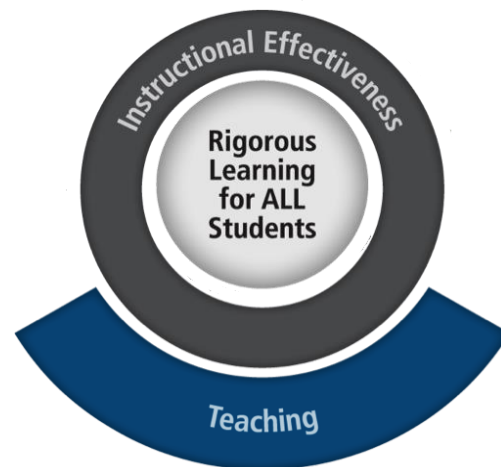
Students can apply what I am teaching to their everyday lives.



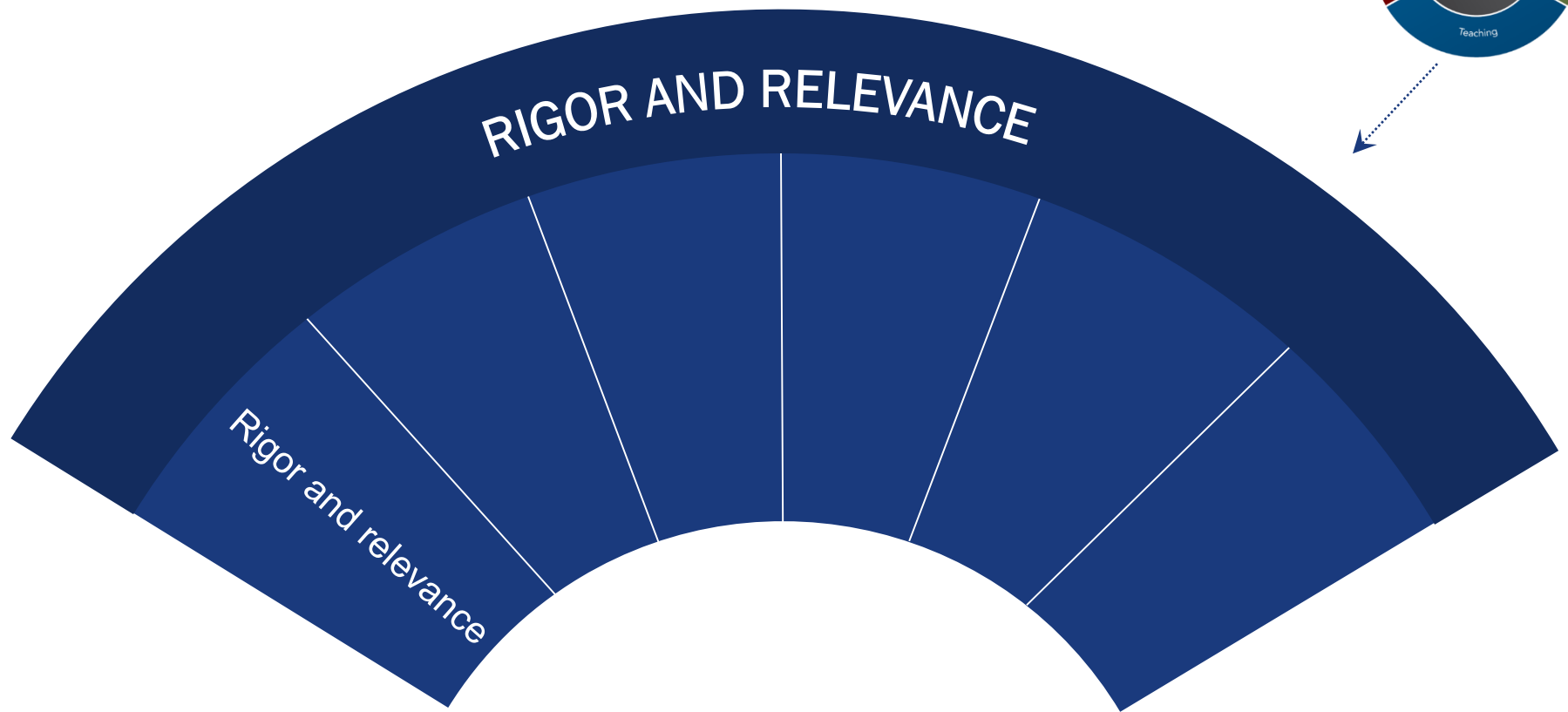
I can apply what I learn to my everyday life.

Instructional Leadership

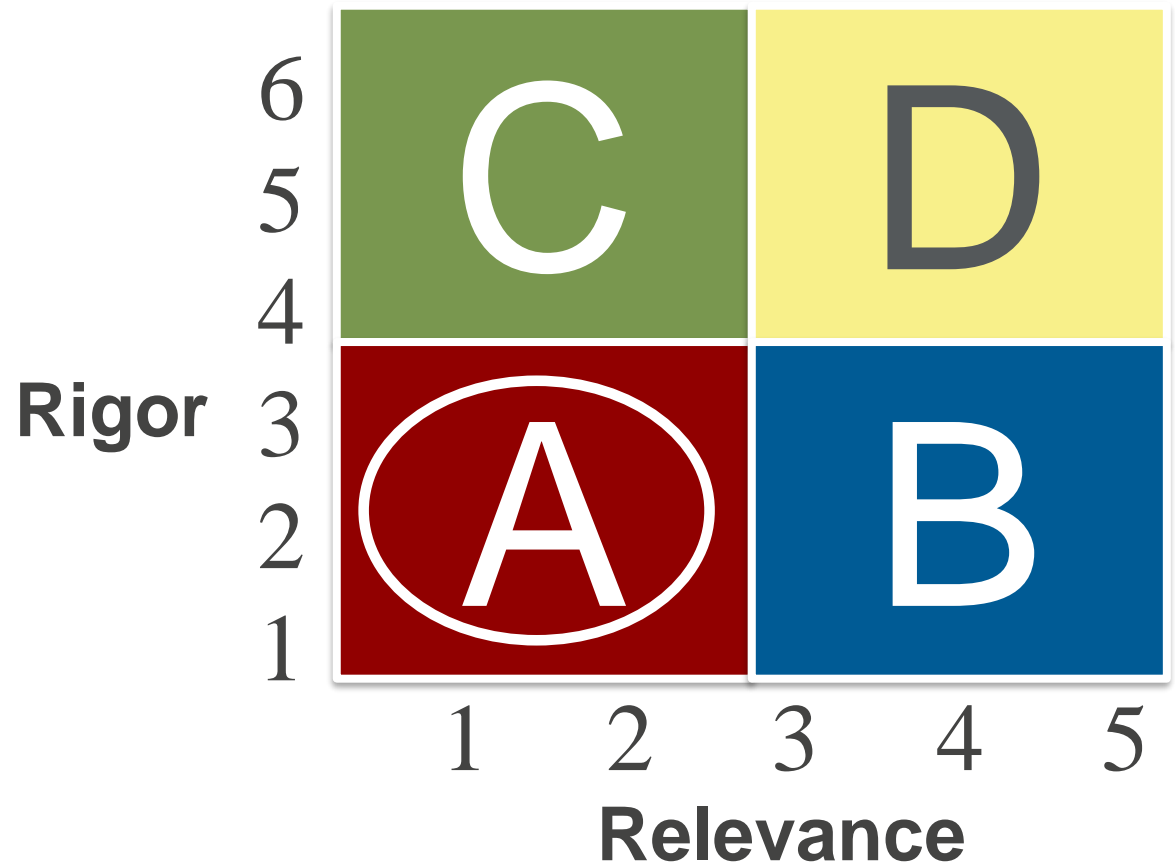




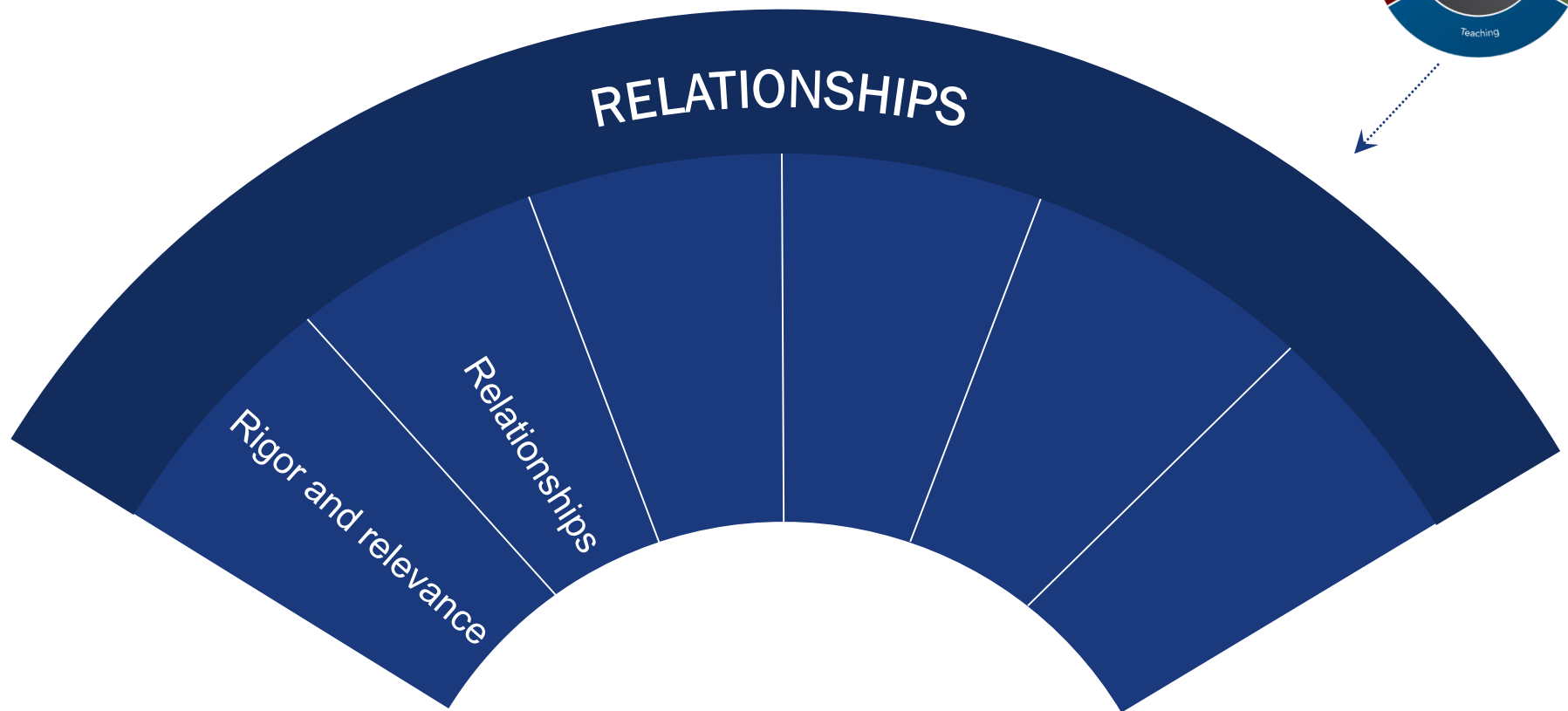
Teaching



Levels



Teaching

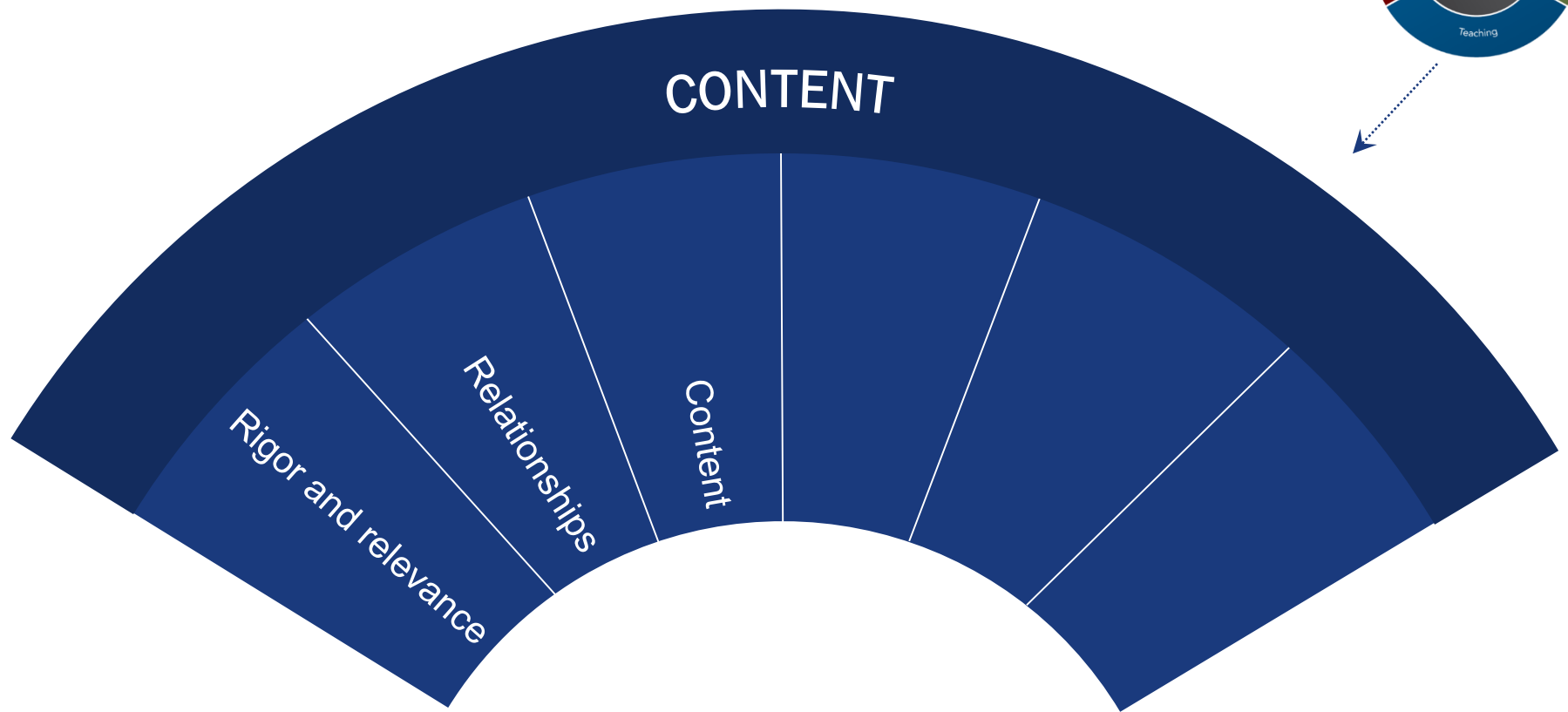


Barry White Jr.

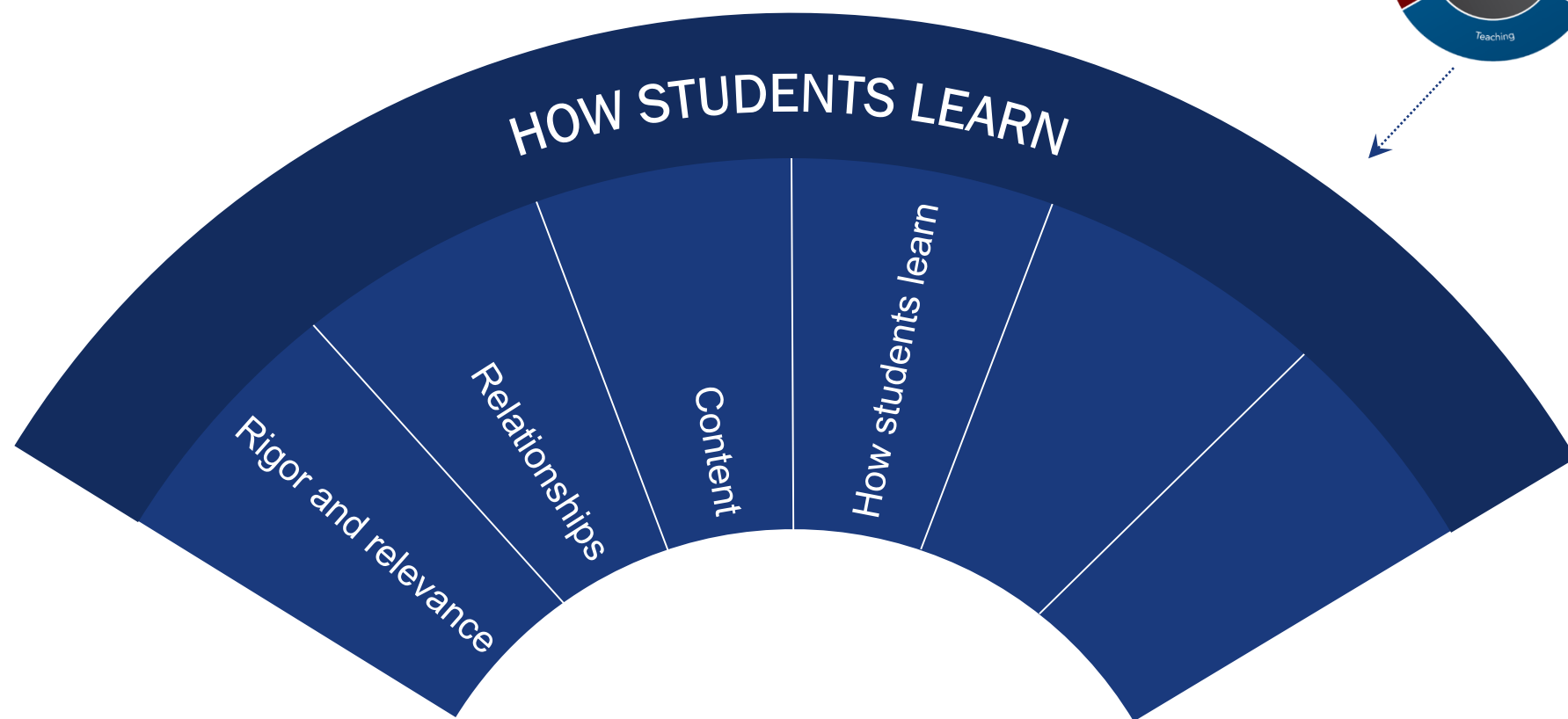




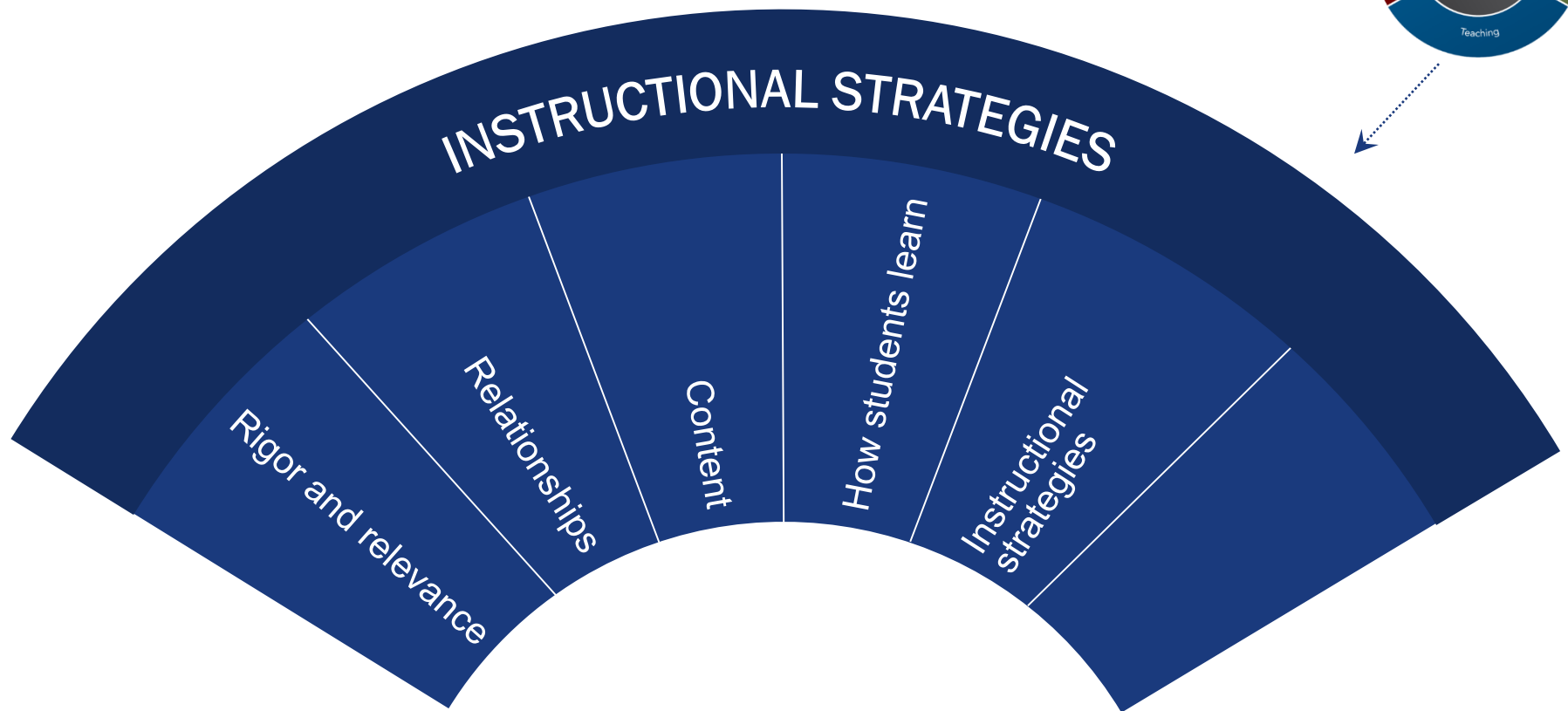
Teaching



Teaching



Teaching



**Students know technology but
not necessarily how it can
support learning.**



**International Center for
Leadership in Education**

A division of
Houghton Mifflin Harcourt

Gamification



Gamification



Engaging



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

Gamification



Engaging

Personalized



Gamification



Engaging

Personalized

Built on Growth Model



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

Gamification



Engaging

Personalized

Built on Growth Model

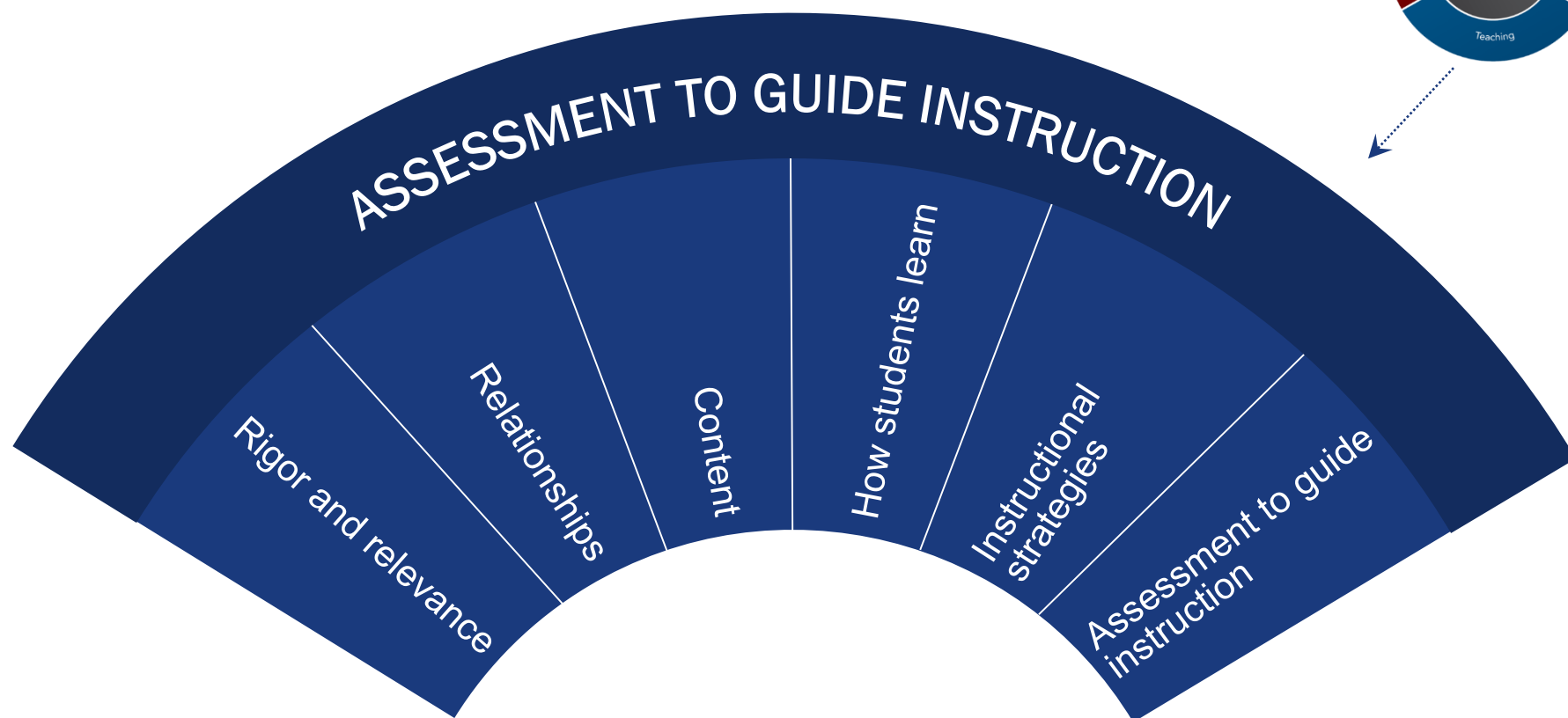
Tied to Standards



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

Teaching



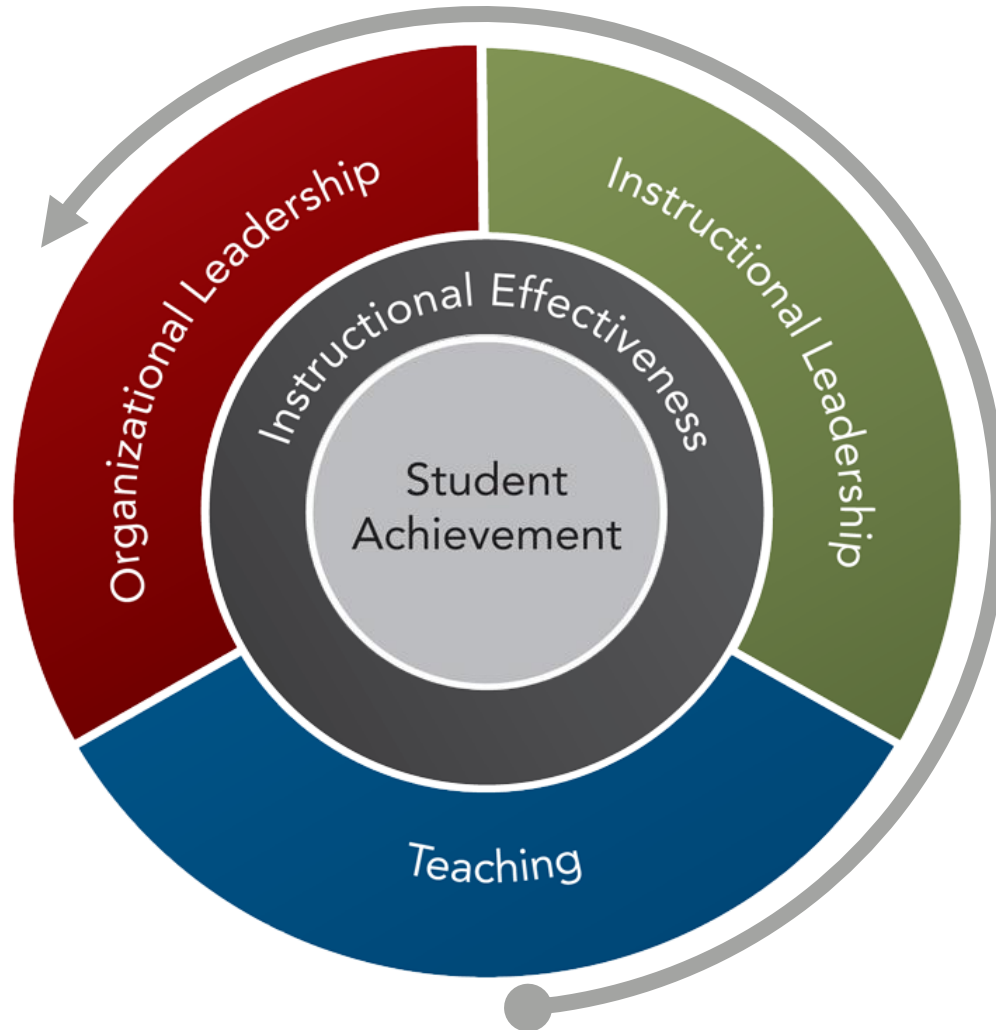
Assessments

Tests

Portfolios

Artifacts of
Student
Work

Observations



Recommendations



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

Recommended Action Items



Create 20-Day Plans

Recommended Action Items



Create 20-Day Plans



Create a Culture – Establish a Vision



International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

Recommended Action Items



Create 20-Day Plans

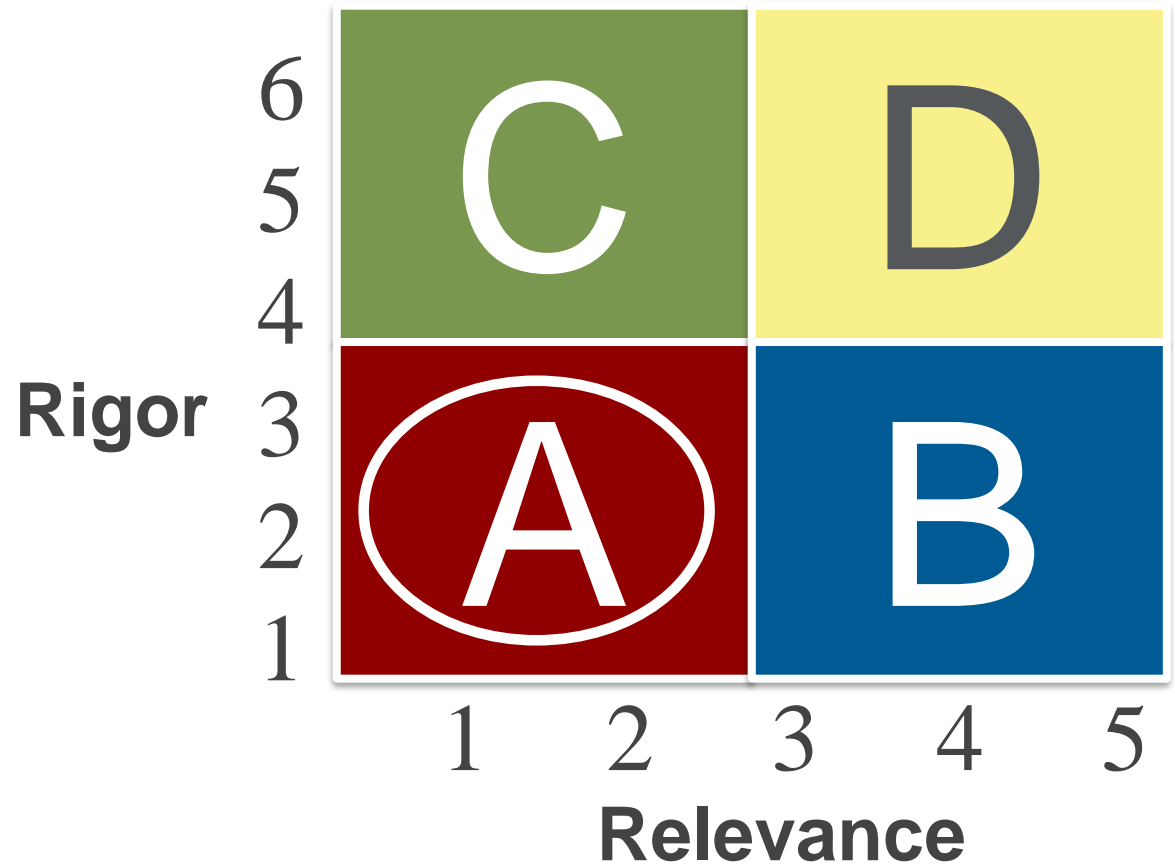


Create a Culture – Establish a Vision



Quad D™ Instruction

Levels



Recommended Action Items



Create 20-Day Plans



Create a Culture – Establish a Vision



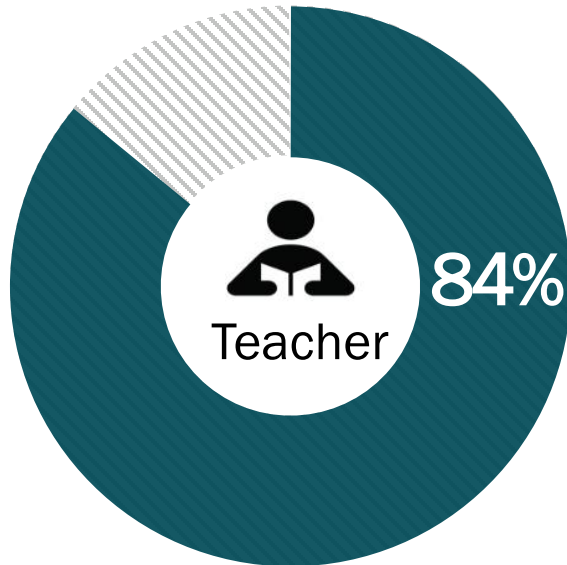
Strive toward Quad D™ Instruction



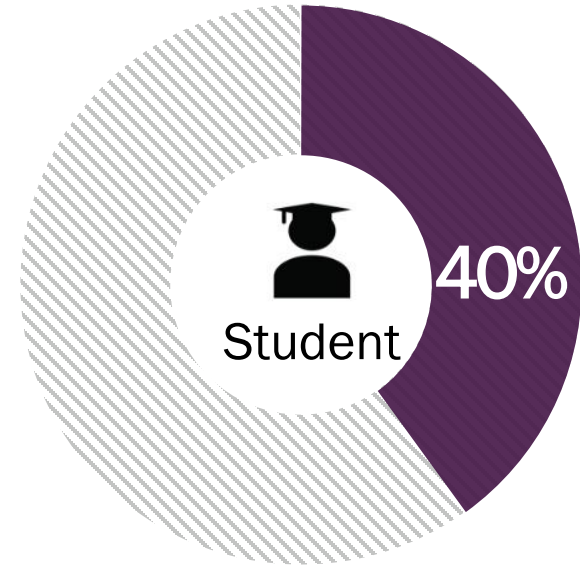
Measure What Matters



Teacher vs. Student Comparison



I make learning exciting
for my students.



My teachers make
learning exciting.

Recommended Action Items



Professional Learning

Recommended Action Items



Professional Learning



Leadership Development/Executive Coaching

THE DAGGETT SYSTEM FOR EFFECTIVE INSTRUCTION

Alignment for Student Achievement



Bill Daggett



**International Center for
Leadership in Education**

A division of
Houghton Mifflin Harcourt

SHARE YOUR FEEDBACK!

Through the APP or

<https://tinyurl.com/n57tofo>

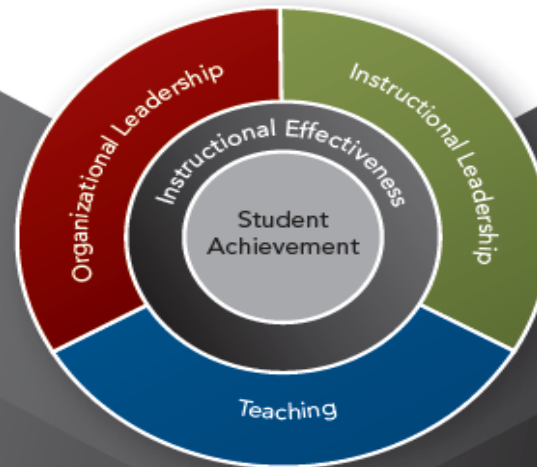
Or QR Code



THE DAGGETT SYSTEM FOR EFFECTIVE INSTRUCTION

.....

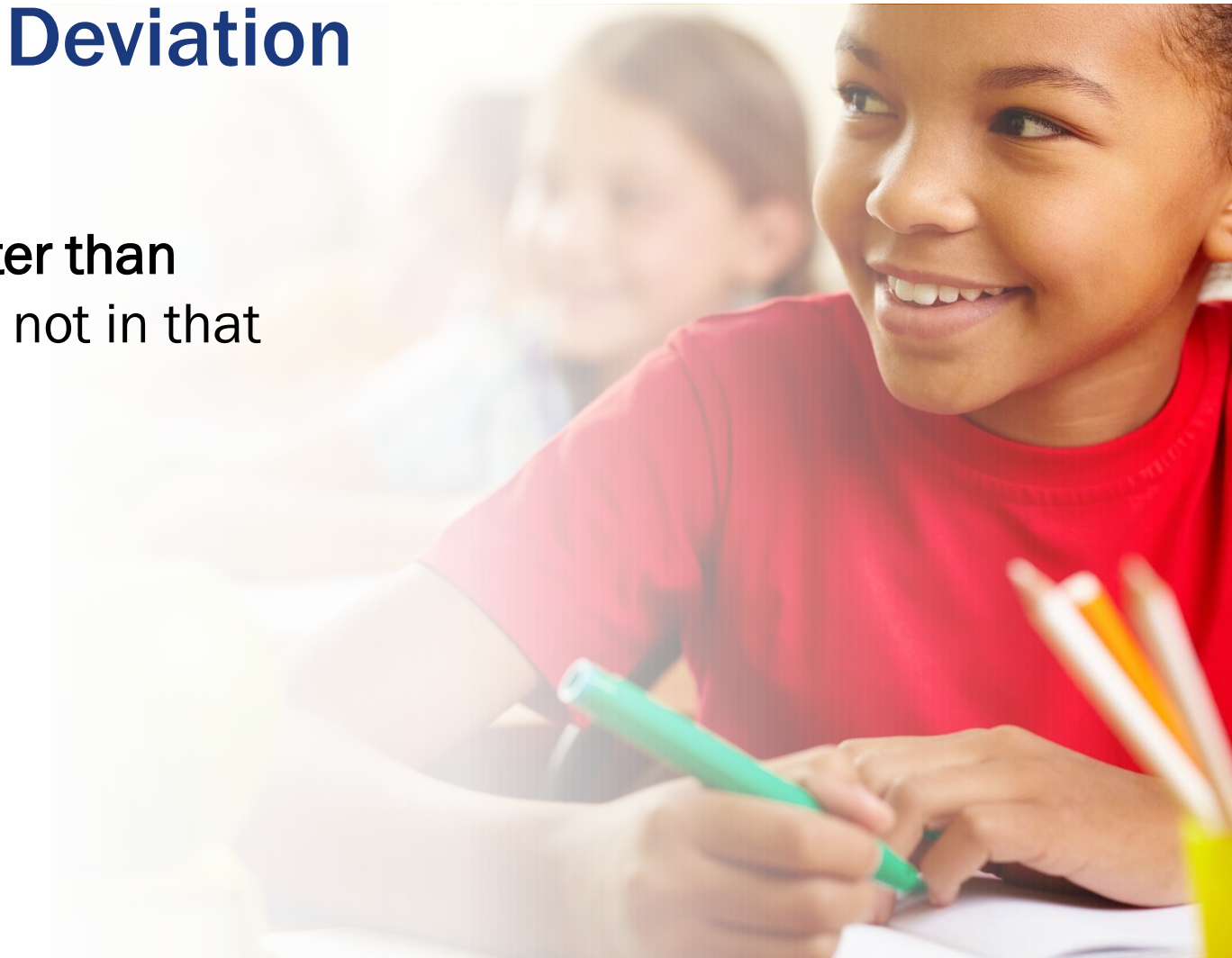
Alignment for Student Achievement



Bill Daggett

1 Standard Deviation

Students do **better than 84% of students** not in that initiative.



1 Standard Deviation

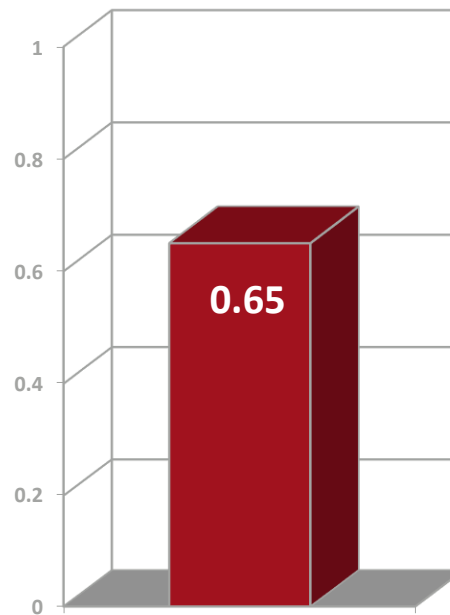
Students do **better than 84% of students** not in that initiative.

Typically represent **2 years growth in 1 year**



Application of Knowledge

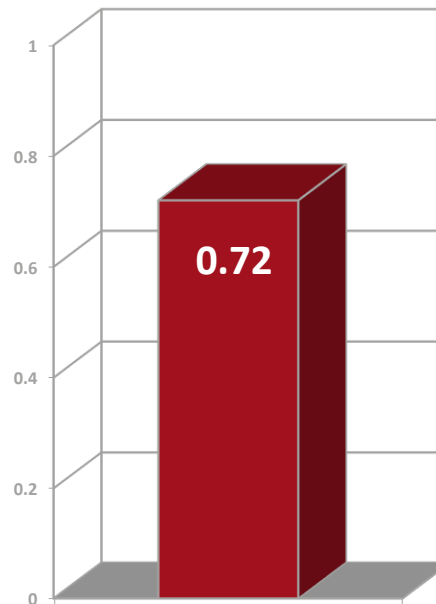
Effective



.65 SD = 1.30 Years
Growth per Year

Student-Teacher Relationship

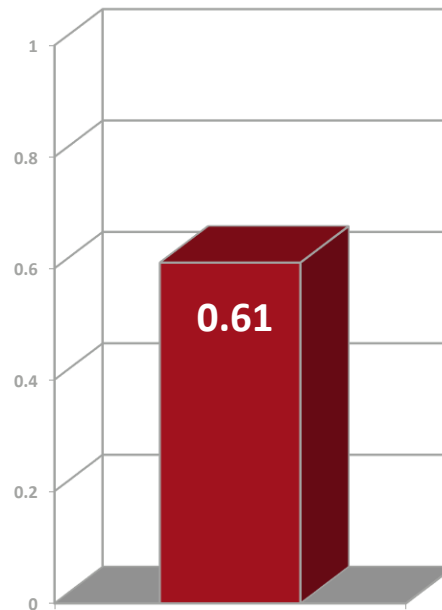
Effective



.72 SD = 1.44 Years
Growth per Year

Literacy Strategies

Effective



.61 SD = 1.22 Years
Growth per Year

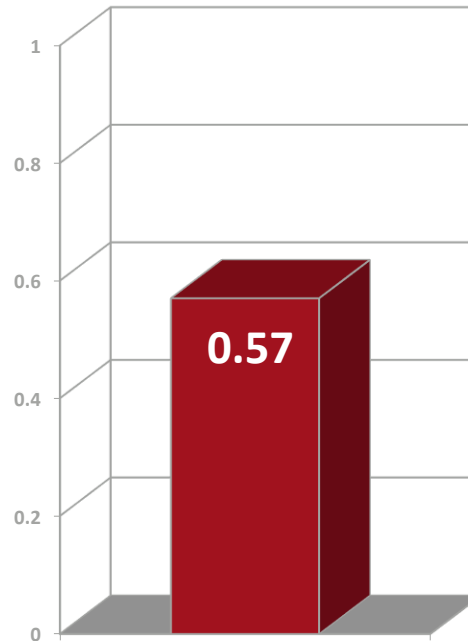
Focus

What is effective?

What can you impact?

Socioeconomic Status

Effective





**You Cannot Change Where
YOUR STUDENTS CAME FROM**

However

**You Can Change Where
YOUR STUDENTS ARE GOING**



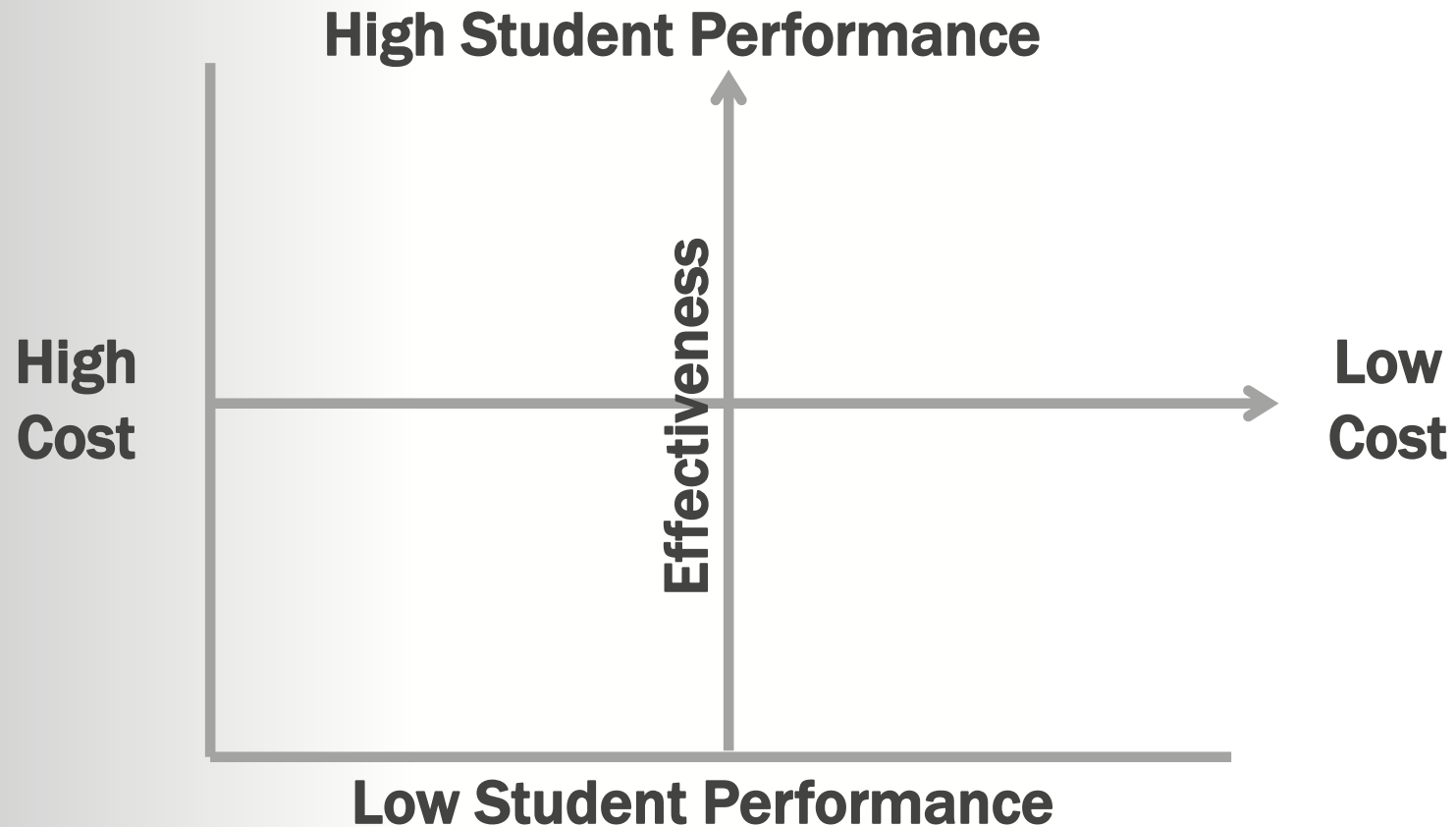
**International Center for
Leadership in Education**

A division of
Houghton Mifflin Harcourt

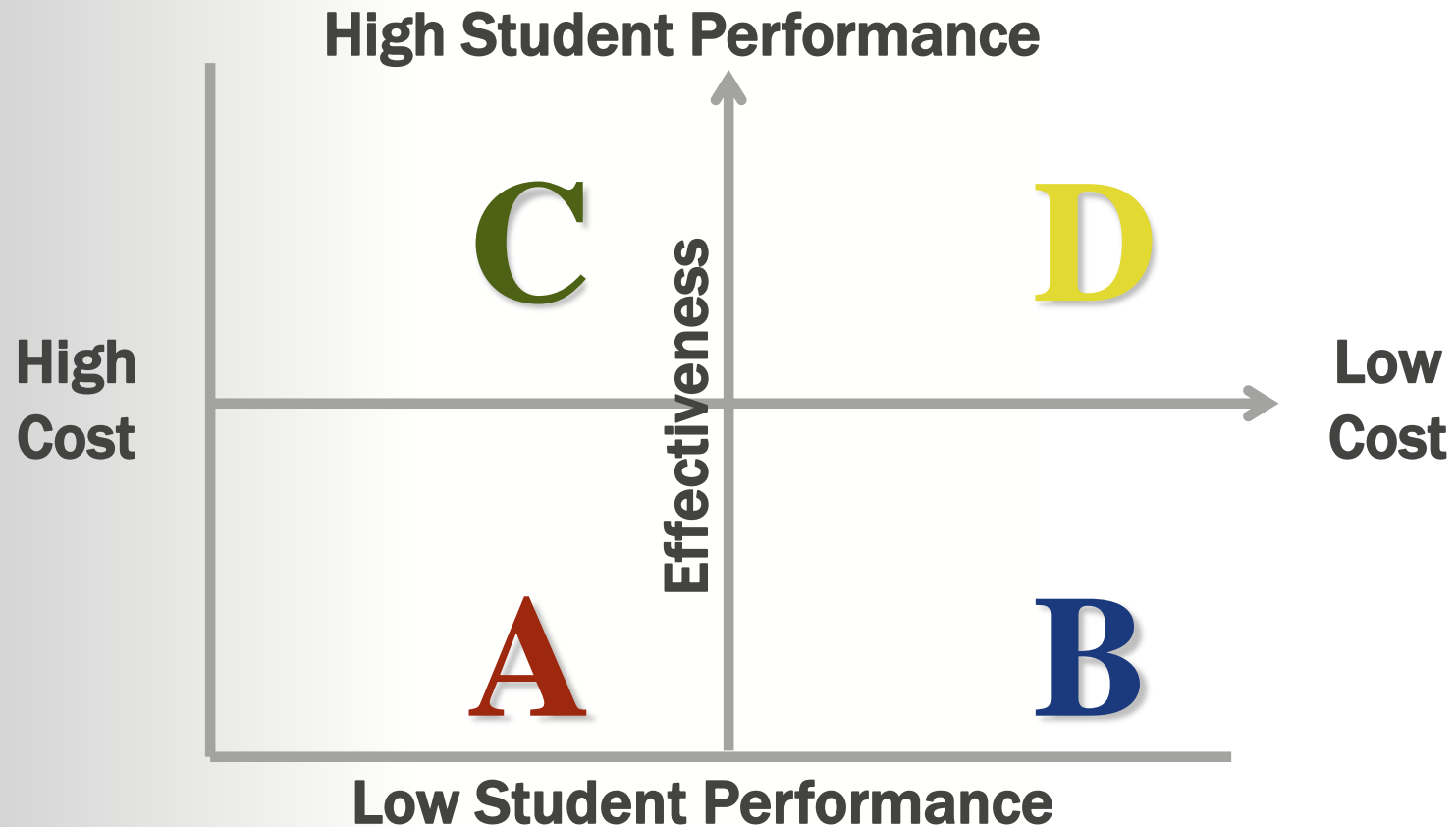
Effectiveness and Efficiency Framework



Effectiveness and Efficiency Framework

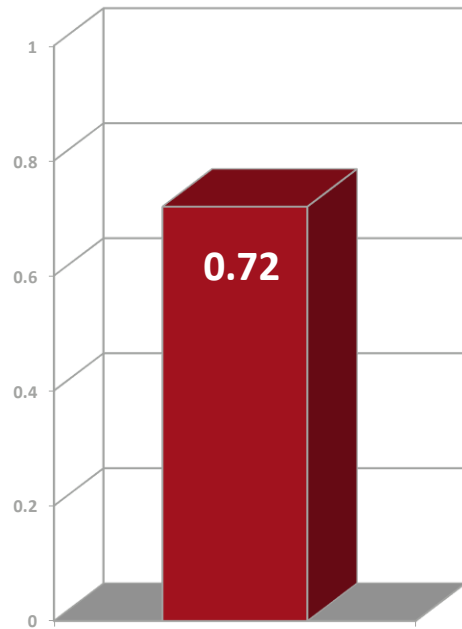


Effectiveness and Efficiency Framework

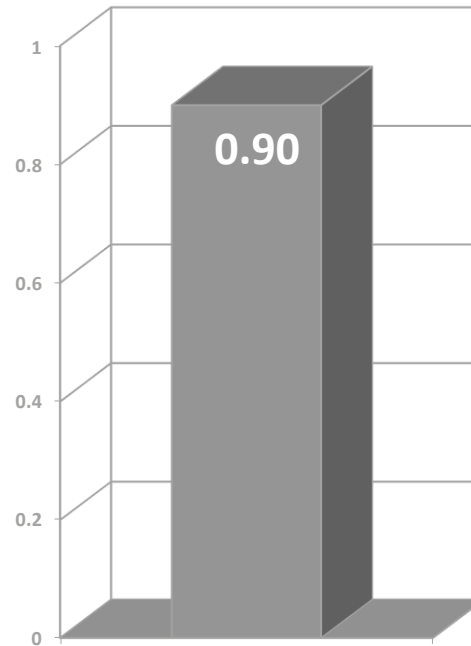


Student-Teacher Relationship

Effective

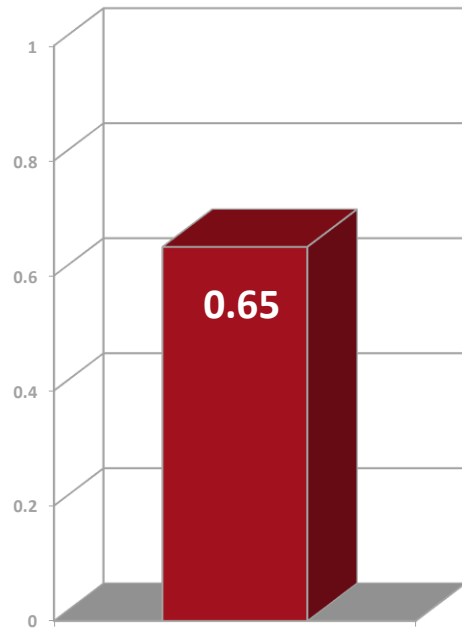


Efficient

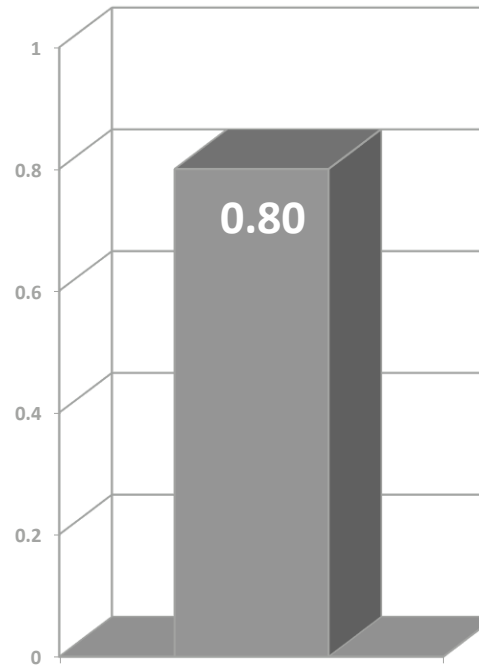


Application of Knowledge

Effective

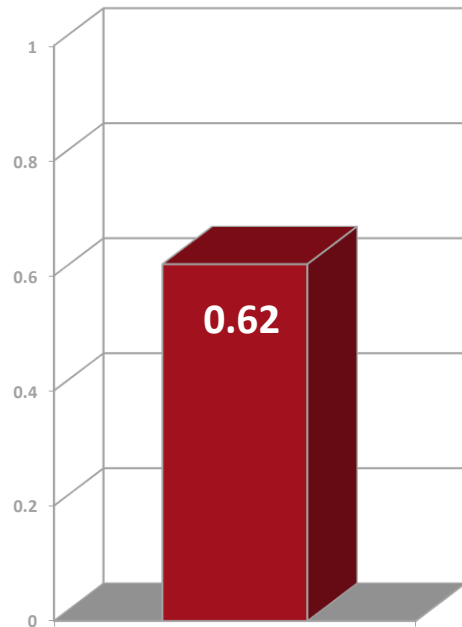


Efficient

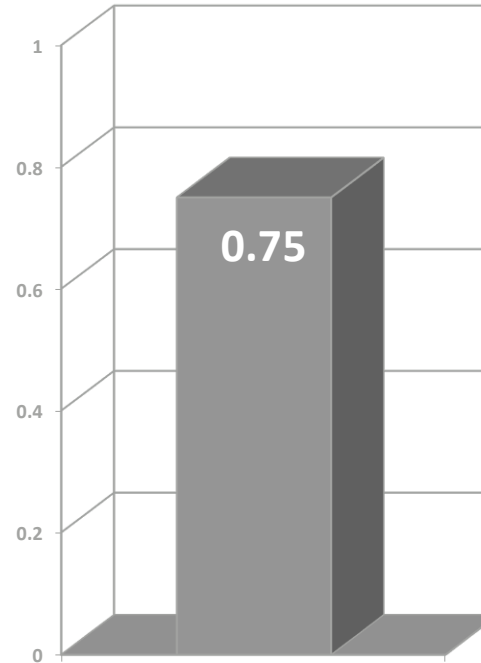


Professional Development

Effective

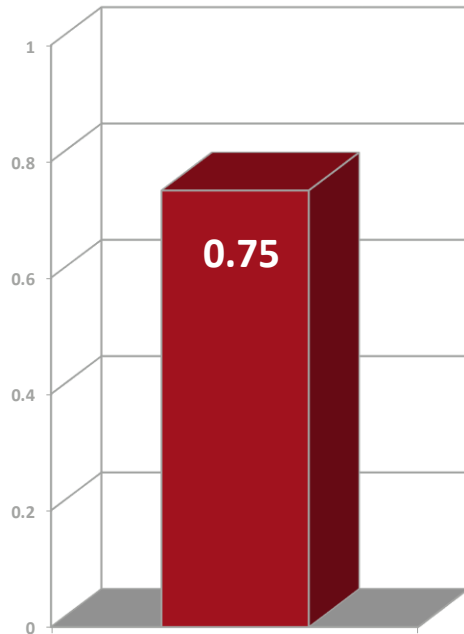


Efficient

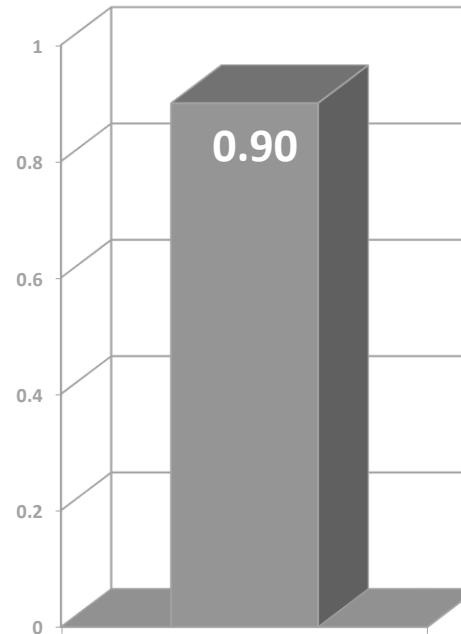


Teacher Expectations and Clarity

Effective

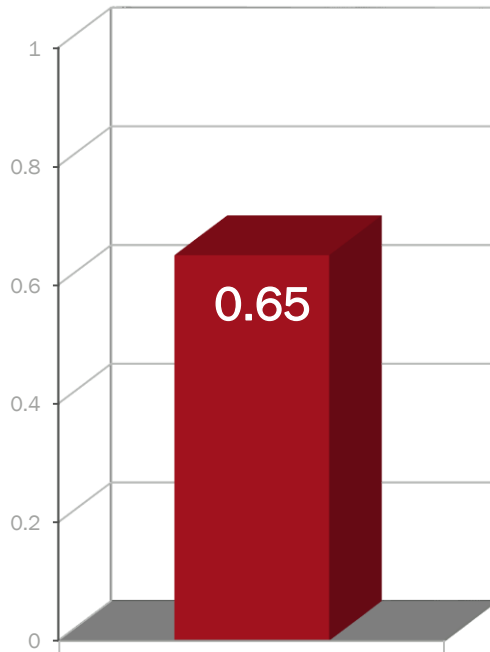


Efficient

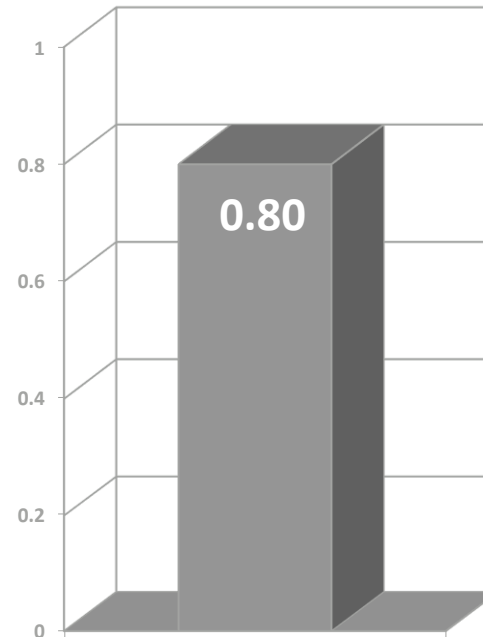


Assessment to Inform and Differentiate Instruction

Effective

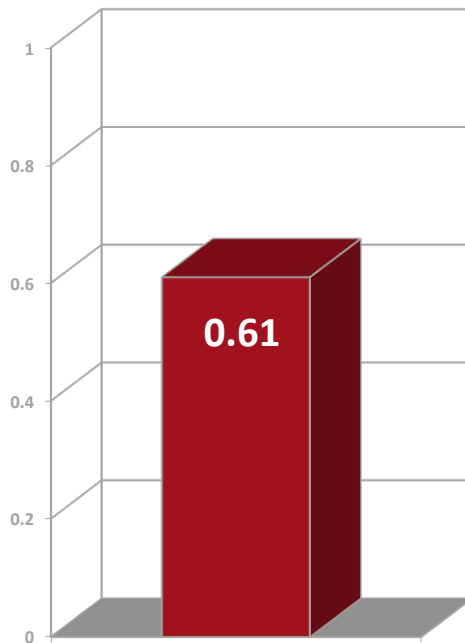


Efficient

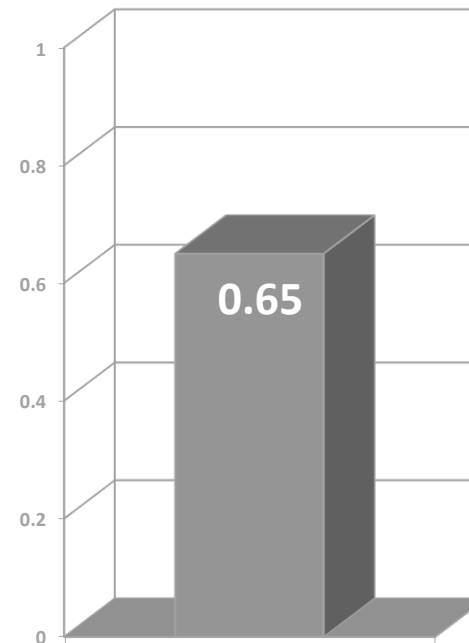


Literacy Strategies

Effective



Efficient



Less Effective

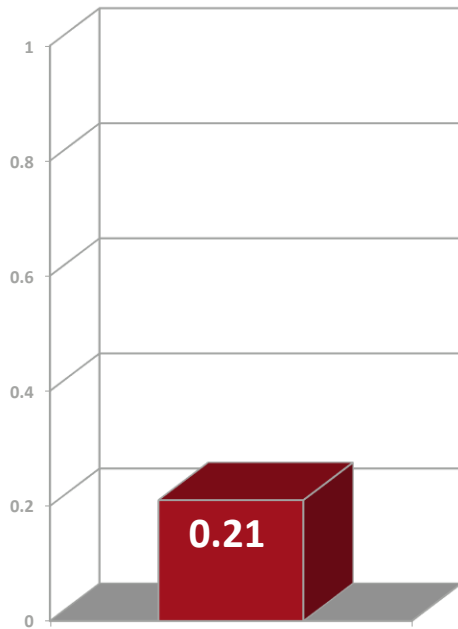


International Center for
Leadership in Education

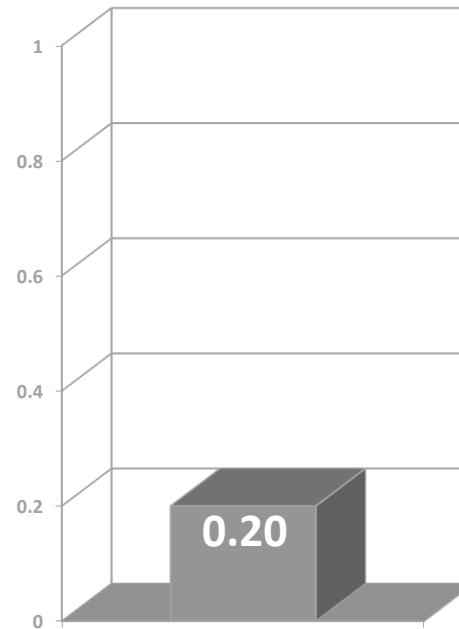
A division of
Houghton Mifflin Harcourt

Class Size

Effective

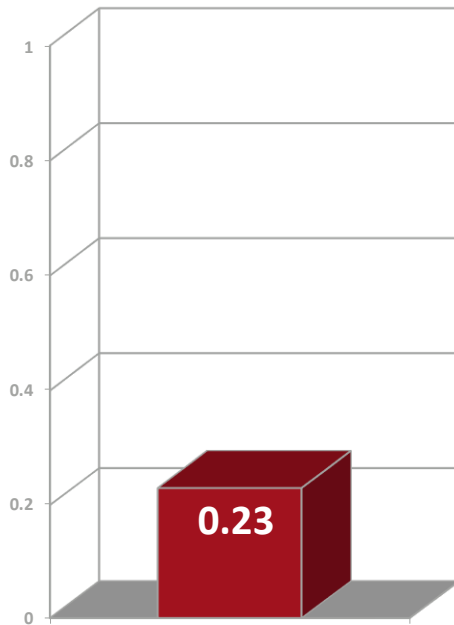


Efficient

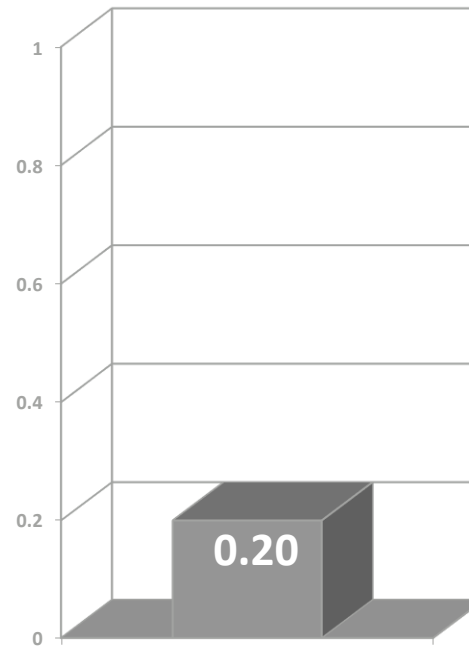


Summer School

Effective



Efficient



iPhone



The Order of Things Have Changed

- **Uber:** The world's largest taxi company, owns no vehicles.

The Order of Things Have Changed

- **Uber:** The world's largest taxi company, owns no vehicles
- **Facebook:** The world's most popular media owner, creates no content.

The Order of Things Have Changed

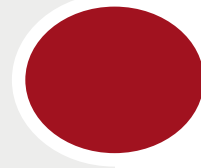
- **Uber:** The world's largest taxi company, owns no vehicles
- **Facebook:** The world's most popular media owner, creates no content
- **Alibaba:** The world's most valuable retailer, has no merchandise.

The Order of Things Have Changed

- **Uber:** The world's largest taxi company, owns no vehicles
- **Facebook:** The world's most popular media owner, creates no content
- **Alibaba:** The world's most valuable retailer, has no merchandise
- **Airbnb:** The world's largest accommodation provider, owns no real estate.



The Nation's Most Rapidly Improving Schools



Culture Trumps Strategy

The Nation's Most Rapidly Improving Schools



Culture Trumps Strategy



Are Future Focused

WHY

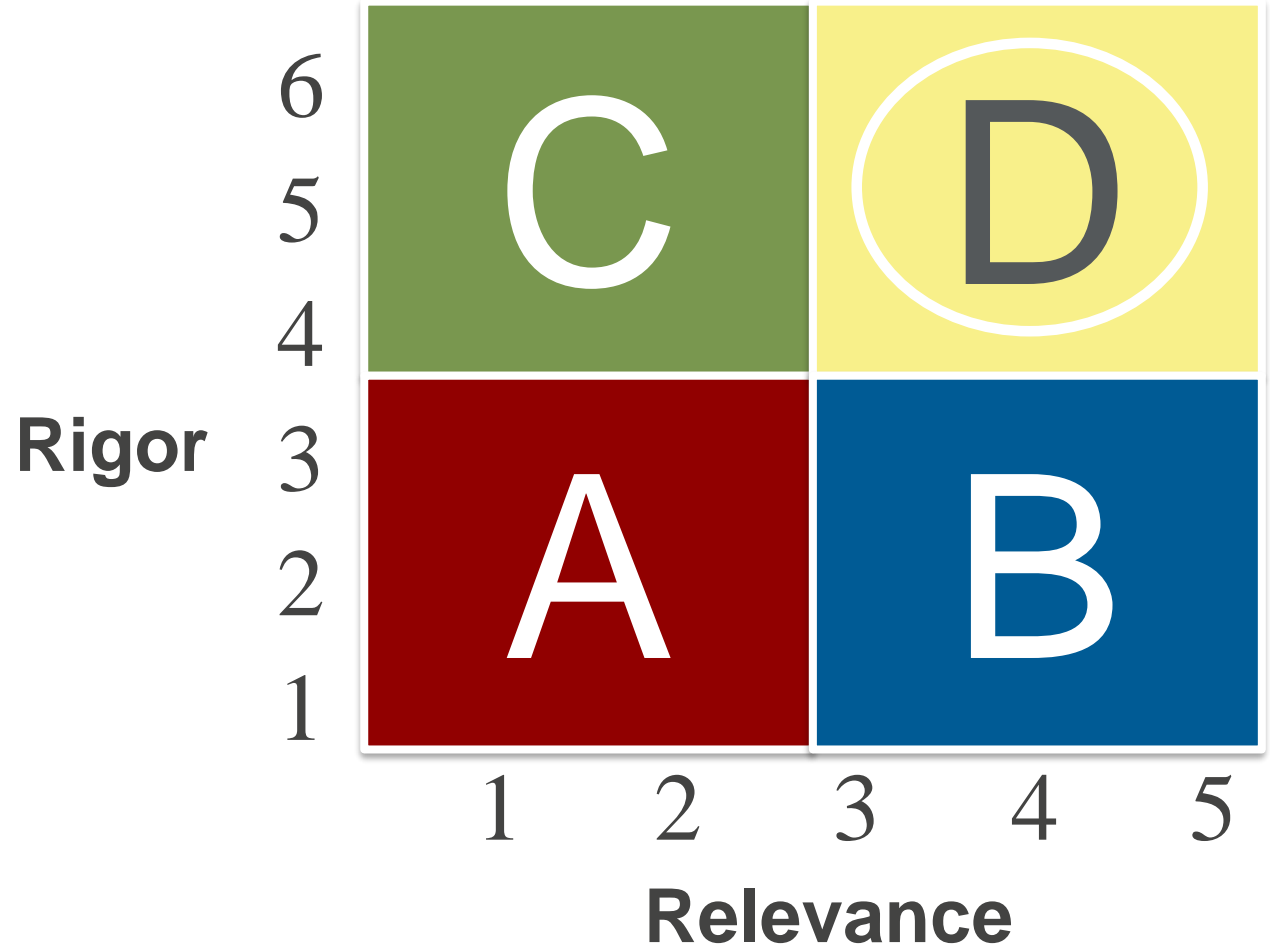
WHY – WHAT



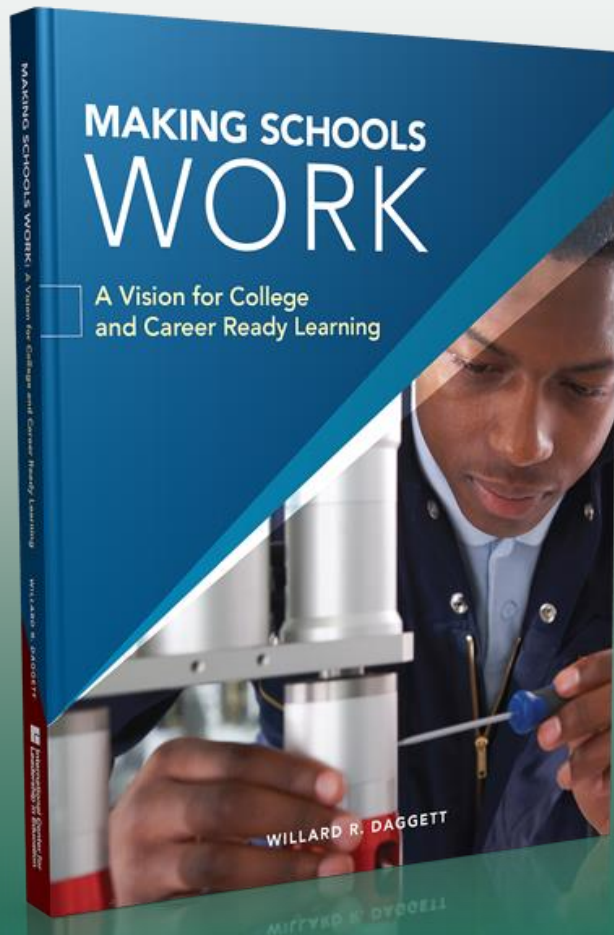
International Center for
Leadership in Education

A division of
Houghton Mifflin Harcourt

Levels



A must-read for all education stakeholders



by Dr. Bill Daggett

Highlights the six core values that underpin the vision at leading-edge schools, and the frameworks to fold them into your own district, school, and classrooms.

PURCHASE YOUR COPY TODAY
Store.LeaderEd.com



Leadership Academy 2017

November 3-5 | The Gaylord Texan | Dallas



Equip your team with skills and strategies that will build instructional leadership!

- Building Learning Mindsets
- Instructional Leadership and Excellence
- Digital Leadership and Learning
- Equity and Cultural Relevance



STANDARDS

TESTS

**TEACHER
EVALUATIONS**



Leadership Academy 2017

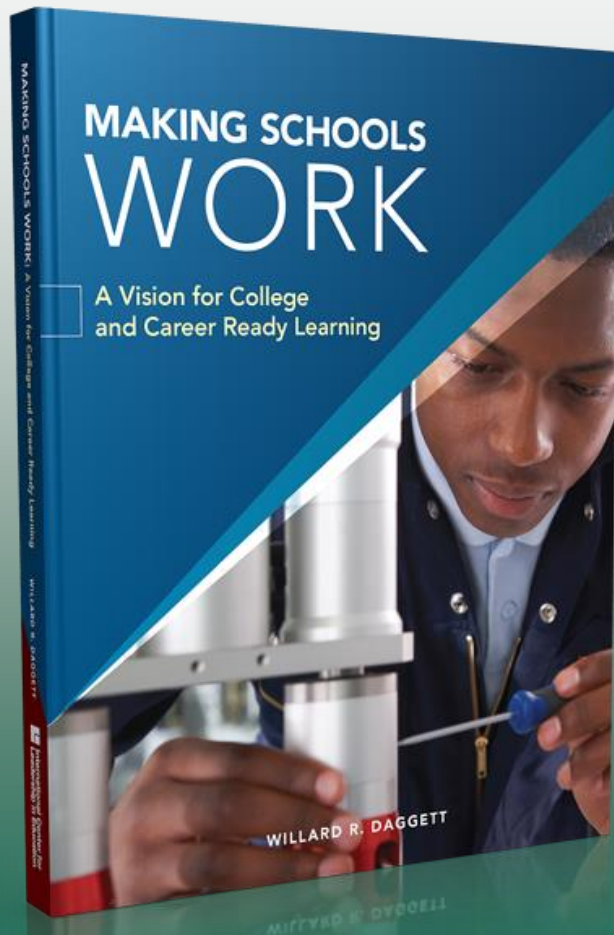
November 3-5 | The Gaylord Texan | Dallas



Equip your team with skills and strategies that will build instructional leadership!

- Building Learning Mindsets
- Instructional Leadership and Excellence
- Digital Leadership and Learning
- Equity and Cultural Relevance

A must-read for all education stakeholders



by Dr. Bill Daggett

Highlights the six core values that underpin the vision at leading-edge schools, and the frameworks to fold them into your own district, school, and classrooms.

PURCHASE YOUR COPY TODAY
Store.LeaderEd.com



