

Envisioning The Future of Education

**What will public education look like in 20 years,
and how can we best prepare?**



Paula Smith

Head of School

**University Child Development School
Seattle**

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Revolution

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What is
“The Future?”

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Change

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Research

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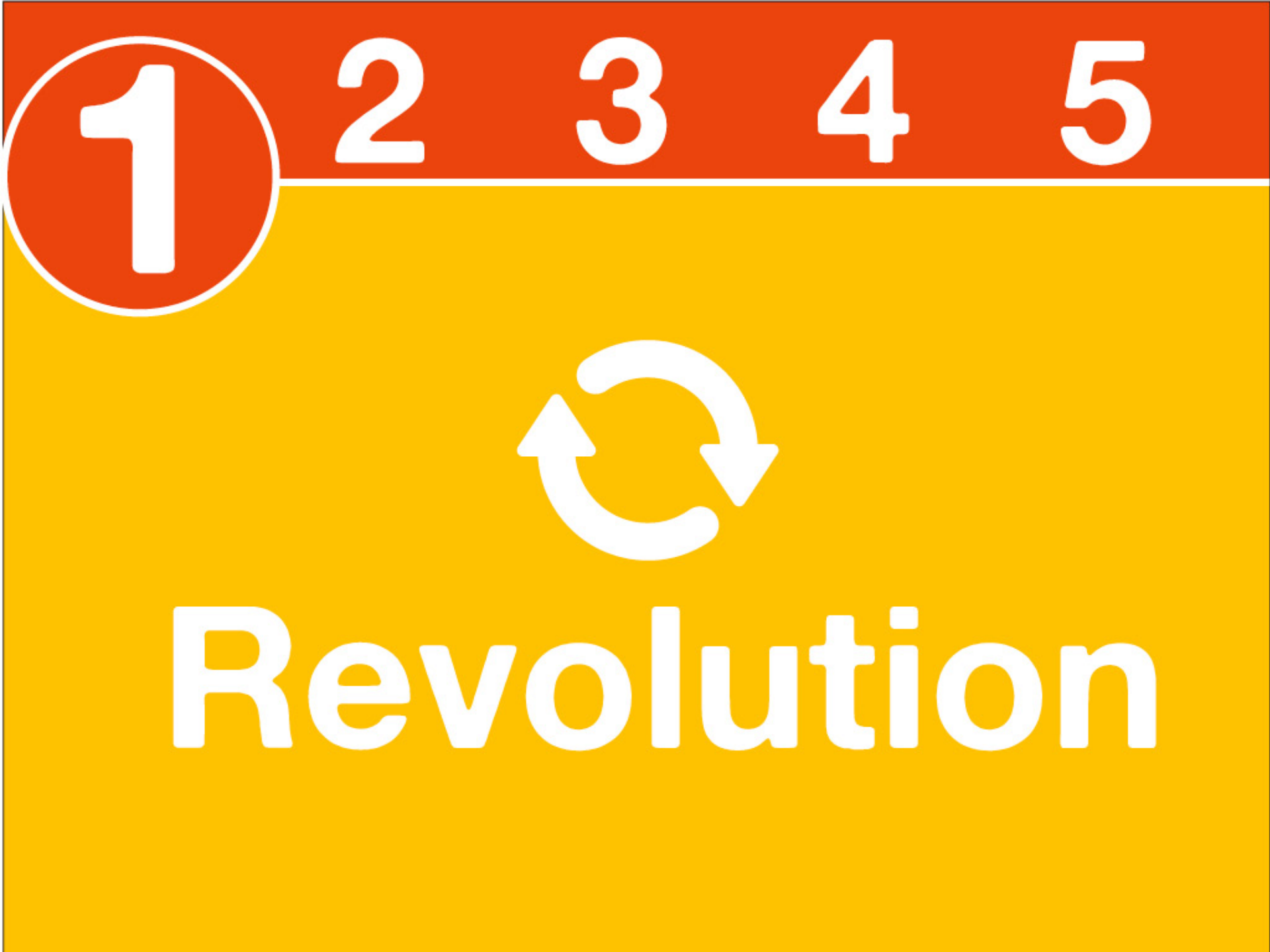
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Future Scenarios





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Revolution



Revolution



We are experiencing a revolution that will change what we teach, the way children learn, and how we organize our schools.



Revolution



The Factory Education Model





Revolution

**We are currently
shifting to a Standards
Model School**



Revolution



**Instant, constant access
to information and others**



Revolution

Video: Did you know?

http://www.youtube.com/watch?v=YmwwrGV_aiE



Revolution



**What will the impact be of
this unprecedented access
through technology?**

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What is
“The Future?”



What is “The Future?”

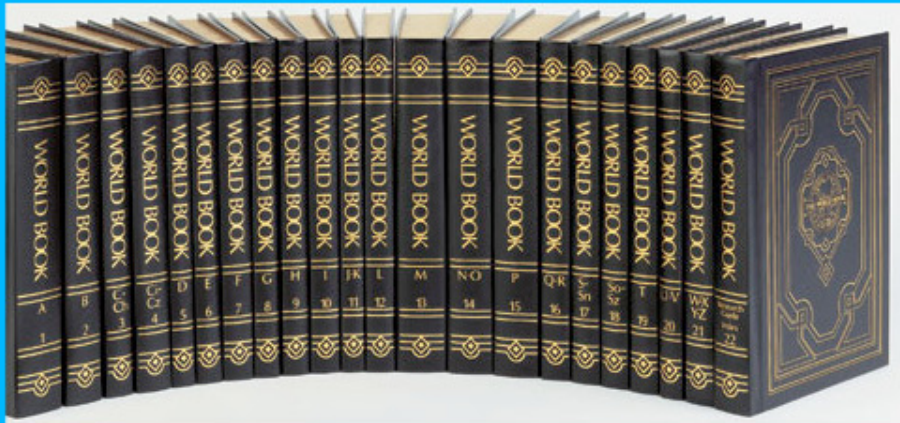


**Changes to the way we
learn, communicate, work,
solve problems...**



What is “The Future?”

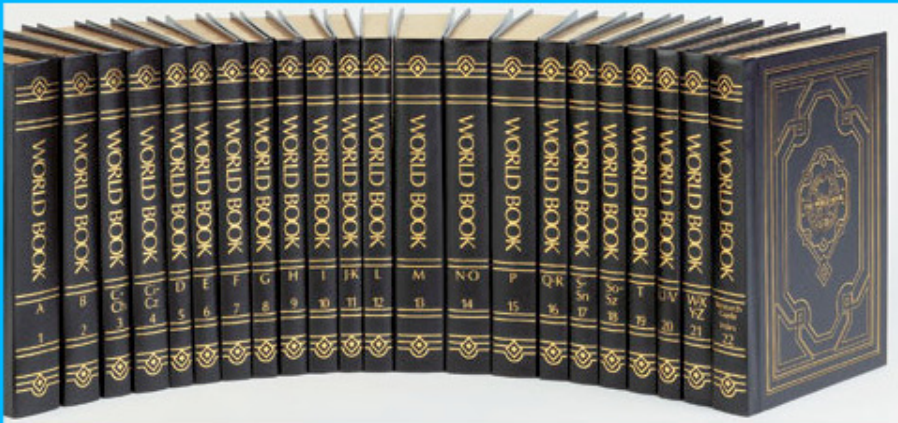
**Sudden and dramatic shift from
limited information...**





What is “The Future?”

...to a glut of information





What is “The Future?”



**Students in the age of the internet
can access literally any information in
seconds, anywhere.**

**These students will be using technology
to access new information to solve
new problems, more than recalling old
information.**



What is “The Future?”



Technology has enabled a growing number of routine jobs – both blue and white collar – to be off-shored or automated. You can’t make more than minimum wage doing a job for which you use your hands.



What is “The Future?”



**...you have to use
your brain.**



What is
“The Future?”



New Worldwide Challenges



What is “The Future?”



Natural Resources



Climate Change



Energy Consumption



**Economic, Social and Political
Interdependence**



What is “The Future?”



It will not be enough that our students know the Three R's.

Our students will need to know how to think... to reason, to analyze, weigh evidence, problem solve and to communicate effectively.



What is “The Future?”



21st Century Skills

Oral Communication Following others' thinking Engage in generative discussions Respond to new ideas and circumstances Lead by Influence Innovate Curiosity Think Analyze Initiate ideas Weigh Evidence Problem Solve Critical Thinking Communicate Effectively Explain thinking Write Well Imagination Creativity Risk-taking Initiative Persistence Self-direction Reflection Character Cross-cultural competency Judgment Flexibility Adaptability Think Analyze Initiate ideas Weigh Evidence Problem Solve Critical Thinking Communicate Effectively Explain thinking Write Well



What is “The Future?”



21st Century Skills

Initiative

Think

Collaborate

Communicate



What is “The Future?”



Our Kindergarten students will need these skills that we do not yet know how to measure to work in ways we cannot yet predict.

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Change



Change



**From Standardized, Factory-
based teaching**



to Individualized Instruction.



Change



The Factory Education Model





Change

Video: Ken Robinson

<http://www.youtube.com/watch?v=zDZFcDGpL4U&NR=1&feature=endscreen>



Change

Factory-Model Quality Control





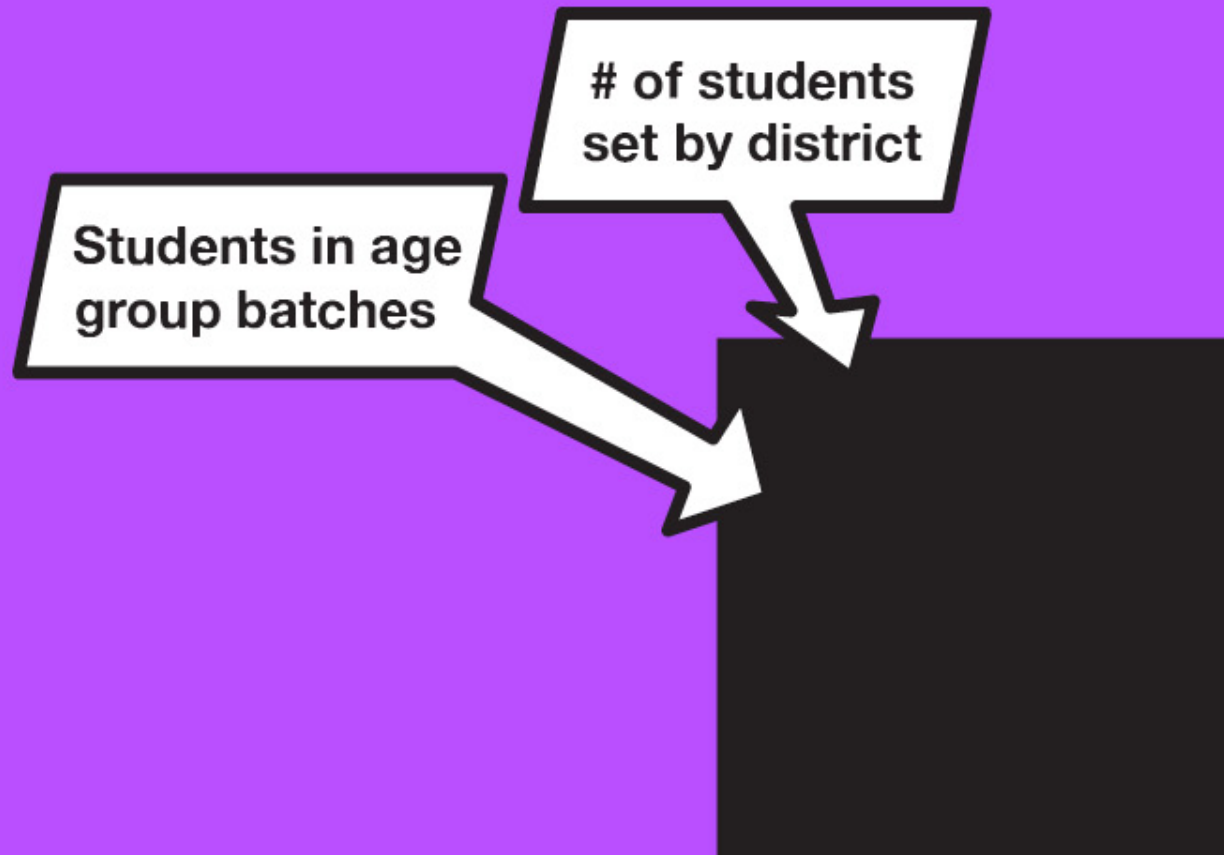
Change

of students
set by district



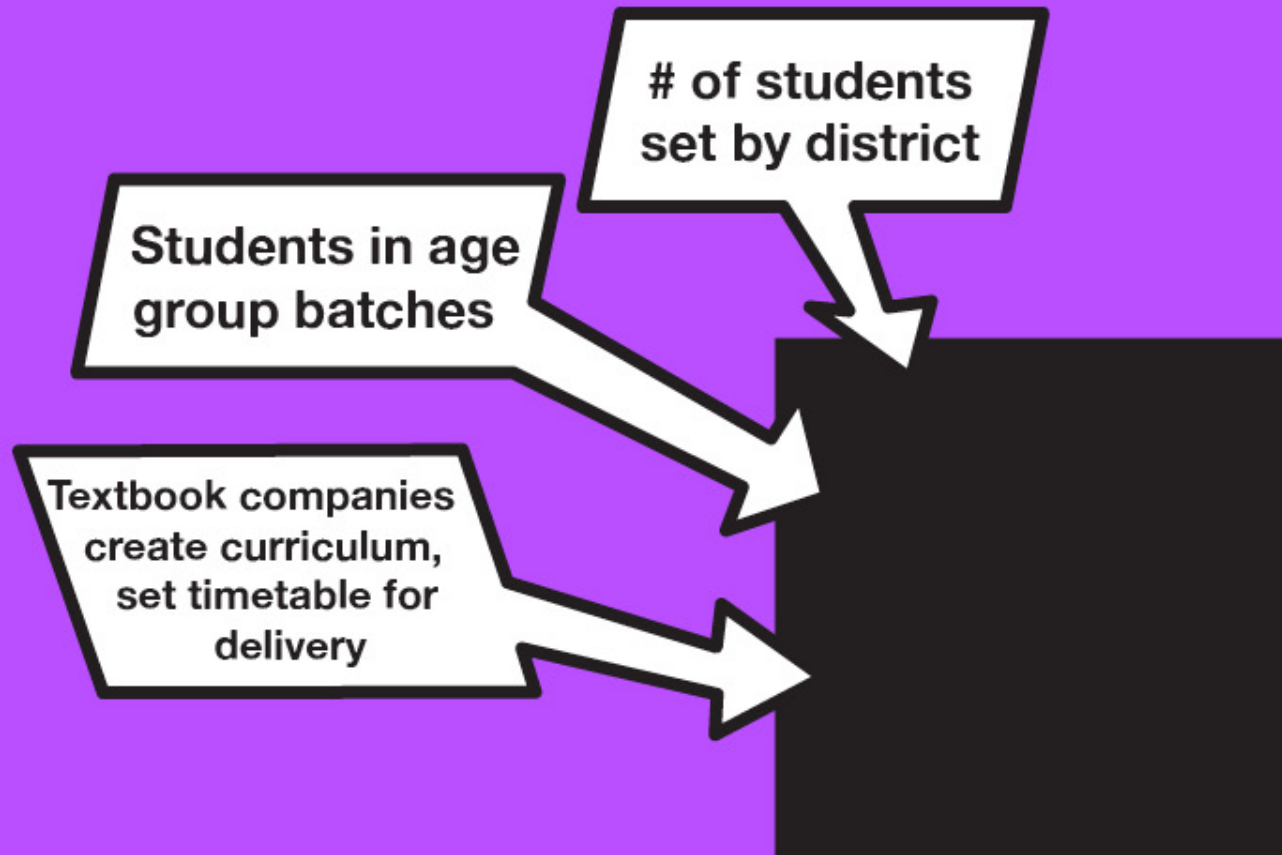


Change



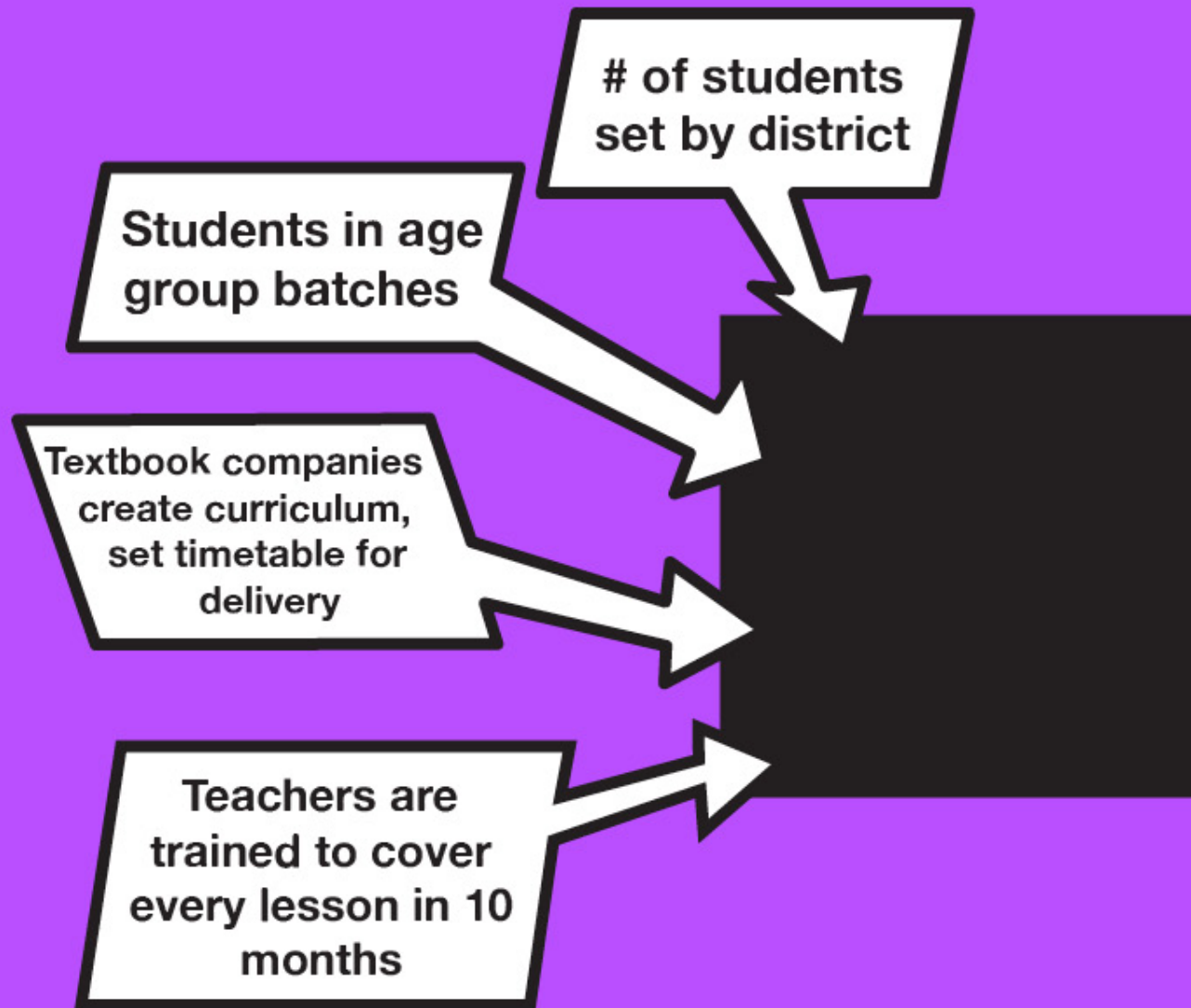


Change



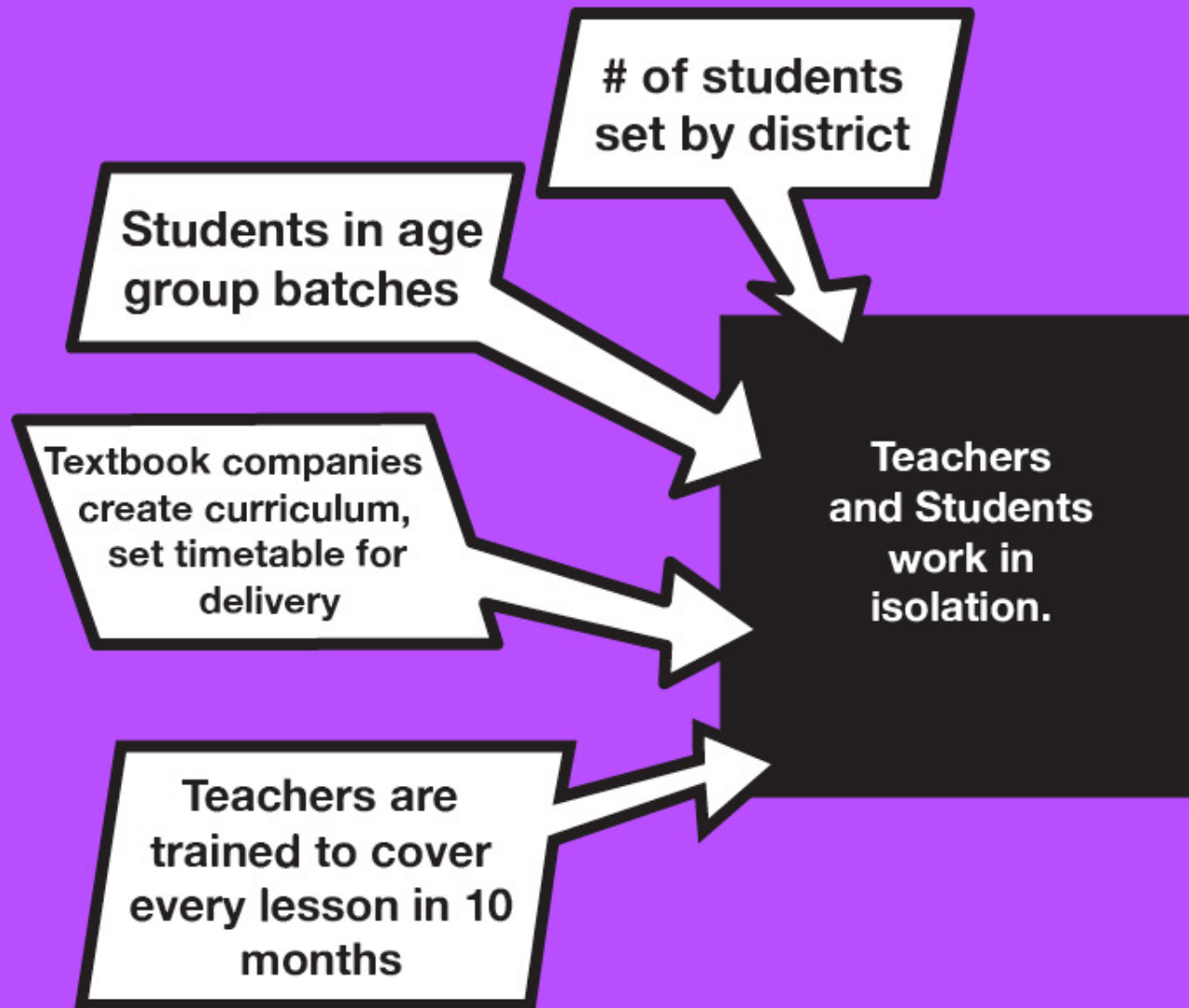


Change



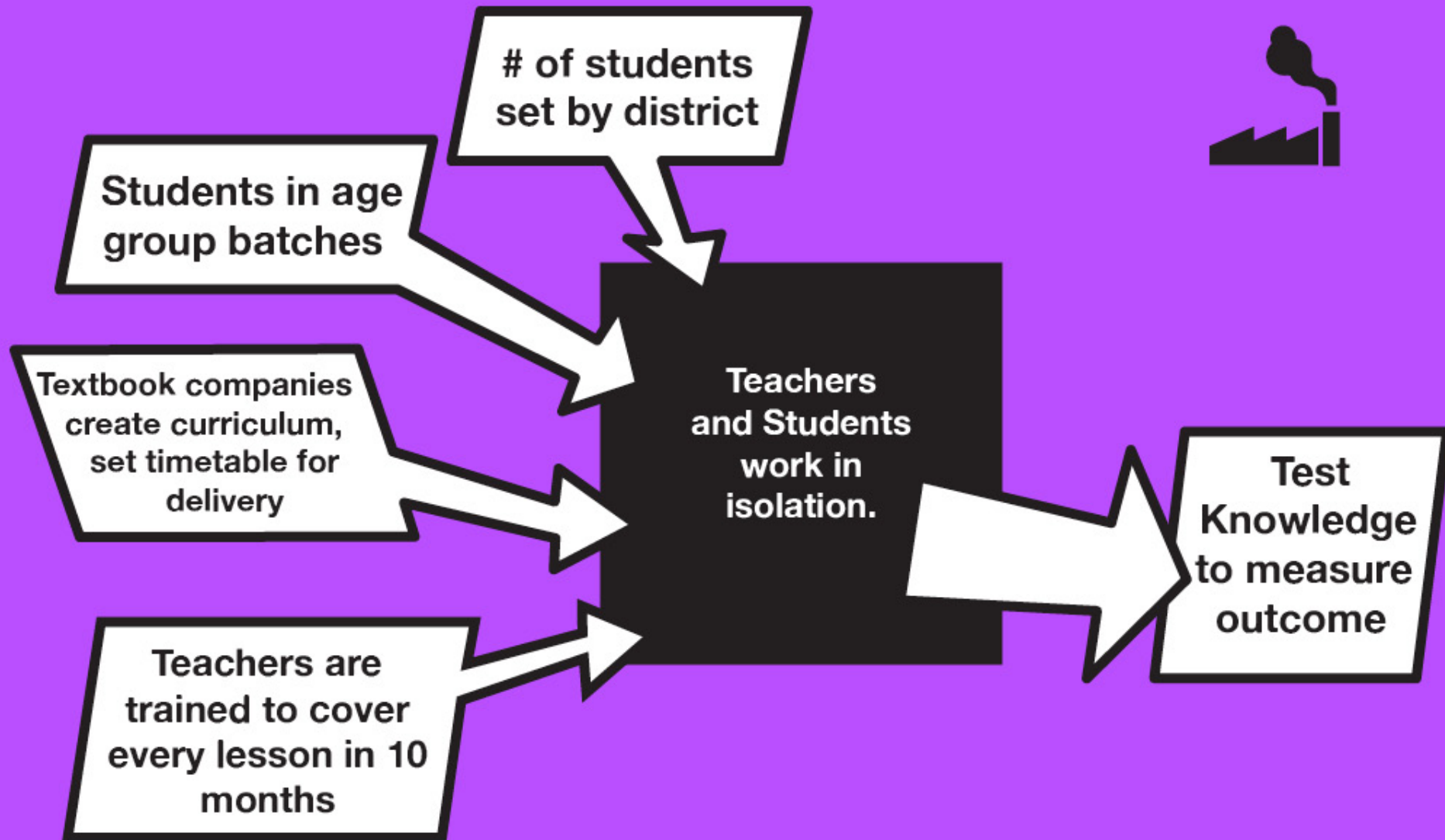


Change





Change





Change



**In the Standardized
Factory model,
knowledge acquisition is
the most important skill**

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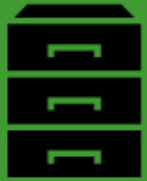


Research



Research

Curriculum



We are surrounded by knowledge



It is changing rapidly



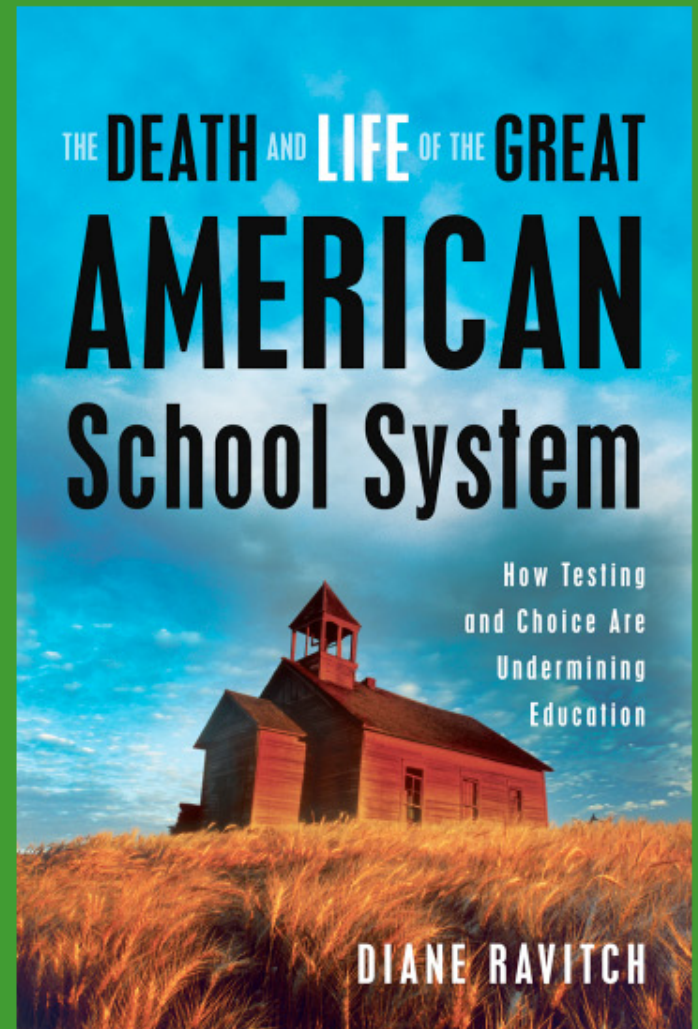
Quality of choice is vitally important



Research

**“What gets tested
gets taught.”**

**Standardized
test scores are
not sufficient to
measure learning.**





Research



**A set timetable
for curriculum
works against
the deep practice
needed for
mastery.**

UNLOCKING THE SECRET OF SKILL
IN SPORTS, ART, MUSIC, MATH,
AND JUST ABOUT ANYTHING

DANIEL COYLE
author of the *New York Times* bestseller *Lance Armstrong's War*



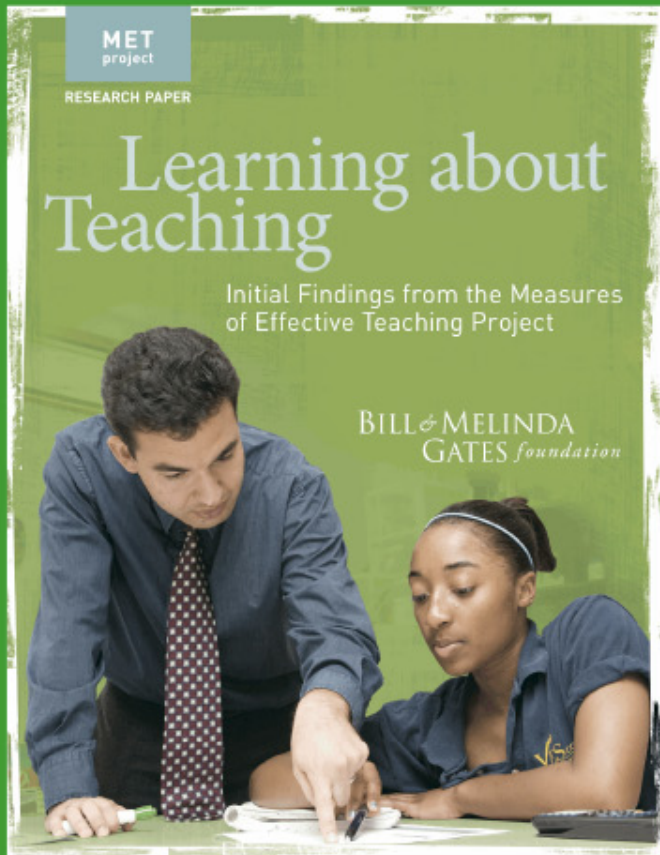
Research

Video: Daniel Coyle:

<http://www.youtube.com/watch?v=Aq0pHpNy6bs>



Research



Good teachers
make a difference

...but we have
not yet agreed
on what good
teaching looks like



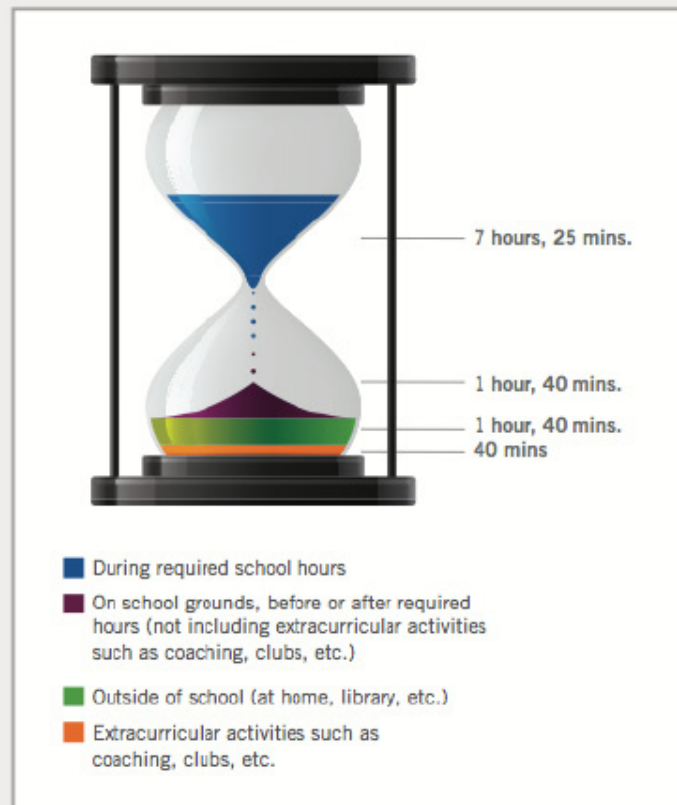
Research

A PORTRAIT OF AMERICA'S TEACHERS

ON AVERAGE,
TEACHERS WORK ABOUT

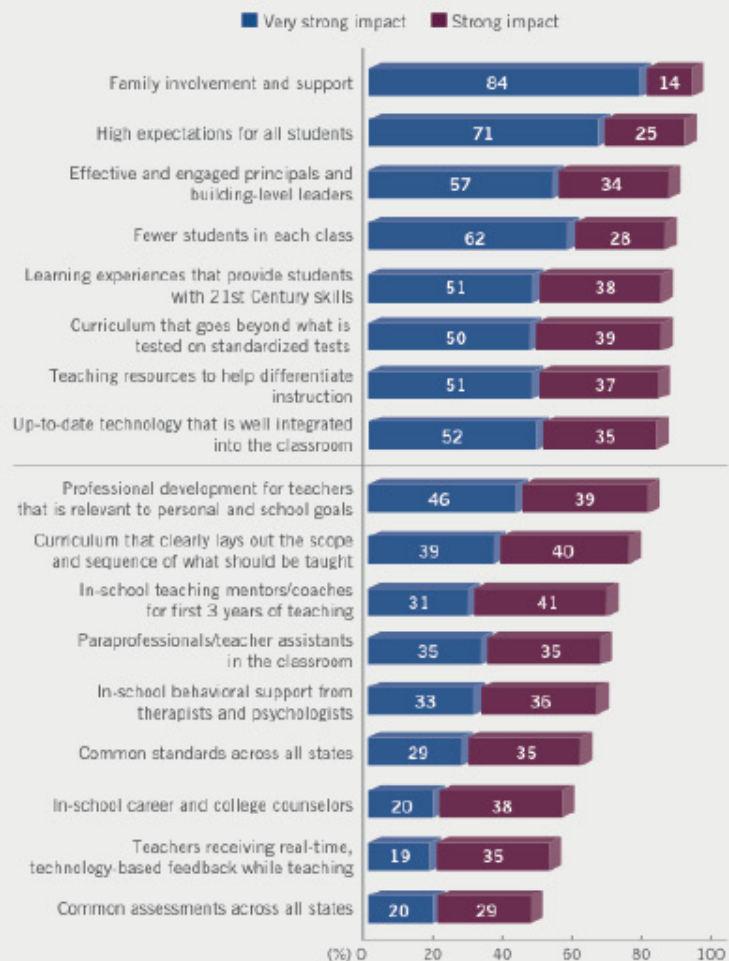
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**HOURS AND
25 MINUTES A DAY**

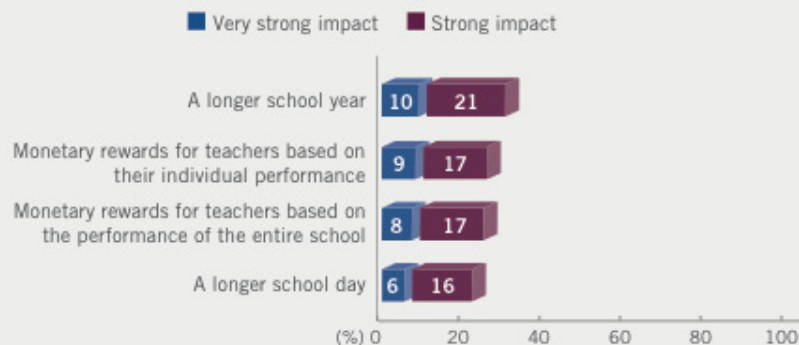




Research



Q. How much of an impact do you believe the following efforts would have on improving student academic achievement? Full scale: "Very strong impact," "Strong impact," "Moderate impact," "No impact at all."





Research

Video: Dan Pink:

<http://www.youtube.com/watch?v=u6XAPnuFjJc&feature=relmfu>



Research

Differences in Student Development





Research

Differences in Student Development

Learning Profile





Research

Differences in Student Development

Learning Profile

Language





Research

Differences in Student Development

Financial Learning Profile

Language





Research

Differences in Student Development

Financial Learning Profile

**Language Gifted/
Talented**





Research

Differences in Student Development

Financial

**Learning
Profile**

Attention

Language

**Gifted/
Talented**





Research

Differences in Student Development

Financial

**Learning
Profile**

Visual

Attention

Language

**Gifted/
Talented**



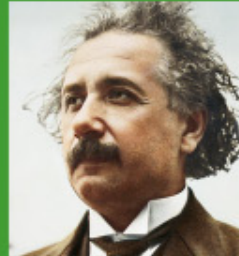


Research

**We can't just teach
everyone the same
and expect a positive
outcome for all students**



Research

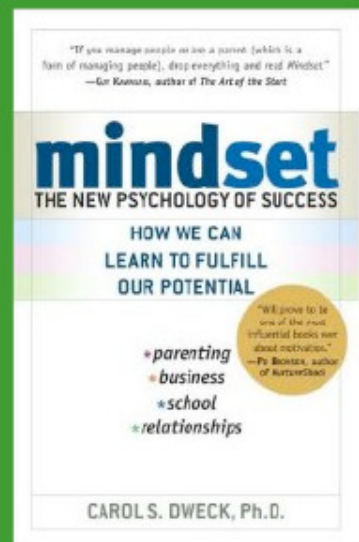
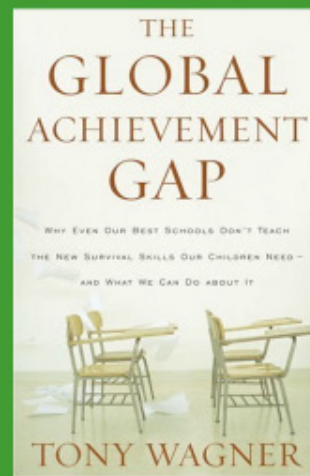
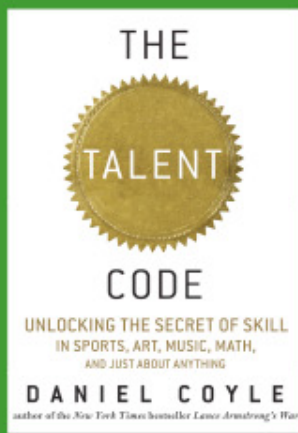
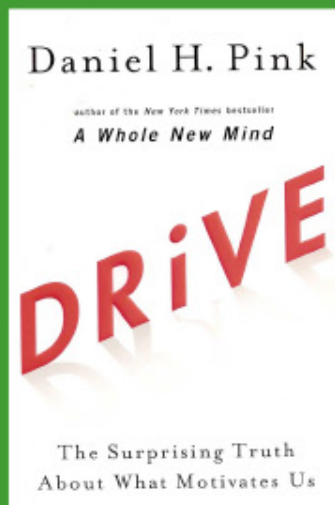
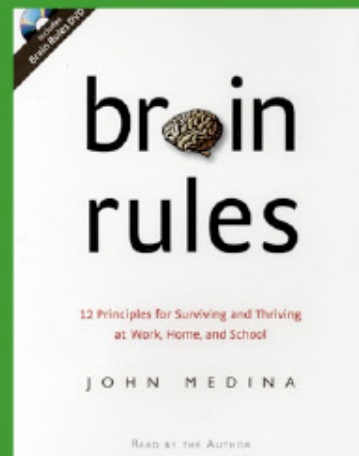
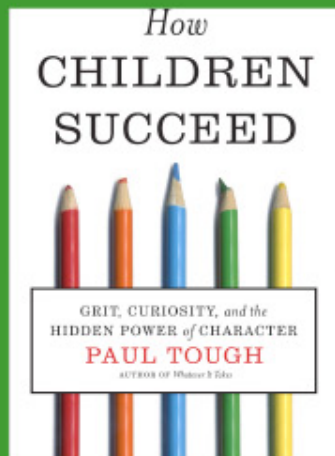


**“Not everything that counts
can be counted, and not
everything that
can be counted counts.”**

(Sign hanging in Einstein’s office at Princeton)



Research





Research

**We can't yet
measure
non-cognitive
skills critical
to success**

How
**CHILDREN
SUCCEED**



GRIT, CURIOSITY, and the
HIDDEN POWER of CHARACTER

PAUL TOUGH

AUTHOR OF *Whatever It Takes*



Research

"If you manage people or are a parent (which is a form of managing people), drop everything and read *Mindset*."

—GUY KAWASAKI, author of *The Art of the Start*

mindset

THE NEW PSYCHOLOGY OF SUCCESS

HOW WE CAN
LEARN TO FULFILL
OUR POTENTIAL

*parenting
*business
*school
*relationships

"Will prove to be one of the most influential books ever about motivation."
—PO BRONSON, author of *NurtureShock*

CAROL S. DWECK, Ph.D.

...like the
tenacity needed
to overcome a
challenge



Research

Video: Carol Dweck:

http://www.youtube.com/watch?v=TTXrV0_3UjY



Research

**STEVEN
JOHNSON**

**WHERE GOOD IDEAS
COME FROM**

**THE NATURAL
HISTORY OF
INNOVATION**

FROM THE BESTSELLING
AUTHOR OF *EVERYTHING
BAD IS GOOD FOR YOU*
AND *THE INVENTION
OF AIR*

**What
drives
innovation?**



Research

Innovation:

Economy

Community

Communication

Access

Demographics



Research



**A Standards Model School
assumes that achieving
mastery is the main goal**



Research



Time spent in the seat is not predetermined.



Children move at different speeds through curriculum



Some children will meet mastery sooner than others.



Research



Pacing and deployment of curriculum is flexible and offers toolbox that will vary allowing individualization to the student.

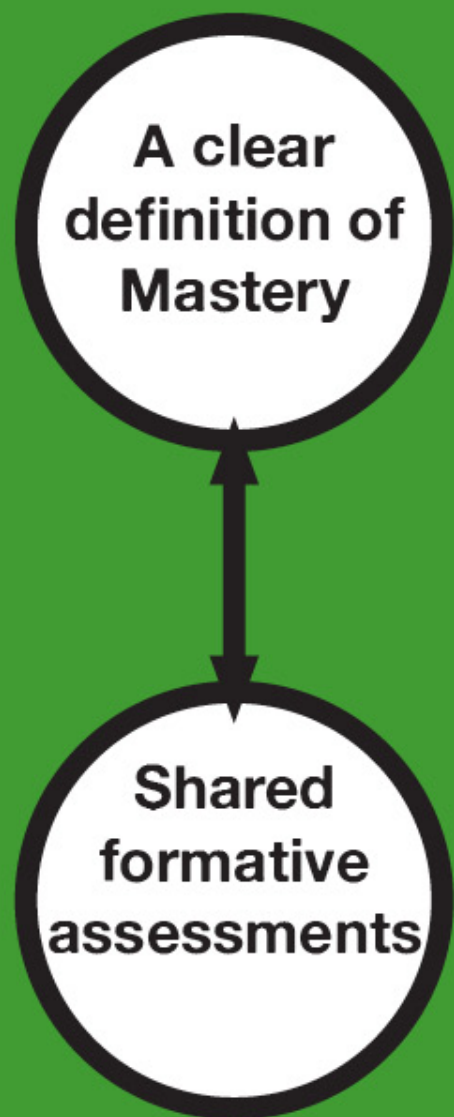


Research

**A clear
definition of
Mastery**

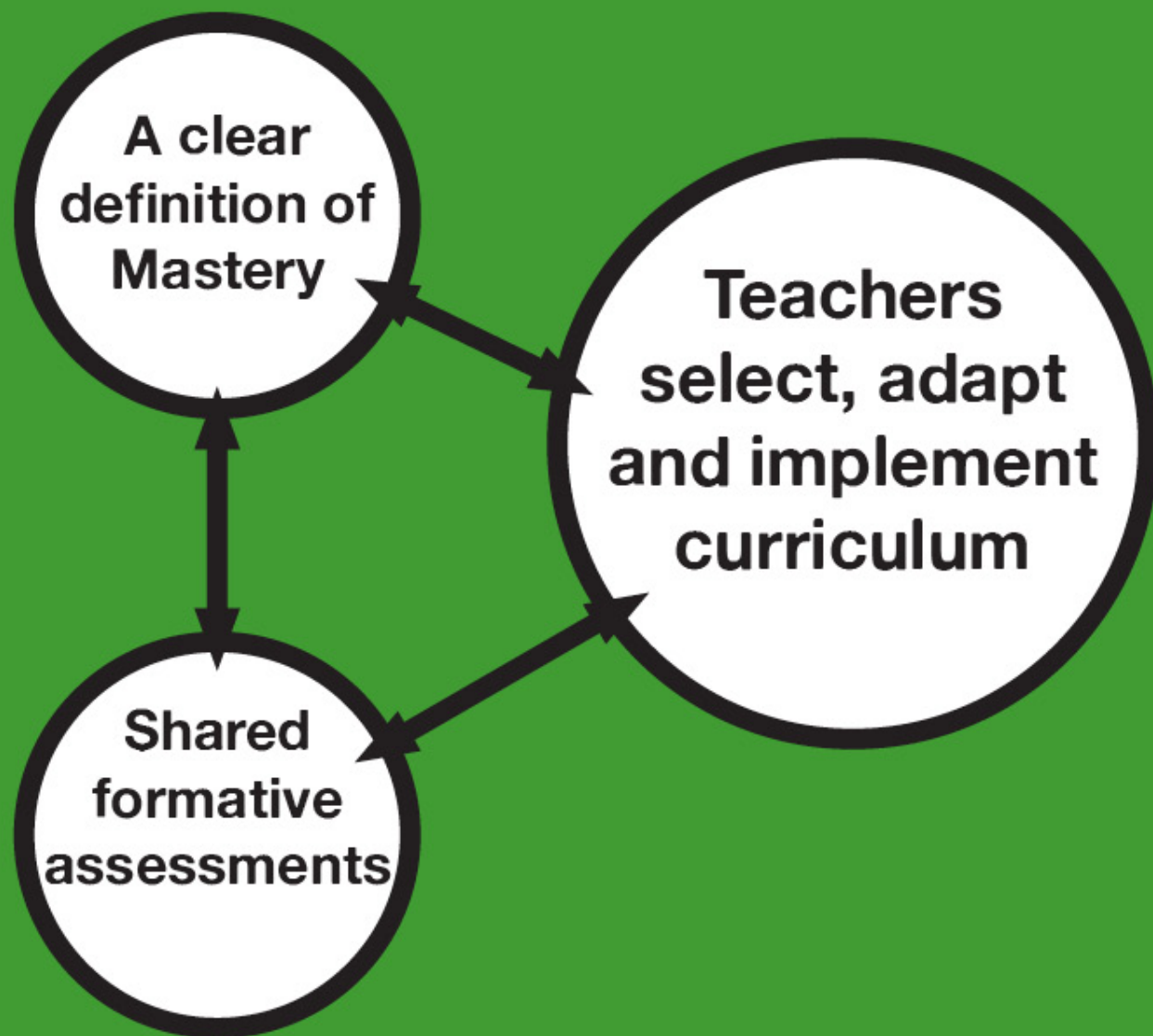


Research



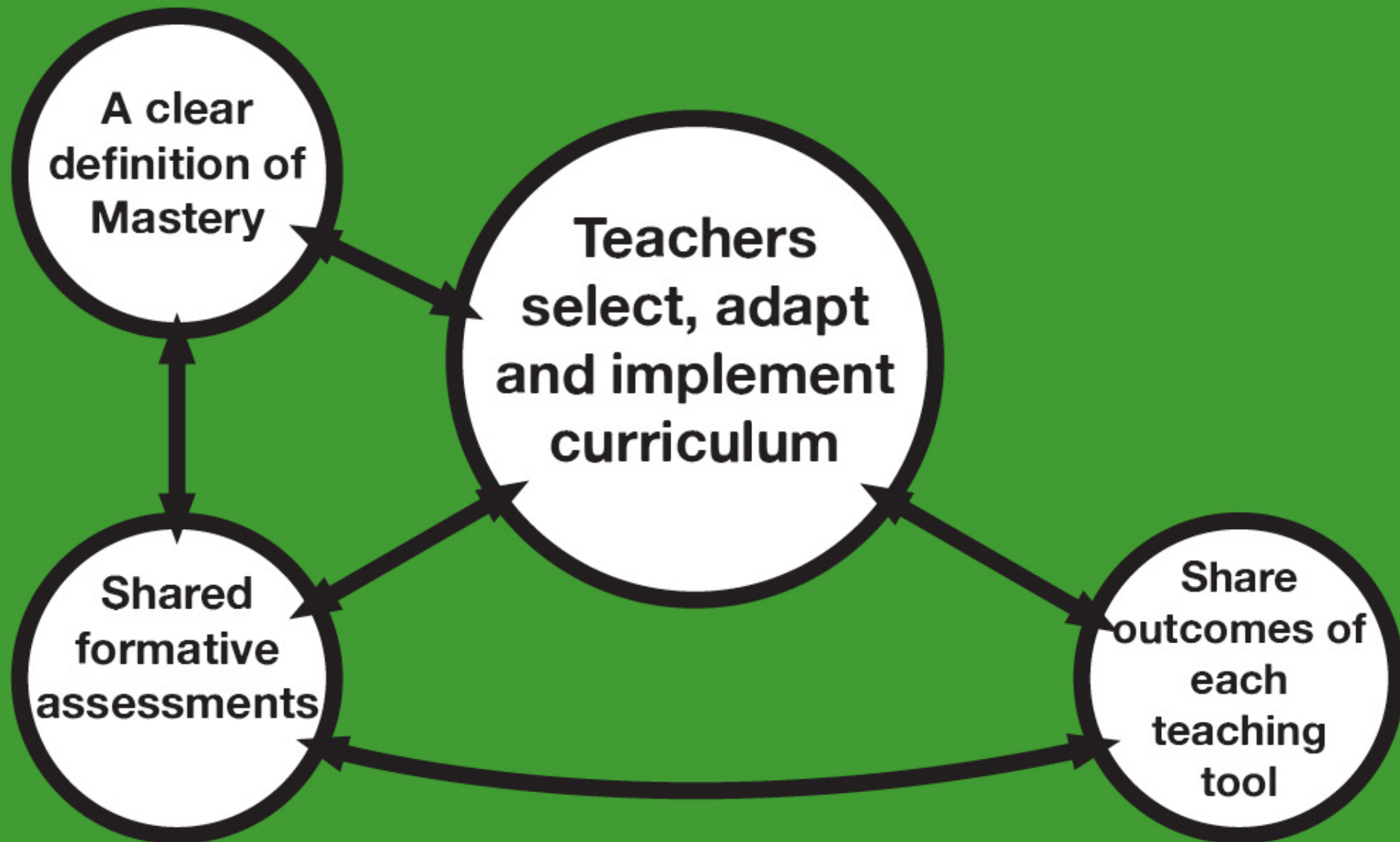


Research



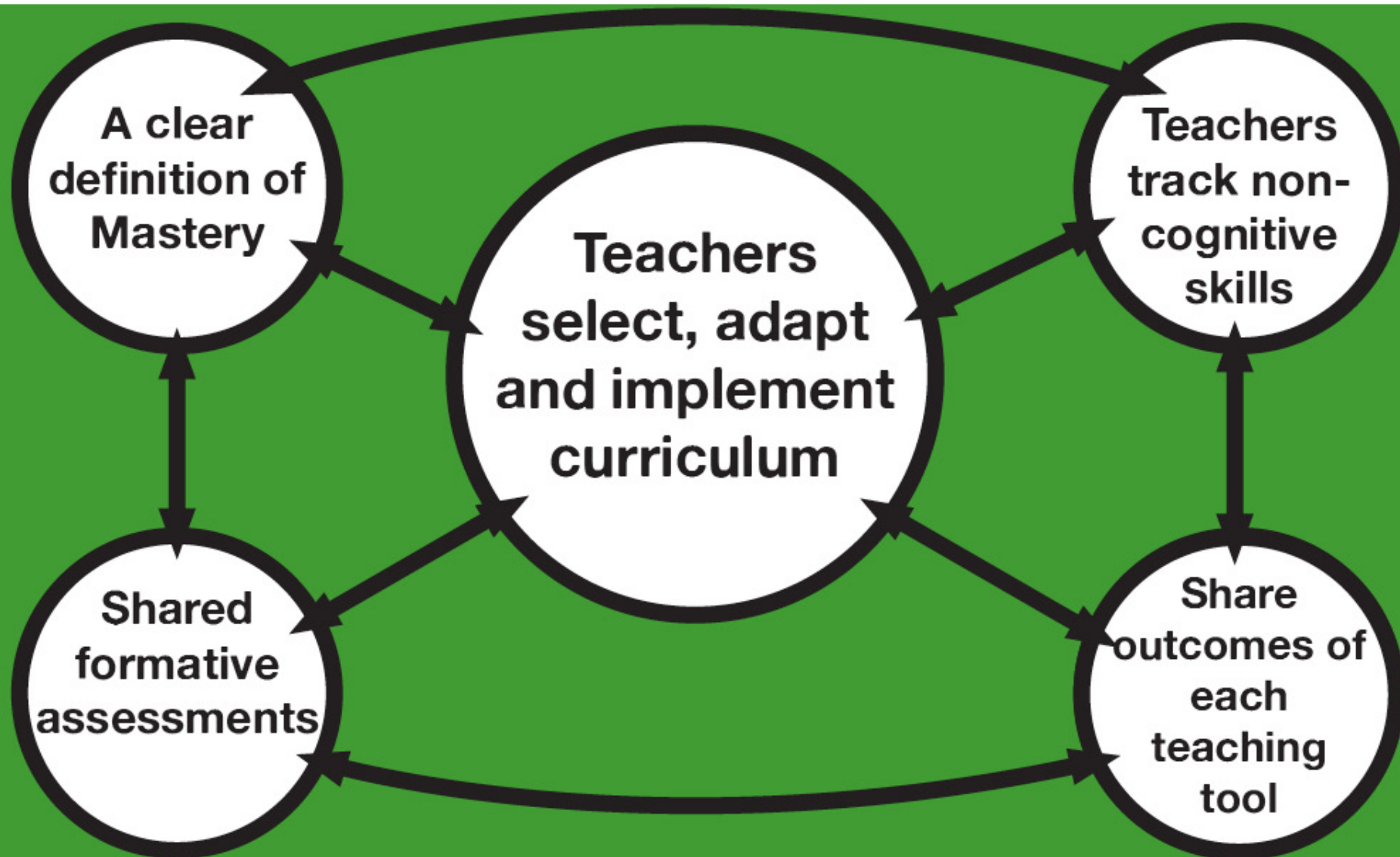


Research



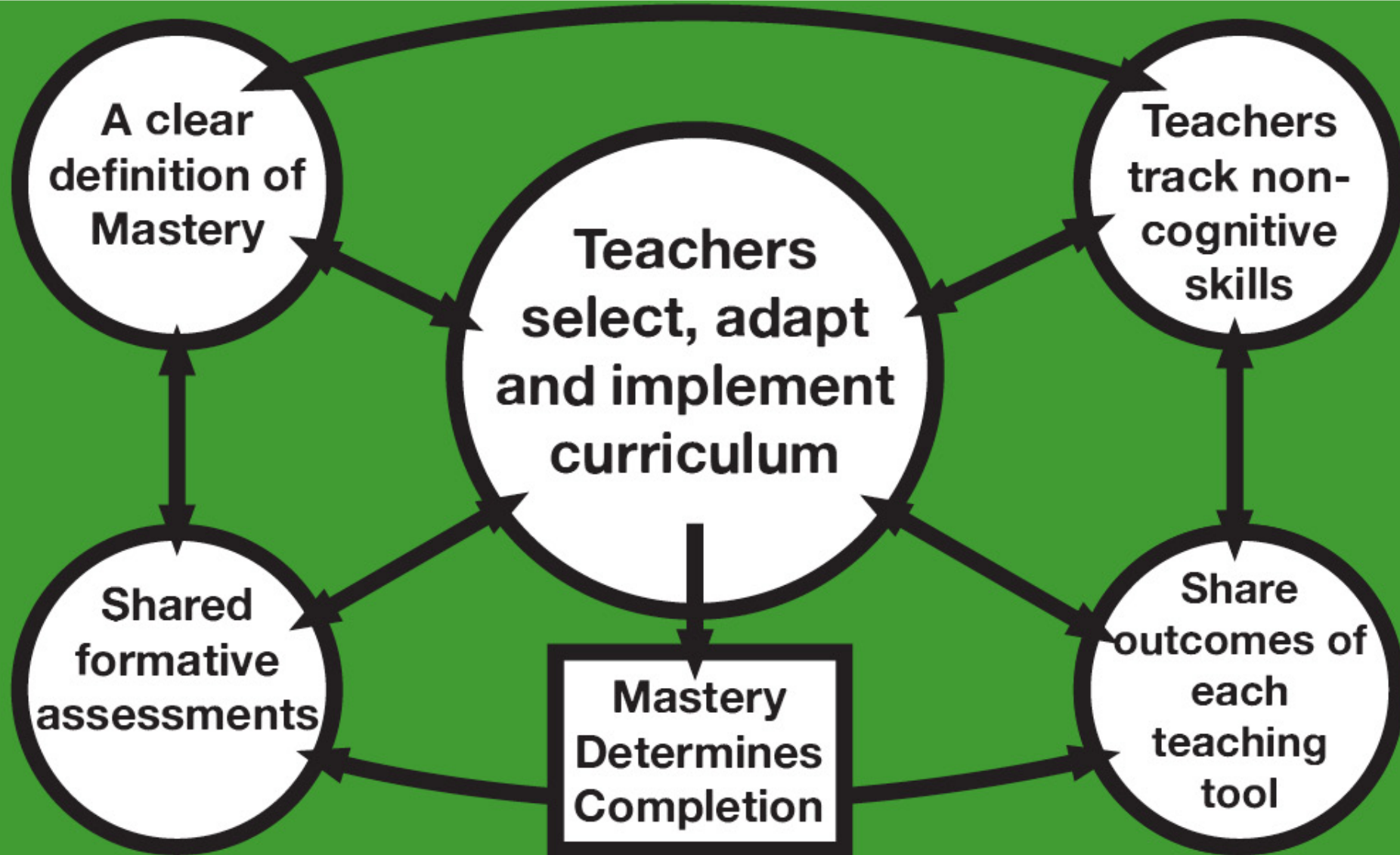


Research





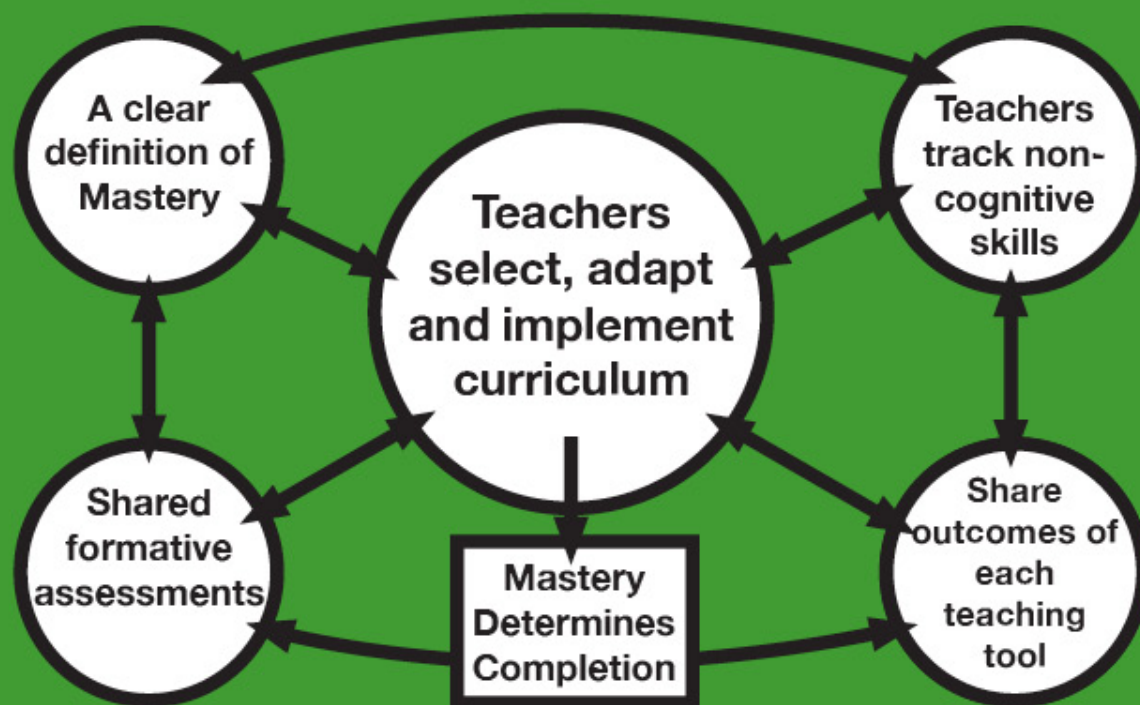
Research





Research

When organizing to a mastery model...



A school is less like a factory and more like an ecosystem

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Future Scenarios



Future Scenarios



Children move at different speeds based on achieving mastery



Curriculum and Instruction will be tailored to the student



Teachers will use formative assessments select/evaluate curriculum and to track progress



Children use technology to practice skills, take tutorials, watch lectures



Future Scenarios



Classroom work used for discussion, strategies and opportunities to apply learning.



Schools track both cognitive and non-cognitive skills (critical thinking, collaboration, creativity, tenacity, character)



Technology breaks down the barriers between teachers, schools, and districts



Sharing what is/isn't working



Future Scenarios

Presentation Order:

Video: Did you know?

http://www.youtube.com/watch?v=YmwwrGV_aiE

Video: Ken Robinson

<http://www.youtube.com/watch?v=zDZFcDGpL4U&NR=1&feature=endscreen>

Book: Diane Ravitch, The Death and Life of the Great American School System

<http://www.amazon.com/Death-Great-American-School-System/dp/0465014917>

Book: Dan Coyle, The Talent Code

http://www.amazon.com/Talent-Code-Greatness-Born-Grown/dp/055380684X/ref=sr_1_1?s=books&ie=UTF8&qid=1349365381&sr=1-1&keywords=talent+code

Video: Daniel Coyle:

<http://www.youtube.com/watch?v=Aq0pHpNy6bs>

Study: What do we know about teachers?: Gates Foundation Study

www.scholastic.com/primarysources/pdfs/Gates2012_full.pdf

<http://www.scholastic.com/primarysources/pdfs/Gates2012_full.pdf>

Study: Measures of Effective Teaching: Gates Foundation Study

www.gatesfoundation.org › [Home](#) › [What We're Learning](#)

Video: Dan Pink:

<http://www.youtube.com/watch?v=u6XAPnuFjJc&feature=relmfu>



Future Scenarios

Book: The Global Achievement Gap:

[http://www.amazon.com/Global-Achievement-Gap-Survival-Need--/dp/0465002307/ref=sr_1_1?s=books&ie=UTF8&qid=1349365844&sr=1-1&keywords=Global+Achievement+Gap](http://www.amazon.com/Global-Achievement-Gap-Survival-Need-/dp/0465002307/ref=sr_1_1?s=books&ie=UTF8&qid=1349365844&sr=1-1&keywords=Global+Achievement+Gap)

Book: Drive: Dan Pink

http://www.amazon.com/Drive-Surprising-Truth-About-Motivates/dp/1594484805/ref=sr_1_1?s=books&ie=UTF8&qid=1349365941&sr=1-1&keywords=Drive

Periodical: Research that Matters: Taking Measure

http://education.washington.edu/research/rtm_07/

Book: How Children Succeed: Paul Tough

<http://www.amazon.com/dp/0547564651>

Book: Mindset: Carol Dweck

http://www.amazon.com/Mindset-Psychology-Success-Carol-Dweck/dp/0345472322/ref=sr_1_1?s=books&ie=UTF8&qid=1349365773&sr=1-1&keywords=Mindset

Book: Brain Rules: John Medina

http://www.amazon.com/Brain-Rules-Principles-Surviving-Thriving/dp/0979777747/ref=sr_1_1?s=books&ie=UTF8&qid=1349365814&sr=1-1&keywords=Brain+Rules

Video: Carol Dweck: Mindset

http://www.youtube.com/watch?v=TTXrV0_3UjY