Five Levers to Lift Learning and how to use them

Iowa ASCD Summer Conference
June 22, 2015
Education!

NEW....Student Learning Standards!
NEW....Teaching Standards!
NEW.....Compensation Systems!
NEW.....Accountability Systems!
NEW.....Licensure Requirements!
What are the characteristics of initiatives & efforts that are most likely to improve student learning?
LEVER

A tool used to transmit effort to accomplish a task.
Key Question: Is the intersection safe and well-maintained?

City Planner: Installed and maintained

Drivers: Stop and go
Transactional Change

Key Question: In compliance with new requirements?

City Planner: Ordered, installed

Drivers: Stop and go
Transformational Change
(part 1)

City planner and workers:

• New beliefs
• New Strategies
• New Processes

But.....

For the drivers the change is transactional: new process, same strategies
Key Question: How do we keep traffic flowing smoothly and safely?

City Planner: Reconceptualized – new processes, design and strategies

Drivers: New processes, new ways of thinking and doing
What is a major initiative you are currently working on in your school or district?

1. Do you see this change as…..
   - Rolling over practices to maintaining the status quo?
   - Change processes/incentives resulting in transactional change?
   - Require new ways of thought and action by all participants?

2. How do the stakeholders who will be most affected see this change?
<table>
<thead>
<tr>
<th>School A</th>
<th>School B</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 1:1 laptops</td>
<td>• 1 computer lab</td>
</tr>
<tr>
<td>• Standards-based report card</td>
<td>• Traditional report card</td>
</tr>
<tr>
<td>• Some gender separate classrooms</td>
<td>• Co-ed classrooms</td>
</tr>
<tr>
<td>• Block schedule</td>
<td>• 52 minute periods</td>
</tr>
<tr>
<td>• Extended school day</td>
<td>• Standard school day</td>
</tr>
<tr>
<td>• Online norm-referenced formative assessments 3 x year</td>
<td>• No norm-referenced formative assessments</td>
</tr>
<tr>
<td>• Collaborative release time</td>
<td>• No collaborative release time</td>
</tr>
<tr>
<td>• 19 students per class</td>
<td>• 24 students per class</td>
</tr>
<tr>
<td>• 185 total students</td>
<td>• 628 total students</td>
</tr>
</tbody>
</table>
Which of these kitchens makes better food?
**School A**

- Minimal focus on standards
- Exclusive use of judgmental feedback
- Didactic, non-student centric instructional methods
- Lecture utilized almost exclusively
- Low time-on-task
- No use of data to inform improvement
- Collaborative time used to discuss logistics and scheduling
- Low academic press among staff, low expectations among students, general mistrust

**School B**

- Consistent focus on standards
- Developmental feedback; targeted goals
- Flexible, student-responsive instructional methods
- Instructional strategies aligned to learner’s needs
- High time-on-task
- Data used to inform improvement
- Frequent dialogue linking achievement to action planning
- High academic press, high levels of trust, high expectations for learning
Common Education Reform Strategies Employed by School A

- Changes in governance
- Investments in technology
- Reporting/Grading systems
- Student grouping strategies
- Schedules and calendar changes
- Assessments/tests
- Availability of collaboration time for teachers
- Class size
- School size
Five Levers to Lift Learning Performance

- **Structure**: organizational options, tools and logistics
- **Sample**: student grouping options for learning and instruction
- **Standards**: expectations and progress benchmarks
- **Strategy**: interactions that produce learning
- **Self**: student and educator beliefs about and roles in learning
Lever: Self

- What do teachers believe about learning and their capacity to meet student needs?
- What do students believe about learning and their capacity to learn?
- What role will students play in their learning?
- What role will teachers play in student learning?

Five Levers – Tony Frontier, Ph.D. & Jim Rickabaugh, Ph.D. © 2014
“If you manage any people or if you 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

CAROL S. DWEECK, Ph.D.

“Will prove to be one of the most influential books ever about motivation.”
—Paulo Coelho, author of The Alchemist

Five Levers – Tony Frontier, Ph.D. & Jim Rickabaugh, Ph.D. © 2014
<table>
<thead>
<tr>
<th>To avoid leverage errors associated with self:</th>
<th>To access leverage advantages associated with self:</th>
</tr>
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<tbody>
<tr>
<td><strong>Do less of...</strong></td>
<td><strong>Do more of...</strong></td>
</tr>
<tr>
<td>Assuming that because kids were compliant that they are engaged in learning.</td>
<td>Focusing on developing malleable traits that will lead students to commit to learn for their own uses and purposes.</td>
</tr>
<tr>
<td>Treating students as though they are solely receptacles for our knowledge and wisdom.</td>
<td>Utilizing students as resources to support their learning, drawing on past experiences, imagination, curiosity and knowledge to build and expand learning capacity and success.</td>
</tr>
<tr>
<td>Assuming that all students learn in the same way and at the same rate as age cohorts and classmates.</td>
<td>Designing learning paths with students that accommodate the ways in which they can learn best and at a pace that is responsive to their needs.</td>
</tr>
<tr>
<td>Implying that intelligence is a fixed characteristic.</td>
<td>Affirming and teaching that intelligence is malleable; hard work and the right strategy improves everyone’s understanding and skills.</td>
</tr>
<tr>
<td>Providing praise that affirms fixed abilities (“You must be really smart”).</td>
<td>Providing praise that affirms effort and strategy (“What an insightful answer! How did you come up with that?”)</td>
</tr>
<tr>
<td>Relying on grades as a sole means of communicating learning progress.</td>
<td>Developing clear learning goals and a variety of means to demonstrate and communicate that learning has occurred.</td>
</tr>
<tr>
<td>Assuming that the current level of student achievement is a reflection of their potential to learn.</td>
<td>Committing to the potential of, and finding ways for, every student to build the skills and develop the strategies necessary to lift their performance and find learning success.</td>
</tr>
<tr>
<td>Assuming that learning is something that will happen in a linear manner, to all students, as an entire group.</td>
<td>Understanding that while learning may occur in a group or social context, all learning ultimately is a personal experience. Unless students make a personal connection with what they are trying learn, learning does not occur.</td>
</tr>
</tbody>
</table>
Lever: Strategy

• How will we teach?
• What approach will we use?
• What do we need to learn to inform our practice?
• How will instruction be matched to learner readiness and needs?
• How will we know they’ve learned?
• What will we do if they do not?
Visible Learning

VISIBLE LEARNING
A SYNTHESIS OF OVER 800 META-ANALYSES RELATING TO ACHIEVEMENT

JOHN HATTIE
R
<table>
<thead>
<tr>
<th>Teaching (Strategy)</th>
<th>$d$</th>
<th>Working Conditions (Structure/Sample)</th>
<th>$d$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of teaching</td>
<td>0.77</td>
<td>Within-class grouping</td>
<td>0.28</td>
</tr>
<tr>
<td>Reciprocal teaching</td>
<td>0.74</td>
<td>Adding more finances</td>
<td>0.23</td>
</tr>
<tr>
<td>Teacher-student relationships</td>
<td>0.72</td>
<td>Reducing class size</td>
<td>0.21</td>
</tr>
<tr>
<td>Providing feedback</td>
<td>0.72</td>
<td>Ability grouping</td>
<td>0.11</td>
</tr>
<tr>
<td>Teaching student self-verbalization</td>
<td>0.67</td>
<td>Multi-grade/age classes</td>
<td>0.04</td>
</tr>
<tr>
<td>Meta-cognition strategies</td>
<td>0.67</td>
<td>Open vs. traditional classes</td>
<td>0.01</td>
</tr>
<tr>
<td>Direct Instruction</td>
<td>0.59</td>
<td>Summer vacation classes</td>
<td>-0.09</td>
</tr>
<tr>
<td>Mastery learning</td>
<td>0.57</td>
<td>Retention</td>
<td>-0.16</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>0.68</strong></td>
<td><strong>Average</strong></td>
<td><strong>0.08</strong></td>
</tr>
</tbody>
</table>

$d =$ effect size in standard deviation units; an effect size of .68 means that on average, a group of students whose learning is supported through the effective use of meta-cognition strategies would be expected to score .68 standard deviation units higher than a group of students who were not taught utilizing those strategies.
<table>
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<td><em>Five Levers to Improve Learning, Tony Frontier &amp; Jim Rickabaugh 2014 ASCD</em></td>
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<td><strong>Do more of…</strong></td>
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<tr>
<td>Assuming that because kids were told something, they understand.</td>
<td>Utilize strategies that allow students to construct meaning around important content and build fluency around important skills.</td>
</tr>
<tr>
<td>Treating students as though they are blank slates.</td>
<td>Utilize strategies that honor the fact that new knowledge is constructed on existing knowledge.</td>
</tr>
<tr>
<td>Assuming that all kids are as interested in, and as motivated to learn, the content and skills that are taught.</td>
<td>Strive to see learning from the perspective of each student; what is likely to be engaging? What is likely to be relevant?</td>
</tr>
<tr>
<td>Using rubrics exclusively as a tool to justify grades.</td>
<td>Use rubrics as an instructional tool to help students learn how to describe, understand, and assess quality work.</td>
</tr>
<tr>
<td>Rigid application of models or checklists that ignore the complexities of both the art and science of teaching or are used exclusively for administrators to evaluate teachers.</td>
<td>Strive for superintendents, principals, and teachers to understand the complexity and opportunity presented by comprehensive instructional frameworks as a starting point for addressing each student’s learning needs; not merely as tools for evaluation.</td>
</tr>
<tr>
<td>Assume that all instructional strategies are equally effective in improving student learning.</td>
<td>Acknowledge that different instructional strategies can substantially increase student achievement when deployed effectively and in the right context.</td>
</tr>
<tr>
<td>Utilize the same few instructional strategies</td>
<td>Utilize a repertoire of instructional strategies that are specifically aligned to the intended outcomes for student learning.</td>
</tr>
<tr>
<td>Utilizing collaborative time with teams of teachers to talk about structure and sample.</td>
<td>Utilize collaborative time to talk about intentional use of standards and to share, or reflect on, the use of instructional strategies.</td>
</tr>
</tbody>
</table>
Lever: Standards

- What should be taught?
- How good is good enough?
- Where is current performance relative to where it should be?
What opportunities lie in changing the *standard*?

• Lower the standard (not acceptable)
• Using the standards to develop authentic curriculum.
• Communicating standards in student friendly language.
• Using a responsive system that tends to formative, benchmark, summative measures.
• Using standards to guide formative feedback.
• Students using standards to guide their own learning.
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<tr>
<td>Transactional alignment of new standards to status quo curriculum, instruction, and assessment.</td>
<td>Analyzing standards to consider the implications for changes in curriculum, instruction, assessment.</td>
</tr>
<tr>
<td>Describing “what we cover” and “what we teach” in each classroom.</td>
<td>Analyzing how standards are assessed and in a valid way and taught in a responsive way in each classroom; what is taught is less important than what has been learned.</td>
</tr>
<tr>
<td>Taking comfort knowing that teachers are aware of, and utilize, standards in their lesson planning.</td>
<td>Ensuring that students are aware of, and utilize, standards to guide their efforts and assess their own work for attributes of quality.</td>
</tr>
<tr>
<td>Assuming that changing curriculum documents results in a change in student learning experience.</td>
<td>Developing assessment and rubrics that are aligned to the content and ways of understanding articulated in the standards.</td>
</tr>
<tr>
<td>Assuming that the same articulated standards or grading scales result in similar expectations for quality work in each classroom.</td>
<td>Groups of teachers collaboratively analyzing and assessing common samples of student work to ensure a clear vision, and a clear pathway, to quality work across grades and buildings.</td>
</tr>
<tr>
<td>See teachers as the sole users of standards.</td>
<td>Develop systems that support teachers and students capacity to use standards to guide feedback and effort.</td>
</tr>
<tr>
<td>Treat all standards as being of equal importance.</td>
<td>Prioritize standards to inform important decisions about resources to be allocated toward curriculum, instruction, and assessment.</td>
</tr>
</tbody>
</table>
Lever: *Sample*

- Who has access to what?
- Where will they go for service?
- With whom will they learn?
- What characteristics and other factors will determine how and when students will be grouped?
Leveraging Sample; avoiding errors and gaining advantage - p.56

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<tr>
<td>Assuming that because kids are grouped differently, their instructional needs are being met more effectively.</td>
<td>Building capacity to differentiate instructional strategies for all students.</td>
</tr>
<tr>
<td>Investing time and energy pursuing perfect student placement systems.</td>
<td>Investing time and energy in ensuring that regardless of placement, each student experiences an appropriate balance of challenge and support.</td>
</tr>
<tr>
<td>Assuming that kids aren’t aware of, and don’t internalize, the stigma of being placed in a group that is perceived to be “lower and slower.”</td>
<td>Considering and responding to the impact of grouping practices on each student’s perception of him or herself as a learner including how race, poverty, ethnicity, and gender can be internalized by students as a liability.</td>
</tr>
<tr>
<td>Providing limited access to learning experiences that target student’s individual needs (e.g. a two week gifted and talented pull out session, a weekly math support session) and ignoring those needs when students aren’t in those clustered groups.</td>
<td>Ensuring that through differentiated curriculum and instruction, students have access to an appropriate balance of challenge and support in the classrooms where they spend the majority of their time.</td>
</tr>
<tr>
<td>Using rigid, fixed grouping practices that create tracks or clusters of low and high achieving students.</td>
<td>Use flexible grouping and skill-based unit-level pre-assessments to differentiate units of instruction based on specific learning needs.</td>
</tr>
</tbody>
</table>
Lever: Structure

• Where should we deliver teaching?
• How should time be organized and how much will we need?
• What logistics will be needed?
• What tools will be required?
## Leveraging Structure

*Five Levers to Improve Learning, Tony Frontier & Jim Rickabaugh 2014 ASCD*

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</tr>
</thead>
<tbody>
<tr>
<td><strong>Assuming that a change in structure will result in a change in students’ learning experiences.</strong></td>
<td><strong>Acknowledging that changes in structure merely create a set of potentials or opportunities to more effectively deploy practices designed to leverage standards, strategy, and conceptualizations of self.</strong></td>
</tr>
<tr>
<td><strong>Articulating changes in structure as the goal.</strong></td>
<td><strong>Clarifying that changes in structure are a means to an end of more effectively serving students’ learning needs.</strong></td>
</tr>
<tr>
<td><strong>Waiting to change standards, strategy, or conceptualizations of self until after changes in structure have occurred.</strong></td>
<td><strong>Deploy strategies to actively leverage standards, strategies, and conceptualizations of self as a matter of best practice that can occur in any classroom, any day, at any time.</strong></td>
</tr>
<tr>
<td><strong>Assuming that a transactional change in policy or practice will result in a transformational change in teaching and/or learning.</strong></td>
<td><strong>Acknowledge the time and complexity of implementing transformational change.</strong></td>
</tr>
<tr>
<td><strong>Focus on the grand, district level initiatives as the important agent in change.</strong></td>
<td><strong>Focus on district or building-level initiatives that acknowledge and support each teacher’s classroom practice as the important agent of change.</strong></td>
</tr>
</tbody>
</table>
BIG IDEA #1
Remodeling the kitchen does not make the food taste any better.
BIG IDEA 2
Lead like a penguin
How do we invest our efforts?
What do we talk about?

structure

sample

standards

strategies

self

Leverage Error

water line
How do we invest our efforts?
What do we talk about?

structure
sample
standards
strategies
self

Leverage Advantage

water line
Personalized Learning

- Flexible schedule
- Multi-age classes
- Individual technology
- No seating charts
- Student goal setting
- Self-assessment (standards)
- Goal setting
- Autonomy support
- Learner-aligned pace
- Learner as resource
- (structural, transactional)

Self-assessment
Self-efficacy
Ownership
Independence
Commitment
Intrinsic motivation (conceptions of self)
Initiatives that Invite Changes in Learner and Educator Beliefs and Roles

- Personalized Learning
- Competency Based Learning
- Project Based Learning
- Problem Based Learning
- Challenge Based Learning
- Student Directed Learning