Innovative Practices in the Nation’s Most Rapidly Improving Schools

Bill Daggett
Founder and Chairman
February 16, 2018

National Most Rapidly Improving Schools Study

CCSSO
SPN
Gates Foundation
National Innovation Study

Boardroom to Classroom
WHY

Culture Trumps Strategy
WHY – WHAT

Research based Frameworks
WHY – WHAT - HOW

Panel
2:30 – 3:30pm
Room 205C
WHY

Future Focused
Future?

STANDARDS

TESTS

TEACHER EVALUATIONS

1st Industrial Revolution
1\textsuperscript{st} Industrial Revolution
2\textsuperscript{nd} Industrial Revolution

Industrial Revolution transformed both the expectations and model of public education
1st Industrial Revolution
2nd Industrial Revolution
3rd Industrial Revolution

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

4th Industrial Revolution

3rd Revolution
4th Industrial Revolution

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

BIOLOGICAL
Biotech

DIGITAL

3rd Revolution
Health Care

If you can write an algorithm for a task, the job is gone.
People used to be paid for what they knew:
- Accountants
- Lawyers
- Economist

Not so in the future....

**Job Shares by Skill Group 1980 - 2040**

<table>
<thead>
<tr>
<th>Year</th>
<th>Low-skill</th>
<th>Lower-middle</th>
<th>Upper-middle</th>
<th>High-skill</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>47.1%</td>
<td>16.2%</td>
<td>37.7%</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>21.3%</td>
<td>25.4%</td>
<td>20.7%</td>
<td>10.2%</td>
</tr>
<tr>
<td>2040</td>
<td>18.9%</td>
<td></td>
<td></td>
<td>31.3%</td>
</tr>
</tbody>
</table>

Source: NY Fed Calculations, U.S. Census Bureau
65% of children in our elementary schools will work in jobs that do not exist today.

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

The Winds of Change
The Winds of Change

Accelerating Impact of Technology

Higher Education Challenge

College Dropout Rate 2017
First to Second Year

34.8%
Four-Year Colleges

44.5%
Two-Year Colleges

Average Graduation Rate 2017
1983 - 2016

- 36.6% Four-Year Colleges in 5 years
- 29.1% Two-Year Colleges in 3 years


Your Major Matters
A LOT
### 2-Year College Graduates

<table>
<thead>
<tr>
<th>OCCUPATION</th>
<th>STARTING</th>
<th>AVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management Info Systems</td>
<td>$45,100</td>
<td>$72,100</td>
</tr>
<tr>
<td>Electrical and Chemical Engineers</td>
<td>$45,100</td>
<td>$69,800</td>
</tr>
<tr>
<td>Occ. Health and Safety</td>
<td>$50,300</td>
<td>$68,200</td>
</tr>
<tr>
<td>Diagnostic Medical Specialist</td>
<td>$50,200</td>
<td>$66,800</td>
</tr>
<tr>
<td>Computer Programmer</td>
<td>$42,300</td>
<td>$65,300</td>
</tr>
</tbody>
</table>

### 4-Year College Graduates

<table>
<thead>
<tr>
<th>OCCUPATION</th>
<th>STARTING</th>
<th>AVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Development</td>
<td>$35,900</td>
<td>$48,000</td>
</tr>
<tr>
<td>Athletic Trainer</td>
<td>$34,800</td>
<td>$46,900</td>
</tr>
<tr>
<td>Social Worker</td>
<td>$33,000</td>
<td>$46,600</td>
</tr>
<tr>
<td>Recreation and Leisure</td>
<td>$32,200</td>
<td>$45,300</td>
</tr>
<tr>
<td>Child and Family Studies</td>
<td>$30,300</td>
<td>$37,200</td>
</tr>
</tbody>
</table>
4-Year College Graduates

<table>
<thead>
<tr>
<th>OCCUPATION</th>
<th>STARTING</th>
<th>AVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum Engineer</td>
<td>$103,000</td>
<td>$160,000</td>
</tr>
<tr>
<td>Actuarial Math</td>
<td>$58,700</td>
<td>$120,000</td>
</tr>
<tr>
<td>Nuclear Engineer</td>
<td>$67,600</td>
<td>$117,000</td>
</tr>
<tr>
<td>Chemical Engineer</td>
<td>$68,200</td>
<td>$117,000</td>
</tr>
<tr>
<td>Aerospace Engineer</td>
<td>$62,800</td>
<td>$109,000</td>
</tr>
</tbody>
</table>

The Winds of Change
1. Complex Problem Solving

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

Source: Future of Jobs Report, World Economic Forum
1. Complex Problem Solving
2. Critical Thinking
3. Creativity
4. People Management
5. Coordinating with Others

Top 10 Skills
Source: Future of Jobs Report, World Economic Forum

1. Complex Problem Solving
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6. Emotional Intelligence

Top 10 Skills
Source: Future of Jobs Report, World Economic Forum
1. Complex Problem Solving
2. Critical Thinking
3. Creativity
4. People Management
5. Coordinating with Others
6. Emotional Intelligence
7. Active Listening

Top 10 Skills
Source: Future of Jobs Report, World Economic Forum

8. Service Orientation
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

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: C, D
- Relevance: A, B

2/20/2018
**Job Ready (CTE)**

- **Rigor**
  - 1
  - 2
  - 3
  - 4
  - 5

- **Relevance**
  - 1
  - 2
  - 3
  - 4
  - 5

**Career Ready**

- **Rigor**
  - 1
  - 2
  - 3
  - 4
  - 5

- **Relevance**
  - 1
  - 2
  - 3
  - 4
  - 5
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
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Top 10 Skills

Source: Future of Jobs Report, World Economic Forum

Levels

<table>
<thead>
<tr>
<th>Rigor</th>
<th>Relevance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

C D A B
A and C were Needed Pre-Internet

B and D are required in the Internet Age
Increasingly just D is required in the Internet Age

Regulated, Certified, Tenured, Contracted, Tested, Evaluated
Make all children all they are capable of being, BUT it is about more than standards and tests.
Non-Cognitive

- Responsibility
- Contemplation
- Initiative
- Perseverance
- Optimism
- Courage

- Respect
- Compassion
- Adaptability
- Honesty
- Trustworthiness
- Loyalty
It is not a course or program. It is a culture.

Social and Emotional Development needs to focus on prevention and not just intervention.
COGNITIVE

- Responsibility
- Contemplation
- Initiative
- Perseverance
- Optimism
- Courage

Non-Cognitive

- Respect
- Compassion
- Adaptability
- Honesty
- Trustworthiness
- Loyalty
• Academic Success

• Academic Success
• Career Success
• Academic Success
• Career Success
• Well-Being Success
Social and Emotional Skills

- Self Awareness
- Self Management
- Relationship Skills
- Responsible Decision Making
Executive Functioning will be critical to a student’s future success.

Executive Functioning

- Attentional Control
- Goal Setting
- Information Processing
- Cognitive Flexibility
Executive Functioning Development

Social and Emotional Development
- Non-cognitive Skills
- Mental Health

 HOW
Panel
2:30 – 3:30pm
Room 205C

Seven Interrelated Fundamental Shifts

1. From A/C to B/D
2. Reading, Writing, and Mathematics
3. Data Analytics
4. Innovation and Creativity
5. Technology Tools
6. Social Media
7. Non-cognitive

Reading, Writing, and Mathematics
The current system was designed for a different set of outcomes, a different set of students and in preparation for a different future.
The achievement of RIGOR begins with RELATIONSHIPS and is anchored in RELEVANCE.

Calling All Visionaries
This is your year!

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