-Emerging Trends-
Take Control
or
Be Controlled

Bill Daggett
Founder and Chairman
February 25, 2016

Every Student Succeed Act (ESSA)
Nation Most Rapidly Improving Schools

- They Informed ESSA

Figure 1: Some schools achieve exceptional results, even with high percentages of low-income students.
Nation Most Rapidly Improving Schools

- They Informed ESSA
- They Are Future Focused

Nation Most Rapidly Improving Schools

- They Informed ESSA
- They Are Future Focused
- They Took Control and Were Not Controlled
ESSA
- Every Student Succeeds Act
  - AYP

- Call for Innovation (Career Ready on equal academic footing with College Ready)
Problem Was Defined By Business

Problem Was Defined By Business

Solution Was Defined Inside The Beltway
NCLB and CCSS Doubled Down On The Past

ESSA
- Every Student Succeeds Act
  - AYP
  - Call for Innovation (Career Ready on equal academic footing with College Ready)
- The Ball Is Being Handed To You
ESSA

- Every Student Succeeds Act
  - AYP
    - Call for Innovation (Career Ready on equal academic footing with College Ready)
- The Ball Has Been Handed To You
- Donald Trump and Bernie Sanders Scenario

Two Approaches to School Improvement
Two Approaches to School Improvement

Fixed Mindset

Growth Mindset

Figure 1: Some schools achieve exceptional results, even with high percentages of low-income students.

School performance
Percentage of proficient or advanced third graders

Notes: School performance based on 2011-2012 state testing; percentage of low-income students is based on the percentage of students who qualify for free and reduced-price lunch (FRPL) through the US Department of Agriculture’s National School Lunch Program.
Source: Publicly available performance and enrollment data
Culture Trumps Strategy

Emerging Trends
Emerging Trends

- Technology/Workplace

iphone
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  

**But schools are still schools!**

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**Job Shares by Skill Group**  
**1980 - 2014**

![Graph showing job shares by skill group from 1980 to 2040. The graph includes data points for low-skill, lower-middle, upper-middle, and high-skill jobs.](image-url)
Job Shares by Skill Group
1980 - 2014

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

Our Changing World
- Auto Tech
Our Changing World

- Auto Tech
  - Prevention vs. Intervention

- Robots/3D Manufacturing
Our Changing World

- Auto Tech
- Health Care

- Financial Investments (Robo-Advising)
Our Changing World

- Auto Tech
- Health Care
- Financial Investments
- Supermarkets/Drug Stores
- Manufacturing
Impact of Automation

5% - Of jobs can be automated


Source: Better and Faster, Jeremy Gutsche
Impact of Automation

5% - Of jobs can be automated
30% - Of task in 60% of jobs will be automated


Technology/Information Systems will change our lives
Emerging Trends

- Technology/Workplace
- College and Career Ready

College Ready
Arizona 4 Year Public College

Arizona
57.1% graduate in six years
31.9% graduate in four years

31.9%

Arizona 2 Year Public College

Arizona
16.3% graduate in 150% time
10.2% graduate in 100% time

10.2%
Career Ready

Your Major Matters
A LOT
Bachelor’s Degrees

1. Business
2. General Studies
3. Social Science and History
4. Psychology
5. Health Professions
6. Education
7. Visual and Performing Arts
8. Engineering and Technology
9. Communications and Journalism
10. Computer and Information Science

Lost Jobs
Lost Jobs

Telemarketers 99%

Secretarial / Admin. Assistants 96%

Lost Jobs

- Telemarketers: 99%
- Secretarial / Admin. Assistants: 96%
- Accountants / Auditors: 94%

Lost Jobs

<table>
<thead>
<tr>
<th>Profession</th>
<th>Lost Rate</th>
</tr>
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<tbody>
<tr>
<td>Telemarketers</td>
<td>99%</td>
</tr>
<tr>
<td>Secretarial / Admin. Assistants</td>
<td>96%</td>
</tr>
<tr>
<td>Accountants / Auditors</td>
<td>94%</td>
</tr>
<tr>
<td>Technical Writers</td>
<td>89%</td>
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<tr>
<td>Machinists</td>
<td>65%</td>
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<tr>
<td>Economists</td>
<td>43%</td>
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Lost Jobs

<table>
<thead>
<tr>
<th>Job Category</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Telemarketers</td>
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</tr>
<tr>
<td>Health Technologists</td>
<td>40%</td>
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</tbody>
</table>


Placing Career Ready on equal academic footing with College Ready
Emerging Trends

- Technology/Workplace
- College and Career Ready
- Demographic/Economic

Retirement Savings
Less than $10,000

50% White households

Sources:
- Time, May 18, 2015
- National Institute on Retirement Security
Retirement Savings
Less than $10,000

White households: 50%
Black households: 75%

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

Retirement Savings
Less than $10,000

White households: 50%
Black households: 75%
Hispanic households: 80%

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

- Technology/Workplace
- College and Career Ready
- Demographic/Economic
- What to Teach

What Skills and Knowledges Will Their Workers Need?
Placing Career Ready on equal academic footing with College Ready

**Implications To Education**

- What Students Need To Know and be able to do
Implications To Education

- What Students Need To Know and be able to do
  - Statistics
  - Data Analytics including text mining techniques
Implications To Education

- What Students Need To Know and be able to do
  - Statistics
  - Data Analytics
  - Reading

Reading Study Summary

Interquartile Ranges Shown (25% - 75%)

Source: National Test Data, MetaMetrics
Implications To Education

- What Students Need To Know and be able to do
  - Statistics
  - Data Analytics
  - Technical Reading

Implications To Education

- What Students Need To Know and be able to do
  - Statistics
  - Data Analytics
  - Technical Reading
  - Quad D
**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**

1. Remembering
2. Understanding
3. Applying
4. Analyzing
5. Evaluating
6. Creating
Systemwide Focus

Emerging Trends

- Technology/Workplace
- College and career Ready
- Demographic/Economic
- What to Teach
- How to Deliver Instruction
Technology has transformed how children play and interact. It has transformed the workplace they will enter, but it has not transformed how we educate them.
Pencil budget

Teacher's anti-cheat technique
Instructional Materials

Gamification
Gaming is increasingly being built based upon brain research

Gamification

Engaging
Gamification

Engaging

Personalized

Built on Growth Model
Google Cardboard

Oculus Rift
Instructional Materials

- Implication to Instruction
  - Science
  - Social Studies
  - CTE
Gamification

Engaging
Personalized
Built on Growth Model
Tied to Standards
Gamification

Engaging
Personalized
Built on Growth Model
Tied to Standards
Merging with Online Providers

The Military and the Corporate world are increasingly moving to game technology for training
“Uberized”

Emerging Trends

- Technology/Workplace
- College and career Ready
- Demographic/Economic
- What to Teach
- How to Deliver Instruction
- Professional Development
Figure 1: Some schools achieve exceptional results, even with high percentages of low-income students

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High-performing low-income schools

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Change is Evolutionary

Yellow Sheets
It Begins With Communications
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