

ADAPTABILITY INITIATIVE
SELF-AWARENESS
CREATIVITY
TEAMWORK
POWER SKILLS
COMMUNICATION
PROBLEM-SOLVING
COLLABORATION
LEADERSHIP
RELIABILITY INTEGRITY
SELF-DIRECTION

GRIT
CRITICAL-THINKING
FLEXIBILITY
PROFESSIONALISM

Learning For Career and Life Success

INNOVATION SUMMIT PRE-READ

November 2014

INTRODUCTION

This document includes findings from preliminary research conducted to ground our thinking and approach for the Learning for Career and Life Success Innovation Summit. In advance of the summit, we set out to explore and understand:

- If K-12, Post-secondary, and workplace competency frameworks align
- Which competencies matter most in the workplace
- What is being done to either teach and/or assess the skills that employers value most

This document is our first attempt at articulating what is valued and offered in the marketplace, and will ultimately help us develop a more refined view of what we can collectively offer that enables student learning for career and life success.

Please note that this document...

IS...

- A portrayal of the “fast and light” research and analysis conducted to gain an initial understanding of the landscape
- Intended to provide a summary view of the frameworks, programs, and assessments in the marketplace
- Meant to inform our ongoing work and discussions

IS NOT...

- Meant to introduce a new framework OR depict, with complete accuracy, the overlap between frameworks*
- A review of all the frameworks, programs, and assessments that exist in the marketplace
- Intended for broad circulation, although we may leverage this document to inform our work going forward

*Note: some frameworks, particularly Lumina’s DQP and Leap’s Value Rubric, seek to reflect the interpenetrative nature of knowledge and skills, via a matrix format, and therefore do not map 1-1 in the crosswalk presented on slide 3

While the categorizations and language used may differ across systems, there is general alignment around the knowledge and skills required for life and career success

Looking across K-12, Higher-Ed, and Workplace frameworks, we can see that desired competencies* generally fall into two categories: (1) Academic Knowledge and (2) Power Skills. A third category to note, though not in the scope of this analysis, is job specific technical skills. Expectations for these skills will vary depending on one's role in an organization

		(2) Power-skills						
		Intrapersonal Competencies <i>How students should manage themselves</i>	Cognitive Competencies <i>How students should engage with, make, or interpret ideas</i>	Interpersonal Competencies <i>How students should work with one another</i>	Work-Specific Competencies <i>What students should know to operate in the workplace</i>			
(1) Academic Knowledge (Learned & Applied) <i>What students should know and what they can do with what they know</i>								
Common Core State Standards	ELA / History, Science & Technical Subjects <i>Reading, Writing, Speaking, Listening, Language</i>	Mathematics <i>Number & Quantity, Algebra, Functions, Modeling, Geometry, Statistics & Probability</i>	<i>Demonstrate independence, respond to varying demands, persevere in solving problems</i>		<i>Interpretive and analytical skills, Make sense of problems, reason abstractly and quantitatively</i>	<i>Ability to integrate information, work together, express and listen carefully, Understand other perspectives and cultures</i>	<i>Use technology and digital media strategically and capably</i>	
K-12 Hewlett Foundation Deeper Learning (ConnectED)	Master Core Academic Content <i>Ability to develop and draw from a baseline understanding of knowledge in an academic discipline and are able to transfer knowledge to other situations</i>		Learn How to Learn <i>Ability to monitor and direct ones own learning</i>	Academic mindset <i>Ability to develop positive beliefs about oneself as a learner</i>	Think Critically & Solve Complex Problems <i>Application of tools and techniques (data analysis, statistical reasoning, creativity, nonlinear thinking, persistence) to formulate and solve problems</i>	Communicate Effectively <i>Ability to clearly organize their data, findings, & thoughts</i>	Work Collaboratively <i>Ability to cooperate to identify and create solutions to academic, social, vocational, and personal challenges</i>	
Partnership for 21st Century Learning	Core Subjects <i>English, Reading, Language Arts, Arts, Mathematics, Economics, Science, Geography, History, Government & Civics</i>	21st Century Themes <i>Global Awareness, Health Literacy, Financial & Business Literacy, Civic Literacy, Environmental Literacy</i>	Life & Career Skills <i>Flexibility & Adaptability, Initiative & Self-Direction</i>		Learning & Innovation Skills <i>Creativity & Innovation, Critical Thinking & Problem Solving, Communication & Collaboration</i>		Information, Media, & Technology Skills <i>Information, Media, and ICT Literacy</i>	
Higher-Ed Lumina DQP	Specialized/ Broad & Integrative Knowledge <i>Knowledge acquired and bridged across fields of learning</i>				Civic & Global Learning <i>Proficiencies needed for both civic and global inquiry and interaction</i>	Intellectual Skills (1) <i>Analytic Inquiry, Ethical Reasoning, Quantitative Fluency, Engaging Diverse Perspectives, Communicative Fluency</i>	Applied & Collaborative Learning <i>The integration of theory and practice, with the ideal of learning with others in the course of application projects; Engaging and diverse perspectives</i>	Intellectual Skills (2) <i>Use Of Info. Resources, Communicative Fluency</i>
Higher-Ed LEAP's VALUE Rubrics					Intellectual & Practical Skills (ex. those related to interpersonal competencies) Personal and Social Responsibility <i>(e.g. ethical reasoning)</i> Integrative and Applied Learning	Intellectual & Practical Skills <i>written communication, oral communication, teamwork</i>		
Workplace ACT/ Business Round Table CES	Applied Knowledge <i>Reading, Writing, Mathematics, Science, Technology</i>		Personal Skills <i>Integrity, Initiative, Dependability & Reliability, Adaptability, Professionalism</i>		Workplace Skills (1) <i>Planning & Organizing, Problem Solving, Decision Making, Critical Thinking*</i>		People Skills <i>Teamwork, Communication, Respect</i>	Workplace Skills (2) <i>Business Fundamentals, Customer Focus, Working w/ Tools & Technology</i>

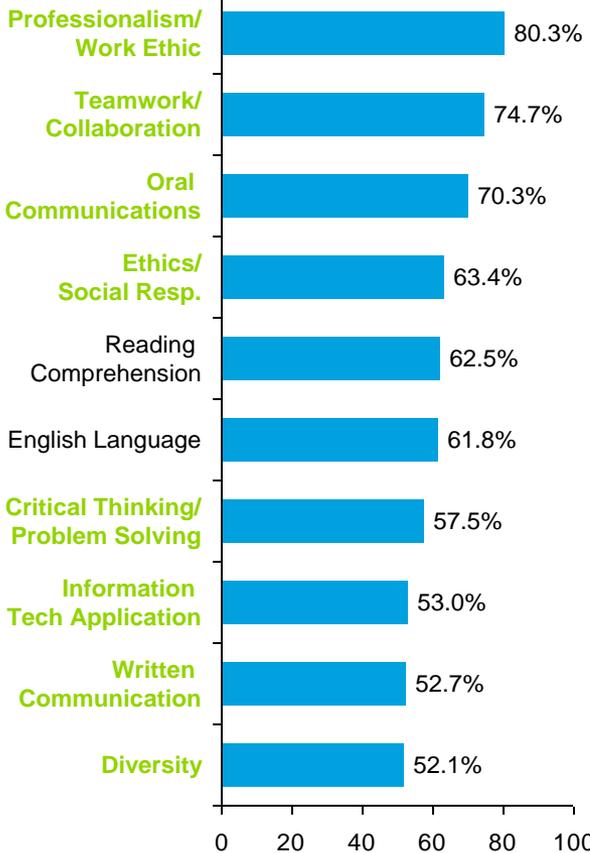
Explicit Skills Embedded Skills

Source: Monitor Institute Analysis
*Competencies may also be referred to as skills, proficiencies, performance outcomes, learning outcomes, or knowledge, skills and abilities

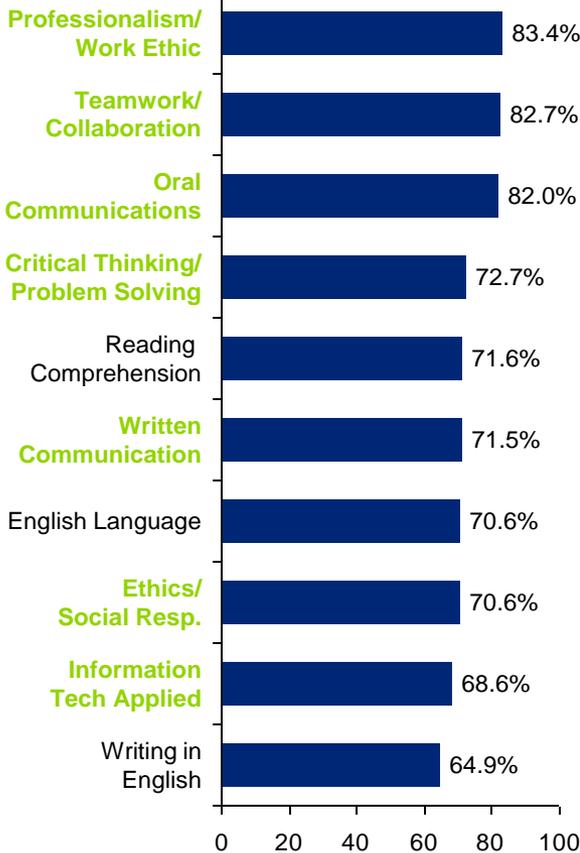
Of these two categories, employers have come to value Power Skills the most

According to a 2006 survey of 400+ employers, power skills accounted for 7 of the top 10 “very important” skills needed for new entrants into the workforce (note: the skills valued varies by educational level)

% of Employers Rating Skill as “very important” for new entrants with a high school diploma



% of Employers Rating Skill as “very important” for new entrants with a two-year diploma



% of Employers Rating Skill as “very important” for new entrants with a four-year college diploma



Source: Are They Really Ready To Work?, Partnership for 21st Century Skills (2006)

However, limited training and focus on K-12/post-secondary adoption has led to employer dissatisfaction with new employees' Power Skill competence

Across all education levels, Power Skills account for more than half of the most deficient skills

High School Graduates	% Rating as Deficient
Written Communications	80.9%
Professionalism / Work Ethic	70.3%
Critical Thinking / Problem Solving	69.6%
Oral Communications	52.7%
Ethics / Social Responsibility	44.1%
Reading Comprehension	38.4%
Teamwork / Collaboration	34.6%
Diversity	27.9%
Information Technology Application	21.5%
English Language	21.0%

Two-Year Graduates	% Rating as Deficient
Written Communications	47.3%
Writing in English	46.4%
Lifelong Learning / Self Direction	27.9%
Creativity / Innovation	27.6%
Critical Thinking / Problem Solving	22.8%
Oral Communications	21.3%
Ethics / Social Responsibility	21.0%

Four-Year Graduates	% Rating as Deficient
Written Communications	27.8%
Writing in English	26.2%
Leadership	23.8%



“Very important” skills were placed on the Deficiency / Excellence Lists if at least 1 in 5 employer respondents report entrant readiness as “deficient”

Source: Are They Really Ready To Work?, Partnership for 21st Century Skills (2006)

Moreover, a disconnect has emerged between business leader and college administrator perceptions with regards to K-12/post-secondary institutions' ability to prepare students for the workplace

Generally, employers hold a low opinion of college and K-12's ability to prepare students

Only **11%** of business leaders and **14%** of Americans “strongly agree” that today’s undergraduates are leaving college with the skills and competencies that they need to succeed in their workplaces

Almost half (**47%**) of C-suite executives **believe that fewer than 1/4th** (21%) of new college grads **have the skills**, such as problem-solving, collaboration, & critical thinking, **they’ll need to advance** past entry-level jobs

Less than one percent (0.2%) of employers select “excellent” when asked to rate new high school graduate entrants’ overall preparation to enter the workforce

Meanwhile, the majority of college administrators believe that post-secondary institutions provide graduates the skills required to succeed in the workplace. In addition, students report that their primary reason for attending college is to prepare for the workforce, suggesting they still believe in post-secondary institutions’ ability to do so

96% of college administrators, said they were “extremely or somewhat confident” in their institution’s ability to prepare their students for the workforce

AND

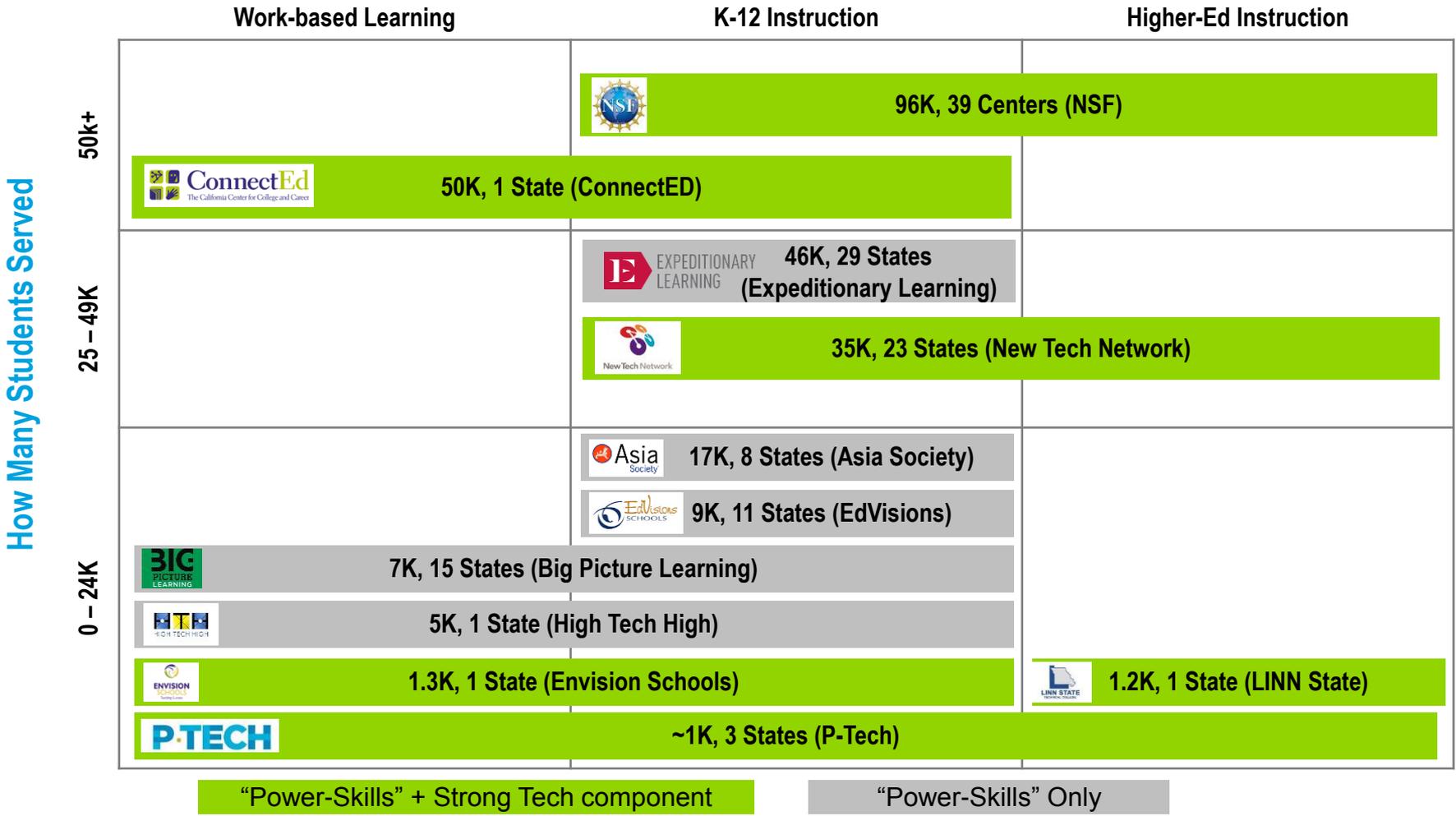
73% of students report that they are mainly attending college to gain skills employers value

Source: Executives to new grads: *Share up!*, Forbes (2012); *Are They Really Ready To Work?*, Partnership for 21st Century Skills (2006), *Are Colleges Preparing Students for the Workplace?*, www.collegesolution.com (2014); *improving student outcomes: Whose job is it to close the gap?*, Chegg (2014)

Recently, numerous programs, many of which are aligned with CCSS, have emerged and have the potential to help close the Power Skills gap; however, these programs are currently fragmented and none have fully scaled

In fact, when combined, the 11 illustrative programs noted below touch less than 1% (0.40%) of all K-12 / post-secondary students

How They Intervene



“Power-Skills” + Strong Tech component

“Power-Skills” Only

Similarly, advancements in assessments to measure Power Skills have been made, but adoption has been limited, especially in K-12 education

In addition, there does not appear to be any assessment that has widespread currency with employers for hiring / promotion decisions

Sample K-12 Assessments			Sample Post-Secondary Assessments			
Assessment Description	College-readiness Performance Assessment System (C-PAS) is an online formative assessment system, created by EPIC and funded by BMGF, designed to gauge development of five cognitive strategies	International Baccalaureate Student Projects (IB) are comprised of 2-3 month long projects including exhibitions and graduation portfolios, requiring students to design, conduct, analyze, revise and present their work using multiple modalities	SkillsUSA Skill Employability Assessment provides assessments for Career and Technical Education which includes an employability assessment	ACT's National Career Readiness Certificate (WorkKeys) is a portable evidence-based credential that measures "foundational" workplace skills	The National Work Readiness Credential (NWRC) was developed by the National Work Readiness Council and assesses ability in four modules	The CASAS Workforce Skills Certification System assesses employer-valued learning by youth and adults
Intra-personal Competencies			Time Mgmt, Self-Motivation		Take responsibility for learning	Integrity, Responsibility, Self-Mgmt
Inter-personal Competencies		Teamwork	Social Etiquette, Teamwork		Cooperate with others, Resolve conflicts and negotiate	Sociability
Cognitive Competencies	Problem Formulation, Research, Precision Interpretation, Communication,	Critical-Thinking, Problem Solving, Communication	Communication	Critical-Thinking, Problem Solving, Analysis & Synthesis	Solve problems and make decision	Decision-making
Work-based Competencies			Customer Service			Customer Care
# of Students	7K total	165K annually (only 16% from low-income families)	Unknown	2.3 Million since 2006	Unknown	Unknown