The Value of Critical Thinking in Today’s Economy

Hiner/CRTW
The Current Economic Climate

• 2012 Study from Rutgers University, “Chasing the American Dream: Recent College Graduates and the Great Recession”:
  • Surveyed 444 recent college graduates
  • Only 51% were employed full-time
  • Median starting salary of full-time employees was $28,000
  • More than half unsatisfied with starting salary
  • 43% reported working in a job that did not require a four-year college degree
  • In 2010, student loan debt exceeded $1 trillion
  • Median debt owed upon graduation for all students: $20,000
The Current Economic Climate

• In April of 2012, the Associated Press reported that 53% of recent college graduates were unemployed or under-employed:
  “About 1.5 million, or 53.6 percent, of bachelor's degree-holders under the age of 25 last year were jobless or underemployed” (Weissman).

• South Carolina Unemployment Rate for Nov., 2013 was 7.5% (U.S. Bureau of Labor Statistics).

• The 2012 Georgetown University Study Hard Times reports an unemployment rate for recent college graduates of 8.9%.
The “Skills Gap”

• Despite nationally high unemployment rates for recent college graduates, evidence suggests the presence of a pervasive “skills gap”: there are jobs available, but employers are having trouble finding qualified candidates.

• Between 2009 and 2011, “vacant” positions rose by 35%, but unemployment rates remained relatively high (Weitzman and Harding).

• In a 2008 Hart Research Associates Survey of 301 Employers, researchers found that:
  • 1/3 of employers think that recent college graduates lack the requisite skills to succeed on the job
  • 57% of employers think that half or fewer applicants are prepared for advancement in their companies
Graduates Lack “Soft Skills”

- The 2012 Survey of North Carolina Employers
  - Conducted by the John J. Heldrich Center for Workforce Development, Rutgers University
  - Surveyed employers of 10 – 499 employees from every county in North Carolina
  - Results:
    - All business sectors reported a gap in “soft skills,” identified as skills in communication, critical thinking, analytical problem solving, writing, leadership, interpersonal relations, personal ethics, teamwork, and following directions.
Employers Need Critical Thinkers

• An April 10, 2013 Study by the Association of American Colleges and Universities found that:

  • 93% of all employers say that “a demonstrated capacity to think critically, communicate clearly, and solve complex problems is more important than [a candidate’s] undergraduate major”

  • 94% of employers prioritize hiring graduates who will help them innovate in the workplace

  • More than 75% of employers want more emphasis on critical thinking, complex problem solving, written and oral communication, and applied knowledge in real world settings.

  • 74% of business and nonprofit leaders say they would recommend a twenty-first century liberal education
2012 NC Employer Survey Results

• The top skills candidates lack, as reported by employers, are:
  • Communication/Interpersonal Skills – 59.8%
  • Critical and Analytical Thinking – 46.8%
  • Problem Solving Skills – 45.4%
  • Leadership Skills – 34.4%

• When asked what type of training would benefit their employees most in the future, the majority stated that training in “soft skills/personal effectiveness competencies” would be most helpful.
2012 NC Employer Survey

Key Comments by NC Employers:

• “The lack of **basic communication skills** has been a large obstacle.”

• “Employees who have an understanding of **problem solving, teamwork, and continuous learning** are very valuable.”

• “A proper attitude regarding the **value of work** needs to begin early in life and be the expectation of the family.”

(2012 Skills Survey of North Carolina Employers, 7)
Employers Need “Soft Skills”

- In a 2010 survey of 302 employers conducted by Hart Research Associates,
  - 89% believed students need to communicate effectively both orally and in writing
  - 81% cited critical thinking and analytical reasoning as key skills for success
  - 75% listed the ability to analyze and solve complex problems as necessary for success

(Peter D. Hart Research Associates, 2010)
Employers Need “Soft Skills”

• The 2008 study “Critical Skills Needs,” by the Society for Human Resource Management and WSJ.com/Careers, states:

  Overall, employers placed the greatest weight on employee adaptability and critical thinking skills. HR professionals and employees both reported that adaptability/flexibility and critical thinking/problem solving were of greatest importance now compared with two years ago.

  “Key Findings” Critical Skills Needs, p. 1
“Soft Skills” Most Important

• The **top five skills needed** by experienced workers and new entrants, according to a 2008 survey of 407 HR professionals, are:
  • Adaptability/Flexibility 47%
  • Critical Thinking/Problem Solving 41%
  • Leadership 37%
  • Professionalism/Work Ethic 37%
  • Teamwork/Collaboration 35%

*Critical Skills Needs, p. 12*
“Soft Skills” In Highest Demand

- A 2007 Indiana Business Research Center (IBRC) report found the following skills to be highest in demand by business leaders, even when projecting their employment needs through 2014:
  - Reading Comprehension 100%
  - Active Listening 97.1%
  - Critical Thinking 94.3%
  - Speaking 91.4%

IBRC and the Indiana Department of Workforce Development
“Soft Skills” Needed in IT Fields

• A 2009 Survey of 348 IT Managers found that the following five “soft” skills were reported as most important, with “hard” skills ranked near the bottom of the list:
  
  • Honesty/Integrity 92.4%
  • Communication Skills 90.8%
  • Analytical Skills 90.2%
  • Ability to Work in Teams 89.8%
  • Interpersonal Skills 87.4%

“Soft Skills” Needed in Engineering

• The National Academy of Engineering concluded in 2004 that, in order to be successful, the engineer of 2020 would “need a much broader education, well beyond the current deep and narrow technical education in the applied sciences. They specifically identif[ied] creativity, teamwork, leadership, entrepreneurial thinking, and global contextual analysis” as the new necessary skills.

“Soft Skills” Linked to Promotion and Advancement

• Researchers for The Hart Research Associates’ 2010 study “Raising the Bar: Employers’ Views on College Learning in the Wake of the Economic Downturn” asked employers what skills are *most important* for “advancement and long-term career success” at their companies.

• Only 20% chose either “broad range of skills” or “in-depth knowledge and skills” within a specific field.

• 59%, the vast majority, chose “BOTH in-depth AND broad range of skills and knowledge.”
  • “Soft skills” seem to be necessary for job promotion and advancement, even in technical fields.
What Employers Want

• “Transferable skill sets, or competencies, have become the new currency for success and future employability. In the near future skills defined as critical thinking, creative problem solving, communication, and collaboration (the four Cs) will become even more important to organizations.”

  “Where Have All the Jobs Gone?” Frank B. Leibold, Ph.D., 2010
What Employers Want

• “What we’re hearing from employers is that they need a work force that’s broadly prepared, that adapts to changing circumstances, that knows how to work in groups and in teams, that can communicate well, and that has problem solving ability.”

  Mary K. Grant, President, Massachusetts College of Liberal Arts, in “It Pays to be Prepared,” Tony Dobrowolski, Berkshire Eagle Staff
Employers’ Future Needs

• Employers of the 21st Century will focus more on “soft skills” – alone or in combination with technical skills.

• In 2020, employers will seek “a strong foundation of knowledge, communication, and analytical skills needed for life-long learning.”

Academically Adrift

• Designed to assess and track the academic gains or stagnation of 2300 students
  • Assessed traditional college age students
  • Included wide range of four-year colleges and universities
  • Took place over the course of four years
• Used the Collegiate Learning Assessment (CLA)
  • A state-of-the-art and highly-esteemed tool
  • Assesses “critical thinking, analytical reasoning, problem solving and writing” (Arum and Roksa 21).
  • Assesses “the broad competencies that are mentioned in college and university mission statements” (Arum and Roksa 21).
Academically Adrift Findings

• 45% of students “did not demonstrate any significant improvement in learning” during the first two years of college (Arum and Roksa 36).

• 36% of students “did not demonstrate any significant improvement in learning” over four years of college (Arum and Roksa 36).

• Students who did show improvement improved on average only 7% (0.18 standard deviation) over the first two years of college (for instance, moving from the 50th to the 57th percentile).
Authors’ Conclusions

• **Academic rigor** is positively correlated to higher scores on the CLA: “When students are asked to read and write in their courses, when academic coursework is challenging, and when higher-order thinking is included in the coursework, students perform better on tests measuring skills such as critical thinking and writing” (Arum and Roksa 93).

• “At its core, changing higher education to focus on learning will require **transforming students’ curricular experiences**” (Arum and Roksa 131).
CLA Scores and Employability

• The Academically Adrift cohort was followed after graduation in order to see whether or not higher scores on the CLA were positively associated with employability.

• Results were published in the 2012 Social Science Research Council Study *Documenting Uncertain Times: Post-Graduate Transitions of the Academically Adrift Cohort.*
2012 SSRC Study Results

- The 2012 Social Science Research Council report *Documenting Uncertain Times: Post-graduate Transitions of the Academically Adrift Cohort* reveals that those cohorts who scored in the top quintile (top 20%) on the CLA were **three times more likely to be employed** than those who scored in the bottom quintile (bottom 20%).

  (Arum, Cho, Kim, and Roksa, “Executive Summary” 3)

“These findings reinforce the importance of rigorous educational experiences as well as the commitment of practitioners and policymakers to focus on improving the quality of higher education” (Arum et al. 15).