

Executive Summary

AMA 2010
Critical Skills Survey

Executives Say the 21st Century Requires More Skilled Workers

Critical thinking, creativity, collaboration, and communication skills will become more important in a fast-paced, competitive global economy

As the U.S. economy begins to show signs of improvement, executives say they need a workforce fully equipped with skills beyond the basics of reading, writing, and arithmetic (the three Rs) in order to grow their businesses. Skills such as critical thinking, communication, collaboration, and creativity (the four Cs) will become even more important to organizations in the future, according to a new survey conducted by American Management Association (AMA).

In a flat world where more and more routine, easily-replicated jobs are being automated or outsourced, U.S. businesses are shifting to embrace the knowledge age. In the process, fundamental questions are being raised about the readiness of the U.S. workforce to handle the jobs of the future. Are managers able to cope with global competition and the fast pace of change? What skills will the new jobs require?

Proficiency in reading, writing, and arithmetic has traditionally been the entry-level threshold to the job market, but the new workplace requires more from its employees. Employees need to think critically, solve problems, innovate, collaborate, and communicate more effectively—and at every level within the organization. According to the *AMA 2010 Critical Skills Survey*, many executives admit there is room for improvement among their employees in these skills and competencies.

As the current administration is proposing sweeping education reform, executives are shedding light on a set of skills—the four Cs—that have been identified by major players in industry as being crucial to workforce preparedness and business success.

In an effort to assess how “top of mind” these skills and competencies are, AMA—in conjunction with P21, a national organization that advocates for 21st-century readiness for every student—surveyed 2,115 managers and other executives in AMA member and customer companies about the importance of the four Cs to their organization today and in the future.

The AMA 2010 Critical Skills Survey defined the skills as follows:

- **Critical thinking and problem solving**—the ability to make decisions, solve problems, and take action as appropriate;
- **Effective communication**—the ability to synthesize and transmit your ideas both in written and oral formats;
- **Collaboration and team building**—the ability to work effectively with others, including those from diverse groups and with opposing points of view;
- **Creativity and innovation**—the ability to see what’s NOT there and make something happen.

How Are the Four Cs Recognized within Organizations?

According to the AMA survey results, executives said these skills and competencies have been articulated within their organizations as priorities for employee development, talent management, and succession planning. In fact, the majority agreed that their employees are measured in these skills during annual performance appraisals. In addition, job applicants are assessed in these areas during the hiring process.

The following skills and competencies have been articulated within my organization as priorities for employee development, talent management, and succession planning in the next one to three years.

	<i>Strongly disagree</i>	<i>Disagree</i>	<i>Neutral</i>	<i>Agree</i>	<i>Strongly agree</i>
<i>Critical thinking</i>	2.1%	7.3%	17.2%	38.9%	34.4%
<i>Communication skills</i>	1.9%	5.4%	13.4%	38.5%	40.7%
<i>Collaboration/team building</i>	1.9%	6.7%	19.1%	40.5%	31.8%
<i>Creativity and innovation</i>	2.2%	8.0%	23.4%	37.9%	28.5%

Employees in my organization are measured on these skills and competencies during their annual performance review.

	<i>Strongly disagree</i>	<i>Disagree</i>	<i>Neutral</i>	<i>Agree</i>	<i>Strongly agree</i>
<i>Critical thinking</i>	2.7%	9.3%	15.6%	42.2%	30.2%
<i>Communication skills</i>	1.9%	5.8%	11.8%	42.2%	38.2%
<i>Collaboration/team building</i>	2.2%	8.8%	17.9%	44.5%	26.7%
<i>Creativity and innovation</i>	3.4%	13.3%	25.9%	37.5%	19.8%

My organization makes an effort to assess these skills and competencies when hiring new employees.

	<i>Strongly disagree</i>	<i>Disagree</i>	<i>Neutral</i>	<i>Agree</i>	<i>Strongly agree</i>
<i>Critical thinking</i>	1.1%	5.5%	17.6%	44.9%	30.8%
<i>Communication skills</i>	0.7%	3.7%	14.9%	45.1%	35.6%
<i>Collaboration/team building</i>	1.0%	7.7%	28.7%	42.1%	20.5%
<i>Creativity and innovation</i>	1.5%	8.9%	29.5%	40.6%	19.5%

What Has Changed in Business Today?

Three out of four (75.7%) executives who responded to the AMA survey said that they believe these skills and competencies will become more important to their organizations in the next three to five years, particularly as the economy improves and organizations look to grow.

When asked why they believe these skills and competencies are taking on critical importance in the business environment, 91% rated the pace of change in business today as the leading cause, followed by global competitiveness (86.5%), the nature of how work is accomplished today (77.5%), and the way organizations are structured (66.3%).

How do you believe your organization will view these skills and competencies (critical thinking, communication skills, collaboration, and creativity) in the next three to five years?

<i>They will become less important</i>	0.6%
<i>They will remain the same</i>	22.5%
<i>They will become more important</i>	75.7%
<i>No opinion</i>	1.1%

Please rate by order of importance why you believe these additional skills and competencies (the four Cs) are taking on relative importance in the business environment.

	<i>Least important</i>	<i>Less important</i>	<i>Neutral</i>	<i>Somewhat important</i>	<i>Most important</i>
<i>Nature of work</i>	1.1%	4.9%	16.5%	53.2%	24.3%
<i>Global competition</i>	0.9%	2.4%	10.1%	31.4%	55.1%
<i>Pace of change</i>	0.6%	1.7%	6.8%	33.2%	57.8%
<i>Organizational structure</i>	2.0%	8.3%	23.4%	44.9%	21.4%

As the economy improves, please rate the following skills and competencies by their level of importance in helping to grow your organization.

	<i>Least important</i>	<i>Less important</i>	<i>Neutral</i>	<i>Somewhat important</i>	<i>Most important</i>
<i>Critical thinking</i>	0.1%	0.4%	2.5%	29.5%	67.6%
<i>Communication skills</i>	0.1%	0.5%	4.1%	35.3%	60.0%
<i>Collaboration/team building</i>	0.1%	1.2%	6.6%	43.1%	48.9%
<i>Creativity and innovation</i>	0.2%	1.6%	5.1%	31.8%	61.3%

Is the U.S. Workforce Prepared?

Are employees equipped to handle these challenges? According to the AMA survey, more than half (51.4%) of executives said their employees were only average in effective communications skills (vs. 38.1% who rated them above average), and 46.9% of respondents said their employees were only average in creativity and innovation (compared to 37.4% who rated them above average).

However, executives rated their employees higher in other areas. More than half (51.9%) of executives said their employees were above average in critical thinking (compared to 41.9% who said they were average), and 46.7% of respondents rated their employees above average in collaboration and team building (vs. 42% who rated them average).

As a whole, please rate your employees in terms of their abilities in the following skills and competencies.

	<i>Lowest ability</i>	<i>Below average</i>	<i>Average</i>	<i>Above average</i>	<i>Highest ability</i>
<i>Critical thinking</i>	0.6%	5.6%	41.9%	43.8%	8.1%
<i>Communication skills</i>	0.7%	9.9%	51.4%	32.9%	5.2%
<i>Collaboration/team building</i>	1.1%	10.2%	42.0%	38.8%	7.9%
<i>Creativity and innovation</i>	1.4%	14.2%	46.9%	31.6%	5.8%

Closing the Skill Gaps

In order to improve their employees' skill levels in these areas, respondents identified one-on-one coaching and mentoring as the most effective methods, followed by professional development and training, in-house job training, and job rotation.

The AMA survey also shows that managers and executives believe it is easier to develop these skills in students than it is to develop them in experienced workers, suggesting that students and recent graduates may be more open to new ideas, versus experienced workers with established work patterns and habits.

How would you compare the skill levels (critical thinking, communication, collaboration, and creativity) of the experienced workers versus the recent graduates within your organization?

	<i>Lowest ability</i>	<i>Below average</i>	<i>Average</i>	<i>Above average</i>	<i>Highest ability</i>
<i>Experienced workers</i>	0.1%	6.0%	35.4%	49.0%	9.5%
<i>Recent graduates</i>	1.8%	17.8%	50.4%	27.9%	2.2%

Please rate the following methods for developing employees' four Cs.

	<i>Least effective</i>	<i>Less effective</i>	<i>Neutral</i>	<i>More effective</i>	<i>Most effective</i>
<i>Prof. development/Training</i>	1.4%	6.2%	20.8%	55.2%	16.5%
<i>In-house/Job training</i>	0.9%	7.0%	22.8%	51.4%	17.9%
<i>Mentoring</i>	0.6%	3.9%	17.4%	45.2%	32.8%
<i>One-on-one coaching</i>	0.5%	2.8%	11.3%	41.1%	44.3%
<i>Job rotation</i>	3.4%	8.1%	28.6%	43.8%	16.2%

In your opinion, how feasible is it to train/develop these skills and competencies (critical thinking, communication, collaboration, and creativity) in students and experienced workers.

	<i>Very difficult</i>	<i>Somewhat difficult</i>	<i>Neutral</i>	<i>Somewhat easy</i>	<i>Very easy</i>
<i>Students</i>	2.7%	17.5%	21.2%	47.0%	11.6%
<i>Experienced workers</i>	5.2%	42.4%	23.6%	25.9%	2.9%

Preparing the Next Generation

According to the AMA survey results, 80% of executives believe that fusing the three Rs and four Cs would ensure that students are better prepared to enter the workforce. Proficiency in reading, writing, and arithmetic is not sufficient if workers are unable to think critically, solve problems, collaborate, or communicate effectively.

Please rate the following education systems by their ability to prepare students in the four Cs (critical thinking, communication, collaboration, and creativity) to ensure those entering the workforce are proficient in these areas.

	<i>Poor</i>	<i>Below average</i>	<i>Average</i>	<i>Above average</i>	<i>Excellent</i>
<i>K-12</i>	8.5%	33.8%	46.7%	9.1%	1.8%
<i>Trade schools</i>	5.7%	29.7%	50.9%	12.8%	0.9%
<i>Two-year colleges</i>	2.5%	19.0%	59.7%	17.4%	1.3%
<i>Four-year colleges</i>	1.0%	7.8%	42.4%	41.6%	7.3%

Do you agree that fusing the three Rs (reading, writing, and arithmetic) with the four Cs (critical thinking, communication, collaboration, and creativity) ensures 21st-century readiness for students today?

<i>Strongly disagree</i>	5.6%
<i>Disagree</i>	2.8%
<i>Neutral</i>	12.0%
<i>Agree</i>	49.7%
<i>Strongly agree</i>	29.8%

Demographics

What is the size of your organization?

<i>Under 100 employees</i>	16.7%
<i>100–499</i>	21.5%
<i>500–999</i>	9.6%
<i>1,000–3,499</i>	14.0%
<i>3,500–4,999</i>	4.7%
<i>5,000–9,999</i>	8.9%
<i>10,000 or more</i>	24.5%

What is your primary function?

<i>General management</i>	22.3%
<i>Human resources</i>	17.0%
<i>Administration</i>	3.2%
<i>Finance</i>	8.2%
<i>Systems/IT</i>	8.3%
<i>Operations</i>	11.5%
<i>Research & Development</i>	4.2%
<i>Sales</i>	4.6%
<i>Marketing/Communications</i>	8.4%
<i>Other</i>	12.3%

What is your title?

<i>CEO/President/Chairman</i>	4.0%
<i>EVP/SVP</i>	1.8%
<i>Vice president</i>	5.4%
<i>Director</i>	20.0%
<i>Manager</i>	45.8%
<i>Supervisor</i>	6.8%
<i>Other</i>	16.2%

Within which sector does your organization primarily operate?

<i>Business services</i>	9.2%
<i>Chemicals</i>	1.5%
<i>Consumer goods</i>	2.3%
<i>Education/Training</i>	5.2%
<i>Energy/Utilities</i>	3.9%
<i>Financial services/Banking</i>	10.4%
<i>Food products</i>	2.4%
<i>Government</i>	7.2%
<i>Hi-tech/Telecom</i>	7.5%
<i>Hospital/Health care/Insurance</i>	9.3%
<i>Manufacturing</i>	11.8%
<i>Mining or agriculture</i>	0.8%
<i>Nonprofit</i>	5.4%
<i>Pharma/Biotech/Medical devices</i>	7.8%
<i>Retail</i>	2.3%
<i>Other</i>	12.9%

About AMA

American Management Association is a world leader in talent development, advancing the skills of individuals to drive business success. AMA's approach to improving performance combines experiential learning—learning through doing—with opportunities for ongoing professional growth at every step of one's career journey. AMA supports the goals of individuals and organizations through a complete range of products and services, including classroom and live online seminars, webcasts, webinars, podcasts, conferences, corporate and government solutions, business books and research. Organizations worldwide, including the majority of the Fortune 500, turn to AMA as their trusted partner in professional development and draw upon its experience to enhance skills, abilities and knowledge with noticeable results from day one. For more information visit www.amanet.org

About P21

P21 is a national organization that advocates for 21st century readiness for every student. As the United States continues to compete in a global economy that demands innovation, P21 and its members provide tools and resources to help the U.S. education system keep up by fusing the three Rs and four Cs (critical thinking and problem solving, communication, collaboration and creativity and innovation). While leading districts and schools are already doing this, P21 advocates for local, state and federal policies that support this approach for every school.

21st Century Skills Leadership States include: Arizona, Illinois, Iowa, Kansas, Louisiana, Maine, Massachusetts, Nevada, New Jersey, North Carolina, Ohio, South Dakota, Wisconsin and West Virginia.

Member organizations include: Adobe Systems, Inc., American Association of School Librarians, Apple, ASCD, Blackboard, Inc., Cable in the Classroom, Crayola, Cisco Systems, Inc., Dell, Inc., EF Education, Education Networks of America, Educational Testing Service, Gale, Cengage Learning, Hewlett Packard, Houghton Mifflin Harcourt, Intel Corporation, JA Worldwide®, K12, KnowledgeWorks Foundation, LEGO Group, Lenovo, Learning Point Associates, Leadership and Learning Center, McGraw-Hill, Measured Progress, Microsoft Corporation, National Education Association, National Academy Foundation, Nellie Mae Education Foundation, netTrekker, Oracle Education Foundation, Pearson, Project Management Institute Educational Foundation, Quarasan!, Scholastic Education, Sesame Workshop, Sun Microsystems, Inc., The Walt Disney Company, and Verizon.