

U.S. Teens Fear Risk-Taking; STEM Careers Demand It

By KELTON GLOBAL

MILWAUKEE, WI — While 95 percent of teens agree that risk-taking is required for innovation in science, technology, engineering and mathematics — or STEM — careers, 46 percent say they are afraid to fail or uncomfortable taking risks to solve problems, according to an ASQ survey conducted by Kelton Global.

The survey, which was fielded in January in advance of National Engineers Week Feb. 17-23, reveals that students' pressure to succeed may be driven by parents, of whom 81 percent are uncomfortable if their child does not perform well in sports, extracurricular activities or social situations. Of those parents, 73 percent say they feel uncomfortable when their child gets bad grades.

While nearly half of students are afraid or uncomfortable about failing, Cheryl Birdsong-Dyer, an ASQ member and professional process engineer, said failing — and more importantly, trying again — is a pivotal skill in problem solving.

"If one does not take risks, they risk not solving the problem," she said. "As educators, professionals and leaders we need to reinforce to teens that every failure is an opportunity to learn and grow.

"Teaching teens that it is OK to take risks and sometimes fail will build their confidence and ultimately their knowledge base of science, technology, engineering and math," she said.

Birdsong-Dyer is one of 14,000 engineers who are members of ASQ — the leading authority on quality in all fields, organizations and industries. ASQ provides engineers and professionals in other STEM-related careers the quality tools to help them succeed.

According to the survey, 88 percent of students say they feel the pressure to succeed, 71 percent of those 88 percent say failing a class makes them feel they have not succeeded. Seventy-eight percent of girls feel unsuccessful when they fail a class, compared to 64 percent of boys. Other reasons teens feel like they have fallen short in achievement include:

1. Failing a test — 62 percent
2. Not making the honor roll — 37 percent
3. Not making a sports team — 35 percent
4. Not being accepted into a club — 25 percent
5. Not being popular — 24 percent

6. Most Girls Afraid to Fail; Quality Tools Mitigate Risk

When faced with a difficult problem to solve, only 11 percent of students are happy because they enjoy solving problems, according to the survey results. Fifty-eight percent of girls say they feel uncomfortable or afraid when facing a difficult problem in school. In comparison, only 34 percent of boys feel uncomfortable or afraid when asked to solve challenging schoolwork.

Quality professionals, such as engineers, work in an environment full of risk. They use quality tools to mitigate risk and boost creativity and innovation needed to solve challenging problems. As a result, engineers and other quality professionals are uniquely positioned to mentor students, according to ASQ CEO Paul Borawski.

“We need to teach today’s students how to take risks and fail so they feel comfortable when faced with challenging work,” Borawski said. “If students are going to cure the next deadly disease, solve the energy crisis or end world hunger, they have to be prepared to fail and learn from those failures.”

Problem-Solving 101

Nearly all of the students surveyed — 98 percent — say they have learned some problem-solving skills. Of those, 27 percent say they learn these skills from teachers at school.

Other areas of influence include:

1. Technology (computer games, Internet, video games) — 22 percent
2. Parents — 20 percent
3. Friends — 17 percent
4. Sports teams — 6 percent
5. Other — 7 percent

Help Wanted: Risk-taking Required

Being afraid to take risks may steer teens away from choosing a STEM career. Ninety-five percent of teens surveyed agree that risk-taking is imperative to solve problems for jobs, especially in STEM-related jobs like a scientist (66 percent), doctor (55 percent), or engineer (51 percent).

In contrast, teens feel the following careers need fewer risk-taking skills:

1. Lawyer — 47 percent
2. Computer programmer — 44 percent
3. Teacher — 41 percent
4. Entrepreneur — 41 percent
5. Accountant — 17 percent

Maturity Matters

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Published on Chem.Info (<http://www.chem.info>)

According to the survey results, older teens understand that certain professions require more risk-taking. In fact, 58 percent of teens ages 16-17 know that a doctor needs to take chances to solve problems compared to half of teens ages 12-15.

Fifty-four percent of teens 16-17 know engineers need risk-taking skills to solve problems, whereas only 46 percent of youth 12-15 know that.

Older teens also are more likely to feel challenged by problem solving in a positive way, than the younger students (43 vs. 34 percent).

What's your take? Please feel free to comment below!

Source URL (retrieved on 03/27/2015 - 3:58am):

http://www.chem.info/blogs/2013/02/us-teens-fear-risk-taking-stem-careers-demand-it?qt-most_popular=1