
From the Editor

Think Like an Engineer

Recent results from a little-known test taken by freshman and seniors at about 200 colleges across the USA revealed some very discouraging findings. The College Learning Assessment Plus (CLA) test is given annually to assist in the evaluation of which schools help students learn critical thinking skills. These tests are intended to measure how the students utilize critical thinking, analytical rea-

soning, problem solving and writing by requiring them to manipulate information and data in real-world circumstances that require different abilities. At more than half of the schools, at least a third of the seniors failed to demonstrate these skills. The value in honing these capabilities not only has applications to solving problems in school, but also benefits in improving the performance of businesses and in life. Nutrisystem CEO, Dawn Zier, commented in the recent WSJ (Wall Street Journal) C-Suite Strategies Report on how this approach was the driving force behind the remarkable turnaround of that company. Ms. Zier, who holds master's degrees in business and electrical engineering from

MIT, noted that “while you don’t have to be an engineer to accomplish a successful business turnaround, all you need to do is think like one.” She explained that upon arrival five years ago, she observed an extraordinary lack of analytical rigor. To paraphrase the words of an unlikely source, Detective Sergeant Joe Friday (Dragnet), “Just the Facts” became the company motto.

overseas, are rejected either before or after the first review for lack of rigor in experimental approach, focus on the critical variables, scientific analysis of data, and conclusions that communicate precisely the important and verified findings. That is why it was very refreshing and encouraging to review the recent FEF (Foundry Education Foundation) 2016–2017 Annual Report, “Molding the Future.” This is truly one of the best models of how a sector can be strengthened by an organization that supports unique partnerships among students, educators and industry, helping today’s students become tomorrow’s leaders and critical thinkers. Those that commit time and financial resources to efforts like FEF, AFS Foundry in a Box, ASM Materials Camps, Manufacturing Day activities, and other educational endeavors, should be applauded. They are encouraging students to think critically and will create a pool of talent that demonstrates “thinking like an engineer.”

While you don’t have to be an engineer to accomplish a successful business turnaround, all you need to do is think like one.

It has also become apparent that just pursuing a STEM (Science, Technology, Engineering, and Mathematics) degree does not guarantee that this capability has been developed, nurtured, and can be demonstrated. A significant number of submissions to the IJMC, especially from

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