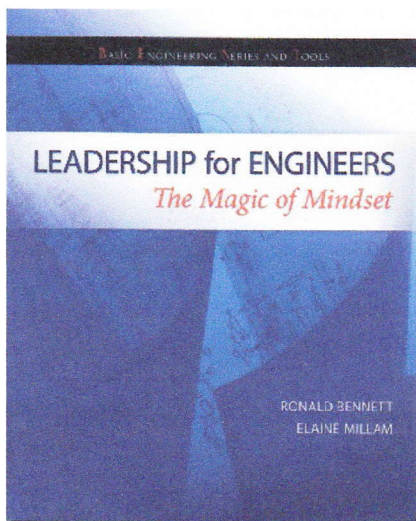


Leadership and the Critical Role of Mindset

An interview with Drs. Ronald Bennett and Elaine Millam, experts on the subject of engineers and leadership, reveals some key insights and practical advice.

Elaine Millam, Ed.D., and Ronald Bennett, Ph.D., are co-authors of *Leadership for Engineers: The Magic of Mindset* (McGraw-Hill Science/Engineering/Math; 1 edition, June 11, 2012). Based on interviews and research on the leadership development of technical professionals in the workplace, the book represents the authors' combined 80+ years of experience in industry and academia, developing leadership skills in working adults. The two will be presenting a four-part webinar series based on their book in January and February. The series kicked off Jan. 17. In a recent interview, SWE took a look at their rationale for writing the book and some of the key "takeaways" from their work in the field.



What motivated you to write the book?

We felt it was time that something be done to make what we and others have learned available to more people. We wanted to help technical professionals by sharing our experience in industry and academia to shorten the time it takes to build leadership skills, and to

begin their leadership journeys much earlier in their careers.

While much of what we included in the book has been available for years, it had not been pulled together in one coherent and easily accessible place that addresses leadership from a variety of perspectives. We particularly wanted to make it clear that leadership comes from within, from introspection and reflection, from being authentic, and to make the point that leadership is not an executive issue — leadership is needed at all levels in an organization. One must lead both from *where* they are, and *who* they are.

How did you go about organizing your book and selecting the various areas of focus?

It was organized first by addressing some of the limitations that people often place on themselves based on long-standing stereotypes and myths about technical people, and their own complicit ownership of some of those myths. We felt that we had to first confront some of the obstacles that have long held people back — particularly engineers. Along with scientists and other technically trained professionals, engineers have often been taught that the “softer skills,” or the more people-oriented concerns, are not necessarily their bailiwick, implying that it is not an ability to be developed. This message, whether conveyed directly or indirectly, keeps them from recognizing their own potential.

Once this was chosen as a starting place, we decided to let the interviewees' stories shape how we organized the rest of the book. While there were many possible ways to structure it, the people's stories drove the arrangement, and it seemed to fit the logic we felt was appropriate, moving from the inner self to the broader world issues that leaders

need to impact. One could say we took an organic approach to organizing the book, that once the beginning was established, the individual stories built upon one another.

How can aspiring and current women leaders in STEM use your book?

Aspiring and current women leaders can use the book in the same way that men do: by using it as a tool to learn more about themselves, recognizing that their unique gifts, talents, and capabilities contribute to a more well-rounded individual; and that well-rounded individuals create a stronger STEM profession. Women need to develop the confidence to work in environments that aren't necessarily nurturing and supportive and then develop the power and clarity of their own voice. For example, the capability to bring about collaboration and teach others about interpersonal relationships does not need to be abandoned for the sake of the technical environment.

What are the critical leadership skills for engineers in the 21st century?

Engineers and other STEM professionals will need to merge their technical skills with a holistic approach to leading, inspiring, and engaging people to co-create solutions for the world. A broad and deep perspective on the sciences, the arts, people development, systems thinking, creativity (innovation), and a solid process orientation for leading change are required. Most of all, ongoing self-awareness is essential. This means commitment to personal growth and self-reflection to understand how one functions in the broader world. This means knowing how one is perceived, how to engage others, and how to com-

municate effectively so one's voice can be heard in multiple, challenging environments and situations.

What can seasoned professionals do to continually develop their leadership capacity?

To truly make a difference in the world, one must recognize that learning is a lifelong process and commit to it. This process can take place in multiple ways: by continuing to stretch oneself with new learning on the job; putting practices in place to develop leadership prowess; and exposing oneself to new ideas and possibilities concerning world issues and challenges. Because knowledge gained earlier in life becomes obsolete so quickly, the lifelong pursuit of learning in various forms stretches one's thinking, cultivates one's creativity, and increases understanding of how everything is connected in the larger world system. Taken together, these efforts result in a continual reinvention of the self, which, in turn, results in further self-awareness and emotional development.

As people mature, they begin to ask very different questions about life, work, the world, and their contributions, and this is the time to "dig deeper" in their pursuits of what is possible, rather than begin to "coast" through life because things have become too comfortable.

Seasoned professionals need to find ways to move beyond their comfort zones and ask the deeper questions that lead to new and broadened perspectives. Taking classes in the liberal arts can stimulate new possibilities that are directly related to making deeper and more meaningful contributions.

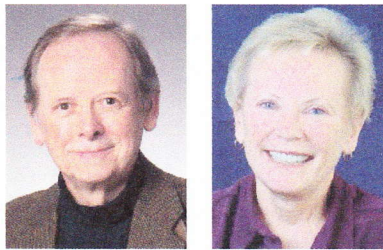
The last part of your book, titled "Why the World Needs You," discusses the global demand for innovation, critical thinking, and systems thinking and functioning. How can various organizations and educational institutions more successfully meet this demand through leadership training and education?

We intended this section to be a "wake-up call" to illustrate how des-

perately the world needs brilliant and talented people to be effective leaders wherever they are. The U.S. has fallen behind so many other countries not only in educational processes, but also in other significant areas. These include the desire and commitment to collaborate across boundaries to approach the world's problems; adopting a cooperative stance rather than a competitive stance, which leads to conflict and winners/losers rather than global solutions.

We feel it is imperative that people learn early in life to broaden their perspectives so they can better understand the world as a place where people come together to build a safe environment, raising living standards everywhere, ensuring sustainability, safety, and opportunities for all.

About the authors



Ronald J. Bennett, Ph.D., is the founding dean of the School of Engineering at the University of St. Thomas. Active in building the engineering program in the early years, in 1993 he was named the Thwaites/3M Chair. The following year, Dr. Bennett was named the director of the undergraduate manufacturing engineering program at UST, and in 1995, he assumed leadership of the graduate engineering programs. During his tenure, he began several new degree programs, increased enrollments, introduced and developed the STEPS summer camp for girls, and created the School of Engineering.

Before joining UST, Dr. Bennett held executive positions in industry for more than 20 years, working at BMC Industries, CPI (now Boston Scientific), and Teltech, and in several entrepreneurial organizations, with responsibilities that ranged from R&D, engineering and

manufacturing, to sales, marketing, and general management. A champion of engineering education reform to meet the demands of the 21st century, he is a member of numerous scientific and professional societies, an ABET program evaluator and commissioner, and leads the Society of Manufacturing Engineers Center for Education.

Dr. Bennett has also served as executive director of the Minnesota Center for Engineering and Manufacturing Excellence (MnCEME) and on the boards of several educational organizations.

Elaine R. Millam, Ed.D., has more than 30 years of experience in various leadership positions, working as a change agent, educator, executive coach, and business executive. She served as an executive in human resources and organizational development in a Fortune 50 organization, where she received several key awards, including the coveted Lund Award, for excellence in people development. An adjunct faculty member of The Hudson Institute of Santa Barbara, the University of St. Thomas, and Argosy University, she teaches leadership development, strategic change, and organizational effectiveness. She is a published author on facilitation, performance management, leader as coach, change leadership, team effectiveness, and work-force design. She has authored *Women as Soul Leaders: Integrating the Inner and Outer*, and is the co-author, with Dr. Bennett, of *Leadership for Engineers: The Magic of Mindset*, aimed at science and technical professionals.

Dr. Millam is a graduate of the University of Minnesota with majors in education and social work, a double master's in educational psychology and industrial relations, and a doctorate in organizational leadership from the University of St. Thomas. She is a member of several professional organizations, including the OD Network and HR People & Strategy (formerly the Human Resource Planning Society). ■