



Career Advice for Women and Men

Resiliency and the Impact of Self-Efficacy

Caroline leads a research team in a multinational corporation that develops medical equipment. She holds a PhD in biomedical engineering and has worked for this company for more than a decade. When I first met her I found her intelligent, motivated, confident, and expecting a career full of successes. Besides all of that she was joyful because she had recently become engaged and had applied for a promotion at her company. I know all of this because as part of our work together Caroline was developing a personal vision, a detailed outline of what she wanted in life. In our research, my colleagues and I have found that women in the STEM professions with a fully articulated personal vision are more likely to advance in their careers.¹

When we met again several months later, Caroline was not the same joyful person I had met earlier. After several days she shared that she had not gotten the promotion. Her boss had told her that she “just wasn’t ready.” I asked Caroline if she had understood what it meant that she was not ready. She said that she was so upset when she found out that she was not able to think clearly. As she dealt with this difficulty, Caroline was not able to focus on the realities associated with her job and everyday life—at least in the short term.

When faced with a major setback like being denied a coveted promotion, or other common disappointments such as rejection of a grant application or manuscript, how does one stay motivated to show up every day and focus on the work?

Resiliency

Resiliency is the ability to recover readily from adversity. The term comes from the Latin word *resilire*, which means “to spring back.” Researchers have linked resiliency to several factors. Individuals using positive emotions to find meaning in negative circumstances

have been found to be resilient.² These individuals are able to bounce back from negative events effectively while others are not.

Positive emotions are linked to coping mechanisms.

Resilient individuals have been described as optimistic and energetic. They are naturally curious and open to new experiences and are characterized by high positivity. These individuals proactively cultivate their positivity by strategically finding ways to develop their own positive emotions. Examples include the use of humor, meditation, and other relaxation techniques and being generally optimistic.²

Researchers Benright and Bandura reviewed a number of studies on individuals recovering from various types of trauma, including natural disasters, assault, spousal loss, and others.³ They found that self-efficacy played a role for individuals in post-trauma recovery. Self-efficacy is one’s belief in his or her ability to succeed. These beliefs determine how an individual thinks, behaves, and feels. In the studies, those who believed that they could overcome the adversity were more likely to rebuild their lives after the trauma. Further, the researchers state that building self-efficacy can lead to resilience.

Resiliency through Self-Efficacy

For those who want to become more resilient in everyday life and to prepare to handle upcoming adversities, my recommendation is to work on developing higher levels of self-efficacy. This is especially important for women working in difficult circumstances. Women who work in professions or organizations that are largely male face workplace bias and barriers to their achievement.^{4,5,6} Our work at Case Western Reserve University has found that women in STEM fields who have higher levels of self-efficacy are more likely to persist and achieve.^{1,7} Women with high levels of self-efficacy are more adaptable and find creative means to overcome the bias and barriers as well as professional setbacks found in the workplace.

Self-efficacy can be developed by anyone



Kathleen Buse

at any time with intentional effort.⁸ For those who want to develop self-efficacy and therefore resilience, consider these four factors: drawing on past accomplishments, seeing others succeed, experiencing positive affirmations, and reducing anxiety through renewal.⁹

When faced with a challenge, self-efficacy can be developed by **drawing on past accomplishments**. Individuals practicing this technique will be heard saying, “If I did that then, I can do this now.” Leveraging the success of past accomplishments helps many individuals achieve even higher goals.

Seeing others succeed, especially others who are like you, helps build confidence to succeed. In the workplace, having role models in leadership positions gives others hope that they too can be successful. For women, seeking out successful women and engaging them in your own development can lead to success. In some organizations it is common to have mentors and sponsors.

Positive affirmations from others can be conveyed in words, gestures, or rewards for a job well done. There is a small body of research that shows women are more likely to develop self-efficacy when they see role models and receive positive affirmations from others.

Renewal is important because it reduces anxiety. Renewal can increase hope and optimism. It allows us to move toward our goals. Great ways to renew yourself include exercise, meditation, and spending time with friends.

Every one of us can increase our level of self-efficacy by leveraging one or more of these factors. Developing a greater sense of self-efficacy can lead to resilience, as I found with Caroline. As we continued to work together, Caroline was able to increase her self-efficacy. She believed she would achieve her dreams. A month ago I got an email from Caroline. She wanted to share the news of a significant promotion. In her words:

I feel empowered to stand up for myself...I ran into another situation where I wasn't getting a promotion and when I asked about it they pointed out I didn't have all the criteria...I pushed back and pointed out none of the folks (who do happen to be male) currently in the role have all the criteria either. I got the promotion!

Caroline could have given up on her job and her company when she did not get the initial promotion. We all know people who blame their own lack of achievement on others. While it took Caroline some time to deal with the disappointment of not getting the initial promotion, by learning to leverage her past accomplishments and build her confidence to achieve she was able to move on from this adversity. Caroline is a great example of resilience. ■

—Kathleen Buse, Case Western Reserve University

References

- ¹Buse K, Bilimoria D (2014). Personal vision: enhancing work engagement and the retention of women in the engineering profession. *Frontiers in Psychology* 5, 1400.
- ²Tugade MM, Frederickson BL (2004). Resilient individuals use positive emotions to bounce back from negative emotional experiences. *Journal of Personality and Social Psychology* 86, 320–333.
- ³Benight, CC, Bandura A (2004). Social cognitive theory of post-traumatic recovery: The role of perceived self-efficacy. *Behaviour Research and Therapy* 42, 1129–1148.
- ⁴Corbett C, Hill C (2015). Solving the Equation: The Variables for Women's Success in Engineering and Computing. Washington, DC: AAUW. Retrieved from www.aauw.org/research/solving-the-equation.
- ⁵Hewlett S, Luce C, Servon L, Sherbin L, Shiler P, Sosnovich E, Sumberg K (2008). The Athena Factor: Reversing the Brain Drain in Science, Engineering, and Technology. Cambridge: Harvard Business Review Research Report 10094.
- ⁶National Research Council (2007). Beyond Bias and Barriers: Fulfilling the Potential of Women in Academic Science and Engineering. Washington, DC: National Academies Press. Retrieved from <http://bit.ly/2mjamy9>.
- ⁷Buse KR, Bilimoria D, Perelli S (2013). Why they stay: Women persisting in the US engineering careers. *Career Development International* 18, 139–154.
- ⁸Bandura A (1982). Self-efficacy mechanism in human agency. *American Psychologist* 37, 122.
- ⁹Bandura A (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review* 84, 191–215.

