A SIMPLE PRACTICE

Encouraging persistence is a simple practice that requires no additional resources. It is typically an element of mentoring, but there is no reason to restrict encouragement to the context of a mentoring relationship. Opportunities for offering encouragement abound during the normal course of daily interaction. It requires only a commitment to cultivating outstanding performance through positive communication.

Encouragement is essential to retention when women express doubts about whether they belong in computing. At this point, the instructor’s response can make the difference between persistence and departure. Simply accepting the woman’s doubts at face value can facilitate her departure. In contrast, a sincere encouraging response that expresses confidence in the student’s ability to succeed and that recommends persistence can facilitate retention.

RESOURCES

See NCWIT’s Encouragement Works in Academic Settings: Increasing Persistence in Computing Through Encouragement (www.ncwit.org/academicencouragement) for more examples of the role encouragement from teachers, faculty members, and advisors has played in students’ decisions to pursue and persist in computing.

See NCWIT’s Top 10 Ways You Can Retain Students in Computing (www.ncwit.org/top10retainstudents) for a brief highlight of the top ten evidence-based ways to retain undergraduate students in computing.

NCWIT offers practices for increasing and benefiting from gender diversity in IT at the K-12, undergraduate, graduate, and career levels.

This case study describes a research-inspired practice that may need further evaluation. Try it, and let us know your results.

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Anyone who participates in sports or physical training knows the positive effects of encouragement. Research in sports medicine finds substantial improvements in effort and persistence result from frequent exhortations like, "Great job!" and "Keep going; I know you can do it!" This type of communication from trusted sources motivates people to work at a task harder and longer (Bandura, 1997). It promotes career advancement. It equalizes retention of men and women computer science majors, and even increases women’s enrollment, because women more often than men say they entered computer science because a teacher, family member, or friend encouraged them to do it (Cohoon, 2006). Therefore, encouragement can be a powerful tool in an overall effort to bring gender balance to computing.

Encouragement seems to work by increasing the recipient’s self-efficacy (belief in one’s competence to succeed at a particular task). Self-efficacy can be increased in other ways too. For example, both observing someone perceived to be similar to one’s self succeed at the task and experiencing one’s own success at the task contribute to belief in one’s capacity to perform that task. The vicarious method and the verbal persuasion method (encouragement) seem to be particularly effective for increasing the likelihood that women will engage, persist, and put effort into tasks in domains like computing.

HOW TO ENCOURAGE PERSISTENCE
Effective encouragement requires some attention to the content and circumstances of your message. Simply offering “knee-jerk praise or empty inspirational homilies” is not likely to have the desired effect of cultivating belief in one’s competence (Maehr et al., 2008, p. 399). Instead, research suggests that effective encouragement might require a focus on elements over which the performer has control (Schunk & Zimmerman, 2007). It should exhort the performer to keep up the good work instead of praising her innate talent or ability, because people are motivated to work at overcoming challenges only if they believe that their effort increases their chances of success.

Finally, communicating encouragement should be personal, although it also may be public. In other words, announcing the names of those who put forth extra effort and had notable accomplishments can be very effective. Likewise, it might even help to give information that the individual listener can personalize, such as, “Those of you who scored above an xx on this exam should give yourselves a pat on the back. You’re really doing great in the course. Keep it up.” Be certain, however, not to call attention to the gender or race of those you are encouraging and praising. For example, do not say, "The women are really doing great," because this approach is likely to backfire and undermine women’s confidence.

ENCOURAGING WORDS COUNTER LOW CONFIDENCE
Encouragement increases self-efficacy, which is the belief in one’s ability to successfully perform a task. Because we are more likely to engage in tasks that we believe we can perform successfully, encouragement may be especially useful in male-stereotyped fields such as computing, which are marked by men’s apparent over-confidence and women’s apparent under-confidence. In this context, credible words of encouragement from supervisors and instructors increase women’s entry and persistence by raising their self-efficacy.

RESOURCES

NCWIT offers practices for increasing and benefiting from gender diversity in IT at the K-12, undergraduate, graduate, and career levels. Visit www.ncwit.org/practices to find out more.