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Providing female role models in mathematics and computer science.

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Summary: Girls take as many mathematics courses as boys do in high school. However, they show lower achievement in mathematics and are less likely to pursue mathematics-related fields. Women's interest and participation in computer science fields is also a concern. Moreover, women in these occupations are more likely than men to use computers for clerical and data-entry work. Researchers and educators mainly attribute females' lower performance and participation in mathematics and computer science to females' attitudes and beliefs about these fields, including their perceptions of how gender-appropriate mathematics and computer science are for them as females. Females may believe, for example, that males are naturally more mathematically and technologically inclined. One way teachers can help dispel such myths is by introducing students to historic and contemporary role models in mathematics and computer science. It is important for boys to be exposed to females in these fields, too, so that they perceive these disciplines as appropriate for females. This impacts the nature of the classroom climate in terms of how boys interact with girls, as well as ideas boys project beyond the classroom. Further, it is important that both girls and boys believe that all occupations are available to and appropriate for all people. In this article, the authors explore resources and strategies for providing positive female role models in mathematics and computer science. They share selected annotated resources that teachers may consult to infuse information about women in mathematics (and to a lesser degree, technology) into their classroom instruction. (Contains 18 resources.) (ERIC)

Classification: C62 C63

Keywords: role models; females; mathematics achievement; teacher role; sex role; computer science; classroom environment; males; gender differences; biographies; college admission

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