Chapter 8
Gender Issues in Online Education

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ABSTRACT

Women constitute the majority of U.S. online learners, an environment that can cloak gender issues. Nevertheless, people bring their experiences and attitudes to the educational table, and gender remains a significant factor that online educators need to consider. This chapter focuses on the biological and social aspects of gendered learning and self-identity as they apply to online learning, particularly in Western societies. Gender-sensitive instructional design and technology incorporation strategies are provided to support gender-equitable engagement in online education.

INTRODUCTION

At this point in history, women constitute the majority of online learners. Moreover, the online learning environment can, to a degree, cloak gender issues. Nevertheless, people bring their experiences and attitudes to the educational table, and gender remains a significant factor that online educators need to consider.

Learning is a result of the interaction of an individual and his or her environment, in which context change in behavior or attitude change. As such, both biological and social factors are involved. One’s sex comprises the “nature” part of the interaction, and one’s gender reflects the “nurture” impact of society. Both elements need to be considered when addressing gender issues in learning.

This chapter focuses on the biological and social aspects of gendered learning and self-identity as they apply to online learning.
**BIOLOGICAL-BASED LEARNING**

Gender differences in learning start with the brain; even in the womb, male brains are larger and more rigid than girls. Male right brains, where abstract thinking and sequencing dominate, are thicker than girls, although girls tend to have thicker left brains, which impact image and holistic thinking. Girls’ brain hemispheres are more connected than boys so their brain is more coordinated (Sousa, 2001). When crises occur, the lower part of boys’ brains dominate: fight or flight; in contrast, girls’ upper thinking brain dominates in such cases, which may explain why girls tend to take fewer risks (Moir & Jessel, 1991).

Learning demonstrates sexual developmental differences. While some differences even out over time, having initial advantages in specific modalities of perception and processing can impact later learning. In infancy, boys are less bothered by loud noises than girls, who prefer soft tones and singing; on the other hand, girls have better hearing and are able to distinguish emotional nuances. Developmentally, girls develop their language skills earlier, and boys flex their already greater muscle more (Gurian & Henley, 2001). Similarly, boys play out their emotions through action while girls use words; for this reason, boys tend to prefer icon prompts while girls prefer textual ones in software (Cooper & Weaver, 2003). Unfortunately, because girls tend not to play with spatially manipulated toys as much as boys, they are less prepared to succeed later with mechanical and spatial challenges (Moir & Jessel, 1991). In terms of emotional development, even as early as the primary grades, boys are better able than girls to separate emotion from reason. On the other hand, by sixth grade, boys are more likely to take aggressive action to solve problems. Interestingly, primary boys are more rule-bound than their female peers; by their teenage years, though, boys rebel more against those rules than do girls (Gurian & Henley, 2001). Recognizing these early differences, online instruction can leverage these differences by motivating youngsters through gender-specific comfortable modalities to present new content, and presenting familiar subject matter through less-practiced learning modalities; in this way, students strengthen less developed approaches to learning.

In adolescence, development is significantly gender-linked. While biology continues to play a role in differentiation, by this point, the psychological and social factors take on a much greater importance. Even the timing of the onset of puberty is viewed differently by boys and girls. Early male maturers tend to gain more power and popularity while females who mature at an earlier age tend to be self-conscious and uncomfortable with such physical changes. In particular, girls tend to lose their “voice,” confidence and self-esteem in early adolescence as they try to relate to peers and their own morphing bodies. Appearance becomes more important to them, and societal messages often reinforce rigid expectations for females; not surprisingly, two-thirds of girls have a negative body image (Orenstein, 1994; Pipher, 1994). Interestingly, athletic girls have higher esteem than their non-athletic peers, but in co-ed sports those same female athletes lose their self-confidence (American Association of University Women, 1992). Thus, bodily changes can impact learning as girls vie for social acceptance more than academic prowess, and thus cut themselves out of challenging courses that appear to be male-dominated, such as engineering. In the process, girls do not learn those sets of skills as well as males (Knight, 1997). It should be noted that this phenomenon is culturally contextualized; where rites of passage empower both boys and girls, self-deprecation is observed less often. Likewise, in cultures where gender roles are more defined and validated, such esteem “dips” are less pronounced; for instance, African American girls gain social power in adolescence, and Latina’s quincenera rite validates womanhood. Nevertheless, those same roles can limit girls’ potential if they do not fit the norm (American Association of University...