

# Gender Dynamics in Problem-Based Learning

Jeffrey W. Wimer, PhD, ATC • Millersville University  
Christine A. Lauber, EdD, ATC, LAT • University of Indianapolis  
Erika A. Goodwin, MA, ATC, LAT, EMT • Wilmington College

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ver the past several years, the pedagogical technique known as problem-based learning (PBL) has become popular in athletic training education. PBL has received considerable attention at various athletic training educators conferences<sup>1</sup> and was described in the *Journal of Athletic Training*<sup>2</sup> and *NATA News*.<sup>3</sup> In fact, 89% of athletic training educators report PBL to be more valuable than lecturing.<sup>4</sup>

PBL is an instructional approach that uses active, small-group discussions of clinically relevant problems (i.e., case studies) to engage students in learning. It represents a shift from faculty-centered instruction to student-centered learning. Although PBL is considered an important instructional strategy, little attention has been given to the role of student gender in PBL, especially the ways in which men and women communicate and respond differently when placed into collaborative workgroups—a core characteristic of PBL. Furthermore, little research has investigated the effects of gender differences in group learning situations.

The purpose of this column is to illustrate how gender influences group dynamics by communication, leadership, and evaluation, as well as to offer some general pedagogical strategies to enhance PBL as an effective instructional method in athletic training education. Being aware of gender effects in group settings like in PBL can improve the educational process for both men and women.

## Gender Differences in Group Settings

When PBL and other group-learning strategies are used as instructional methodologies, educators need to know that there are several differences in how men and women generally behave in groups. For example, in groups where leaders are not assigned by an instructor, men characteristically become leaders in what would otherwise be a leaderless mixed-sex group.<sup>5</sup> In group settings, men prefer a social hierarchy whereas women prefer social equality.<sup>6</sup> Men believe in what is called an “equity norm” in that group members should be rewarded for individual contributions to the group. Women believe in an “equality norm” in that all members of the group should be rewarded equally regardless of individual contri-

butions to the group.<sup>6</sup> While working in groups, male students tend to focus on the knowledge and skills needed to complete a task, whereas female students tend to focus on being a team. Women are typically social and emotional with other female group members, and they appreciate the collaborative nature of learning that a group provides. In addition, women in mixed-sex groups demonstrate more tentative behaviors than men do, especially when communicating in groups. Women use less powerful speech, speak more politely and less often, and use more disclaimers and tag questions, which are questions added after declarative statements to verify information or seek confirmation, for example, "I think this is the best answer, don't you?"<sup>7,8</sup> Students who use disclaimers and tag questions are usually perceived as less confident and less assertive.

### Gender Differences in Communication

As PBL continues to become more prevalent, it is imperative that athletic training educators understand and appreciate that men and women communicate in different ways. Acknowledging that men and women are likely to respond to each other differently when placed in group settings as in PBL is important for effective instruction. For example, Krupnick<sup>9</sup> found that male undergraduates spoke 2.5 times longer than their female peers, and Heim<sup>10</sup> reports that men are likely to do 96% of the interrupting in small-group settings. In other words, men cut short the dialogue of others in order to be heard. Kaplowitz and Block<sup>11</sup> suggest that when male students interrupt, they might fail to fully recognize the contributions and insights of their female classmates, and the female students who are interrupted limit their participation in the group by staying out of discussions for the remainder of the class. Because men tend to direct conversations and interrupt more frequently than women, and women are more likely to wait their turn to speak in a group, both men and women can miss out on a key goal of PBL, which is teamwork.

Heim<sup>10</sup> states that men and women see the world from different points of view. Consider verbal bantering, for example—teasing or harmless practical jokes. Men usually view this type of communication as friendly exchanges between two individuals vying for position in the hierarchy and in fact might come to perceive the experience as bonding. Women, however,

might perceive verbal-bantering exchanges as cruel or insulting and something that would most likely damage a relationship. Although both perceptions are equally accurate, educators must be cognizant of what Tannen<sup>12</sup> describes as "report talk" for men and "rapport talk" for women. Men generally are more concerned with achieving goals, producing results, and finding solutions, the typical elements found in a report. Women generally are more interested in fostering relationships, working together, and developing closeness with others, behaviors that describe rapport. Markel<sup>13</sup> ascertains that "women's communication patterns are more focused on maintaining the group, and men's on completing the task."<sup>(p62)</sup> Thus, men and women might approach PBL with different goals and rules because of their differing communication styles.

### Gender Differences in Leadership

Men and women work differently in groups and thus might express opposing leadership styles. For instance, many men tend to direct groups like a conductor leading an orchestra, giving directions and assigning tasks to individuals.<sup>14</sup> Women tend to move toward supportive roles, making sure that decisions are made collaboratively, relationships are established, and everyone is content.<sup>14</sup> Men see the world as a hierarchical model and want to know the status of individuals in the group, establishing who is in charge. Women are more likely to have a social orientation, value attachment, and seek to bond with others as a means to success.

When unaware of how one's gender might influence participation in groups, both male and female students can become frustrated by their coeds' approach.<sup>9</sup> In other words, students might have unrealistic expectations of the opposite sex, especially relating to communication and leadership characteristics. That is, they might assume that the opposite sex has the same general communication and leadership characteristics as their own when in fact they are usually different.

### Peer Evaluation

Peer evaluation is a standard component of PBL.<sup>1</sup> It allows each student in the group to assess and evaluate the other students of the group with some form of written rubric. The purpose of written peer evaluations is to improve learning by allowing all students to have input and to share this feedback with their

classmates. Unfortunately, students who are frustrated by the opposite sex's communication style or leadership behaviors might unknowingly evaluate their classmates based on gender characteristics rather than performance.<sup>5</sup> Tannen<sup>12</sup> suggests that men will discuss their accomplishments openly and more often, whereas women are less likely to create visibility and will downplay individual accomplishments. As a result, these male and female conversational styles translate into impressions of confidence and perceived abilities. These perceptions can ultimately influence peers' ratings of one another.

For example, when women speak out in groups or display their achievements, they might be considered "bossy" and thus are rated lower by both men and women. Men, however, who demonstrate the same behaviors are often regarded as leaders and, hence, are rated higher by both genders.<sup>5,10</sup> Likewise, men who demonstrate nurturing characteristics in groups might be viewed as ineffectual or weak, whereas women who express this trait tend to be perceived as competent and informed.<sup>5,12</sup> When differences between gender expectations and gender communication occur, peer ratings of an individual's performance and contributions to the group are likely to be negative. Heim<sup>10</sup> suggests that individuals are often judged unfairly when they fail to conform to societal expectations for their sex. In other words, men who communicate and lead in ways viewed feminine, or women who communicate and lead in ways perceived masculine, might unknowingly be stereotyped based on cultural norms, even if their actual communication and leadership behavior is successful.

### Building Effective PBL Teams

In order to enhance PBL, educators should incorporate team-building activities and gender-awareness exercises into their PBL instruction. Highlighting the desirable characteristics of effective teams and the role that communication has in groups will equip students with the competencies they need to not only enhance learning but also be successful in their careers. To accomplish this goal, educators should provide students with additional readings or facilitate discussions on how gender dynamics can influence groups.<sup>15</sup> In addition, they should point out that effective groups consist of members who understand and respect one another, possess interpersonal and active listening skills, and

### Characteristics of Effective PBL Teams

- Respect for others
- Ability to multitask
- Mature, self-directed learners
- Interpersonal and active listening skills
- Ability to articulate a common purpose
- Sensitivity to nonverbal messages of others
- Reliable attendance and active participation
- Sound judgment and good reasoning processes
- Safe environment for constructive feedback and a willingness to participate

*Note.* Adapted from Wagner and Harman<sup>1</sup> and Weimer.<sup>16</sup>

can articulate a common purpose. See the sidebar for an expanded list of characteristics of effective PBL teams. By understanding the characteristics of successful groups, students will maximize their learning and be better prepared for the world of work, where employers expect graduates to work together.<sup>16</sup>

Educators who use PBL should also be cognizant of the words they use when describing the ways problems will be solved. Using the word *group*, for example, suggests that individuals are gathered together for a common experience, whereas using the word *team* when describing PBL denotes collaboration and cohesiveness. Simple word choices can affect students' appreciation of PBL and improve learning outcomes. Many businesses use the word *team* in their public relations and policy documents to define work groups. Educators should consider using this "team" concept, too, after the groups have been formed.

### Conclusions

Although approached by both genders differently, PBL is a highly beneficial learning activity. Educators should be attentive to the fact that men are generally more task-oriented, inclined to speak more often in groups, and typically unaware of their tendencies to interrupt classmates. Women might be able to "pull the group together" to work toward a common goal with their collegial communication and leadership style, but they might choose not to be assertive in mixed groups for fear of unfairly being labeled as bossy.<sup>5,10,12</sup> Kaplowitz

and Block<sup>11</sup> recommend that educators consider using single-gender groupings for some of their PBL tutorials because it allows for more participation in the learning process.

Recognizing the small and subtle ways that gender affects group dynamics is an important part of enhancing PBL. By helping students identify their differences and realize that men and women use different communication and leadership strategies to solve problems, educators can not only maximize student learning in PBL environments but also better prepare graduates for future employment, where effective communications, the ability to adapt, and a capacity for making positive contributions in the company of others is expected. ■

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**Jeffrey Wimer** is an assistant professor of wellness and sport sciences and athletic training program coordinator at Millersville University, Pennsylvania.

**Christine Lauber** is an assistant professor and clinical education coordinator of athletic training at the University of Indianapolis.

**Erika Goodwin** is an associate professor of athletic training and chair of the Department of Health, Physical Education and Athletic Training at Wilmington College, Ohio.