Teacher-Student Interactions

- males receive more attention than do females
  - boys call out answers 8X more frequently than girls
  - when girls call out, they are often told to raise their hands
  - boys assist in 79% of lecture demonstration in one study
- even when boys do not volunteer answers, teachers are more likely to call on boys
- of teacher comments (praise, acceptance, remediation, and criticism):
  - males receive more of all types of comments
  - boys receive more of the constructive form of comments (praise, remediation, and criticism)
- boys receive more constructive comments in terms of both scholarship and conduct

Gender-Linked Psychological Differences

- from these forms of interaction, girls come to show “learned helplessness” -- a lack of perseverance
- girls are more likely to attribute their success to luck, whereas boys are more likely to attribute their success to ability
- boys are more likely to feel mastery, whereas girls are more likely to feel helplessness
- girls have higher expectations of failure and lower self-confidence when faced with a new situation, and are more likely to abandon academic tasks

- boys and girls view academic failure differently:
  - boys often attribute their failures to lack of trying and feel that more effort is needed to be successful
  - girls are more likely to attribute their failures to simple lack of ability
- boys tend to be more competitive; girls are more cooperative in the learning
- girls tend to be more indirect, often relying on questions whereas males are more likely to make declarative statements
- girls will help boys at their request, but boys tend not to reciprocate
- cooperative learning can be tipped in favor of boys because of this “social dominance” suggesting that same-sex groups may be a better thing to do from time to time

- girls are initially more uncomfortable with group lab work than boys
- girls tend to perceive science as a masculine phenomenon
- girls tend to perceive science as lacking a human element and frequently show less interest as a result
- girls generally will not initiate a discussion in a mixed-gender group
- girls frequently give more reasoned responses due to delay in responding
- successful female students see themselves as more hard working, less reckless and rash, and more oriented toward the future
Design of Classroom Activities

- Teachers tend to choose those forms of classroom activities that favor males
  - In lectures, teachers respond to males at nearly 2X the rate they respond to females
  - In labs, teachers tend to respond to both at nearly equal rates
  - Lectures tend to dominate in many classrooms, thereby giving an unfair advantage to males
  - Course work and grading are competitive
  - Female traits of cooperation are not often valued

- Lab work, discussion, and cooperative learning tend to level the playing field

Teaching Considerations

- Use more than one textbook -- added content about successful women scientists
- Eliminate sexist language and examples (e.g., always using he, his, always using “male” examples such as cars, guns, etc.)
- Show fairness in treatment.
- Show equal expectations for the sexes.
- Less competition, more cooperation, raise hands.
- Show equality in choosing leaders, demonstration assistants, & assigning tasks.
- Consider the fact that girls may have course work deficits.

Harassment/Misconduct - I

- Studies have shown that boys tend to treat girls badly -- often crossing over into the legal area of sexual harassment (Title IX)
- Gender-biased interactions must not be allowed to happen in school
  - Boys “rating” girls
  - Verbal abuse
  - Physical abuse
- School systems as well as individuals can be held accountable if a teacher fails to act.

Harassment/Misconduct - II

- Should a teacher ignore sexist, racist, homophobic, and violent interactions between students, they give tacit approval. Take into account different background experiences of girls.
- Teachers need not accept various life styles, but they must be tolerant.
- The “system” is unforgiving of teachers who are involved in sexual harassment or legal misconduct.

The Test for Sexual Harassment

- Attorneys appear to agree that the test for sexual harassment includes the following factors:
  - Perseverance
  - Severity
  - Unwelcome nature
- Schools ought to have codes of conduct -- know the code and enforce it.
Equity Resources

- Eisenhower National Clearinghouse for Mathematics and Science Education
- http://equity.enc.org/
- http://www.academic.org
- http://www.aauw.org/
- Stories & Cases
- Equity Materials
- Community Building
- Self Assessment
- Resource Finder