Banding Together: Gender's Role in Collaboration on a Logic Puzzle

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I wanted to understand the factors that influence how effectively a group works together. The main question in this study was about how the gender composition of a group affects how well a group completes a task. Secondarily, I studied participants' perceptions of their contributions and how differences in talking time among group members affect how well their group works. Students from a high school band, ages 14 to 18, were randomly assigned into 14 groups of three. Students answered a survey about working in groups and completed a band-related math puzzle challenge with their group. I measured how often each person spoke, how many mistakes the group made, and how long it took them to complete the puzzle. Groups with 2 girls and 1 boy were the most effective, groups with 1 girl and 2 boys were the least effective, and gender-pure groups performed about equally. Groups with a more even distribution of talking time completed the task faster. Males rated their group's performance higher than females, whereas both genders were good at evaluating their own contributions and those of others. I found that the gender composition of a group and the amount that people talk are both factors in determining group effectiveness. This study and others in the future (with larger group sizes and groups comprised of strangers) will enable the creation of more effective groups in education or in the workplace, and create strategies for integrating more women into working groups while maintaining or increasing their effectiveness.

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