Collaborative Learning and the Use of Technology: Experiences Gained from a Statistics Course.

The paper describes a study that took place in a college-level introductory statistics course and investigated the effectiveness of computer-supported collaborative instruction. Findings indicate that the ability of technology to alter group interaction and student empowerment depends on its characteristics. Despite the great promise that new technologies offer as pedagogical tools, incorporation of computer-based collaborative learning activities in the statistics classroom proved difficult. It was observed that, whereas cooperative learning activities not involving technology were successfully implemented throughout the course, the cooperative learning strategy failed to reach its potential when it came to classroom activities involving the use of the technological tool Minitab. On the other hand, the findings of an outside-of-class investigation of a group of students using the technological tool Fathom were much more encouraging. Students participating in the Fathom investigation had a much more active group involvement and enjoyed much more the group activities than they did when participating in the computer-based collaborative activities used in the classroom. The paper lays out the characteristics of Fathom that might make it more effective compared to Minitab. (Received October 03, 2000)