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Student Teams, Teaching, and Technology

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Gone are the days when best teaching practices included faculty entering a classroom with notes, lecturing, and leaving. Increasingly, as they design their courses and develop classroom delivery, faculty are being asked to pay attention to how students learn. One of the many influences nudging more faculty to think differently about their teaching is the widespread use of collaborative environments to improve learning. Another influence is the need to educate students to be effective in a world where teamwork is an essential skill. When these two influences intersect with technology, the results can be spectacular—both inside and outside the classroom. To be successful in harnessing the power of teams and technology to improve learning, however, faculty must be strategic about the opportunities and challenges presented by these pedagogical techniques and resources.

Using Teams

Short, in-class exercises are a good way to get started. Informal teams may, for example, solve a problem set or have a focused, small discussion. For teachers, this is an opportunity to make some general observations about how students interact in groups and the roles that individual students tend to take on in a group. For students, this exercise may act as an introduction to or as a reminder of the benefits of teamwork without having to contend with the complexities of a more sustained team relationship.

Requiring students to do significant work in teams is more complicated than traditional classroom exercises and may result in an adverse learning outcome if the assignment is not carefully planned and monitored. Student teams, undergraduates in particular, will rarely be successful with a large or intricate project unless they are provided with ongoing support in developing their skills in such areas as project planning, interpersonal communication, and managing conflict.

Managing conflict is one of the biggest difficulties students have when working in teams. There is significant peer pressure to get along, and it is very difficult for students to speak up when they know that doing so is likely to result in conflict. Because of the lengths students will go to avoid conflict, it is hard for them to understand that conflict is an important stage of team development and leads to better team functioning if managed well. Faculty can help prepare and position students to accept conflict as inevitable and valuable through such strategies as reflective listening, requiring students to develop a team charter (ground rules), and role playing. It is important that faculty remember, however, that they cannot and should not take on the role of mediator for the group except in those situations where every effort to help students manage the conflict themselves has failed.

One of the biggest concerns students voice about working in teams is how the relative contributions of the various team members will be recognized and evaluated, especially in situations when one or two students "do all the work." It's important to set up a grading system that incorporates both team and individual efforts. Our book, Using Student Teams in the Classroom: A Faculty Guide (2000), provides a number of printable forms to help deal with this problem. There is a team meeting form that helps students (and faculty) keep track of decisions, actions, deadlines, and individual responsibilities. There are also forms for evaluating individual contributions to the project as well as for having students evaluate the efforts of their peers. The information recorded on these forms can assist faculty and students in arriving at accurate and fair assessments of each individual's contribution to a team project.

Technology and Teams

Using technology can significantly enhance the work of teams, but the opportunities created by technology come with related challenges. Two of these—communication among team members and the vast amount of information available to students online—pose special difficulties.

The ability to communicate online can make teamwork more efficient and seamless. Students don't need to find chunks of time when everyone is available to meet, which can be a serious problem for busy students with conflicting class and work schedules. Also, they can communicate a change of plans quickly and easily. They can share information at any time, which can smooth the differences between those who function better early in the day and those whose best work is done late at night. However, there are prices to be paid for such ease of communication.

Using technology for communication may allow students to distance themselves from the consequences of their acts. Imagine the student who doesn't feel like showing up for a scheduled team meeting or the student who hasn't done the research he or she was supposed to finish. It is quite easy to email team members instead of telling them about it in person. Likewise, any conversation that should take place in person becomes an exchange of emails. It is all too easy to express inappropriate emotions or express appropriate emotions inappropriately while sitting alone at the keyboard. And such highly charged emails are often forwarded to team members, students outside the team, and faculty, escalating conflict and further complicating team dynamics.

The vast amount of information available to students online allows them to amass a great deal of information in a very short period of time. While being able to work so quickly can be a benefit, an almost unlimited world of information poses some difficulties. Most students will choose online search engines to look for information, yet the reliability and quality of the results vary widely. Because many students lack the skills necessary for determining the relevance and quality of the information they are accessing, they may in fact waste a great deal of time.

Students may not appreciate the difference, for example, between a fact sheet provided by a government agency and a product advertisement that mimics the same format (Graf, 1999-2000). Many are unlikely to spot the bias or self-interest of a source. And a paper posted by an undergraduate student may be given the same weight as a paper by an internationally-recognized expert. With multiple team members bringing the results of their searches to the table, everyone may be overwhelmed by sheer volume. Where does each bit of information fit in the project? How does each piece fit with the rest? How do they decide what to use and what to leave out? Trying to wrestle with the answers to these questions can frustrate even a highly functioning team.

Fortunately, there are a number of strategies to help student teams cope with information overload and, at the same time, develop important information literacy skills. One strategy is to involve library professionals in the creation of team research assignments. Another is to specify what kinds of sources can be used. Also, breaking down a research project into clearly defined component parts is especially useful in helping students manage their information.

The benefits of using student teams to enhance learning and technology to enhance learning are clear. The extent to which those benefits are offset by the associated costs and how faculty will help students cope with the challenges of both teamwork and technology needs to be carefully evaluated.

References and Resources

Brown, D. G. (Ed.). (2000). *Interactive learning: Vignettes from America's most wired campuses*. Bolton, MA: Anker Publishing.

Davis, B. G. (1993). Collaborative learning: Group work and study teams. In *Tools for teaching* (pp.147-158). San Francisco, CA: Jossey Bass.

Graf, D. (1999-2000). Helping students (better) evaluate and validate www resources. *Essays on Teaching Excellence, 11* (6). Fort Collins, CO: The POD Network.

Nilson, L. B. (1998). Cooperative learning. In *Teaching at its best: A research-based resource for college instructors* (pp. 109-118). Bolton, MA: Anker Publishing.

Penn State University (2001-2005). *Teaching and learning with technology: Building blocks for teams*. Retrieved August 11, 2005 from http://tlt.its.psu.edu/suggestions/teams/index.html.

Stein, R. F., & Hurd, S. (2000). *Using student teams in the classroom: A faculty guide*. Bolton, MA: Anker Publishing.

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