

# THINGS YOU SHOULD KNOW ABOUT... ASSESSING ONLINE TEAM-BASED LEARNING

## Scenario

Serena is taking an online course on media presentation in which students are assigned to five-member learning teams. Each team will complete a semester-long project to develop an interactive college-orientation website that educates high school students about how degree programs are structured and how to register for classes. Teams are encouraged to make their contributions lively with multimedia presentations.

The first two graded deliverables are a team contract and project outline. The contract outlines meetings, roles, deadlines, and conflict-resolution strategies. Serena volunteers for the role of facilitator, and her team meets synchronously in an online chat room to brainstorm about the outline. They decide to call their website “What in the world is *that*?” Serena encourages others to speak up about special skills they bring to the table. The team decides to begin with an area of the site dedicated to extracurricular activities, leveraging Tad’s internship experience in student life. Cindy’s ability to do simple cartooning and Devlin’s theatre background suggest that a slideshow “play” might work, where Devlin’s training can be put to good use in the voiceover. The team will depend upon Kevin, in the designer role, to draft storyboards. They will also use a critique system where each contribution is checked for effectiveness and accuracy by at least one other team member.

As teams submit their initial deliverables, the instructor asks the individual members to evaluate their own and their teammates’ contributions by completing a short comment form. Teams are encouraged to share their constructive feedback with each other. The instructor grades the work and returns it to the teams. Serena’s team project, when completed, displays a slideshow of cartoons, each with its own voiceover and options for users to hear comments from students throughout the first year in college. Team members are held responsible for the quality of the actual project: the presentation and its effectiveness in helping students learn about college, as well as the group’s effectiveness in working as a team. Students are also asked to submit a summative report, which they compile together, in which they detail what worked well and could have been improved through the team-based learning process, which the instructor uses in iteratively improving this pedagogy.

## 1 What is it?

In team-based learning, students work in groups on outcome- or problem-based assignments. This approach has become an increasingly valuable methodology in higher education, particularly in online courses, where the academic and social interaction of the group can enrich a learning process that lacks a face-to-face component. Assessing the work produced by teams, however, presents a significant challenge, and this difficulty is especially prominent in online environments. Historically, instructional methods were geared toward individual learning, and assessment mechanisms—including grades and feedback—reflected this model. By contrast, in collaborative or cooperative learning environments, the instructor must assess the individual efforts of team members, the end product produced by the group, or both. In this regard, the online learning team offers faculty an opportunity to explore an iterative, process-oriented learning modality with new avenues for the incremental and asynchronous assessment of student work.

## 2 How does it work?

One approach to the assessment of online team-based learning is to design projects and activities that can accommodate both group and individual evaluation. These assessments, which could be either graded or ungraded, are most effective when they occur regularly during the development process rather than simply when the project is completed. To this end, many faculty members teaching online courses choose to “drop in” on live group or asynchronous online discussions to observe how students function as a unit. To further engage students, some instructors issue challenges in which teams compete against one another to develop or respond to exam questions. The efforts of individual team members can be tracked by using self-assessments, progress reports, or interim project deliverables. At the end of the term, students might fill in a team audit or “competency matrix,” in which they respond to questions about the participation, contribution, or even attendance of the others on the team. Finally, when a complex group project is submitted for evaluation, some instructors require the inclusion of a separate report that breaks out the contributions of each team member.

## 3 Who’s doing it?

Team-based learning is increasingly common in higher education in a growing range of disciplines. In an online management course at St. Olaf College in Northfield, Minnesota, students start each class with a quiz, first taken by individuals and subsequently by teams after some deliberation. Data captured over multiple terms consistently shows that teams perform better than the highest-scoring individual in each team. Similarly, in a study of chemistry students at Cedarville University in Ohio where multiple-choice tests were taken first individually and then by the group, scores for teams were the same or higher than for individuals 84 percent of

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the time. Because many faculty are still new to teaching online or hybrid courses and may be inexperienced in team-based learning in those settings, some institutions have published guidelines for practice. UC Berkeley offers a resource called “Collaborative Learning: Group Work and Study Teams” that offers recommendations for the evaluation of group efforts. Similarly, the Center for Teaching Excellence at the University of Medicine and Dentistry of New Jersey provides a portal page to papers on learning team approaches called Group and Collaborative Learning. The site links to papers that discuss strategies for group learning assessment.

### 4 Why is it significant?

With better online tools to support team-based teaching and learning, this type of instructional methodology—which is not uncommon in face-to-face learning environments—might become more common in online instruction. Effective team-based learning provides an excellent means to develop this skill in students; for this process to be successful, the assessment component must reinforce this concept, regardless of whether students study in face-to-face or online settings.

Team-based learning is predisposed to formative assessment—among students, by their peers, and by the instructor. Students engaged in group problem-solving consider what they have learned in brainstorming sessions and later in rethinking what didn't work well and should be revised, and this is especially true when they are collectively producing a final product. These processes can mean more structured time on-task, greater engagement in the learning process, and greater opportunity for feedback and learning. Further, team-based learning can be designed to support peer critiques, enabling comment and guidance during the early stages of student work, as well as refinement and redirection along the way. This method emphasizes education as a process as opposed to a product and supports early correction of misconceptions and an opportunity for cognitive scaffolding.

### 5 What are the downsides?

Students in online learning teams frequently express concern that not all members contribute equally. They see team assessments as a black box where individual efforts are averaged into a single score that each member of the team receives, regardless of their relative contributions. Some students take on the bulk of the work to ensure a quality end product, ignoring the unequal nature of this approach; other students lack the commitment or organizational skills needed to contribute successfully. Construction of effective team-based learning activities—and their timely assessment—helps learners understand the appropriate allocation of tasks, the evaluation of individual work, and the value for team members to support each other in the learning process. Online environments can be used to monitor and evaluate the various functions of a learning team: critique, coordination, review, and response, both by the instructor and by peers. While it is possible to construct team-based learning assessments that

address many of these concerns, doing so can be challenging, especially for instructors accustomed to grading individual work, and might require additional time to structure a course with clear incremental or process-oriented qualitative assessments.

### 6 Where is it going?

Team-based learning has the potential to enhance online learning by more deeply engaging students with the content, each other, and the instructor. As Web 2.0 technologies are integrated into online classrooms, team-based learning will increasingly involve the collaborative development of complex projects, and new technologies will enable new ways to track participation and assess individual and group effort. Online applications that make it possible to determine which collaborator provided which material will make it easier for instructors to track individual effort, providing an opportunity to support students in their roles as team members. Finally, the movement toward group learning also has the potential to improve the lecture-based pedagogical model, moving toward a functioning collective of teams that study, build, and apply what they have learned. This model might give students new options to pursue learning activity beyond instructor directives, possibly independent of instructor oversight.

### 7 What are the implications for teaching and learning?

Because successful project-based group work often involves the incremental assessment of progress toward objectives, as well as the group's ability to communicate well and function collectively, it supports the trend of relying less on measuring final outcomes and more on supporting the learning process. Especially in online environments, learning teams support students in engaging with content, iterating on solutions, engaging with one another, and applying the critical thinking skills and concepts taught in their courses. Online courses that follow the model of assessing individual work can devolve into a collection of students working independently; the team project is a way to break out of such silos and have meaningful, outcome-oriented interactions with fellow students. Developing and implementing a transparent assessment process that both supports and recognizes individual and group learning can generate a powerful combination of interdependency and peer cooperation. Online assessment tools that evaluate both individual and group effort support this dynamic, fostering the reliance on community that is becoming an increasingly important feature of the online academic landscape.

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