TEACH ONE ANOTHER

"The challenge before us is to create even more powerful and effective learning experiences in which students have opportunities to take action . . . where prepared students, exercising faith, step out beyond the light they already possess, to speak, to contribute, and to teach one another. . . . It is in that moment that the Spirit teaches." ***President Kim B. Clark, Inaugural Response, Oct 11, 2005***

PURPOSE

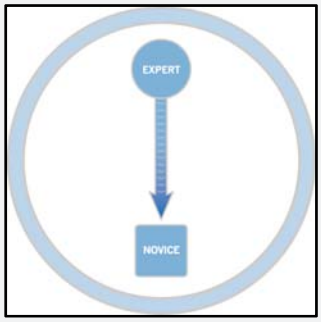
The purpose of Teach One Another is to help students act for themselves by taking responsibility for their learning. Moreover, when students actively build their own knowledge structures, their ability to retain, apply, and synthesize their learning increases.

DESCRIPTION

Teach One Another allows students to participate, ask questions, listen, and take greater responsibility for learning. The core principles include:

- Students learn more when they teach
- Teaching allows students to act
- Action invites the Holy Ghost to teach

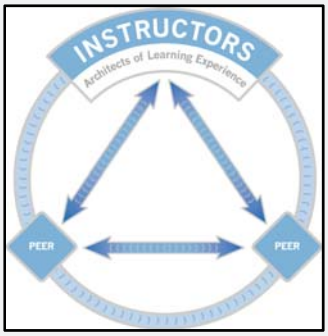
At BYU–Idaho, instructors are encouraged to minimize expert-novice models of teaching where students simply listen to experts lecture. This one-directional approach fails to provide students with opportunities to act and learn from each other.



Elder Scott has said, "*Never*, and I mean *never*, give a lecture where there is no student participation. A 'talking head' is the weakest form of classroom instruction…. Assure that there is abundant participation because that use of agency by a student authorizes the Holy Ghost to instruct" ("To Understand Live Truth," Church Education System satellite broadcast, February 6, 2005).

The Teach One Another Process

To enable students to teach one another implies finding opportunities for students to interact in a teaching and learning context. This does not imply that you are disconnected from the process. Elder Bednar has stated: "A faculty member should be the engineer, the designer, the architect of the learning experiences; not just the sage on the stage telling people what he or she thinks they need to know" (President's Q&A, November 16, 2004, BYU–Idaho). You design the interaction, select the problems for students to discuss, facilitate group discussion, and provide feedback and training for students.



Instructor Role

The Teach One Another process is not without risk. It will not work if students are unprepared or fail to participate. Moreover, because students are not experts, there is the risk that in the absence of intervention, what is being taught is incorrect or misguided—"students swapping ignorance." These risks can be managed, however, when you properly coordinate the process. Key instructor roles include:

- Specifying learning outcomes
- Designing appropriate preparation
- Carefully selecting problems and activities
- Monitoring learning progress
- Intervening if necessary
- Providing structured and timely feedback

Quality research from multiple disciplines shows that carefully structuring the interaction of student-led learning improves learning outcomes, knowledge retention, and student application skills when compared to more traditional models of learning.

EXAMPLES

The Teach One Another Process can be applied in many settings through a range of pedagogical approaches. BYU-Idaho examples include:

- A physics instructor assigns students to prepare by studying the principle of constant volume flow rate. In class, students are presented a practical problem that tests the key concept. Students must vote on an answer to the problem and are then allowed to "convince each other," prior to a revote. The instructor samples the explanations through discussion, and intervenes with explanations when necessary.
- An English professor teaching Chaucer's *Canterbury Tales* assigns "publication groups" where students submit articles and publish a group journal. They are graded on the quality of their own articles as well as the overall journal.
- A Computer Science instructor assigns a pre-class quiz that tests basic knowledge. The quiz can be taken multiple times and then the in-class discussion is focused on missed questions. The instructor then presents an application case in class and the students are divided into groups to develop and present their solutions. The instructor monitors the response and provides feedback before closing class with a discussion that synthesizes the key ideas.

There are many pedagogical approaches to Teach One Another. One way to categorize these approaches is the way that they function and the role of students and instructor. Four categories with examples follow.

- **Peer Interaction.** Targeted at introductory efforts and early assessment, often in pre-class activities (student-led for preparation).
  - Peer comparison
  - Study groups
  - Pre-class quizzes
  - Online discussion boards
- **Peer Response.** Guided by an instructor to deepen and integrate conceptual learning in class.
  - Concept tests
  - Socratic questioning
  - Case studies
  - Mutual peer tutoring
- **Peer Collaboration.** Driven by a project-based problem solving activity or application designed.
  - Group quizzes
  - Team projects
- **Peer Feedback.** Provides expanded evaluation and opportunities for student synthesis (applying Teach One Another to Ponder/Prove).
  - Calibrated peer review
  - Rubric-based evaluation

TIPS

- **Encourage participation.** Create a safe learning environment by encouraging all students to participate and by validating individual contributions.
- **Explain the purpose.** Explain to students the purpose of the Teach One Another applications. Train on application.
- **Adapt your method.** Use multiple strategies to teach one another. For example, you might blend problem-based tools with discussion-based learning. Keep your strategy focused on a core set of applications.

PITFALLS

- **Replication.** Consider how an application will support your learning outcomes before replicating another instructor's methods.
- **Lack of structure.** Effective Teach One Another experiences require structure. The instructor should design the learning outcomes and be actively observing. Use your expertise to monitor, provide feedback, and direct student learning.

CAMPUS PRACTITIONERS

Evan Hansen, Robyn Bergstrom, Craig Bell, Mike Cannon, Rob Eaton

KEY ARTICLES

Gilbert, C.G., Hunsaker, S., and Schmidt, B. (2007).Peer instruction: Faculty as architects of peer learning environments. *BYU-Idaho Perspective*, (7)2, 98-115.

King, A., Staffieri, A., and Douglas, A. (1998). Mutual peer tutoring: Effects of structuring tutorial interaction to scaffold peer learning, *Journal of Educational Psychology*, (90)1, 134-152.

Mazur, E. (1997). *Peer instruction: A user's manual.* Upper Saddle Valley, NJ: Prentice Hall.

OTHER RESOURCES

- Peer Instruction