## Team Learning Defined

Team Learning (TL) is a well-defined instructional strategy used in business and science courses<sup>1</sup>. TL brings together theoretically-based and empirically-grounded strategies for ensuring the effectiveness of small-groups working independently in classes with high student-faculty ratios (e.g., up to 200:1) without losing the benefits of faculty-led small groups with lower ratios (e.g., 7:1). As an instructional method, TL consists of repeating sequences of 3 phases.

Team Learning Phases		
Phase 1	Phase 2	Phase 3
Preparation (pre-class)	Readiness Assurance	Application of Course Concepts
Individual Study	Instructor Feedback Small-group Assignments Written Group Appeals Group Test Individual Test	

In Phase 1, learners study independently outside of class to master identified objectives. In Phase 2, individual learners complete a multiple-choice exam to assure their readiness to apply Phase 1 knowledge. Groups of 6-7 learners then re-take this exam and turn in their consensus answers for immediate scoring and posting. In Phase 3, which may last several class periods, groups complete in-class assignments that promote collaboration, use of Phase 1 and 2 knowledge, and identification of learning deficiencies. At designated times, all groups simultaneously share their groups' answers with the entire class for easy comparison and immediate feedback. This stimulates an energetic total-class discussion with groups defending their answers and the teacher helping to consolidate learning.

Team Learning is the codification of key instructional principles, each of which has value, even when applied outside the context of the TL method in its entirety. For example, TL stresses the importance of a priori, out-of-class learning based on clear learning objectives. It emphasizes the importance of holding learners accountable for attending class prepared to participate, and provides guidelines for designing group learning tasks to maximize participation. Team Learning emphasizes three keys<sup>2</sup> to effective active learning: 1) Individual and group accountability, 2) Need and opportunity for group interaction, and 3) Motivation to engage in give-and-take discussion.

## Problem-based Learning and Team Learning Compared

PBL and TL both strive to achieve similar goals of making the learning process more meaningful and engaging while returning the responsibility for learning back to the learners. Nevertheless, in practice, the two instructional approaches are very different. PBL can be more resource intensive, requiring small student-faculty ratios in contrast to the higher ratios allowed with TL. PBL assumes that learning should be student-centered, as fostered by faculty-derived cases or exams. TL assumes that learning goals should be teacher-directed and used to guide individual and group learning activities. In PBL, learning occurs in response to learning deficits identified through group problem-solving. In TL, students initially learn by preparing for and taking readiness assessment tests and then by building upon that foundation through in-class, group application activities. Because of this readiness assurance process, TL is "content-grounded"; because of the in-class assignments, it emphasizes problem-solving and mastery of concepts. The application activities can vary in scope and complexity, depending upon timing in the curriculum. As they become more complex, they will look very similar to PBL cases.

<sup>1</sup> Michaelsen, L.K., Fink, L.D. & Knight, A. "Designing Effective Group Activities: Lessons for Classroom Teaching and Faculty Development." In D. DeZure (ed.), <u>To Improve the Academy: Resources for Faculty, Instructional and Organizational Development</u>, 1997 (Vol. 17). Stillwater, OD: New Forums Press, 1997.

<sup>2</sup> Michaelsen, L.K. "Three Keys to Using Learning Groups Effectively." <u>Teaching Excellence: Toward the Best in the Academy</u>, Vol. 9, No. 5. Ames, IA.:POD Network, 1998.