

PEER-LED TEAM LEARNING IMPLEMENTATION

PLTL AND PRE-CALCULUS AT PRINCE GEORGE'S COMMUNITY COLLEGE

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Peer-Led Team Learning is being used in several departments at Prince George's Community College in Maryland: Mathematics, Chemistry, Biology, and Speech Communication and Theater (in English as a Second Language courses). Chemistry came first, with Dennis Bartow using what was then called Workshop Chemistry. Then James Bridger developed Anatomy and Physiology workshops for the Biology Department at the same time as Scott Sinex (Chemistry) and I were developing College Algebra workshops for the Mathematics Department, and Nadene Houser-Archield added PLTL to her Chemistry course.

We were all so excited about PLTL in our courses, that Martha Mathews was intrigued enough to try it in her English as a Second Language courses. I added workshops for Intermediate Algebra and was joined by Mathematics Department faculty Eldon Baldwin, Leslie Redwine, and Jack Bailey.

Each of us uses PLTL somewhat differently. The workshops used in mathematics are mostly used to explore concepts before the lecture, which is more of a discovery method, while others use the workshops after a lecture to reinforce concepts learned and practice problem-solving using lecture ideas. English as a Second Language uses peer leaders to help students learn and master pronunciation software.

This is the fourth semester using PLTL in mathematics, in Intermediate Algebra and College Algebra. The results are somewhat inconclusive, since our sample size is small, but they are encouraging.

In College Algebra, I compared two of my PLTL sections to my two non-PLTL sections from previous semesters. The PLTL sections show a higher rate of success (A, B, C) than the non-PLTL sections.

	<u>A, B, C</u>	<u>D</u>	<u>F, W, Q</u>
PLTL	62%	8%	31%
Non-PLTL	54%	6%	40%

I believe the reason for this difference is the cooperative aspect of the groups. Students must learn to express mathematics verbally, rather than memorize steps to be followed. Explaining to others requires a deeper understanding than memorization. Faculty using PLTL in their mathematics classes

cite the "attention to more advanced/multi-step problems" and "mathematical communication between students."

The peer leaders are essential to the model. Our peer leaders are chosen and trained by each individual department after an initial session before the semester begins. Our leaders are energetic, and learn nearly as much as the students. Some are training to become teachers, and their experience with PLTL will help them when they have their own classrooms.

In addition, the peer leaders are a valuable asset to help me evaluate student progress. They help me to identify what areas need additional lecture time and clarification. Students talk to the peer leaders, and admit difficulties to them that they may not admit to me. PLTL "reduces negative self-esteem and pressure on oneself" and "promotes...good practice of math problems with models, not just paper work," according to Diana Pedrigal, peer leader in Mathematics.

One mathematics faculty member also cited some disadvantages. "Students who need quiet, independent reflection cannot use 'their' approach in groups," and "the PLTL process... leaves the instructor somewhat in the dark as to the progress of the students and their respective groups." No one model meets the needs of all students, so we must be careful to consider those who learn differently than the model.

Overall, users of PLTL in the Mathematics Department at Prince George's Community College are enthusiastic about its benefits. We continue to recruit new faculty users, and expand into different courses.

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