

# The Center for Teaching and Learning

[HOME](#)
[PAPERS & PRESENTATIONS](#)
[PEOPLE](#)
[NEWS](#)
[RESOURCES](#)
[EVALUATION](#)
[PHOTOS](#)
[NATIONAL WORKSHOP](#)


## Welcome to Cyber Peer-Led Team Learning (cPLTL)

### *cPLTL Overview*

cPLTL is the “cyber” evolution of Peer-Led Team Learning (PLTL) to an online format. PLTL is a model of teaching that preserves the lecture and replaces recitation in science courses with a weekly two-hour session. During these interactive sessions (workshops), six to eight students work as a team to solve carefully constructed problems under the guidance of a peer leader.

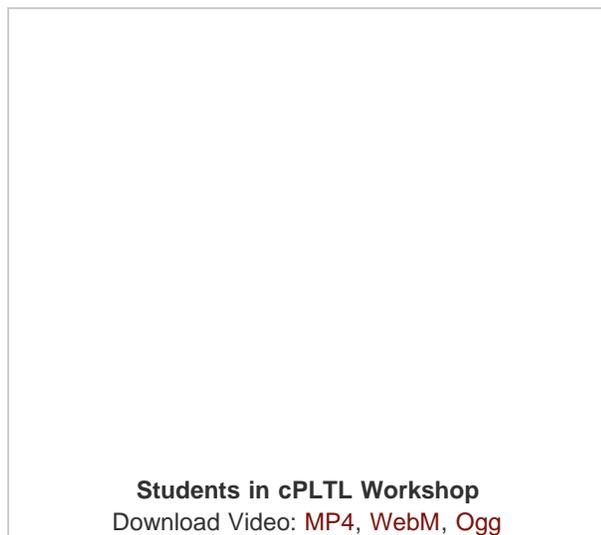
Web conferencing software makes it possible to adapt this face to face pedagogy to a synchronous online environment. This has led to the development of cPLTL. Preliminary data gathered through our implementation of cPLTL at IUPUI indicates that it is possible for students to engage in productive problem solving under the guidance of a peer leader in a synchronous online environment via web conferencing software.

cPLTL methods engage students as active participants in online activities that involve complex problem solving, working collaboratively, communicating effectively, and fostering self-directed learning through. These interactive workshops create space where students relate abstract concepts to real-world examples, situating content in a relevant context. These deep learning experiences emphasize critical thinking and understanding the “how” of science which aligns with the knowledge, skills, and abilities expected in upper-level STEM coursework and the twenty-first century workplace. The model has been studied and is showing positive impact on student learning in introductory chemistry.

### *Institutional Benefits*

cPLTL workshops have shown to be as effective as PLTL workshops which are widely popular for increasing student achievement and retention in science, technology, engineering and mathematics (STEM) fields. cPLTL workshops have the potential to further increase student participation in science disciplines by allowing anywhere, anytime participation (as groups agree). They also hold the capacity to improve institutional effectiveness by positively impacting the following:

- Student retention rates
- Students' mastery of subject matter



**Students in cPLTL Workshop**  
Download Video: [MP4](#), [WebM](#), [Ogg](#)

- Reduced DFW rates in core/gateway courses
- Number of students eligible to enroll in successive course/s
- Enrollments thru more flexible scheduling and attendance options
- Increased deep learning and leadership development for non-traditional, underrepresented students who are more often excluded from these opportunities
- Cost savings from the decline in need for classroom space and facilities maintenance

Proposal ID #0941978, NSF CCLI Type 1  
NSF Program Manager: Susan H. Hixon

NGLC Wave I

[Abstract](#)



Center for Teaching and Learning  
755 West Michigan Street  
University Library, Room 1125  
Indianapolis, IN 46202  
317-274-1300

BILL & MELINDA  
GATES *foundation*



IUPUI