

PSI-PMI ACROSS CULTURAL BOUNDARIES

A NEW EVALUATION AFFIRMS PSI-PMI WORKS ACROSS CULTURES

Educators in San Luis province, Argentina knew that the Progressive Science Initiative® (PSI®) and the Progressive Mathematics Initiative® (PMI®) had increased student achievement in the US. What they did not know was whether the same benefits could be achieved using PSI-PMI in Argentina. How would students and teachers from another culture take to this new approach? In particular, what effect would it have on student motivation and accomplishment? New research shows that PSI and PMI cross cultural boundaries in fact.



In 2010, the Universidad de La Punta began working with CTL to offer PSI-PMI training at to teachers. In 2011, PSI-PMI was implemented in four secondary schools in the cities of Villa Mercedes and San Luis. Ninety students participated in the pilot courses. Limitations in available technology meant teachers did not have access to responders. Rather, they implemented an alternative voting system to gain the real-time formative feedback which responders otherwise provide.

Edith Rojas, of the Instituto de Formación Docente and CTL's Executive Director, Robert Goodman collaborated on an evaluation of the Argentinian pilot. The report, titled PMI-PSI - An Innovative Strategy to Generate Meaningful Mathematics and Science Learning Among Students, found PSI-PMI advanced both student and teacher motivation and student achievement, even under less than optimal technological conditions.

The evaluation notes that teachers considered their students more motivated than with other instructional methods and theorizes the causes of increased student motivation to learn may be:

1. Students being less tired because they had not spent a lot of time and energy coping notes or long exercises;

2. Collaborative learning's ability to promote solidarity between students and improve the classroom environment; and
3. Students' ability to retake assessments and keep their highest grade motivates them to keep trying, since one low grade does not constitute an irreversible failure.

Student achievement also flourished, "In the majority of courses, student performance increased considerably." In Argentina, as in the US, "The use of this methodology helps the teacher strategically change his or her role. The instructor provides short, concise periods of direct instruction but the primary role is to be a companion, director and debate moderator, promoting significant learning. The full report can be downloaded at <https://njctl.org/research-results/>.

Dr. Rosemary Knab, CTL's Director of Research explained CTL is guided by both formative and summative evaluation, and looks at key aspects of student and teacher performance in measuring its work. "PSI-PMI is also being implemented in The Gambia, an African nation. While final data on student performance is not yet available, formative evaluations are very encouraging, suggesting Gambian students are also thriving in PSI-PMI classrooms. CTL will continue to watch closely as that effort unfolds."