

Pacesetter® Research and Evaluation Findings

The College Board's Pacesetter® program is an integrated program of standards, instruction, professional development, and assessments. The Pacesetter curriculum includes rigorous fourth-year high school courses in English and mathematics, and a third-level course in Spanish. The professional development component is the backbone of the Pacesetter program. This professional development focuses on innovative pedagogy and instructional strategies, including the use of assessments for diagnostic purposes, group work, and instruction based in application.

Research and evaluation of the Pacesetter program has been ongoing since 1997, and has focused on the implementation and effectiveness of Pacesetter. The purpose of the research has been to provide information to the College Board to help strengthen, modify, or redesign aspects of the program, and to help school districts make the decision to adopt or expand the program.

A formal, in-depth evaluation of both the Pacesetter math and English programs was undertaken by Human Resources Research Organization (HumRRO). The mathematics program was evaluated in 2000–2001, and the English program was evaluated in 1997–1998. The target sites for the evaluations were districts where Pacesetter had been in operation for at least one year prior to the evaluation. Both studies employed comparison groups that did not participate in the Pacesetter program. The math study included 18 schools in six districts, with 29 teachers, 43 classes (24 Pacesetter classes and 19 control classes), and 1,131 students. The English

study included 11 schools in four districts, with 21 teachers, 28 classes (15 Pacesetter classes and 13 control classes), and 770 students. Several indicators, including student characteristics and grades, and teacher experience were used to assess the comparability of the Pacesetter and control groups.

Both studies used a quasi-experimental design that included the collection of both quantitative and qualitative data. In the mathematics study, student performance was measured by a pre/post test composed of SAT® II and National Assessment of Educational Progress (NAEP) items and the Pacesetter culminating assessment. In the English study, student performance was measured by a reading test composed of NAEP items, an extended writing assessment adapted from the Advanced Placement English exam, teacher ratings of student proficiency, and the Pacesetter culminating assessment. Both studies employed pre/post student and teacher surveys and the analysis of student and teacher background characteristics. Selected results of the math and English evaluations are summarized in Table 1.

Taken together, the Pacesetter math and English evaluations showed clear signs of success for these programs. Pacesetter students demonstrated greater success on the achievement and performance measures than did control group students. However, the studies were not able to show changes in attitudes and behaviors as a result of participating in Pacesetter. Successful implementation of the program seems to be linked to a strong professional development component and continuing educational experiences.

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TABLE I

SELECTED FINDINGS FROM PACESETTER MATH AND ENGLISH EVALUATIONS

Evaluation Measure	Math	English
Comparison of Pacesetter and control groups (students)	The groups were similar in age, grade, gender, ethnic background, and English proficiency. A greater percentage of the control group took a standardized test (PSAT/NMSQT™, SAT). The control group had significantly higher mean GPA and math grades, and higher participation in advanced math courses.	The groups were similar in gender, ethnic background, and English proficiency. There was a greater proportion of 11th graders in the Pacesetter group than in the control group. Both groups had similar GPA, English grades, and measures of reading ability.
Comparison of Pacesetter and control groups (teachers)	Groups were similar in gender and ethnic background. Pacesetter teachers reported significantly higher levels of in-service training in pre-calculus. Both groups reported comparable course content. The control group reported a significantly higher preparation level of their students.	Groups were similar in gender and ethnic background, as well as teaching experience. Pacesetter teachers reported significantly more years teaching English. Both groups reported similar professional development time, types of in-service training, levels of administrative support, course preparation time, and amount of homework assigned to students.
Custom-developed tests	<p>Pretest: No difference between Pacesetter and control groups</p> <p>Posttest: Pacesetter scored significantly higher than control group.</p>	<p>Reading Pretest: No difference between Pacesetter and control groups.</p> <p>Reading Posttest: Pacesetter scored significantly higher than control group.</p> <p>Writing Test: Pacesetter scored significantly higher than control group.</p>
Pacesetter culminating assessment	Pacesetter scored significantly higher than control group on all measures of the three math dimensions (math knowledge, application/ modeling, and communication)	Pacesetter scored significantly higher than control group.
Teacher ratings of students' proficiency	Not collected	Pacesetter scored higher than control group on both reading and responding to texts, and creating and presenting texts (not statistically significant).
Teacher survey	Control group teachers indicated greater use of scientific calculators, and more frequent use of math quizzes. Control group teachers cited more class presentations, and Pacesetter teachers mentioned more writing about math work.	Control group teachers indicated a greater frequency of reading literature from textbooks. Pacesetter teachers reported more frequent use of film or video.
Student survey	Most attitudes and behaviors were comparable for the Pacesetter and control groups. However, the control group gave significantly higher ratings to liking school, viewing math as important to future success, and their intention to take additional math courses.	There were no group differences in overall attitudes and behaviors associated with enjoyment of school and English courses. Control group gave higher ratings to liking their current English class. Pacesetter group was more likely to report plans to attend a four-year college.