STUDY GOALS

1. To examine the different ways that ICT relates to school reform and under what conditions it functions as a catalyst for reform.
2. To uncover the critical variables that relate to successful implementation of school reforms and effective ICT.
3. To detect undesirable impacts of ICT upon school functioning and student learning.

HYPOTHESES and CONJECTURES

1. Technology is a strong catalyst for educational reform, especially when the World Wide Web is involved. The rival hypothesis is that where true reform is found, technology served only as an additional resource and not as a catalyst, that the forces that drove the reform also drove the application of technology to specific educational problems.
2. The diffusion of the reform (and therefore of ICT) followed the traditional diffusion pattern for reforms and innovations, as outlined by Rogers (1995). The rival hypothesis is that technology functions differently from traditional innovations and reforms and that therefore different diffusion patterns occur.
3. Successful implementation of ICT depends mostly upon the technological infrastructure and student ICT competence rather than upon staff competence in the integration of ICT into instruction. The rival hypothesis is that teachers mediate such applications when they are successful, and that their academic value relates positively to teacher competence.
4. Gaps in performance between high and low poverty students will be enlarged rather than diminished where all students have equal access to ICT. The rival hypothesis is that equal access to ICT will lead to high poverty students closing the gap with low poverty students.

METHODOLOGY

Short-term explanatory case studies of carefully selected sites (Elementary school of 350-500 students)

Hypothesis driven data collection and analysis

Convergent evidence derived from:
1. Interviews with teachers, administrators, students, parents, and technology specialists.
2. Observations of school functioning.
3. Collection of student and teacher work, school newsletters, plans, and the like.
4. Survey of teacher ICT use.
5. Examination of electronic materials and of responses to e-mail.