

Closing the Achievement Gap: Using the Environment as an Integrating Context for Learning

Lieberman, G. A., & Hoody, L. L. 1998. Closing the achievement gap: Using the environment as an integrating context for learning. *San Diego: State Education and Environment Roundtable*.

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Program Profi	Program Profile		
Program Description:	The State Education and Environment Roundtable (SEER) was founded as a cooperative partnership of education agencies from 16 states working to improve student learning by integrating the environment into formal education. SEER developed the term "Environment as an Integrating Context for learning" (EIC) to describe a pedagogical approach that uses natural and socio-cultural environments as the context for learning. EIC-based learning is not primarily focused on learning about the environment, but instead uses the environment, such as a school's surroundings and community, as an overarching framework for disciplinary learning. Programs based on the EIC Model [™] are used across diverse natural and community settings, they vary greatly, however they all attempt to provide students with the opportunity to connect and integrate what they are learning to their surroundings.		
Program Goals:	The overall goal of the EIC Model [™] is to use environment-based education to help "students become self-initiating and self-reliant learners who are prepared to participate in an ever- changing society." To accomplish this goal, the EIC Model [™] combines pedagogical approaches in a way that: • Breaks down traditional barriers between disciplines • Provides hands-on learning experiences, often through problem-solving and project-based activities • Relies on team teaching • Adapts to individual students, and their unique skills and abilities, and • Develops knowledge, understanding, and appreciation for the environment – community and natural surroundings		
Program	The Pew Charitable Trusts		
Funding:			
Program Links:	www.seer.org		
Evaluation Pro			
Evaluation Goals & Questions:	SEER designed and conducted this evaluation with the goal of understanding the effects on learning and instruction of using the EIC Model [™] in K-12 schools. To do this, the SEER research team identified the most innovative and successful EIC Model [™] programs. The four main objectives in examining these programs were:		
	 To describe their common features; To identify the "best practices" that characterize their pedagogies; To examine the factors that led to their success or challenged them; and To compile data on the effects on students and achievement in reading, writing, math, science, and social studies, and on teachers and instruction. 		

Evaluation Methods:	The SEER research team established site selection criteria, which were used to screen potential candidate schools. At the end of this process 40 elementary, middle, and high schools in the 12 participating states were selected for inclusion in the evaluation.
	A day-long site visit was made to each school, during which time interviews were conducted with teachers, principals, school district staff, students, and community members. When possible, interviews were also conducted with parents and former students. Interview questions fit into three general categories (effects on learning, effects on teaching, and program structure and support) and were designed to investigate: • The effects of using the EIC Model TM ;
	 Indicators and specific evidence of change; and Educators' insights into the causes of observed changes.
	Two survey instruments were also administered to teachers and administrators. The first, referred to as the "Learning Survey," focused on the effects on students and learning and included questions related to: • Student learning of subject matter;
	 Development of students' basic life skills;
	• Development of students' thinking skills;
	• Relevance of the EIC Model [™] to different learning styles;
	 Effects on students' enthusiasm and attitudes; and Summative achievement indicators.
	The second survey, referred to as the "Teachers Survey", focused on the effects on teachers and instruction and included questions related to:
	 Incorporation of various instructional strategies;
	Approaches to grouping students;
	• Use of alternate curricular design and structure;
	 Availability of educational resources; and Effects on teachers' enthusiasm and motivation.
	An additional survey, the "Domain Survey" was distributed to teachers and administrators several months after the first two surveys and measured the effects of the EIC Model TM on students' learning in the four core disciplines of language arts, math, science, and social studies. For each discipline, questions covered topics related to knowledge, skills, retention, attitudes toward learning, and opportunities for further understanding.
Evaluation	Not available in report
Instruments: How were results	Evaluation results were used to advocate for the increased use of the EIC Model TM in K-12
used?	curricula and school reform efforts.
	Over 1,000 school across the nationa have received professional development and technical support to implement the EIC Model [™] developed by the State Education and Environment Roundtable.
Evaluation Cost:	Approximately \$275,000 including staffing costs and travel
Evaluation Insights:	What worked well? Educators in the study schools were very cooperative and willing to participate in this research.
	What were the important evaluation "lessons learned"? It was extremely difficult and time consuming to identify and select schools that met the study criteria.
	What could have been done differently? Additional years of research, as always, would have increased the data available.
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