

GLOBE Case Study Debriefing Form

Spring 2001

Policy Context for Science Education and GLOBE

Degree of Coordination of Science Education Policy within and across agencies, institutions, and organizations

Typical longevity of reforms (including likely longevity of current reforms)

Degree Science Education Policies Are Supported with Resources (including GLOBE)

Role of GLOBE within District/State Science Education Policy

Concern with Equity

Unintended Consequences of Reforms

Involvement of Local Communities in Policy

Connections to Testing and Accountability

Science skills tested (Is science a part of accountability system?)

Match of Teaching Goals with Testing System

Perceived Match of Standards with Testing System

Use of Exit Exams (high school students)

Overlap Between GLOBE Skills and Skills Tested

Effect of Testing on GLOBE Implementation

Congruence of GLOBE with Perceived Direction of Testing and Accountability System

Preparation for GLOBE

Source of First Information About GLOBE

GLOBE Training - Opportunities to Learn How:

To Teach Protocols

To Facilitate Learning Activities

To Help Students Interpret GLOBE Data

To Structure Investigations with GLOBE Data

To Discuss Relationship to Standards

To Structure Collaborations with Other GLOBE Teachers (in school or outside)

Contribution of Training to Science Knowledge and Understanding

Informal Learning and GLOBE (sources, knowledge gained)

Presentations about GLOBE made to groups outside the school (list)

GLOBE in the School

Number of teachers, grade levels

Division of labor among teachers

Timing of First Implementation (how long after training? what determined when teacher began to implement?)

GLOBE Resources Available within School

Teacher trainers/Experienced GLOBE Teachers

Equipment

Study site(s) (where, characteristics, how often visited)

Overview of GLOBE Activities

Units/areas Implemented (and reasons behind choices)

GLOBE Functions Implemented with Students (*data collection, data reporting, data analysis, use of visualization software, design of investigations*)

Adaptation of GLOBE

To Student Interests and Experience

To Student Knowledge, Understanding, and Abilities

Strategies for Ensuring Students Make Links to Build Understanding

Connections to Student Identities as GLOBE participant and science learner

Assessment in GLOBE

Use of data to inform GLOBE instruction

Sources of In-class Assessment Data (*e.g., tests, performance tasks or tests of protocols, GLOBE assessments, Questioning Students, observation of students*)

Use of Self-Assessment Tools (*e.g., GLOBE or other journals and notebooks*)

Amount of science time weekly before and during GLOBE implementation (elementary teachers only)

Multi-grade/multi-school GLOBE activities

Observed GLOBE Activities

Planned Duration and Frequency (*e.g. day, week, etc.*)

Learning Outcome Intended

Activity designer

How students selected (*If not whole class*)

How activity relates to prior activities

How activity relates to other parts of curriculum

GLOBE in Relation to Standards

Awareness and/or Existence of:

Content Standards (*narrative descriptions of desired outcomes in various subject areas*)

Breadth versus depth of standards

Perceived congruence with GLOBE

Helpfulness of GLOBE activities and assessments in meeting standards

Performance Standards (*well-defined concrete examples of the level and quality of performance students must exhibit to show mastery of a particular area*)

Perceived congruence with GLOBE

Helpfulness of GLOBE activities and assessments in meeting standards

School Delivery Standards (*indicators of whether a school has the resources necessary to enable students to meet the performance standards*)

Resources provided by state?

GLOBE resources provided or made available through delivery standards

Parameters of Teacher Choice in Meeting Standards

Science topics

Instructional sequences and activities

Materials (textbooks, technology tools, investigations)

Approach to Meeting Science Standards (*teachers use of existing lessons first and match to standards, how teachers respond to students who are struggling*)

Adaptation of GLOBE to Meet Standards

Selected sources used for creating this debriefing form:

NSES Standards Online

<http://books.nap.edu/html/nses/html/index.html>

See NSES Scenario: Implementing Standards-Based Reform

<http://bob.nap.edu/html/nses/html/implement8.html>

AFT's State by State Analysis of Standards (1999)

<http://www.aft.org/edissues/standards99/states/index.htm>

Changing Schools in Long Beach: Creating a Standards-Based Classroom (1999)
MiddleWeb Middle School Reform

*Bringing All Schools to High Standards: Report on National Education Goals
Panel Field Panel* (2000)

National Education Goals Panel (Report prepared by Robert Rothman)