shaping outcomes MAKING A DIFFERENCE IN LIBRARIES AND MUSEUMS

Illinois State Museum: ***Changes***

Case Overview

Since it was founded in 1877, the Illinois State Museum has promoted discovery, learning, and an appreciation of Illinois' natural, cultural, and artistic heritage. As part of this mission, a new exhibit, *Changes: Dynamic Illinois Environments,* was introduced in 2004. *Changes* explores 500 million years of environmental change in Illinois integrating geology, botany, zoology, and humanland interactions. The exhibit features life-sized dioramas, audio and visual effects, and thousands of actual fossils and natural history specimens. This exhibit's success caused teachers, students, and other museum visitors to express the need for expanded opportunities by making online versions available, especially to support local schools.

The Illinois State Museum has planned an information hub and outpost network to tie *Changes* to global, national, and state environmental issues. An online version of the exhibit includes associated learning activities. This new phase in the *Changes* exhibit allows visitors and K-12 teachers and students to recognize a number of important ideas and facts that enrich their understanding of environmental change and environmental issues but also allow them to incorporate this knowledge into their daily lives. Workshops will be available for docents and K-12 teachers to help them prepare their students before their museum visit and challenge them after their visit and be helpful using the *Changes* website in their classes.

Changes attracts thousands of visitors to the Illinois State Museum every year, the majority of which are schoolage children. Patrons can see giant sharks and other exotic sea creatures that swarmed in the shallow Illinois sea over 340 million years ago. A glacial cave shows the history of Illinois during the Ice Age, and a computer-based digital river basin allows museum-goers to explore the depths of the Illinois River. For more information about the Illinois State Museum visit them at http://www.museumstate.il.us/

Profiles of Stakeholders

These are fictional statements typifying attitudes and illustrating needs, not actual direct quotations.

Illinois State Museum Director

"It's of the utmost importance to stay on the cutting edge of technology if we want our museum to be relevant to the community. Web-based applications give us the ability we need to stay current without costly updates and to present the information in a fun, easy to understand format."

Participating Teacher

"A day at the museum is a real treat for the kids, but unless I know they're going to really learn something, it's just not worth the hassle. Also, so many exhibits just can't keep the students interested. There is a real need for exhibits that are relevant to Illinois curricula and engage the students. I want my students to think, learn, AND have fun."

IMLS

"We encourage museums to seek new and exciting ways to involve school children in their exhibits, a process that should involve a clear idea of outcomes and how to plan in order to achieve them. The plan includes school programs for a range of classes, from Fossils (targeted to grades 2-3) to earth forces (ecosystem change, human impacts, and science careers for high school students)."

Volunteers

"It's important to me that my child takes pride in her community and has a strong understanding of the history of Illinois. By volunteering I get a chance to help out that community and learn about our state in a way that was not available when I was a kid. My daughter and I tour the *Changes* exhibit together monthly and we both learn something new each time."

Illinois State Museum Board Member

"By expanding *Changes* to include an on-line format, our museum will be able to reach thousands of new people who would never have been able to take advantage of this exhibit before. *Changes* does a great job of showing people how important and relevant environmental changes are in Illinois and around the world."

Logic Model Worksheet

I. Situation: program partners and stakeholders	
What is the program's **name**?	Illinois State Museum's *Changes*: Dynamic Illinois Environments
What **partners** are involved?	
Who are the program's **stakeholders**? (Be sure to include yourself, your target audience, partners, funders and any other stakeholders.)	What does each **stakeholder** want to know?
ISM Board	Can we effectively promote and extend the museum's reach through the Web? How does the addition of the online exhibit affect attendance? How effective are the resources in enhancing understanding of environmental change and issues?
K-12 Teachers and Students, Museum Visitors and Potential Visitors	What are the topics to be covered in on-site and web programs? Is the material interesting? Should I visit the museum?
IMLS	How many teachers will be trained in effective use of resources? What did the participants learn? How many people will participate in this project or use the online product? How effective are the resources in enhancing understanding of environmental change and issues?
II. Program planning: connecting needs, solutions, and results	
Who are the **audiences**?	Teachers and students (K-12), general public

What are the **needs** of the audience?	Teachers emphasized the need for exhibits and associated programs to enhance learning about the environment, be relevant to Illinois curricula, encourage career exploration, relate to the real world, relate Illinois to external events and environments, and include activities for young students/individuals. Teachers and potential visitors indicated that nature and natural history were topics of primary interest.
What are some **audience considerations?**	•K-12 Teachers—Access and involvement of teachers are often fixed to an academic environment and schedule. Exhibits and online materials should take advantage of children's sophistication with computers, incorporate technology and other high-tech approaches. They would like to use the Web site for pre- and post-visit tools. It would be useful if the website can include challenges and activities. •Visitors and Potential Visitors: Interests, background, technological capability of individuals and homes vary a great deal.
What **solution** fulfills the needs?	•Tie the Changes exhibit to global, national and state environmental issues through an Information Hub directing visitors to Information Outposts in the exhibit. •Develop technology-assisted teacher, school, and public educational programs to enhance understanding of environmental change and train teachers and docents in its use. •Create an online version of the exhibition with online learning activities.

What will be the **desired results?**	•Visitors understand changes in Illinois environments in terms of global and national environmental issues. •Teachers use online materials before and after visits to the Changes exhibit because they find them effective.

III. Logic model summary: program purpose statement

We **do** what?	•Create an Information Hub about national and global issues that directs visitors to Information Outposts in the exhibit. •Create an online version of the exhibit with pre- and post-visit activities. •Create family events and activities to focus visits.
For **whom**?	K-12 teachers and their students, general public
For what **outcome**/benefit(s)?	•K-12 teachers, students and visitors using the Information Hub and Information Outposts will know how to conduct research on Illinois in the Changes exhibit links to national and global research on environmental issues. •K-12 teachers, students, and visitors will improve their conceptual understanding of environmental change.

IV. Program elements

Inputs	**Outputs (or counts)**
IMLS funds and guidance	
Museum and Project Staff (Educators, Curators, Exhibit and Web Designers, Docents)	Number of staff hours
External Evaluators (Selinda Research Associates)	Number of evaluators Number of hours of evaluation

Museum natural history collections and interdisciplinary scientific research program	
Museum natural history hall (Changes: Dynamic Illinois Environments)	
Museum's popular web site	
Illinois K-12 science standards, benchmarks, and curricula	
Principal and teacher advisors	
Previous evaluations and surveys of needs and interests	
Activities	**Outputs (or counts)**
Administration: fiscal reporting, contract management, purchasing, resource management, logistics, publicity, scheduling, facilitation, communication, preparation, personnel training, staff management, resource maintenance	
Project Design: review of needs, set-up, exhibit design (for Information Hub and Outpost), Web design, program development, preparation, piloting, testing, review, revision	44 web pages designed 4 educational programs produced
Project implementation: exhibit preparation, resource production, recruitment, supervision, maintenance, equipment maintenance, participant communication, problem analysis and correction, communications, public relations, teaching, training	Number of exhibits created
Evaluation: front-end assessment of needs, design, development of tools or instruments, formative evaluation, data collection, data analysis, interpretation, reporting, decision making, staff feedback, outcome assessment	
Services	**Outputs (or counts)**
Create and implement an information Hub and Information Outpost network.	10 exhibits provided (Information Hub and Outpost and Online)

Make available lessons for teachers, family activities to focus visits,	41 classrooms served 11 workshops provided for teachers 17 teachers trained
Provide an online version of the exhibition and associated online learning activities.	400 students visit

V. Outcomes

Outcome 1: ***Online visitors to the Web exhibit increase their knowledge of environmental change.***

Indicator(s)	Applied to	Data Source	Data Interval	Target
The # and % of website users who report that their knowledge of the environment has increased an average of 5 on a 6-point scale: Range: 0 (Don't Know, Don't Care) to 6 (Sophisticated understanding) **AND**	Randomly selected students and visitors	Participant observation followed by structured interview	After website use	50%
# and % of users whose descriptions of conceptual understanding of environmental change can be rated a step higher than their original score on the KHPUEC scale	Randomly selected students and visitors	Participant observation followed by structured interview	Pre- and post web use	

Outcome 2: ***Visitors who use the Information Network on site increase their understanding of how environmental change applies to Illinois.***				
Indicator(s)	**Applied to**	**Data Source**	**Data Interval**	**Target**
The # and % of visitors who can name one way their knowledge or interest in the environment has improved/increased.	Randomly selected students and general visitors	Self-report	After exhibit visit	10%
Outcome 3: ***Teachers feel comfortable using on-line and on-site materials to teach their classes about environmental change.***				
Indicator(s)	**Applied to**	**Data Source**	**Data Interval**	**Target**
# and % of teachers who rate themselves “confident” or “very confident” using online materials with their classes **AND**	Teachers taking ISM workshop	Survey	Before and after workshop	90%
# and % of teachers who rate themselves “confident” or “very confident” using the Information Hub and Information Outposts with their classes	Teachers taking ISM workshop	Survey	Before and after workshop	85%