

SENCER-ISE

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Museums+*more* LLC



Brief history

Alan Friedman

Franklin & Marshall (2009)

SENCER-ISE Conference (2011)

SENCER-ISE Partnerships (2015)

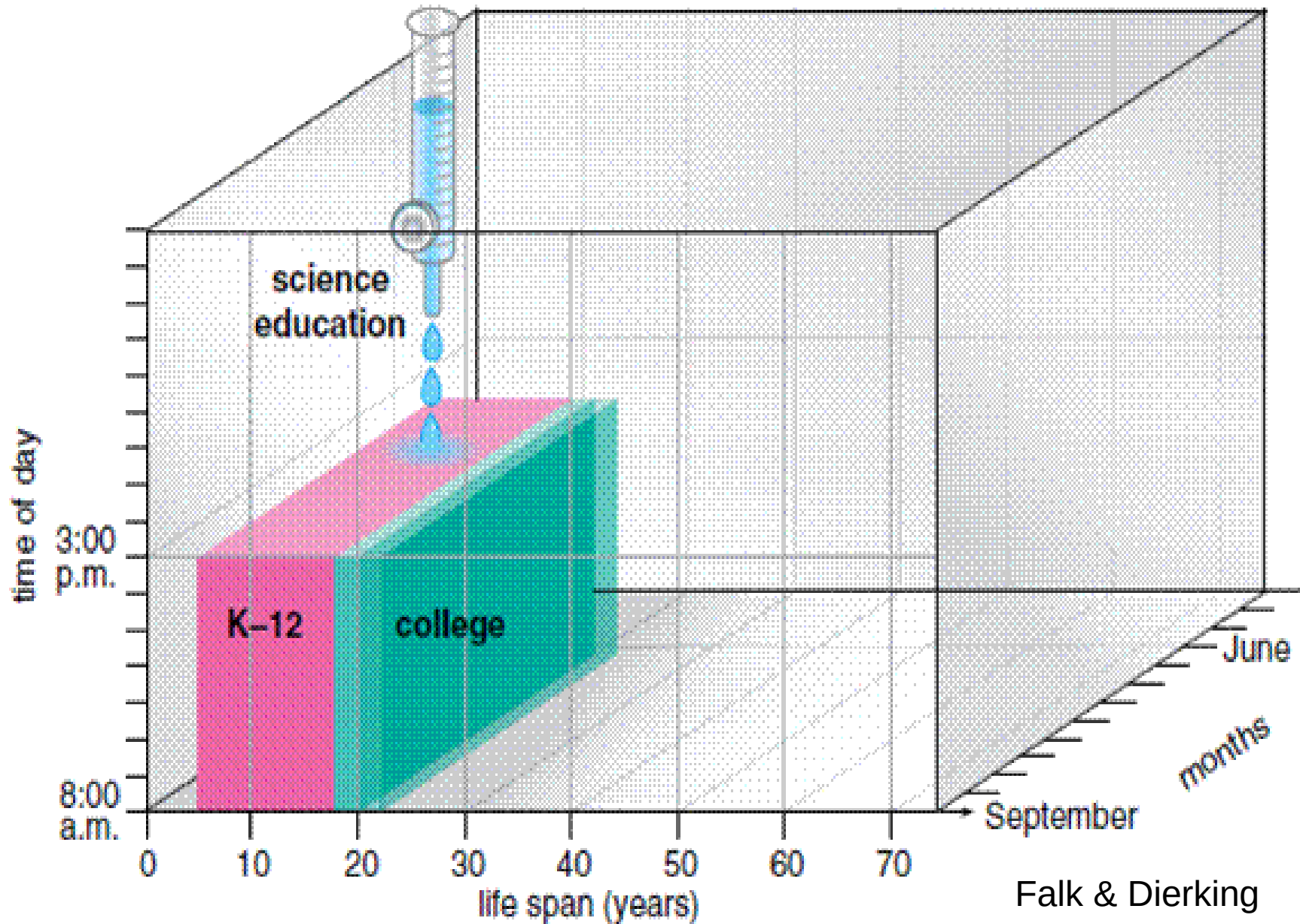
eMentoring (2016)

Collective Impact Workshop (2017)

Overview

1. Informal learning
2. Connections to SENCER
3. Formal-informal partnerships
4. New proposal concept

Informal Learning



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Formal vs Informal

Compulsory

Voluntary

Content focus

Learner focus

School-based

Ubiquitous

Children/youth

Any age, lifelong

Set time

Any time

Extended time

Brief, episodic

Formal vs Informal

Peer group

Various

Assessment

No tests

Teacher

Self-directed

Cognitive

Affective

Extrinsic

Intrinsic

Formal vs Informal

Transmission

Constructivist

Lecture

Experiential

Favored style

Flexible

Serious

Enjoyable

Goal-focused

Exploratory

Formal vs Informal

“Push”

Constrained

Set content

Disciplinary

Disconnected

“Pull”

Open-ended

Any content

Interdisciplinary

Relevant

NRC Study

Learning Science in Informal Environments



People, Places,
and Pursuits

1. Interest
2. Understanding
3. Reasoning

NATIONAL RESEARCH COUNCIL
OF THE NATIONAL ACADEMIES

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SURROUNDED BY SCIENCE

Learning Science in Informal Environments

4. Reflecting
5. Practice
6. Identity

Marilyn Fenichel
Heidi A. Schweingruber

Relevance

A group of approximately 20 people is standing in a line on a sandy beach, looking out towards the ocean. The sky is bright blue with scattered white clouds. The water is a deep blue, and the horizon is visible in the distance. The people are mostly in silhouette against the bright background.

“real, relevant & of vital interest”

Intrinsic motivation

Authenticity

Interdisciplinary



“more like the world itself”

Thematic vs disciplinary

Societal issues

Learner Focus

“designed by students”

Engagement

“Learning” vs “education”

Fordham—Wildlife Conserv Soc

Assessment

“assess frequently”

Front-end evaluation

Formative evaluation

Summative evaluation



SENCER-ISE

Higher Education Partner	ISE Partner
Antioch College	Glen Helen Outdoor Education Center
Brooklyn College-CUNY	Gateway National Recreation Area
Cornell University	Sciencenter
Fordham University	Wildlife Conservation Society
Hamilton, Hope & Oberlin College	Green Science Policy Institute
New Mexico EPSCoR	New Mexico Museum of Natural History & Science
Paul Smith's College	The Wild Center
Raritan Valley Community College	New Jersey Audubon Society
St. Mary's College of California	Lindsay Wildlife Museum
University of Connecticut	Connecticut Science Center

Civic Engagement

Civic

engagement

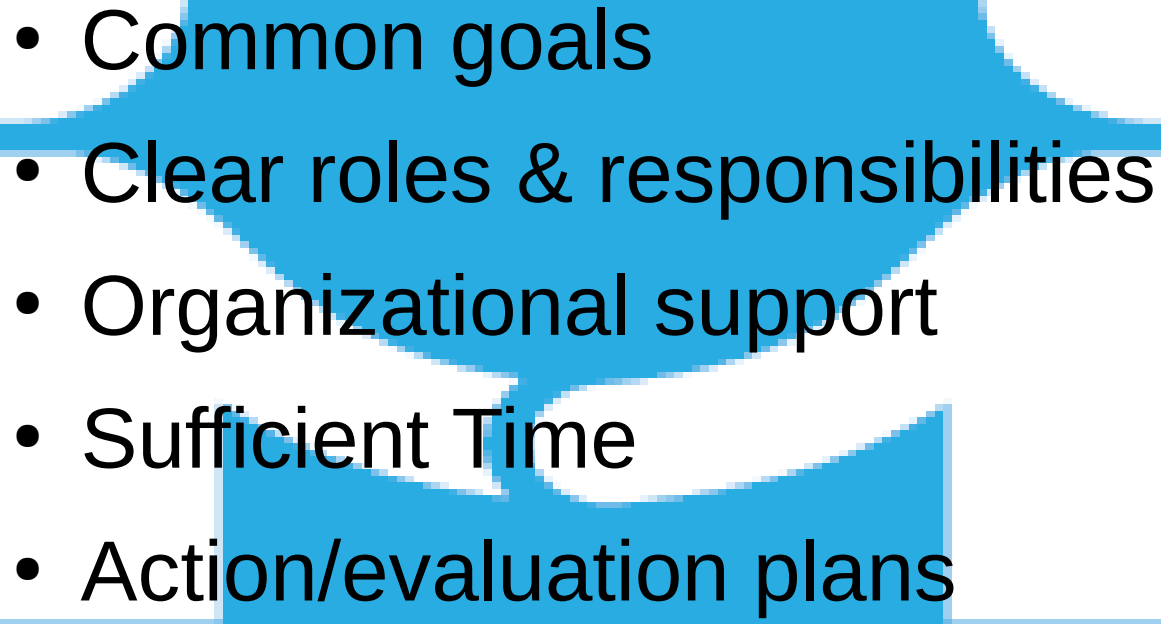
“Glue”

Value to HEIs

Value to ISIs

service-learning

Successful Partnerships

- 
- Common goals
 - Clear roles & responsibilities
 - Organizational support
 - Sufficient Time
 - Action/evaluation plans
 - Regular communication

eMentoring (IMLS)

Higher Education Partner	ISE Partner
Eastern Michigan University	Ann Arbor Hands-On Museum
Lincoln Memorial University	Abraham Lincoln Library & Museum
Rider University	Stony Brook Millstone Watershed Assn
Towson University	National Aquarium
Wheelock College	Charles River Watershed Assn

Collective Impact

Build on pilot

Scale up

Collaborate



NISE Net Nano Days

18

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Draft DUE-IUSE Proposal

- Build on SENCER-ISE partnerships
- Enhance STEM learning in SENCER courses
- Students develop ISE resources for public
- Faculty & student PD on informal learning
- Test & implement at ISE organization

Summary

Through a focus on civic issues, the SENCER-ISE initiative leverages synergies between Higher Education Institutions and Informal Science Education organizations to foster STEM learning and public engagement.

Discussion

The image features two overlapping speech bubbles. The larger, light gray bubble is in the foreground and contains the text 'Your thoughts?' and 'Suggestions?'. The smaller, dark gray bubble is in the background and is partially obscured by the first one. The word 'Discussion' is written in a large, black, sans-serif font at the top of the page.

Your thoughts?

Suggestions?