Engaging Bilingual Audiences
# CMH Workshop Logistics

**Friday, June 7**

*Children’s Museum of Houston*

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00</td>
<td>Meeting begins</td>
</tr>
<tr>
<td>5:00</td>
<td>Meeting ends for the day</td>
</tr>
<tr>
<td>6:20</td>
<td>Meet in hotel lobby, Group dinner @ Table 7 Bistro Downtown</td>
</tr>
</tbody>
</table>

*Group will walk to restaurant together*
## Agenda—Morning Day 2

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>9:00</td>
<td>GROUP ACTIVITY— The Knot</td>
</tr>
<tr>
<td>9:30</td>
<td>Table Discussions: Strategies for Engaging Bilingual Audiences</td>
</tr>
<tr>
<td>10:30</td>
<td>Social Break</td>
</tr>
<tr>
<td>10:45</td>
<td><em>Continued:</em> Table Discussions: Strategies for Engaging Bilingual Audiences</td>
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<tr>
<td>11:15</td>
<td>Marketing for Bilingual Audiences</td>
</tr>
<tr>
<td>11:45</td>
<td>Lunch</td>
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</tbody>
</table>
Group Activity- The Knot
Table Discussions: Strategies for Engaging Bilingual Audiences
Social Break
Table Discussions: Strategies for Engaging Bilingual Audiences
Marketing to bilingual audiences
IDENTIFY: TARGET DEMO

Is there a need to target to a Hispanic audience?

- What does the population look like in your area?
- Where's the population trend going?
- What's the breakdown of your target demo?
- Are you already capturing a Hispanic audience?

- SPRING BREAK 2013: Free Family Night
IDENTIFY: OPPORTUNITIES

SEUSS-ICAL 2012:
Read Across America

What are you already doing to target the Hispanic community?
IDENTIFY:
RESOURCES

Evaluate what you can do
Evaluate your distribution tools

- ¡QUE VIVAN LOS NIÑOS!
  El Día del Niño 2012

Hooray, Kids!
¡Que Vivan los Niños!

Día del Niño
(Day of the Child)
Domingo, Abril 29
Mediodía a 4pm

¡Asistamos a honrar a los niños en su día
cos actividades emocionantes y fascinantes en
vivo en el Museo de Niños de Houston!

Con la presentación de:
- Mariachi Hernanuva Juvenil
- Recitómetro
- Opera de Cuentos
- Juegos de libre
- Personajes
- Regalos para niños y familias
- Juegos y exhibiciones

Este evento se enfoca en enfocarse la
educación de los niños con la literatura latina.

Patrocinado por:

INSTITUTO DE LOS MEXICANOS EN EL EXTERIOR

Children's Museum of Houston
1100 Bisz • 713-822-1138 • cmuhouston.org
EXECUTE:
Marketing Plan
Set goals and deadlines
How are you going to accomplish those goals?
  Community partners
  Media
  Sponsorship opportunities

WHIMSICAL SHEET CASTLE
2010
Execute: Media

Identify who has pull?
  Target outlets who provide you with value.

IMMUNIZATIONS
  2009 & 2010
Execute: Sponsorships
Convince companies to believe in your product.

- TARGET.com/Education 2013

**Tiffany Espinosa, Program Coordinator, Para Los Niños**
**Children's Museum of Houston**

Strong reading skills promote success.
OMSI partnered with *Fusion Arte* (radio show) and *El Centinela* (newspaper) to share our Local Voices, Clever Choices project with more Spanish speakers.
OMSI Outreach Efforts

Our *Local Voices* project consists in more than 20 stories narrated by real people to discover how simple choices can protect the environment, improve a family's finances, and bring the community together.

www.omsi.edu/choices
OMSI Outreach Efforts

This year, during the first Tuesday of each month, Fusion Arte will play one (two minutes) story.
OMSI Outreach Efforts

El Centinela

Already published a story about our Local Voices project and will soon do several monthly stories about the individuals that were the storytellers.
Lunch
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:45</td>
<td>Improving practice</td>
</tr>
<tr>
<td>2:00</td>
<td>Part 2: Partners Develop a Plan of Action</td>
</tr>
<tr>
<td>3:30</td>
<td>Social Break</td>
</tr>
<tr>
<td>3:45</td>
<td>Follow up opportunities</td>
</tr>
<tr>
<td>4:15</td>
<td>Reflections &amp; Wrap-up</td>
</tr>
<tr>
<td>5:00</td>
<td>End for day</td>
</tr>
</tbody>
</table>
Improving Practice
Team-Based Inquiry

*Team-based inquiry allows us to gather and use the information we need, when we need it, in order to improve our educational products and practices.*
“Horton Senses Something Small”

Does the program engage young children? How could it be improved?

Data collection
• Observations of participants
• Surveys with caregivers and parents
• Debrief with program developers

Lessons learned
• Program works best for ages 3-5
• Prompt participation during the story
Are educational posters worth including in the NanoDays 2012 kit?

Data collection
- Interviews with 30 visitors at three museums
- Informal observations by team
- Debrief with educators

Lessons learned
- Visitors liked the graphics and suggested improvements
- Educators felt graphics attracted attention and defined space
Team-Based Inquiry

- Led by non-evaluation professionals
- Small scale and focused
- Collaborative and team-based
- Embedded in ongoing work
- Systematic
Team-Based Inquiry

- Improving products and practice
- Fostering effective teams and organizations
- Building evaluation capacity
TBI Guide

Asking Questions

Get familiar with the process of identifying inquiry questions to guide and focus your TBI study. Questions include:

- TBI questions are not what you ask others or other stakeholders but rather the questions that you need to answer in order to move forward with your work.
- Identifying TBI questions is critical for building shared understanding within your team, ensuring that each TBI study has a realistic scope and purpose.
- A good TBI question should:
  1. Be specific, clear, and focused
  2. Be feasible and achievable
  3. Be answerable within a reasonable timeframe
  4. Be based on evidence and data

Ask TBI questions:

So, you have a new program that you think will help. It’s well researched, methodically developed, clearly aligned with your educational goals, and your team. You are thrilled. However, before you can start implementing your program, you need to answer these questions:

- What are the important outcomes you expect to achieve?
- What is the evidence that supports your expectations?
- What are the potential challenges you might encounter and how will you address them?
- How will you measure success?

TBI questions are not just about identifying gaps or needs but also about articulating your vision and priorities.

What makes a useful TBI question?

The successful TBI study can depend on asking the right type of TBI questions. In our experience, a productive TBI study is built on three key components:

1. Relevance: The questions should be aligned with the broader goals of the TBI study.
2. Feasibility: The questions should be achievable within the timeframe and resources available.
3. Impact: The questions should have a meaningful impact on the educational experience.

Identifying TBI questions:

Although there are many ways to approach the process of identifying TBI questions, you might find that some broad approaches are helpful:

- Brainstorming
- Preparing
- Reflecting

Brainstorming:

After our team understood the context of our TBI study and had identified key issues, we conducted brainstorming sessions. We asked open-ended questions to encourage creative thinking and generate a wide range of ideas. The brainstorming session was facilitated by a trained moderator, and the group was encouraged to think outside the box. The session was recorded and transcribed to capture all ideas and insights.

Preparing:

Before we begin brainstorming, we need to ensure that our TBI questions are focused and relevant. It is important that we clearly articulate the goals of our program.

Reflecting:

After the brainstorming session, we reflected on the ideas generated and discussed their potential impact on the educational experience. We identified the most promising ideas and refined them into specific TBI questions.

Case Study

Hilton Heads a Who

Developing a cohesive program for young students involves a great deal of planning and effort. In our case, the program was designed for young children and included educational activities that were fun and engaging. The program was evaluated and its effectiveness was measured using standardized tests and observations.

Conclusion:

The program was successful in achieving its goals and was well-received by the students and teachers. It provided a positive learning experience for the young children and helped them develop important skills. The program was evaluated using standardized tests and observations, and the results were positive. The program was also well-received by the teachers and was recommended for future implementation.

What could be improved in the future?

In the future, we could improve the program by incorporating more interactive activities and by providing more feedback to the students. We could also consider adding more assessment strategies to evaluate the students' progress.

Other questions that could be explored:

- How can we improve the program's effectiveness?
- What are the most effective strategies for engaging young children?
- How can we ensure that the program is sustainable and can continue to be implemented in the future?
Bilingual Workshop TBI

How do sheltered instruction facilitation techniques support or inhibit engagement?

Collect data from staff-visitor interactions at nano activities.

Identify successful strategies and develop new techniques.

Review staff-visitor interaction data and find patterns.

Question

Investigate

Improve

Reflect
## Asking Questions

Program Goals and Objectives: ____________________

<table>
<thead>
<tr>
<th>Product Question</th>
<th>Why is this question interesting / important to you and your team?</th>
<th>What sources of data would you need to answer this question?</th>
<th>What resources would you need to answer this question?</th>
<th>How long will it take to answer this question?</th>
<th>Based on all of this, how high a priority is this question? H=High, M=Medium, L=Low, E=Eliminate</th>
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<td>H M L E</td>
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</tbody>
</table>
### Bilingual Audiences—Activity Facilitation Log

<table>
<thead>
<tr>
<th>Date:</th>
<th>Facilitator initials:</th>
<th>Observer initials:</th>
</tr>
</thead>
</table>

**Activity:**
- Space Elevator

**Facilitation Goal:**
- Encourage visitors to engage in activity using Sheltered Instruction strategies.
- Continuously engage both English language and ESL learners in activity at the same time.
- Other:

**Strategies to try:** (this might include speaking slowly, simplifying language, using visuals, modeling)
- Make eye contact, smile, speak slowly
- Use passive body language

**Group Characteristics**

<table>
<thead>
<tr>
<th>No. of adults:</th>
<th>18-29</th>
<th>30-50</th>
<th>51+</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of children/youth:</td>
<td>under 2</td>
<td>2-5</td>
<td>6-8</td>
</tr>
<tr>
<td>Group seems to be:</td>
<td>Circle one:</td>
<td>School or tour group</td>
<td>Family or friend group</td>
</tr>
<tr>
<td>English language:</td>
<td>Primary English</td>
<td>Secondary English</td>
<td>Non-English speakers</td>
</tr>
</tbody>
</table>

**What happened during the activity?** (description of talk and behaviors that happened, not opinion)

**What strategies worked well to accomplish your goals?**

**What strategies didn’t work as well to accomplish your goals?**

List any other reflections (e.g., additional strategies to try, interesting visitor comments, group specific issues, drawn examples of visual aids) on the back.

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This project was supported by the National Science Foundation under Award No. 0943149. Any opinions, findings, and conclusions or recommendations expressed in this program are those of the author and do not necessarily reflect the views of the Foundation.

Data Reflection

1. **Describe and clarify:**
The facilitator reminds the team of the inquiry and data discussion goals. The group asks questions as needed.

2. **Observe and discuss:**
The group spends time reviewing the data. Afterwards, each team member mentions one unique piece of data that he or she feels is particularly interesting or important.

3. **Immerse and notice:**
Each team member suggests a unique theme or pattern he or she notices in the data related to the goal of the data reflection.

4. **Categorize and explain:**
After exhausting potential themes, the team sorts the data by theme, counting the number of data points in each category and discussing possible explanations.
Improve and Report

Summary Title

Team-Based Inquiry Summary Form
Key contact, e-mail
Summary date

This report is a brief summary of a team-based inquiry study (TBI) and is designed to document and share

1. Question
What we hoped to learn and why it was important
Include the following information in this section:
• Educational experience goals, audience, topic, and description (if applicable)
• Question(s) our group wanted to answer
• Why it was important to answer those questions

2. Investigate
How we answered our questions
Include the following information in this section:
• Start and end dates of the study
• Who we collected data from
• How we collected data
• Types of data we collected
• How we analyzed the data

Attach any data collection tools or relevant documents.

3. Reflect
What we found out
Include the following information in this section:
• Summary of the data (possibly including tables or graphs)
• The most important patterns and findings that emerged

4. Improve
How we changed our practice
Include the following information in this section:
• How our group responded or plans to respond to the findings
• Recommendations for others
• Ideas for future TBI studies
Data Collection & Facilitation Practice
Sheltered Instruction Strategy List

What are some teaching strategies used in sheltered instruction?

• Speak clearly and slowly.
• Employ pauses, short sentences, simple syntax, few pronouns, and idioms.
• Use visuals, hands-on activities, and items that they can manipulate or hold.
• Require physical response to check comprehension, such as asking students to show, point, or draw their response.
• Model, or act out, the activities for students.
• Use modified speech, gestures, body language, facial expressions.
• Use other (bilingual) students as peer helpers. This also works with family members.
• Encourage responses in student’s first language.
• Simplify the language, not the content.
• Ask students questions that require one/two word responses: who?, what?, which one?, how many?
• Focus on expanding students’ vocabulary by using words with Greek and Latin roots, which are used in other languages besides English.
• Show them how some words are related, such as turn and tour.
• List and review instructions step by step, checking comprehension after each one.
• Paraphrase using synonyms, antonyms, and cognates.
Part 2: Partners
Develop Plan of Action
Workshop Goals

**Overarching Goal:**
*To inspire confidence and build capacity for partners to engage bilingual audiences in nanoscale science, engineering, and technology (nano).*

As a result of participating in the workshop, professionals will:

1. Develop a rationale for engaging bilingual audiences in nano, and see bilingual work as an emerging practice.
2. Build awareness of and facility with educational and professional tools and strategies (both NISE Net and outside resources), to better engage bilingual audiences.
3. Connect with other professionals engaged in bilingual work by sharing personal experiences and learning together.
4. Identify opportunities for action by problem solving challenges and articulating next steps.
NISE Net Resources

- Educational products
- Marketing materials
- Mini-grants
- *Nano* mini-exhibition
- Partnership strategies
- Training resources
- Team-Based Inquiry (TBI)
Institutional Action Plan

• Brainstorm specific actions you can take at your own institutions to engage bilingual audiences
  • What NISE Net (and other) resources will aid your efforts?
  • Who’s your target audience?
  • Who will you collaborate with?
  • What’s your proposed timeline?
  • What feedback will you need?
## Action Plan

Please take a few minutes to reflect on this NISE Net workshop and indicate three ways you might use NISE network or other resources in your own work (e.g., NanoDays, Nano programming, after-school program, summer camps, family workshops, modify a current activity or program).

**Please keep a copy for your records.**

<table>
<thead>
<tr>
<th>Action (see examples above)</th>
<th>Target Audience</th>
<th>Resources</th>
<th>Partnerships</th>
<th>Timeframe</th>
<th>Challenges</th>
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Work shopping Together

- Split up into groups of 4
- Share out your plans
- Get feedback
- Amend your plan
Group Discussion

• What did you find in common about your plans?
• What was the most surprising idea that came up?
• What emerged as the highest priority action?
Follow-up Opportunities
Online Brownbag Conversations

• Partnerships to Reach New Audiences with Mini-Grants- Tuesday July 2\textsuperscript{nd}, 10am PST/1pm EST

• Nano Show and Tell: Nano in Consumer Products- Wednesday, July 7\textsuperscript{th}, 10am PST/1pm EST

• Mini-Grants 2014 Brainstorming and Guidelines- Tuesday, August 13\textsuperscript{th}, 10am PST/1pm EST

• Possible Bilingual- TBD
NISE Network Regional Hub Map
Regional Hub Meetings

• Southeast- September 12-13, North Carolina Museum of Life and Science
• September 17-18:
  • Mid-Atlantic- Franklin Institute
  • Northeast- Science Center
  • Southwest- Lawrence Hall of Science
• South- September 19-20, Children’s Museum of Houston
• Mid-West- Old date, September 25-26; Tentative new date, October 3-4
ASTC 2013 Annual Conference

- October 19-22, Albuquerque, NM
- Pre-conference workshop
  - Team-Based Inquiry: A Practical Evaluation Approach for Non-Evaluators, Friday October 18, 8am-12pm
- NISE Network Happy Hour
  - Friday, October 18, 5pm-7pm at Ibiza rooftop bar and patio
- NISE Net Booth
  - In Exhibit Hall on Saturday, October 19 from 10am-6pm and on Sunday October 20 from 10am-5:30pm
- Partner Breakfast
  - Location and time to be determined
- ASTC Science in the Park
  - Tuesday, October 22 from 10am-2pm
- Sessions
  - LOTS of them, please check agenda😊
Others

• NanoDays
  • Application process should be up in September thru November

• Mini-Grants
  • Application process should begin in October thru November

• Team-Based Inquiry Cohort
• Register for Nanobyte newsletter
Reflections & Wrap-up
Closing Day Announcements

Museum is open until 6:00

Meet at 6:20 pm in the hotel lobby, Group dinner at Table 7 Bistro Downtown

*Group will walk to restaurant together*
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