

Engaging Bilingual Audiences



CMH Workshop Logistics

Friday, June 7

Children's Museum of Houston

9:00 Meeting begins

5:00 Meeting ends for the day

6:20 Meet in hotel lobby, Group dinner @ Table 7 Bistro Downtown
Group will walk to restaurant together

Agenda—Morning Day 2

- 9:00 GROUP ACTIVITY— The Knot
- 9:30 Table Discussions: Strategies for Engaging Bilingual Audiences
- 10:30 Social Break
- 10:45 *Continued:* Table Discussions: Strategies for Engaging Bilingual Audiences
- 11:15 Marketing for Bilingual Audiences
- 11:45 Lunch

Group Activity- The Knot





Table Discussions: Strategies for Engaging Bilingual Audiences

Social Break





Table Discussions: Strategies for Engaging Bilingual Audiences



Marketing to bilingual audiences

MARKETING BILINGUAL EVENTS & PROGRAMS

Presented by Henry Yau
PR & Promotions Director
Children's Museum of Houston

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



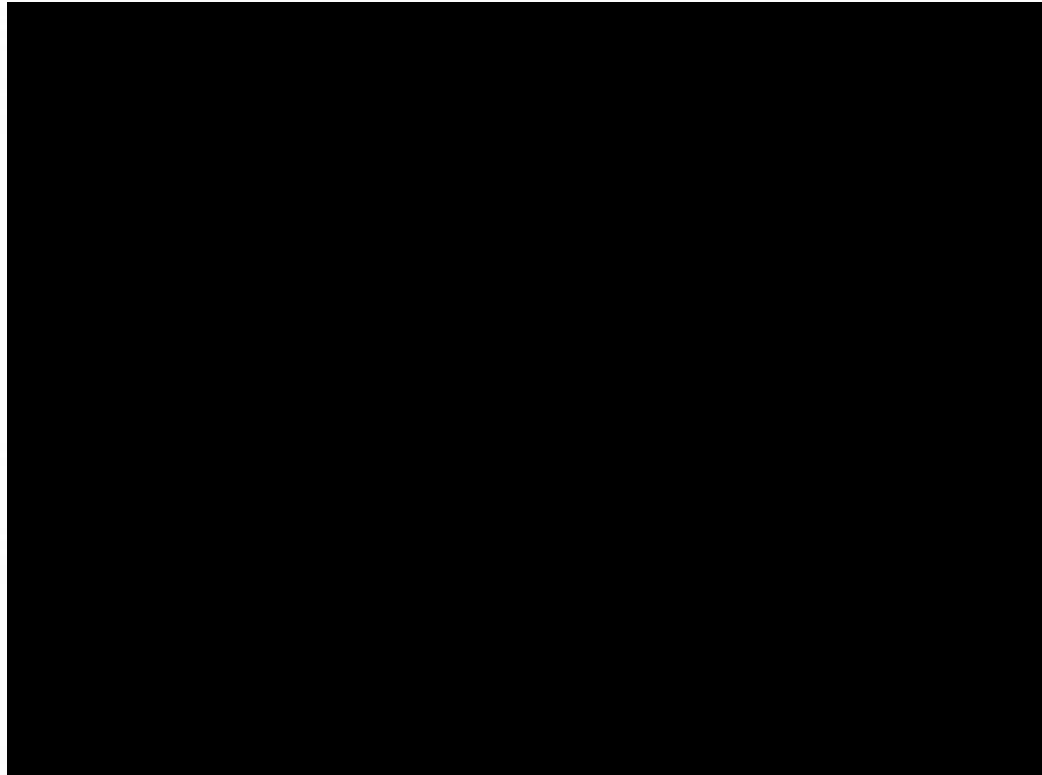
IDENTIFY: OPPORTUNITIES

What are you already doing to
target the Hispanic community?

Calendar of events



- SEUSS-ICAL 2012:
Read Across America



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!**

**\$9
todo
el día**

**Día del Niño
(Day of the Child)
Domingo, Abril 29 Mediodía-6pm**

¡Acompáñenos a honrar a los niños en su día
con actividades emocionantes y funciones en
vivo en el Museo de Niños de Houston!

Con la presentación de:

- Mariachi Hermosura Juvenil
Hora: Mediodía
- Opera de Cuentos
Hora: 2,3, & 4 pm
- Personajes
- Regalos para niños y familias
- Juegos y exhibiciones

Este evento se enfoca en enriquecer la
educación de los niños con la literatura bilingüe.

Patrocinado por:

SRE
SECRETARÍA DE RELACIONES EXTERIORES

**Children's
Museum
of Houston**

1560 Blinn • 713-622-1138 • cmhouston.org



EXECUTE: Marketing Plan

Set goals and deadlines

How are you going to accomplish those goals?

Community partners

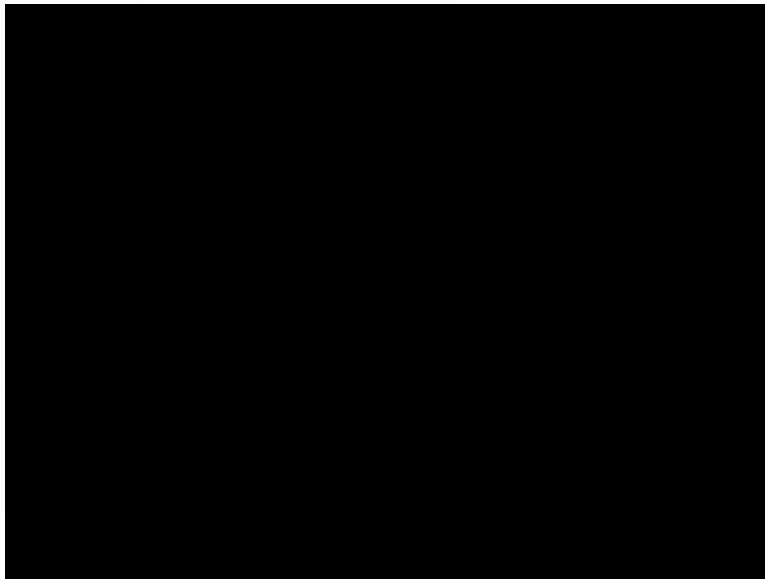
Media

Sponsorship opportunities

Downy

WHIMSYICAL SHEET CASTLE

2010



Execute: Media

Identify who has pull?

Target outlets who provide you
with value.

IMMUNIZATIONS 2009 & 2010

Client: Univision

Title: PSA- Childrens Museum
Immunizations

Code: PSA- Childrens Museum
Immunizations

Time: 15 Sec

Date: 07-28-09



Execute: Sponsorships

Convince companies to believe in your product.

- [TARGET.com/Education](https://www.target.com/education) 2013



Strong reading skills promote success.



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

OMSI Outreach Efforts

OMSI partnered with *Fusion Arte* (radio show) and *El Centinela* (newspaper) to share our Local Voices, Clever Choices project with more Spanish



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



www.omsil.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



Agenda—Afternoon Day 2

- 12:45 Improving practice
- 2:00 Part 2: Partners Develop a Plan of Action
- 3:30 Social Break
- 3:45 Follow up opportunities
- 4:15 Reflections & Wrap-up
- 5:00 End for day



Improving Practice

Professional Inquiry



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

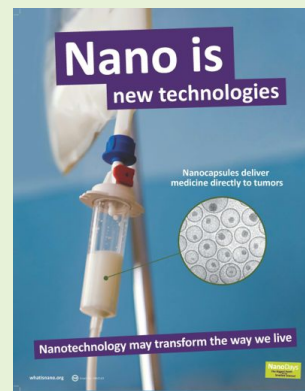
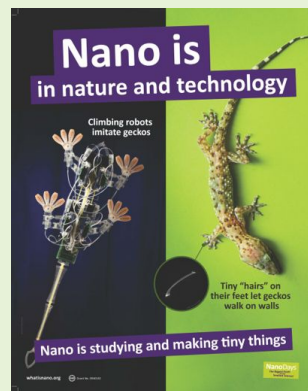
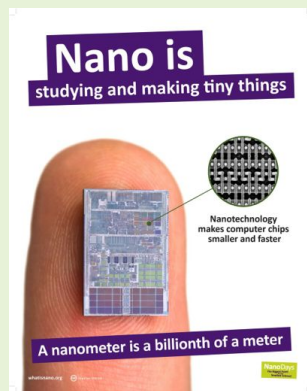
- Observations of participants
- Surveys with caregivers and parents
- Debrief with program developers

Lessons learned

- Program works best for ages 3-5
- Prompt participation during the story

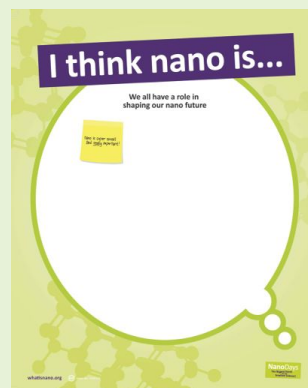
NanoDays 2012 Posters

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



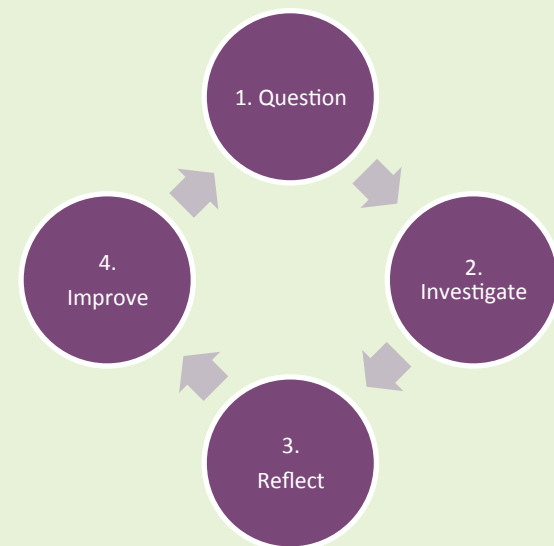
- Led by non-evaluation professionals
- Small scale and focused
- Collaborative and team-based
- Embedded in ongoing work
- Systematic



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. Big ideas include:

- TBI questions are not what you ask visitors or other stakeholders but rather the broader questions that you need answered in order to move forward with your work.
- Identifying a few TBI questions is critical for building shared understanding within your team, ensuring that your TBI study has a realistic scope, and gather information that is useful and actionable.
- A good TBI question is one that (1) you don't know the answer to, (2) focuses on useful and actionable information, and (3) can be realistically investigated.

Asking TBI questions

So, you have this new program that you think rocks. It's well researched, methodically developed, clearly aligned with your educational goals, and, you hope, thoroughly entertaining. You've already tested it with a few colleagues to help work out the major kinks and you'd like to start including in your regular rotation of daily activities and demonstrations. As you start imagining taking it out on the floor, however, the questions start flooding in. How will most visitors respond to the activity? How is it relevant to their interests and prior knowledge and experiences? How will I know the experience is achieving its goals?

Important inquiry questions arise all the time out of daily work, including when you're developing a new educational experience or modifying an existing one. It's these types of questions that matter to you and are essential for moving forward in your work that are the foundation of any TBI study. Using TBI questions to focus your inquiry ensures that your TBI study has a realistic scope and that the information you gather is useful and actionable. The process of identifying and prioritizing TBI questions is also a powerful way to develop shared understandings and expectations among team members.

TBI questions are not what you ask visitors or other stakeholders but rather the broader questions that you need answered in order to move forward with your work. They define the focus of the inquiry and inform decisions about data collection during the investigate phase. For example, you might wonder what the public already knows about a particular topic, what aspects of your educational experience might be more or less engaging, or what improvements

could be made so that more participants walk away understanding your intended educational messages. TBI questions do you inform how you collect data, such as the types of questions you might ask in a survey or interview.

In this chapter, we focus on the types of questions you might have relevant to developing a new learning experience or adapting or modify an existing one and how to prioritize those questions to set you and your team up for a successful TBI study. Keep in mind that this process of identifying inquiry questions can be used for any type of project.

What makes a useful TBI question?

The success of your TBI study can depend a lot on asking the right type of TBI question. In our experience, a productive TBI question (1) can't be easily answered with information you already have, (2) focuses on information that you can act on immediately to inform your work, and (3) can be realistically investigated given your current time and resources.

For example, although you might be very curious to know how your educational experience impacts participants' achievement in school, it's unlikely that you'll have the time or resources to investigate this question. Similarly, it's not worth designing a TBI study to determine whether participants prefer a theater show or tabletop activity format if you have

A GOOD TBI QUESTION IS ONE THAT:

1. You don't already know the answer to.
2. Focuses on useful and actionable information, and
3. Can be realistically investigated.

already committed to developing the latter. And although it may be very relevant to ask what age of children typically comes to your institution and might participate in your educational experience, this information may be readily available from prior evaluation work or your visitor services or marketing departments.

Especially in the context of developing or improving an educational experience, TBI questions often focus on participant characteristics (e.g., interest or prior knowledge), short-term participant outcomes that indicate whether or not you are achieving your goals, challenges with the current version of the educational experience that could be addressed, or current successes and strengths to build on.

Again, at this stage you're not identifying survey or interview questions, you're prioritizing broad, overarching inquiry questions to guide your TBI study. These are the questions you need to answer in order to move forward successfully with your work.

Identifying TBI questions with your team

Although there are many ways to approach the process of identifying TBI questions, we've found that three broad steps work well for many groups: (1) preparing, (2) brainstorming, and (3) prioritizing.

Preparing

Before you can begin brainstorming possible TBI questions, it's important that you clearly articulate the goals of your program

We were in the final stages of determining what should be included in the NanoDays 2012 kit. Even though printed posters are expensive, there was a lot of interest from the team in including them. So, we conducted a TBI study to answer the question: Are educational posters worth including in the NanoDays 2012 kit?

—Al Johnson, Educator

or educational experience, understand the constraints related to your TBI study (e.g., available time, resources, or staff), and gather any background information relevant to your program or educational experience. Talking through these issues with your TBI team before brainstorming questions begins the process of building shared understandings and buy-in, helps to set clear boundaries around the TBI study, and highlights what you know and don't know about your educational experience.

Although it's easy to overlook, clearly articulating the goals for your experience is particularly important. Without a clear and shared understanding of what you want the

program to accomplish and how you want it to impact participants, it's very difficult to know what information you need to develop or improve the program or even how you would know if the program had been improved at all.

Brainstorming

After your team understands the constraints of your TBI study and has clearly articulated goals for your educational experience, you can lead the group through the process of generating possible TBI questions. A fun and low-cost way to do this is with sticky notes:

1. Find time (at least an hour) for your team to meet. Make sure each of your team members has a pad of sticky notes.
2. Start by asking team members to individually write down

Case Study

Horton Hears a Who



Developing a science program for young children. Our goal was to develop a short, staff-led activity that would introduce preschool children and their families to the idea of nanoscience. We had been thinking about using the book "Horton Hears a Who" for a long time and we knew that the overall goals of the activity should be to engage young children and encourage them and their parents to think about very small things.

We gathered our TBI team and spent about an hour discussing the activity goals, what we already knew about engaging

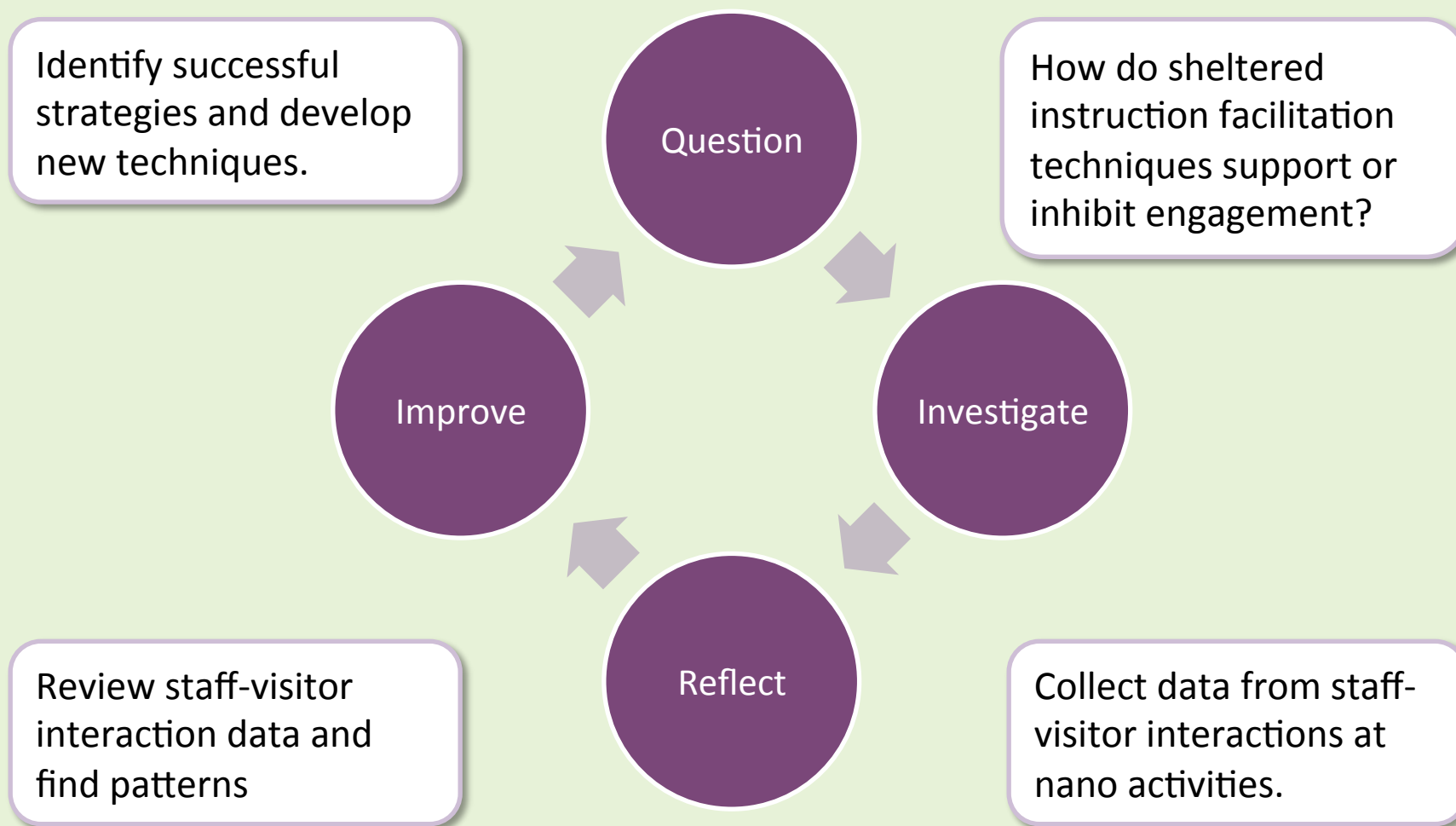
young children in science, and the types of information we would need to collect to make the program a success. At the most basic level, we all wanted to know if an activity about scale using the Horton Hears a Who book would be interesting to young children at all. And since we had already sketched out the basic outline of the activity, we wanted to know how it could be improved to be even more engaging and better achieve its educational goals. In the end, using the question worksheet, we settled on two broad TBI questions: (1) does the program engage young children and

(2) how could it be improved in order to be more engaging.

Conclusion

How questions helped make a good activity etc. Conclusion? How questions helped make a good activity etc. Conclusion? How questions helped make a good activity etc.

Bilingual Workshop TBI



Asking Questions

Program Goals and Objectives: _____

Product Question	Why is this question interesting / important to you and your team?	What sources of data would you need to answer this question?	What resources would you need to answer this question?	How long will it take to answer this question?	Based on all of this, how high a priority is this question? H=High, M=Medium, L=Low, E=Eliminate
					H M L E
					H M L E
					H M L E



Investigate

Bilingual Audiences—Activity Facilitation Log

Date: _____ Facilitator initials: _____ Observer initials: _____

Activity: _____

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)

Group Characteristics

No. of adults: ___ 18-29 ___ 30-50 ___ 51+

No. of children/youth: ___ under 2 ___ 2-5 ___ 6-8 ___ 9-12 ___ 13-17

Group seems to be (circle one): ___ School or tour group ___ Family or friend group

English language: ___ Primary English ___ Secondary English ___ Non-English speakers

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.



This project was supported by the National Science Foundation under Award No. 0940143. 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.

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Bilingual Audiences—Activity Facilitation Log

Date: June 2, 2013 Facilitator initials: SC Observer initials: _____

Activity: Space Elevator

Facilitation Goal:

- ☐ Encourage visitors to engage in activity using Sheltered Teaching instruction.
☒ 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

No. of adults: ___ 18-29 ___ 30-50 ___ 51+

No. of children/youth: ___ under 2 ___ 2-5 ___ 6-8 ___ 9-12 ___ 13-17

Group seems to be (circle one): ___ School or tour group ☒ Family or friend group

English language: ___ Primary English ☒ Secondary English ☒ Non-English speakers

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

Family arrives at table while I am working with another group. They stand back and watch, talking quietly to themselves. They begin to walk away as active group walks away. I say, "Come come! Come draw!" Boys sit down while mom stands behind them. I explain the activity, showing pictures and point to paper and markers. The boys begin to draw on the paper. We talk a little while they draw, but the three of them talk together more. Mom points to the images, to their drawings, and asks questions that the boys respond to.

What strategies worked well to accomplish your goals?

The various visuals, hands-on activity, ability to engage without facilitator helped the family participate in this process.

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

The conversation was not maintained as I could not converse with them as they knew.
 No other families came while I was working with them.

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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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 form



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 lessons learned.

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



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 (i.e. NanoDays, floor programming, after-school program, summer camp, family workshop, modify a current activity or program).
Please keep a copy for your records.

Action (see examples above)	Target Audience Spanish speaking, bilingual, multi-lingual, families, school-groups...	Resources Which NISE Net or outside resources do you plan to use?	Partnerships Who are some potential collaborators and community partners?	Timeframe Approximately when do you plan to implement?	Challenges What concerns do you have?



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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 2nd, 10am PST/1pmEST
- Nano Show and Tell: Nano in Consumer Products- Wednesday, July 7th, 10am PST/1pm EST
- Mini-Grants 2014 Brainstorming and Guidelines- Tuesday, August 13th, 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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