Museum Visitor Studies, Evaluation & Audience Research

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Program Evaluation

School Programs

Prepared for
The Frederick A.O. Schwarz Children's Center at the
Museum of the City of New York

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EXECUTIVE SUMMARY

This report presents the findings of audience research conducted by Randi Korn & Associates, Inc. (RK&A), for The Frederick A. O. Children's Center at the Museum of the City of New York (MCNY). The research explores the degree to which three school programs—Traveling through Time, Leave it to the Beavers, and The Grid—meet their objectives and reveals strengths and weaknesses of the programming. This summary provides a sketch of the school programs. Please review the body of the report for more thorough coverage of the topics introduced here.

PRINCIPAL FINDINGS: OBSERVATIONS

Five 2nd grade classrooms and four 4th grade classrooms were observed. On average, classrooms included 11 girls and 10 boys.

PROGRAM DELIVERY

Throughout the programs, Museum Educators skillfully asked open-ended questions to lead and guide the delivery of content specific to each program. Observations showed that Museum Educators never lectured or asked dichotomous questions, and rarely asked close-ended questions. However, observations show that Museum Educators did not use adequate wait time between posing a question and calling on students.

The use of objects and primary source materials was a significant and rich aspect of all the programs. Museum Educators used objects effectively to drive content, and in all the programs, they used inquiry to help students exercise their observation and critical thinking skills.

Imaginative thinking and role-playing helped students think creatively and immerse themselves in the past, especially in Leave it to the Beavers.

Museum Educators were highly effective in managing classrooms during each 90-minute program, and all the observations demonstrated that they created a comfortable and engaging environment for students.

PROGRAM CONTENT

Museum Educators covered one-half to three-quarters of the content meant to be conveyed in Traveling through Time. The first part of this program, which usually began with a question about exploration, tended to focus on Henry Hudson, the Dutch, and the foundation of New Amsterdam. All the educators discussed daily life in New Amsterdam to a great extent.

Museum Educators covered one-third to one-half of the content meant to be conveyed in Leave it to the Beavers. The first part of this program usually began with a question about exploration and a discussion of what is trade, with an emphasis on trade that occurred between the Dutch and the Lenape.

Museum Educators covered most of the content meant to be conveyed in The Grid. The program began with a discussion of what is urban planning and why it is important (community needs), and emphasized zoning.

STUDENT RESPONSE

Observations showed that students were overwhelmingly excited and engaged throughout all the programs. No students were observed to be completely off task or disengaged. Students' participation in the programs was constant, with students answering and asking questions.

TAKE-AWAY ACTIVITY AND SUMMARY

The Take-Away Activity for each program—which is intended to assess students' learning and help them make connections among the past, present, and future—was inconsistent in its delivery and effectiveness. For the most part, the activities in Traveling through Time and Leave it to the Beavers were least successful, with neither serving as a true assessment nor making explicit connections among the past, present, and future. The Grid activity effectively assessed student learning, including ideas of urban planning, community needs, and zoning.

Educators' program summaries were inconsistent and even nonexistent in some cases, simply because they ran out of time.

PRINCIPAL FINDINGS: CLASSROOM TEACHER INTERVIEWS

All the classroom teachers said planning a trip to MCNY was easy and that they chose the program they did because of its direct connection to their curriculum.

Classroom teachers were satisfied with the programs' explicit connection to their history curriculum, and with the object-based and inquiry teaching methods Educators used in the programs. Several teachers mentioned that Museum staff and Educators helped create a positive program because of their obvious enthusiasm for the subject and teaching skills.

All the classroom teachers said the program positively impacted students. Most said that their students had been studying much of the same content in class, and the program had brought the subject to life and reinforced what they already knew or learned in class. Teachers said the open-ended questions allowed students of all abilities to participate. And some teachers said that the inquiry-based strategy would influence students' critical thinking skills.

Most teachers said they planned to do some kind of follow-up activity, and all teachers said they would return to the MCNY with their students.

PRINCIPAL FINDINGS: STAFF INTERVIEWS

RK&A conducted telephone interviews with four MCNY staff—three Museum Educators and one education administrator.

Staff said the goal of the school programs is to teach New York City history in line with school curriculum, and, more specifically, to help the students see how they fit into that history.

All the staff said that the programs are effective because they are highly interactive and hands-on.

All three educators said the main weakness of the programs is that they are heavily weighted toward the European perspective of early New York history and unbalanced in regard to the American Indian story. The educators said that part of the problem is that the Museum does not have the collection to support the American Indian point of view.

Staff said these programs allow students to learn in a fun and exciting way, and the object-oriented programs access multiple learning styles and helps makes history real for students.

Staff said Traveling through Time gives students a very good understanding of a specific time in early New York history. All three educators said the primary weakness of Traveling through Time is that it is Eurocentric.

Staff said Leave it to the Beavers' greatest strength is that it includes a concrete, focused role-playing activity that allows students to come to their own understanding of trade inequities between the Lenape and the Dutch. A couple of staff said the greatest weakness of the program is that the Museum does not have enough artifacts or information to tell the Lenape side of the story. Other staff said that the program is inconsistent in the way it jumps over a couple of centuries from the trade story to that of ships and navigation.

Staff said they like that The Grid is concrete and focused, and said they believe students truly come to understand urban planning and zoning as a result. All the staff said that The Grid's greatest weakness is that it is confined to a classroom space and that students do not visit the galleries.

When asked specifically whether covering all the content in the allotted time was a challenge, three of the staff said that because they adapt each program to the learning strengths of the students, each program takes a life of its own. As a result, not all the content can be covered in 90 minutes.

Two staff noted that the Traveling through Time and Leave it to the Beavers Take-Away Activities lack meaningful connections to the respective programs overall.

DISCUSSION

RK&A designed the program evaluation of MCNY school programs to use evaluation as a learning tool rather than a judgment tool. The evaluation took a close look at how the programs are implemented to make program improvements. The process began with two meetings in which the evaluator invited staff to reflect on the programs, questioned staff to articulate concrete objectives, and encouraged them to seek clarity about the program. Institutions are not often willing to do this kind of upfront work, as many do not understand its value. MCNY should be commended for entering into and continuing this reflective process.

This discussion is organized into two sections: first, a presentation of the programs' greatest strengths; and, second, a presentation of the programs' challenges. These two sections are followed by recommendations for program improvement.

PROGRAM STRENGTHS

By and large, the greatest strength of MCNY school programs is the method of delivery that Museum Educators used. Observation after observation demonstrated that the programs were dynamic, student-centered, interactive, object-based, and exciting. Educators led students from activity to activity, shifting gears from one idea to the next, all while maintaining a constant dialogue with each other. Through open-ended questioning and the use of objects and artifacts designed to make students think critically, Museum Educators helped students construct knowledge for themselves. Educators were rarely observed lecturing, asking close-ended questions, or simply telling students information. Remarkably, all the observations showed that nearly all the students were focused and engaged throughout each 90-minute program. Classroom teachers confirmed this finding in interviews. This finding is especially notable when one considers that RK&A has found in evaluations of similar museum programs that teachers and students often complain that programs are boring and not student-centered (RK&A, 1997; RK&A, 2004).

Obviously, the Museum's Educators are well trained, highly experienced, and excited about what they do. Because they are on the staff of MCNY rather than freelancers or volunteers (which is often the case in museum programs and tours), they are invested and committed to the programs. Not only do the educators lead the programs, but they help to create and shape the nature of the programs. Additionally, all the educators, when interviewed, explained the programs' goals similarly, indicating a cohesive staff and well-articulated programming. While this may sound like obvious traits for museum programs, program evaluations in other museums have found that staff often have disjointed and disconnected understandings of what a program is about and meant to accomplish, which, not surprisingly, results in numerous problems.

Because the programs are implemented in the manner described above, they likely have a strong impact on students. Engaged, involved students probably leave a program with new or more ingrained understandings of the material and an affinity for museum experiences. What also seems evident is that students of varying abilities and strengths are benefiting. As staff and classroom teachers explained, the programs' interactive nature seems to especially impact students who are more challenged in a traditional classroom setting. Because the programs are highly visual, tactile, and immersive, they are more accessible to students who learn best in these kinds of alternative learning environments.

As stated above, it is notable that students were so engaged and focused during the programs. Furthermore, student behavior was excellent; the worst discipline problem was that students became overly excited and rambunctious at times; but in all cases, responded immediately when the educator or classroom teacher reminded them of the acceptable rules of behavior. One explanation for students' excellent behavior is that Museum Educators provided students with an advanced organizer of museum behavior as soon as they arrived. Using the same open-ended strategies as in the rest of the program, educators began each program with a discussion of appropriate museum behavior. Providing students and teachers with this information is top priority at MCNY, and as other studies have shown, students' experiences are most positive when they are informed about field trip logistics (Bitgood, 1993; Bailey, 2000).

Finally, another strength of MCNY school programs is that they match New York school curricula, particularly at the second- and fourth-grade levels. A primary objective of MCNY programs is to convey concrete information about New York history, and it is clear that classroom teachers expect and appreciate this aspect of the programs greatly. In fact, teachers in other similar studies conducted by RK&A stressed that the main deciding factor for taking a field trip to a museum is whether the museum's offerings align with their curriculum (RK&A, 2001; 2002a; and RK&A, 2004). Having the museum visit connect with the curriculum is important to teachers because they need to justify taking students on a field trip, and they look for ways to reinforce and expand what they are teaching students in class. Not all the intended content was covered in all the tours, especially in Traveling through Time and Leave it to the Beavers; however, the big ideas of the history relevant to each program were integrated, while some of the less common historical information was left out (which, is actually a program challenge and will be discussed below). Nevertheless, no teachers complained of missing historical information or expressed a desire for different content.

PROGRAM CHALLENGES

One challenge of the programs is the content itself, particularly for Leave it to the Beavers and Traveling through Time. The content is challenging in two ways. First, the programs demand that a great deal of relatively specific historical content be covered in 90 minutes and that the information be tailored to the age group and learning styles of students in participating classrooms. Second, the content is heavily weighted from the European perspective, resulting in an uneven telling of history. For the most part, omissions in the information were not readily noticeable and did not impact the overall flow of the programs. Further, as stated previously, teachers did not express any concerns about the content, and, in fact, were thrilled by how well it complemented their curriculum. Nevertheless, in interviews, Museum Educators talked at length about their concerns that the programs are too Eurocentric, and observations show that in comparison to what is *intended* to be covered in the program, only about one-half to three-quarters was covered.

This content challenge is tricky, and one that MCNY staff must wrestle with. On the one hand, one would be loathe to sacrifice the student-centered, interactive nature of the programs by squeezing in more information. Yet one would also not want to shortchange or oversimplify the complicated, multifaceted histories told in the program. As staff pointed out, one solution may be to enlarge the collection of artifacts and objects used in the programs to include more representations of the Lenape, women, African-Americans, and any other historical information. This may allow the programs to preserve their dynamism, while increasing the amount of information covered. On the other hand, the programs will continue to run for 90 minutes, and there is only so much that can be done in that time.

A challenge that may be related to covering a great deal of content within a limited time is that the programs tend to be dominated by the Museum Educators. Even though the programs were undoubtedly interactive and students were verbally and physically engaged throughout, the educators did most of the talking, particularly in Traveling through Time. Occasionally, particularly in the last half hour of the programs, the program's pace picked up quickly as educators attempted to get through everything planned. As this happened, there were fewer opportunities for students to participate. Also, time for student reflection and summary was often not available at the end of the program. In fact, in a couple of cases, educators resorted to close-ended questions for a quick summary.

Finally, the Take-Away Activities at the end of the program, which are intended to provide students a hands-on activity and serve as student assessment, did not truly accomplish the latter. Particularly in the case of Traveling through Time and Leave it to the Beavers, the Take-Away activity seems more like an only slightly connected, add-on activity. Most staff agreed, but stressed that it is important to give students a chance to make something to take home. Observations confirmed that students enjoyed the Take Away-Activity and seemed excited to have a memento of their visit. Nevertheless, the Take-Away Activity has the potential to be more than it is. For example, the Take-Away activity for The Grid incorporates an assessment piece by having students discuss the implications of their buildings and where they placed them on the large floor grid—students can have this discussion precisely because of what they have just learned in the program.

RECOMMENDATIONS

- Staff need to come to terms with and reach consensus on the range of content to be covered in each program and be realistic about what is possible. For instance, consider narrowing the focus of and timeline covered in Traveling through Time and Leave it to the Beavers.
- Consider integrating more artifacts representative of the Lenape, women, and the enslaved population.
- Slow down the pace of the gallery programs to allow more time for student discussion and reflection.
- Build in a discussion question for each Take-Away activity to encourage students to make connections between what they have made and what they have learned—in a way, each student's Take-Away product should serve as another object through which to explore the content. Announce the discussion question before students begin working on their projects and repeat it when students are finished. Allow about 10 minutes for discussion after the students have completed their projects. This discussion may also serve as the program's summary.

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INTRODUCTION

This report presents the findings of audience research conducted by Randi Korn & Associates, Inc. (RK&A), for The Frederick A. O. Children's Center at the Museum of the City of New York (MCNY). The research explores the degree to which three school programs—Traveling through Time, Leave it to the Beavers, and The Grid—meet their objectives as well as reveals strengths and weaknesses of the programming.

The objectives of this study are to identify:

- Strengths and weaknesses of the programs;
- Challenges of the programs;
- What Museum Educators and staff perceive to be the program goals and objectives and the degree to which they believe they are realistic/being achieved;
- What Museum Educators and classroom teachers perceive to be the cognitive and affective impacts
 of the programs on students (including the Take Away Activity);
- Differences in the programs in terms of how they function and what factors contribute to those differences; and,
- Recommendations for improving the programs.

METHODOLOGY

Currently the school programs are varied and target a broad age range. Rather than evaluate all the programs at all grade levels, RK&A targeted three programs (two gallery experiences and one independent program) and two grade levels, 2nd grade and 4th grade, because these grades' curricula include New York history. The programs assessed included Traveling through Time, Leave it to the Beavers, and The Grid.

The first step in the evaluation was a meeting between RK&A, MCNY Frederick A.O. Schwarz Children's Center staff, and Museum Educators. In this meeting, RK&A facilitated an in-depth discussion of the school programs (focusing on the content areas and grade levels targeted in this evaluation). The goal of the meeting was to understand the programs' goals, objectives, and challenges in concrete terms. From the meeting, RK&A developed "criteria" of effective programming (see Appendix A) as well as a list of challenges, all of which guided the development of observation and interview protocols and served as a gauge against which to assess the data that was collected.

To accomplish the stated objectives, RK&A conducted observations and interviews.

OBSERVATIONS

RK&A used observations to gauge the extent to which programs met their objectives (as outlined in the

Criteria of Effectiveness in Appendix A) and to identify their strengths and weaknesses. Observing how students and program implementers interact and work together in the program provides an objective account of behaviors and practices and helps uncover the most successful and least successful aspects of a program from a procedural/behavioral perspective.

RK&A observed nine programs.

IN-DEPTH INTERVIEWS

RK&A used open-ended exit interviews to explore classroom teacher and staff perceptions of the school programs. Open-ended interviews encourage and motivate interviewees to describe their experiences, express their opinions and feelings, and share with the interviewer the meaning they construct from an experience. Open-ended interviews produce data rich in information because interviewees talk about their personal experiences. The interview guide was intentionally open-ended to allow interviewees the freedom to discuss what they felt was meaningful (see Appendix B for the interview guides).

Upon completion of each observed program, RK&A interviewed classroom teachers about their experiences. At the end of the 2006-07 school year, RK&A interviewed education staff by telephone about their experiences. Staff interviews were audio-recorded with participants' permission and transcribed to facilitate analysis.

DATA ANALYSIS

QUALITATIVE ANALYSIS

The interviews and observations were qualitative, meaning that results are descriptive. In analyzing qualitative data, the evaluator studies the data for meaningful patterns and trends, and, as patterns and trends emerge, groups similar responses. Quotations in this report illustrate interviewees' thoughts and ideas as fully as possible.

REPORTING METHOD

The observation and interview data are presented in narrative. Interviewees' verbatim quotations (edited for clarity) are included. Trends and themes in the interview data are presented from most to least frequently occurring.

PRINCIPAL FINDINGS: OBSERVATIONS

From January 2006 to June 2007, nine 90-minute school programs were observed, including four Traveling through Time programs (two 2nd grade and two 4th grade classrooms), three Leave it to the Beavers programs (two 2nd grade and one 4th grade classroom), and two The Grid programs (one 2nd grade and one 4th grade classrooms).

This section examines the observation data within the context of the framework of the Criteria of Effectiveness (see Appendix A). Importantly, the following examination does not provide a comprehensive assessment of MCNY school programs; rather it offers a snapshot of the program's strengths and weaknesses based on the experiences of nine 2nd and 4th grade classrooms.

CLASSROOM CHARACTERISTICS

Of the nine classroom programs observed, all represented urban schools, one of which was a private school and the others public schools. The evaluator observed five 2nd grade classrooms and four 4th grade classrooms, and, on average, classrooms included 11 girls and 10 boys. Five Museum Educators were represented among the nine observations.

PROGRAM DELIVERY

USE OF QUESTIONS

Observations demonstrated that questioning, particularly open-ended questioning, was the teaching strategy used most frequently to guide programs. Most programs began with an open-ended question—first upon greeting the students with questions such as, "Why go to a museum?" and then as an entry point into the program's content, such as, "What does it mean to explore?"

Throughout the programs, Museum Educators skillfully asked open-ended questions to lead and guide the delivery of content specific to each program. For instance, in Traveling through Time, one Museum Educator asked students, "what would Henry Hudson have seen upon discovering New York?" as a starting point for discussing early interactions between Europeans and native peoples of New York. In another program, a Museum Educator asked students, "Why did so many Lenape families live together in a Longhouse?" to help students consider the communal nature of the Lenape versus the more individualistic nature of the Europeans.

Observations showed that in the majority of cases, educators gave many students an opportunity to respond to open-ended questions. Nevertheless, in some programs, and especially toward the middle to end of some programs, the Museum Educator called on fewer and fewer students and gave less and less time. In one instance, a Museum Educator leading Leave it to the Beavers was trying so hard to move through content that she began answering her own questions. Additionally, observations show that Museum Educators did not use adequate wait time in between posing a question and calling on students. Except occasionally when Museum Educators asked students to look closely at an object or map, the pace of the programs was fast and left little time for pauses or reflection.

Though students had more than enough opportunities to respond to questions and ask their own questions, Museum Educators rarely allowed a student to take the discussion into an unplanned direction, unless of course it was appropriate and valuable. For instance, in one Leave it to the Beavers program a student asked the Museum Educator, "how do you know all this stuff?" The educator used the question as an opportunity to discuss the museum's role in collecting and interpreting artifacts and primary source documents. Nevertheless, in one Grid program, a particularly gifted group of students had so many ideas that the educator had a difficult time keeping them on track.

Observations showed that Museum Educators never lectured or asked yes/no questions, and rarely asked close-ended questions. When educators did use close-ended questions it was to quiz students at the end of the program. For instance, at the end of one Traveling through Time program the educator quickly called out a series of questions such as, "Who moved to America?" and "What was this place first called?" as students were preparing to leave.

USE OF OBJECTS AND PRIMARY SOURCE MATERIALS

Observations demonstrated that the use of objects and primary source materials was a significant and rich aspect of all programs. The programs used maps (both traditional two-dimensional paper maps and three-dimensional topographical maps), globes, timelines, illustrations, artifacts that could be held and manipulated, artifacts or replicas in cases or contextualized within diorama, photographs, and more. Museum Educators skillfully integrated objects within the programs, either to illustrate a point or to guide students toward new understandings.

Museum Educators also used maps and other objects effectively to drive content. For instance, observing maps helped students understand why New York became a center for trade (for instance, in Leave it to the Beavers, students came to understand that New York was ideally situated for trade because of the water surrounding it). In all programs, comparison of maps from different time periods helped students recognize changes over time. As another example, in The Grid, the educator used modern photographs of Manhattan to help students see and appreciate urban planning.

In all the programs, Museum Educators used inquiry to help students exercise their observation and critical thinking skills. Educators made statements like, "look closely, and then look again." They asked students, "What do you see?" and "What does that tell you?" as students looked at maps, dioramas, or manipulated individual objects. Educators asked students to hypothesize about why things looked as they did. For instance, in Traveling through Time, an educator asked students to consider why the door to the Dutch home was divided in two, leading to a discussion of early New Amsterdam domestic life.

Though a critical and successful aspect of all the programs, occasionally the use of objects and inquiry did not move the content forward. For instance, in one Leave it to the Beavers program, the details of one image of the Dutch and the Lenape trading were emphasized so greatly that not enough time was left to cover specific content. And a few times, the use of objects seemed arbitrary and not integrated into the program.

USE OF ROLE-PLAYING AND IMAGINATIVE THINKING

Observations showed that imaginative thinking helped students think creatively and immerse themselves in the past. In nearly all the object lesson portions of Leave it to the Beavers and Traveling Through Time, students were asked to imagine what it was like to live in the 1600s or 1800s as they examined the objects. For instance, to help students identify the bed warmer, the Museum Educator asked students to close their eyes and imagine how cold the beds would have been in the winter. Nevertheless, in a

couple of instances, Museum Educators seemed so hurried to move through content that they did not encourage students to slow down and "imagine."

To a lesser extent, the programs integrated role-playing activities. For the most part, Traveling Through Time did not include any explicit role-playing. Leave it to the Beavers included one very successful role-playing activity in which students acted out the roles of the Dutch and the Lenape trading to illustrate language and communication barriers. The activity was extremely effective in generating a discussion about fair trade and the relative usefulness of objects to one group of people versus another. The Grid used role-playing in a less explicit way, by asking a group of volunteer students to pretend to be a particular type of building and identify a spot to stand on a large floor grid. The activity was full-body, fun, and useful in illustrating the importance of urban planning (especially when six students were asked to share one city block).

STUDENT MANAGEMENT

Observations indicated that Museum Educators were highly effective in managing classrooms during each 90-minute program. The first few minutes of each program was devoted to a discussion of museum rules—no touching, quiet voice, and raising hands before speaking. Because each gallery program required students to change locations several times and switch from sitting, to standing, to walking—all while sharing space with walk-in visitors—this overview of rules proved essential. Museum Educators skillfully moved students from whole group to small group activities as appropriate. However, during about one-half of the observations, students grew increasingly fidgety and noisy toward the end of the program.

All observations demonstrated that Museum Educators created an environment where students felt comfortable and engaged. Museum Educators maintained an upbeat, friendly tone and said, "fabulous," "that's great," and "Yes!" in response to students' comments. When students became loud or forgot to raise their hands, Museum Educators gave them friendly reminders. Occasionally, students' boisterousness seemed to surprise or irritate other walk-in visitors, particularly in the room of dioramas where acoustics were poor.

PROGRAM CONTENT

TRAVELING THROUGH TIME

Observations showed that Museum Educators covered one-half to three-quarters of the content meant to be conveyed in Traveling through Time. The first part of this program, which usually began with a question about exploration, tended to focus on Henry Hudson, the Dutch, and the foundation of New Amsterdam. In most cases, students appeared to be familiar with this information. All the Museum Educators then moved into a discussion of Hudson's interactions with the Lenape and the subsequent beaver trading that occurred (students seemed less familiar with this information). The extent of the information conveyed about the Lenape varied from observation to observation, with at least one educator placing great emphasis on the Lenape.

All the educators discussed daily life in New Amsterdam to a great extent, especially during the object lesson and diorama discussion. Emphasis was placed on fires, collecting water, animals, and the general environment of the early settlement. Educators used close observations of maps to convey the way New York changed visually over time. No educators discussed women's roles in particular, and only one briefly mentioned slavery.

Only one educator mentioned, but did not emphasize, the Dutch West India Company and Peter Stuyvesant. Toward the end of the 90-minute program, educators brought up interactions between the Dutch and English and the subsequent change from New Amsterdam to New York. However, because this happened at the end of the program, when little time remained, this content area was glossed over.

LEAVE IT TO THE BEAVERS

Observations showed that Museum Educators covered one-third to one-half of the content meant to be conveyed in Leave it to the Beavers. The first part of this program usually began with a question about exploration and a discussion of what is trade, with students talking about their own experience with trading. The majority of the program emphasized trading that occurred between the Dutch and the Lenape, particularly what constituted fair trade (through the role-playing activity) given the needs of each community (metal products versus natural resources). The program also covered content about New York City's geography and why it was suited for trade.

The Leave it to Beaver programs observed did not cover the Dutch West India Company (by name), the growth of the New York City waterfront, trade's role in shaping New York City's diversity, the slave trade, the Erie Canal, or a comparison between trade in 1800s New York versus today's New York. The concept of advertising and its role in trade was only discussed as an introduction to the Clipper Ship Take-Away Activity.

THE GRID

Observations showed that Museum Educators covered most of the content meant to be conveyed in The Grid. The program began with a discussion of what is urban planning and why it is important (community needs), through student brainstorming. The program then briefly covered the history of New York City's grid system (though the 1811 Randall survey was not mentioned), with comparisons between maps of modern Manhattan and older versions. The majority of The Grid focused on zoning—both what it is and why it is important—with students breaking into groups by zones to generate a list of buildings found in their zones and then completing a Take-Away Activity about zones. Though the discussion integrated ideas and information about the communities of students not from Manhattan, the floor grid represented Manhattan exclusively.

STUDENT RESPONSE

Observations showed that students were overwhelmingly excited and engaged from the beginning to the end of all the programs. No students were observed to be completely off task or disengaged. To begin, students excitedly lined up and answered educators' questions about why to visit museums and how to behave. Once the program began, students sat with bodies eagerly poised to look at and handle objects, to raise hands and answer questions, and to listen to the educator. During object lessons, role playing, and other opportunities to become physically involved with the subject (such as with the large floor grid), students enthusiastically volunteered and participated. In most cases, students became a bit boisterous toward the end of the program, but even then, it appeared to be a result of their excitement about the program.

Students were remarkably well-behaved, especially considering that they had to sit for long stretches of time and shift gears occasionally from large group to small groups and from one gallery to another. Even when they forgot to raise their hands or became too noisy, they responded quickly to reminders.

Students' participation in the programs was constant, with students answering and asking questions. Students seemed familiar with much of the content of the programs, especially Henry Hudson, and eager to share what they knew. For the most part, all students participated to some degree, with some more verbal than others. The small group activities gave the shy, quiet students an opportunity to speak. Some students asked complex, interesting questions, such as the student in Traveling through Time who asked, in reference to the historic topographical map, "How do we know New Amsterdam looked like that?"

TAKE-AWAY ACTIVITY AND SUMMARY

The Take-Away Activity for each program, which is intended to assess students' learning and help them make connections between the past, present, and future, was inconsistent in its delivery and effectiveness. The amount of time devoted to the Take-Away Activity varied considerably, from less than 10 minutes in one case (Traveling through Time) to almost 30 minutes in another (The Grid). In most cases, especially the gallery programs, the Take-Away Activity seemed like an add-on and not something integrated with the rest of the program. Nevertheless, students appeared engaged and excited by the opportunity to make something.

In Traveling through Time, students were introduced to Dutch delft tiles when looking at the Dutch residency diorama at the end of the program. In each program, the educator explained that by looking at the tiles today we can learn about Dutch life in New Amsterdam 400 years ago. The educators told students they would make their own tiles using paper and markers. In three programs, students were asked to draw what they like, and in one program, students were told to draw something they had learned about Dutch life. Only one program referred to the Take-Away Activity as the creation of an "artifact" that people 400 years from now could find and learn from. The delft tile activity made little or no connections between the past, present, and future. Only the program that asked students to draw something they learned of Dutch life served as any kind of assessment. Only one program included time for students to show and talk about their tiles.

In Leave it to the Beavers, students drew an advertising Clipper ship. The activity involved drawing and naming a ship and deciding what to trade. Though the program was about trade, advertising had not been specifically discussed, and thus the activity seemed disconnected. In two programs, students were asked to draw something that would be traded today, and in one program, students were told to draw something that would have been traded in the 1800s. None of the programs referred to the Take-Away Activity as the creation of an "artifact," and made little or no connections between the past, present, and future. Even though the program did not serve as an assessment, students were, for the most part, engaged, and created well-designed products.

In The Grid, students created buildings representing their zones and then as a group placed their buildings on the large floor grid, discussing whether their placement was good urban planning. In this activity, the buildings were not referred to as artifacts and there was no explicit connection made between past, present, and future. Nevertheless, the activity effectively assessed student learning, including ideas of urban planning, community needs, and zoning. In both programs observed, adequate time was set aside for the activity—about 20 to 25 minutes.

Like the Take-Away Activities, program summaries were inconsistent and even nonexistent in some cases, simply because educators ran out of time. Of nine programs observed, four did not include a summary. In two of the programs, one Traveling through Time and one The Grid, Museum Educators quickly asked students some close-ended questions as the students assembled to leave. In the other

three programs, all Leave it to the Beavers, the Museum Educator effectively integrated a summary either at the end or throughout the program (by pausing occasionally to ask what students had learned thus far).

PRINCIPAL FINDINGS: CLASSROOMTEACHER INTERVIEWS

From January 2006 to June 2007, nine classroom teachers were interviewed immediately following their students' participation in a MCNY school program.

PLANNING A TRIP TO MCNY

All the classroom teachers said planning a trip to MCNY was easy. For the most part, the schools' coordinator, not individual teachers, made all the arrangements. The only complaint about the planning process was that one teacher wished she had received a receipt of payment.

All teachers said they chose the program they did because of its direct connection to their curriculum.

OVERALL OPINION OF PROGRAM

Classroom teachers expressed satisfaction with the programs' explicit connection to their history curriculum. They described the connection as "perfect" and "spot on." One teacher said the program reinforced months of learning in the classroom, and a couple teachers said the program served as a review for their standardized test.

Classroom teachers were equally happy with the object-based and inquiry teaching methods used in the programs, and appreciated that the program did not include any lecturing. They described the programs as "hands-on," "student-centered," and "child-friendly." One teacher said it was the most hands-on museum program she had ever been to. They appreciated that students manipulated objects, participated in role-playing, and compared and contrasted primary source documents, like maps.

Several teachers mentioned that the staff and Museum Educators helped make the program positive because of their obvious enthusiasm for the subject and teaching.

Regarding improving the program, teachers' comments were idiosyncratic and included: the need for a lunchroom; the need for Museum Educators to use longer wait time in between asking questions and taking answers from students; a more suitable place for the hands-on activity, such as a table; clearer signage for entering the building; a more direct connection between the Clipper Ship activity and the content; no construction noise during the program; and less time sitting in The Grid.

PERCEIVED STUDENT IMPACT

All the classroom teachers said they felt the program positively impacted students. Most said

that their students had been studying much of the same content in class, and the program had brought the subject to life and reinforced what they already knew or learned in class. One teacher said that by seeing and touching what they had read about and studied in class, students would retain and understand the information better.

All the teachers commented on their students' enthusiasm and intense concentration during the program. Some were impressed to see such a high level of participation from their students, commenting on their ability to answer and ask questions. Teachers said the open-ended questions allowed students of all abilities to participate. And some teachers said that the inquiry-based strategy would influence students' critical thinking skills.

Most teachers did not comment on specific content they believed their students to have learned. However, one teacher, whose students attended The Grid, said her students learned about the importance of planning in general, and urban planning specifically. Another teacher whose students attended Traveling through Time said her students would have likely learned about the Dutch influence on New York City.

FOLLOW-UP

Most of the teachers said they planned to do some kind of follow-up activity. Their ideas included: building a mini city like in The Grid; building a neighborhood landmark to place on a city grid; creating a fake fireplace to display the students' delft tiles; writing a report about New York City history; doing an activity related to Wall Street and trade, and conducting a cumulative review of the content before standardized testing.

All the teachers said they would bring students back to another program at MCNY.

PRINCIPAL FINDINGS: EDUCATION STAFF INTERVIEWS

RK&A conducted telephone interviews with three MCNY Museum Educators and one education administrator.

GOALS AND OBJECTIVES

When asked to cite the goals and objectives of the school tours, MCNY staff offered consistent answers. Staff said the goal is to teach New York City history in line with school curriculum, and, more specifically, to help students see how they fit into that history (see the two quotations below). A couple of educators also said a goal is to create lifelong museumgoers (see the second quotation).

[The goal is] educating a population of New York City school children about their own City history and making them aware of their surroundings and the roots of the City's history and how they fit into that history as well. But also helping them learn information in history that they'll be tested on in school. I know a lot of our programs meet the school standards.

[The goal is] relating historical content so that our students feel ownership of New York history both in the past and now. And the second is creating lifelong museumgoers out of both the teachers and the students.

PROGRAM STRENGTHS

When asked about the programs' strengths, the staff provided similar answers. They all said that the programs are effective because they are highly interactive and hands-on (see the two quotations below). Staff mentioned that the programs promote a lively dialogue between students and educators, that students have the opportunity to touch and/or interpret objects and primary source documents, and, in all the programs, students do a craft activity that they can take home.

There are questions and answers, discussion, class participation, hands-on time, and a project. I think that each of those is important and all the programs have those components to some degree.

I think what's really wonderful about these programs is that they're so hands-on and the students always end the program by making a project and thinking about what they learned so that they're not just thinking of history in that dry sort of manner.

PROGRAM WEAKNESSES

When asked to name weaknesses of the programs, the three educators gave nearly identical answers, while the administrator gave a different response. All three educators said that the programs are heavily weighted toward the European perspective of early New York history and unbalanced in regard to the

American Indian story (see the quotation below). The educators said that part of the problem is that the Museum does not have the collection to support the point of view of the American Indian. The administrator said a weakness of the program is ensuring the educators are consistent in their presentation of the material, but also free to tailor the program to the needs of students.

I would say 90% of our programs are supposed to be a sort of shared history of European interaction with American Indians. You can't talk about it in a one-sided way. I think that these programs are very one-sided. I'm not saying there's a fact that's wrong. It's omission and commission, and these programs are guilty of an omission.

IMPACT ON STUDENTS

Staff offered similar responses when explaining how they believed the programs impacted students. They said students learn in a fun and exciting way, and the object-oriented programs access multiple learning styles and helps makes history real for students (see the quotation below). One educator said the programs give students who might not do well in a traditional classroom setting the chance to shine (see the second quotation).

They get hands-on time with historical reproduction objects and they always really enjoy that. We say that students learn in all different ways. Some students might learn from me speaking about what the interior of a Dutch house looked like, but then others really get to learn from and hold the bed warmer and look at it.

Students take on roles in the classroom where, like a student who may be very challenged may become used to being treated a certain way. And by coming to a museum, it gives students a fresh start to learn and interact differently with their teachers and classmates.

TRAVELING THROUGH TIME

All the staff said Traveling through Time gives students a very good understanding of a specific time in early New York history. They said that, as much as possible, the program provides students with multiple perspectives of those early years and helps students formulate their own conclusions (see the first quotation below). One educator said the program makes early New York history relevant to students by comparing it to contemporary times (see the second quotation).

It covers a very small period of time and it tries really hard to enforce some empathy for the American Indians and the European encounter. We don't try and sugarcoat things. We don't think that you come out flatly and say, 'Well, the land was stolen.' We try to present the facts and help the kids to come up with their own conclusions.

The problem is how to teach history in a way that makes it relevant. So Traveling through Time takes into account the way our City is structured now and allows us to go back to think about the things that we find so necessary in our own contemporary cultures and talk about that. Something that I always stress with students is that the necessities have always remained the same, but the technologies have changed.

All three educators said the greatest weakness of Traveling through Time is that it is Eurocentric. Again, educators said this is mostly because the Museum's collection does not support the American Indians' or other minorities' perspective (see the quotation below). The administrator said the program's greatest weakness is that it requires a lot of information to be covered in a short time.

There is a little bit on the Lenape Indians. There is very little on the early African population, the enslaved people, and there is basically nothing on women. It's interesting because the question becomes, 'How do you teach about something that you can't point to?' So we tell stories and maybe that's the solution, finding out more anecdotes.

LEAVE IT TO THE BEAVERS

Staff said Leave it to the Beavers' greatest strength is that includes a concrete, focused role-playing activity that allows students to come to their own understanding of trade inequities between the Lenape and Dutch and how that impacted the way New York City developed (see the quotation below).

The program is based on a concept rather than just going through a chronology. It's more in line with the way I think about things. It's great to have a program that focuses on the concept of trade and seeing how that affected the City's history and how trade in the City changed over time as well.

A couple of staff said the greatest weakness of Leave it to the Beavers is that the Museum does not have enough artifacts or information to tell the Lenape side of the story (see the first quotation). As a result, they said the story of the Lenape is not as fully developed as that of the Europeans. Other staff said that the program inconsistently jumps over a couple of centuries from the trade story to that of ships and navigation (see the second quotation).

How do we effectively describe what happened when we don't actually know, when all we have is a factual sketch of things that were exchanged? This is a really big issue. The sale of Manhattan is often described as an unfair transaction because the Lenape didn't have the concept of ownership that the Dutch did. But the truth is that we don't actually know what their transaction of the trade or the sale was.

All of a sudden, we go to the second room, and we jump through some centuries and show them ships from the 1700s and 1800s and then the clipper cards, and that jumps ahead some years, so it's kind of inconsistent with what we've been focusing on for the most part in the lesson.

THE GRID

All the staff expressed immediate enthusiasm when asked about The Grid. They like that the program is concrete and focused—one educator referred to it as a workshop—and said they believe students truly come to understand urban planning and zoning as a result (see the quotations below).

[The Grid is] super fun. There's a lot of students getting up and acting out things. It has them take an in-depth look at the structure of their City now.

[Students] understand how New York evolved, but also for their own lives, students think about why planning is important... they think about the layout of the city and what a city needs to function, that there has to be some kind of organization. They think about land use, and they learn about the five different zones in terms of commercial and institutional and parks and open spaces, industrial.

All the staff said that The Grid's greatest weakness is that it is confined to a classroom space and students do not visit the galleries. As a result, the students are relatively sedentary, except during the few opportunities to role-play (see the quotation below). Also, one educator said that although the program encourages students to think about the needs in their own communities, a program weakness is that the large floor represents Manhattan, and many of the students live in other boroughs or areas of New York.

As weaknesses, it'd be great to get the [students] moving a little bit more, and I do know that some of the educators do some movement activities with them.

TIME ISSUES

When asked specifically whether covering all the content in the allotted time was a challenge, three of the staff said that it was. All of them said that because they adapt each individual program to the learning strengths and curiosities of the students, each program takes a life of its own (see the quotation below). As a result, not all the content can be covered in the 90-minute time frame. One educator suggested that the program focus more narrowly on a specific time in history.

A challenge is that every class is different, and each student has a different understanding of the history that we're talking about. So first you have to spend some time assessing your group, what do they already know. You tell them what we're learning today, and there's no way to anticipate what questions or answers that deserve more discussion might crop up.

TAKE-AWAY ACTIVITIES

Two of the staff said that the Take-Away Activities are fine and do not present any challenges or problems. The other two staff noted that the Traveling through Time and Leave it to the Beavers Take-Away activities lack meaningful connections to the respective programs overall (see the two quotations below). One educator said she had found a way to make the Traveling through Time activity more connected.

The Beavers activity is the worst because we spent all this time talking about communication and trade and value and what's a fair trade, and then we move into the gallery and we look at the seaport. So a case of New York's always been about trading and there are commodities going back and forth, triangle trade, value of things, taxes, and then, 'Oh lookie, there are clipper cards.' These are advertisements for ships. So we went through all this history and we started at 1600, and now you're giving students markers and a piece of beige cardstock.

With Traveling through Time, I found a way to make a better connection with the activity at the

end. I know the problem is that some educators say the point of the Delft Tiles is that they tell stories about daily life. And some educators would ask the students to draw scenes from their own daily lives to kind of make a connection with today and how they see tiles in the past. I didn't find that to be useful. I've been having them draw scenes of what they thought daily life was from all that we talked about in the lesson. So I have them think about the objects that they got to touch, like the bed warmer, the candle maker, and I have them think about the Costello plan and what New Amsterdam actually looked like. I think that works really well. It allows the students to draw from their memories about what we talked about and I think it's effective.

APPENDICES