Evaluation of the Pop-Up Quiet Room

Family New Year’s Eve, 2019

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# Background

## General Background

 The quiet room is an accessibility space provided by a public institution to give individuals with different sensory needs a place to take a break. Often a space dedicated to the use, quiet rooms typically contain a number of activities and further supports to help guests better enjoy their visit. As a major part of museum sensory-friendly offerings that have developed in the last few years, quiet rooms have had many proponents and positive claims. However, very little has been published about their impact on patrons. Currently, the only available literature about quiet rooms is Lurio’s 2016 article, “Engaging Children with Autism at Historic Sites.” In this work, he describes what goes in a quiet room and what it should provide.[[1]](#footnote-1) However, he does not give any information on the actual use and evaluation of the quiet space.

 Unpublished, however, is the work of museums to include them. Conner Prairie has a number of quiet spaces, each equipped with their own sensory friendly equipment.[[2]](#footnote-2) These are permanent spaces with permanent supplies of supports. However, not every museum can regularly provide these or equal supports. The Chicago Children’s Museum, operating out of a rented space, has been unable to put in a quiet space despite significant effort on the part of staff.[[3]](#footnote-3) A solid solution, as devised by the Intrepid Museum in New York City, is to provide a pop-up quiet room. This is a room put together for special events, with sensory activities and enforced quiet.[[4]](#footnote-4) Being a museum with the primary exhibit space as an aircraft carrier, creating a permanent quiet space is difficult, and based on conversations with their staff it has been an effective solution, one which the Indiana State Museum has chosen to work with at this time.

## The Family New Year’s Eve Quiet Room

 The Family New Year’s Eve Quiet Room was set up in the Education Center behind the School 5 Façade. The quiet room itself consisted of a check in table with ear plugs and surveys, ran by the author of this report, and several activities. Activities included the sequin panels from Color of Style, Legos with frames, scratch art, wax twist-ties, and gak. These were intended to provide a number of sensory experiences. In addition, small soft seating from the Naturalist Lab, pool inflatables, and a large inflatable unicorn were provided to give a variety of seating options. An easel sign was placed outside the actual activity center, and a sign was placed inside the inner door’s holder to label the room, indicating that it was a quiet room. The near third of modular classroom space was designated as a non-public space and blocked off with temporary wall panels.

## Methods of Data Collection

 A variety of data was collected. First, the number of visitors was collected using a phone-based counter app. This allowed for easy collection of attendance. For this metric, only visitors who spent a significant amount of time in the room were counted; those who simply wanted to see what the room was or did not read the signs addressing a quiet room were left out. In addition, a decibel reading app was used to determine the noise levels in the quiet room and the museum as a whole. A control location, the second floor bridge, was used for museum noise levels, and several spots in the room were chosen: the table at the entrance, the rear restroom alcove, the Lego station which was in the center of the public space, and the sequin panels, which were against the wall of the marked off space. Readings were taken every hour between 6 pm and 9 pm in each location. In addition, guests were asked to complete a short survey and qualitative observations of the room were taken. It is important to note that there are some holes in the survey data; not every survey was fully completed. For the full surveys, please see “FNYE Surveys.” Six surveys were completed and were mostly completed by groups rather than individuals; with 36 visits, this is a comparable number of completions. To read the survey, go to “Survey Design.”

# Quantitative Data

## Ability of the Quiet Room to Limit Noise

 The quiet room was shown to significantly limit the noise experienced in this space. Below is a table of locations and decibel readings, as well as the percentage of noise reduction from the control. These results were telling. The least reduction occurred when people were in the room; at the time, it was a group consisting of an adult woman, adult man, and a toddler girl. They were relatively quiet, however it still created higher levels of ambient noise due to activities in the room. The greatest reduction occurred during the balloon drop at 8 pm; noise was concentrated away from the quiet room, which helped aid in greater reduction of noise. At times, where people were potentially near the quiet room, given there was an activity center just outside of it, the noise reduction was compromised. In addition, noise was drastically reduced within the main quiet area, away from the entrance. The check-in table and restroom, being in line with the door and sources of sound, were much louder than the internal areas. The Sequin Panel area was generally the quietest, as it had the benefit of being behind the false walls of the unused section of the education center.

### Loudness Readings and Reduction

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Location | 6 PM Reading | % Noise Reduction | 7 PM Reading | % Noise Reduction | 8 PM Reading | % Noise Reduction | 9 PM Reading | % Noise Reduction |
| 2nd Floor Bridge (control) | 64.0 db | N/A | 78.8 db | N/A | 80.4 db | N/A | 80.4 db | N/A |
| Check In Table | 33.3 db | 48.97% | 50.2 db | 36.29% | 43.5 db | 45.89% | 54.9 db | 31.72% |
| Restroom | 32.4 db | 49.38% | 45.4 db | 42.39% | 43.4 db | 46.02% | 47.6 db | 40.79% |
| Lego Area | 29.3 db | 54.22% | 46.6 db | 40.86% | 31.3 db | 61.07% | 43.9 db | 45.39% |
| Sequin Panel | 26.1 db | 59.2%2 | 51.1 db | 35.15% | 27.7 db | 65.55% | 37.8 db | 52.98% |
| Number of Guests in Room | 0 |  | 3 |  | 0 |  | 0 |  |

## Survey Results

 Below is the data table with the quantitative survey results. As expected, children were the most common primary users (question 1). Only two primary users were adults; for one of these, they later brought in their daughter to act as primary user. This is in line with the expected audience of the event. Family New Year’s Eve primarily drew families, and thus that is who visited the quiet room.

 In terms of participation of individuals with disabilities (questions 3, 4, and 5), only one person with a sensory processing issue attended the quiet room (question 4).[[5]](#footnote-5) This can be attributed to several factors. First, its marketing. The quiet room was not given on any promotional materials for the event, yet the loud party aspect was. It is likely, based on the results of the survey, that a quiet room would have increased attendance of those who would use it. In addition, the State Museum is not currently working with any community groups for individuals with disabilities. While efforts are being made, the lack of these groups means that their channels to get the word out about these sorts of events and the intended friendliness to their served population.

 However, users found the quiet room to be incredibly effective as a relaxing space (question 9). With an average of 9.33 out of 10, the room operated beyond expectations in terms of effectiveness and efficiency in providing a relaxing area. In addition, the room also scored high marks on use of the quiet room in the future (question 10). With a likelihood of 8.66 out of 10, users generally were more likely to use such a space in the future. On this question, only one person scored their likelihood of using a quiet room in the future as below an 8/10, at a 5/10. This can be interpreted as someone not knowing if they might need a quiet room. Survey 2, which had this result was also filled out by someone who was neurotypical, albeit still a child. For someone in this group, it is less likely that someone will need this support, based on observational data.

 On average, guests visited 3.6 times per year (question 11). The most common number was 2 times a year. For survey 6, which did not indicate a number, a qualitative reading of the user visiting for the first time with their family was indicated to the author of this report. Overall, however, while several repeat visitors came, for the most part visitors were relatively infrequent.

 Question 12 offered an interesting conundrum. While it was relatively unanswered, with only half of the surveys answering, the results were that a quiet room would be a space people would want to use at future events. In addition, qualitative indicators, and other responses on the surveys which did not answer question 12 indicated that they would be likely to use the room again on future visits. Even if only a third of visitors indicate they would be swayed by the use of a quiet room, that is a third of visitors that would benefit from providing this room.

### Survey Results - Quantitative

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Question | Survey 1 | Survey 2 | Survey 3 | Survey 4 | Survey 5 | Survey 6 | Average/Total/Most Common |
| 1 | <14 | <14 | 31-40[[6]](#footnote-6) | 41-50[[7]](#footnote-7) | <14 | 71-80 | <14, most common |
| 3 | No | No | No | No | No | No | No, most common |
| 4 | No | No | No | Yes | No | No | No, most common |
| 5 | No | No | No | No | No | No | No, most common |
| 9 | 9/10 | 10/10 | 10/10 | 9/10 | 8/10 | 10/10 | 9.33, average |
| 10 | 9/10 | 5/10 | 10/10 | 10/10 | 8/10 | 10/10 | 8.66, average |
| 11 | 2 | 2 | 2 | 7 | 5 | N/A | 3.6, average |
| 12 | Yes | No | N/A | Yes | N/A | N/A | Yes, most common[[8]](#footnote-8) |

# Qualitative Data

## Survey Results

 The qualitative data gained by the surveys was overwhelmingly positive. In general, the users of the survey had positive things to say about the room. The list below details the responses to the survey for each qualitative question.

 For the most part, the users were family units. Some came with grandparents or were grandparents, but the bulk were a traditional family unit. Given the target audience of the event, this makes sense and is in line with what is expected for the Family New Year’s Eve Quiet Room.

 Most people who went in the quiet room reported using almost everything in the room. The least used objects were the Legos. However, they were used by the group that, in the quantitative analysis, indicated a sensory difference and potential autism. Legos, as well, are just a generally popular activity, but also one many may have at home. The most popular seemed to be Gak. Gak was listed by 3 of the respondents as a used object. This makes sense in the terms of the quiet room being a sensory space – it provided a different type of sensory experience than other objects. Nobody mentioned the wax twist ties.

 The most useful object seemed to be fairly split. About half considered the craft supplies to be the most useful, while the other half considered the gak to be the most useful. In addition, one respondent listed that the space itself was very useful. This was part of the intent – while actual objects can be of use, the primary benefit is having a quiet, slightly dimmer space.

 Four out of six respondents did not indicate anything not being particularly useful. One didn’t particularly enjoy the gak, and another didn’t particularly use the chairs. However, these were heavily used by other respondents. As such, it can be concluded that none of the objects in the room were non-useful.

 Only one respondent indicated other things they would want to see – more crafts and more art making. This can potentially be done by replacing other objects. However, based on the phrasing, it is likely that this question might not have been understood properly by the respondent. As such, the best way to change this up would be to include more things similar to gak and the other craft-based activities.

 The last section of this qualitative survey asked for any additional feedback. This was overwhelmingly positive and painted the quiet room in a great light. This feedback shows that people who are participating in the quiet room genuinely enjoy it and it helps them feel welcome, especially when they need that extra support away from the crowds.

### Survey Results - Qualitative

1. Who are you here with?
	1. Family- Wife, Father, 2-Year Old
	2. Grandma
	3. Husband and kids (10, 7, 3)
	4. My family 8 + 10 year olds
	5. Mommy, Daddy, Science Gus[[9]](#footnote-9)
	6. Family
2. What objects in the quiet room have you and/or members of your party used?
	1. Crayons, floaties
	2. Gac, scratch art, flip board, swan[[10]](#footnote-10)
	3. Flip sequins board, inflatables, gak, scratch pads, bean bags
	4. We plan to use the Legos room area
	5. Gak, legos, giant unicorn, checked out everything
	6. Sitting down
3. What object was the most useful to you and/or members of your party?
	1. Crafts
	2. Scratch art
	3. Gak
	4. Just the space in general
	5. Gak recipe
	6. N/A
4. Which was the least useful to you and/or members of your party?
	1. Chairs
	2. Gac
	3. N/A
	4. N/A
	5. N/A
	6. N/A
5. Are there any items you feel would be necessary to help improve the quiet room for you and/or members of your party?
	1. N/A
	2. N/A
	3. N/A
	4. My Youngest – Ella is 8
	5. Crafts and activities, building materials, art
	6. N/A
6. Are there any other comments you would like to share about the quiet room?
	1. Good idea
	2. N/A
	3. Great idea! We loved it!
	4. This room and idea is amazing. My youngest has a very hard time with noise and crowds after a while and this is the perfect reset space.
	5. We enjoyed the break from the hubbub and the various things to do. There’s a lot here to interest a curious + creative 5 year old!
	6. N/A

## Observations by the Author

 As an individual with autism myself, and a researcher on the subject, I was able to notice a number of things about the quiet room that the surveys did not pick up on. First, the overwhelming majority of people who used the room seemed to enjoy the sequin panel. While it may not have had the wow and memory factor of the gak, the users of the room seemed drawn to the panels. In addition, users were drawn to the unicorn. Many took pictures of the unicorn on top of completing the other quiet room activities. Most users that actually spent time in the room stayed for between 10 and 30 minutes. Most tended to stay at the lower end. This supports the idea of the quiet room as less of an activity center, and more of a “break” center. Guests would come in, do other sensory activities, and then leave.

 Visiting patterns tended to be in waves. There was a distinct wave about 30 minutes into events, and then an hour after that as a sort of “preparation” for the balloon drop. The guests who came after the drop did so almost immediately after. While many seemed to be interested, there was an interesting phenomenon. It seemed that many did not understand the purpose of a quiet room or assumed that they would not be welcome in it. This is potentially problematic; while a quiet room is designed for individuals with sensory issues and autism, there are a wide number of visitors who could benefit. One example would be the individual who had a panic attack. They ended up in the mother’s room instead of the quiet room, despite direction there. The location, and lack of indication other than signs, may be part of the problem. This can likely be solved by inclusion of the quiet room on event maps and pre-visit and advertising materials, as well as just having the quiet room a staple at events. The more that these rooms are present, the more that they will be recognized.

 There were some negatives. First, there was a speaker in the quiet room that was softly buzzing. While no guests complained, I had some issues when the room was empty with hearing that buzz. While it was indeed quieter, part of sensory processing issues is the addition of volume of stimuli. While the room did a good job of limiting external sound stimuli from the main event, an issue like that can defeat the purpose of the room for individuals who are more sensitive to sounds. In addition, the room had major issues with lighting. While it was dimmed as much as possible, the room was still lighted by fluorescent lights. Fluorescent lights are a major issue thanks to the ease of their flicker. While this is a facility-wide issue, the inability to limit these was potentially problematic. However, no guests had issues with the fluorescents. The biggest lighting problem came externally. The Education Center has a wonderful, large glass window facing the outside world. For a quiet room, this is a major issue. For example, when the individual who had a panic attack was brought off-site, the ambulances parked on the circle drive just as they needed to. The large windows allowed the extremely bright, flashing lights into the quiet room. Thankfully, it caused no issues for guests. However, this can potentially cause issues, especially when events are held at times when it is brighter outside.

 In addition, the number of guests using the quiet room was relatively small. Out of the attendants of the event, only 36 individuals used the quiet room for significant amounts of time. However, it is important to note that this is likely because of the placement and lack of marketing of a quiet room. For many, knowing the loudness of the event, the better option was to stay away instead of hope there may be a quiet space. In addition, those were 36 individuals who got some benefit out of the room. A quiet room should be considered like a wheelchair ramp: not everywhere is going to have it or necessarily need it, but having it helps everyone.

# Recommendations

 Below is a bulleted list of recommendations for future quiet rooms and future sensory-friendly programming at the Indiana State Museum. These are based on the results of the survey, as well as examinations of the quiet room by the author.

* Keep offering the quiet room. Continued offering will help spread word-of-mouth marketing that is incredibly effective. Several of those who visited the room mentioned telling others about the room.
* Market the quiet room. For major events, the quiet room should be mentioned at the bottom. A quiet room helps a large variety of individuals; as noted, only one of the users self-identified as disabled. For others, the area may just be a necessary break from the noise, and for large events like Family New Year’s Eve, Asian Fest, or Geofest, may be the turning point for some visitors to come or not.
* Continue offering Gak. This slimy stuff offered guests a novel sensory experience in a quiet place. This was incredibly effective in the quiet room and most loved it. If there are other things that can be offered, include those as well.
* Take away the wax twist ties. The wax twist ties proved to be a theoretically good idea. However, only a tiny fraction of users used them, mostly out of curiosity as to what they were.
* Offer more quiet crafts. The scratch art was also very popular. Another quiet craft could be included, like simple origami. This sort of craft should focus more on gross motor skills since many individuals with autism or other disabilities lack fine motor skills.
* Create a mobile sequin panel cart. With three or four panels, create a multi-height mounting point for them so that the panels can be accessible. Currently, if they are on a table or on the floor, some guests will be unable to use them and they become a hinderance to accessibility. A mobile cart, even if it’s just a wall that can be locked down, can solve this and provide a cool addition to many types of events.
* Darken the room or provide a dark section. A quiet room is as much a quiet room in the sense of noise, as it is a room to quiet your senses. Providing a darker section would be beneficial.
* Limit outside light interference. A major point of the quiet room is to provide a controlled sensory space. If the quiet room continues to be in the Education Center in School 5, the large windows will need to somehow be dealt with. This could be as simple as blinds if they have them, or as complicated as placing posterboard over the windows. Potentially moving the quiet room to the cafeteria area could be an alternate option.
* Work with community groups. While this data will do well to make the quiet room even better than it was, it is still important to note that a major reason that the quiet room exists is to help bring in those who might not be normally served by loud events. By making sure that the community groups for these individuals, and those that self-advocate are involved in the process, it allows the museum to provide the best experience possible.
* Adult events matter too. If there is a loud adult event, make sure there is a quiet room for that as well. Even if this was a kid-focused event, a quiet room would be beneficial for many adults with similar needs. An adult quiet room can potentially be smaller, for smaller events focused on adults.
* Keep evaluating. The more surveys and observations that are done, the better the State Museum can be. The more evaluation that is done, the more that the museum can react to the actual needs of their guests.

# Works Cited

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1. Ansel Lurio, “Engaging Children with Autism at Historic Sites: Developing an Audience-appropriate Curriculum,” *Journal of Museum Education* 41, No. 3 (2016): 168. [↑](#footnote-ref-1)
2. Kelsey Van Voorst, In-Person Interview by Author, September 27, 2019. [↑](#footnote-ref-2)
3. Peter Williams, Telephone Interview by Author, October 21, 2019. [↑](#footnote-ref-3)
4. Charlotte Martin, Telephone Interview by Author, September 27, 2019. [↑](#footnote-ref-4)
5. This was revealed to the author to be a child who is in the process of being diagnosed with autism. [↑](#footnote-ref-5)
6. This survey indicated that the respondent had kids with them ages 10, 7, and 3. The kids, based on observation, were the primary users. [↑](#footnote-ref-6)
7. This survey indicated the respondent came with children aged 8 and 10. The 8 year old was the primary user of the room when she arrived, however the mother came in separately at first and used the room on her own. [↑](#footnote-ref-7)
8. This result is based off of qualitative feedback received both in surveys and observations of the quiet room by the author. [↑](#footnote-ref-8)
9. Science Gus was the name of the child in the family. [↑](#footnote-ref-9)
10. Flip board and swan refer to the sequin panels and giant inflatable unicorn, respectively [↑](#footnote-ref-10)