

Superstition Obstacle Course

Joyce Ma and Jackie Wong

August 2004

THIS IS NOT A DEFINITIVE FINAL REPORT

FORMATIVE evaluation studies like this one often:

- **are conducted quickly**, which may mean
 - small sample sizes
 - expedited analyses
 - brief reports

- **look at an earlier version** of the exhibit/program, which may mean
 - a focus on problems and solutions, rather than successes
 - a change in form or title of the final exhibit/program

Mind – Formative Evaluation Superstition Obstacle Course

Joyce Ma and Jackie Wong
August 2004

BACKGROUND

The Mind team created a superstition obstacle course for visitors to walk through on Friday the 13th. The obstacle course consisted of 13 stations, or components (listed in Appendix A) each of which encouraged visitors to do something that would, according to popular superstition, bring the doer bad luck. Two team members were on hand to help visitors with the activities, some of which could not be done without staff facilitation.

The team was concerned about the potentially sensitive nature of the subject matter. We wanted to be respectful of visitors who may have strongly held beliefs, but at the same time, we wanted the obstacle course to challenge visitors to reflect on their own superstitions. The obstacle course, therefore, had to strike a balance between creating enough 'discomfort' to cause visitors to pause and reflect and the 'safety' to encourage and allow exploration.

PURPOSE

This evaluation gives a preliminary read on the following:

- How interesting did visitors' find the superstition obstacle course?
- Which superstitions are familiar and which are unfamiliar to visitors?
- What visitors did at each station of the course?
- What were visitors' reactions to going through the course, specifically:
 - Did visitors feel uncomfortable or hesitant about performing the suggested activities?
 - Did the suggested activities challenge beliefs or habits?
 - Were visitors surprised by their own reactions?
- What did visitors think was the point of the obstacle course, and, more specifically, did it belong at the Exploratorium?
- How visitors might 'verify' a superstition?

METHOD

- As a preliminary study, we decided to focus only on adults who, we hoped, would be more articulate during an interview that would touch on potentially sensitive as well as conceptual issues about beliefs. Future studies may include interviews with younger visitors.
- Observations. An evaluator watched visitors as they moved through the obstacle course. If visitors came in a group, the second adult to enter was observed. The evaluator noted if a

visitor stopped at the exhibit and if s/he did the suggested activity as well as any other behavior including watching others do the activity. Demographic information was also recorded.

- Interviews. After observing visitors, the evaluator asked the visitor she observed to answer a few questions. These questions can be found in Appendix B.

DATA COLLECTED

- N = 11
- Observations and interviews were conducted between noon and 4pm on August 13, 2004.
- Demographics
 - 11 adults
 - 6 male and 5 female
 - visitors interviewed belonged to
 - adult peer groups (3)
 - family groups (8)

RESULTS

Visitors' Interest

- Visitors rated the obstacle course as:

Interest Rating	Count (out of 11)
not interesting	0
somewhat not interesting	0
neutral	4
somewhat interesting	3
interesting	4

- Visitors found the obstacle course interesting because:
 - They learned about the superstitions, their background and origins (5 visitors)
 - Visitor2: heard a lot about most of these superstitions already, but not the origins of them
 - Visitor3: the superstitions
 - Visitor4: learned a lot, the background
 - Visitor7: very interesting to show kids different superstitions. It's learning. We enjoyed it.
 - Visitor11: it's fun to see some superstitions that I'm not aware of. More background would be nice

- It's something different and new (2 visitors)
 - Visitor5: never done it before. It's fun
 - Visitor6: I think it's funny that you have this. I wasn't expecting it. But it was interesting
- A few visitors found the obstacle course confusing or simply were not interested in the subject matter
 - Visitor8: for some of them I was a little confused about what I'm suppose to do. Seems like the point was to not do anything
 - Visitor9: didn't find it that compelling. I don't think I got it, don't think I got the point
 - Visitor1: not particularly interested in this topic

Unfamiliar Superstitions

We asked visitors, of those they saw, which superstitions they were unfamiliar with. This information will help us select superstitions for any future Friday the 13th obstacle course. Note that this count gives a very rough estimate since not all visitors recalled all the stations they stopped at.

Station	Count (out of visitors who stopped)
Cards	4 (7)
Broom	3 (4)
Plate	3 (7)
Salt	3 (9)
Pennies	1 (6)

Visitors' Actions

- The following lists what visitors did at each obstacle station.

Station	Activity	Count (out of 11)
Ladder	Walk under ladder	11
	Read label	3
	Cross finger while walking under the ladder	1
	Walk around the ladder	1
Umbrella	Stop at station	7
	Open umbrella	3
	Read label	2
	Watch others open the umbrella	1
Horseshoe	Stop at station	5

	Spin horseshoe	4
	Read label	1
	Hold in U position	2
Pennies	Stop at station	6
	Touch pennies	1
	Watch others touch the pennies	1
	Read label	3
Wood	Stop at station	5
	Say 'nothing bad will happen to me today' ¹	2
	Knock on wood (activity asks visitor to NOT do this)	3
	Read label	2
Cards	Stop at station	7
	Bet	1
	Fold	3
	Read	4
Plate	Stop at station	7
	Silverware remains crossed	5
	Read label	3
Salt	Stop at station	9
	Spill salt	3
	Throw salt (activity asks visitor to NOT do this)	2
	Read label	6
	Watch others spill salt	1
Mirror	Stop at station	10
	Break mirror	2
	Watch others break mirror	8
	Read label	2
Crack	Stop at station	9
	Step on crack	8
	Read label	2
Horoscope	Stop at station	6
	Read horoscope	6
	Read label	1
Misfortune cookie	Stop at station	9
	Take cookie	4
	Read fortune	3
	Watch others take and eat cookie	2
	Read label	4

¹ It was difficult to hear exactly what the visitors were saying. This count reflects the number of visitors who appeared to say something at this obstacle station.

Broom	Stop at station	4
	Sweep broom	1
	Read label	1
	Sweep for someone else	1

- On average, the visitors interviewed stopped at 9 stations. The minimum number of stations a visitor stopped at was 4, the maximum was 11.
- The following orders the 13 stations according to the number of visitors, we observed, who stopped at each. It gives some indication of the attraction power of each station.

Station	Count (out of 11)
Ladder	11
Mirror	10
Salt	9
Crack	9
Misfortune cookie	9
Umbrella	7
Cards	7
Plate	7
Pennies	6
Horoscope	6
Horseshoe	5
Wood	5
Broom	4

Visitors' Reactions

Did visitors feel uncomfortable or hesitant about performing the suggested activities?

- Only one out of 11 visitors reported feeling uncomfortable. This visitor explained:
 Visitor5: I'm a little superstitious. If it's true, it'll be scary
- When asked further, a few more visitors mentioned that they thought twice before doing some of the suggested activities that would, according to superstition, bring them bad luck:
 Visitor3: the mirror. All my life it's been bad luck to break a mirror. I wouldn't want to break a mirror for no reason.
 Visitor5: sweeping and knocking on wood. I don't want to be single for the rest of my life
 Visitor6: doing all these things that are suppose to bring you bad luck. I'm not very superstitious, but I'm in the opinion that why go out of your way to tempt fate when you don't have to. They might not be true, but just in case.
 Visitor7: yeah, breaking the glass. We didn't do it. I never do break a mirror

Did the suggested activities challenge beliefs or habits?

- A little over half (6 out of 11) of the visitors interviewed indicated that in their daily lives they did not actively avoid activities that supposedly bring 'bad luck'. So for these visitors, the activities they encountered on the obstacle course did not challenge any of their habits.
- Of the others, four visitors explained that they avoid doing certain things more out of practical considerations rather than any strongly held belief that those actions can lead to bad luck:

Visitor2: wouldn't go out of my way to do them, but wouldn't avoid them.

Visitor6: I don't normally avoid these things. I just won't do them unless there's a reason for it. Why walk under a ladder when you can walk straight. Here it was set up so that you have to walk under the ladder, and I don't have a problem with that

Visitor9: I ignore superstitions

Visitor11: normally I wouldn't break things just to do it

- One visitor said that she actively avoids breaking mirrors because:

Visitor3: all my life it's been bad luck to break a mirror. I wouldn't want to break a mirror for no reason.

- This same visitor decided to avoid breaking a mirror on the obstacle course because she thought it would bring bad luck.

Were visitors surprised by their reactions?

Only one of the visitors interviewed said s/he were surprised by his/her reactions to the obstacle course. This is the same visitor, Visitor5, who indicated that s/he was a bit superstitious and felt a little uncomfortable with the activities. None of the other visitors thought the experience revealed anything surprising or profound about the way they think or act.

What other superstitions did visitors believe in/ believed in?

We further asked for visitors to describe any superstition they either believe in now or believed in in the past that they thought would bring them good luck. We had hoped that this would afford visitors another opportunity to talk about belief and to reflect on why they believe what they do. However, most visitors could not name anything. One visitor thought that she, in general, was lucky and went on to attribute the luck to either a positive disposition (i.e., she feels lucky because she sees things in a positive light) or to 'fate.' Another visitor talked about cultural traditions and explained:

Visitor8: traditions like getting lucky money for Chinese New Year. Those are more cultural traditions than superstitions. Most people don't actually believe in them, but you do them because that's what you always do

What's the point? – Visitors' Interpretations

As another way of gauging whether visitors thought the obstacle course revealed anything about beliefs and behavior, the evaluator asked visitors what they thought was the point, or the main message, of the obstacle course and if it belonged in the Exploratorium.

What did visitors think was the point of the obstacle course?

- To have fun (3 visitors)
 - Visitor1: don't know. Something fun to do for Fri. 13
 - Visitor6: just for fun I guess. I'm not sure what's the point of it. It's not about any science topics.
 - Visitor10: some fun for Fri. 13th.
- To show how you react to superstitions (3 visitors)
 - Visitor3: to reveal yourself of your superstitions
 - Visitor9: makes us think about what, why there are superstitions. It just reviewed them, didn't explain.
 - Visitor11: for people to examine their reaction to superstitions
- Give background on superstitions (2 visitors)
 - Visitor2: getting at people's awareness of superstitions and where they are from
 - Visitor7: to explain different mindsets, what some people believe. But I'm not superstitious
- To show that there's no (scientific) basis for superstitions (2 visitors)
 - Visitor4: Fri. 13th. About unfound superstitions. Show people that they know no real basis of them. It's not science
 - Visitor8: to show people that there's no reason to be superstitious
- Don't know (1 visitor)
 - Visitor5: not sure. I don't know

Did visitors think this belongs at the Exploratorium?

- All of the visitors interviewed felt that the Friday the 13th obstacle course belonged at the Exploratorium. They gave the following reasons:
 - It shows how superstitions are not scientific (4 visitors)
 - Visitor4: yeah. [See q8: show people that they know no real basis of them. It's not science]
 - Visitor7: -sure. It's not science, but a believe. It's what's in their mind. It's interesting to learn and it's fun.
 - Visitor8: yes, try to get people to be more scientific rather than superstitious

Visitor9: sure. Look at all the silly things we do. You don't have anything on witches, about the Salem witch-hunt, things in real life, where superstitions impacted the way people act.

- It's fun (3 visitors)

Visitor6: it's a fun place, and this is fun. It's appropriate since today is Fri. 13th

Visitor7: -sure. It's not science, but a believe. It's what's in their mind. It's interesting to learn and it's fun.

Visitor10: sure. It's fun. And the kids can play. Where else do you get to break a mirror for fun?

- It's something new to try (2 visitors)

Visitor2: yeah, we like new exhibits.

Visitor5: yeah, because you can do something you don't normally do and usually avoid

- It allows you to explore (2 visitors)

Visitor3: yes, you have to explore

Visitor11: sure. For people to explore, explore their reactions to superstitions.

- It's hands on (1 visitor)

Visitor1: it's hands on, so I guess

'Verifying' a superstition

We asked visitors if they could think of a way to figure out if a superstition actually brings good/bad luck.

- Most visitors (7 out of 11 visitors) could not think of a way to verify a superstition.
- A few visitors thought they would:

Visitor4: keep doing it again and again and see that it's not going to hurt you.

Visitor5: see eventually if I'll have bad luck.

Visitor8: use your reasoning. If you think about these superstitions, you'll realize that there's no connection between them and what actually happens.

- Two visitor thought that there is no way to 'prove fate' or to change someone's beliefs

Visitor7: no. I don't think you can prove fate or truly destroy the thinking.

Visitor9: nothing you can do to make someone change if they want to believe in something.

- One of the visitors, Visitor4, also thought that

Visitor4: I don't feel like you necessarily have to prove or disprove these superstitions. It's harmless.

SUMMARY AND DISCUSSION

- Visitors found the experience somewhat interesting (median) for two main reasons: 1) they learned about superstitions, their background and origin, 2) it's different and new to them.
- On average visitors stopped at 9 stations and either read the label, attempted the suggested activity, or watched someone else in their group do the activity. A list of the stations according to popularity and a list of those superstitions that visitors were not familiar with are included in this report.
- The experience caused some visitors to pause and consider. One person talked about feeling uncomfortable, or 'scared' by parts of the obstacle course. A few visitors described thinking twice before attempting an activity. It is, however, unclear if the experience challenged any profound, deep-seated belief: Only one visitor actively avoided doing something because they thought it would bring bad luck. Furthermore, when they were asked to describe their own habits, some visitors explained that they avoid certain activities (e.g. walking under ladders, breaking mirrors) not because these actions would lead to bad or good luck but because of practical considerations (e.g. "Why walk under a ladder when you can walk straight?"), cultural traditions (e.g. "getting lucky money for Chinese New Year. Those are more cultural traditions than superstitions"), outlook (e.g. "I think I'm lucky. or maybe I just see the positive side of things") or fate (e.g. "It's fate").
- More telling, only one visitor said that the experience made her reflect on how she thinks and acts. Yet, close to half of the visitors thought that the point of the obstacle course is to reveal how we react to superstitions or to show there's no scientific basis for superstitions. This suggests that few visitors, even though they could articulate the point of the experience, did not find it applicable to themselves. As one visitor explained, 'I'm not superstitious'. This may also indicate that the experience was not a profound experience that challenged their core beliefs, a possibility since these visitors self-selected to run the obstacle course.
- Visitors were largely unable to articulate a way of verifying a superstition. A few visitors thought there was no way of doing so, and one visitor felt that it's not really necessary since they are 'harmless.'
- This study had two key limitation:
 - The visitors self-selected to enter the obstacle course. These visitors may not include visitors who normally shy away from confronting superstitions or who may have deep seated beliefs in superstitions. We had decided for this first study to observe and interview only those visitors who completed the obstacle course because it was set up for just that one day. However, we did notice other visitors at the periphery of the roped off area, which suggests that there is a population of Exploratorium visitors who are curious but for some reason chose not to participate.
 - Visitors may be reluctant to talk about superstitions they believe in at a museum of SCIENCE, art and human perception. Visitors may be embarrassed to admit that they believe something that is 'unscientific' or more simply visitors may not label certain beliefs as superstitions.

Future iterations will explore other methods to include visitors who may shy away from entering such an obstacle course and to encourage visitors to talk about 'unscientific' beliefs in a science museum.

ACKNOWLEDGEMENTS

This material is based upon work supported by the National Science Foundation under Grant number 0307927. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.



APPENDIX A –Descriptions of Superstition Stops**[LADDER]**

Try this: Walk under the ladder.

Superstition: Walking under a ladder brings bad fortune.

[UMBRELLA]

Try this: Open the umbrella indoors.

Superstition: Many will caution against this—it's supposed to be unlucky.

[HORSESHOE]

Try this: Spin the horseshoe. Does it stop in an “unlucky” position?

Superstition: Horseshoes should be kept in a U-shaped position so that the luck they contain won't “run out.”

[PENNIES]

Try this: Touch one of these “tails up” pennies.

Superstition: Pennies that are “tails up” are unlucky and should not be touched. (A variant belief is that they must be turned over so that the head faces up.)

[WOOD]

Try this: Say “Nothing bad will happen to me today!” Now, do you feel an urge to knock on wood? Don't do it.

Superstition: A common belief is that talking about good things that might happen will “jinx” the event. To counteract that bad luck, they rap their knuckles on something wooden.

[CARDS]

Try this: You're playing cards and are dealt a hand containing a pair of aces and a pair of eights. Do you bet or fold?

Superstition: Aces and eights are the so-called “Dead Man's Hand,” a layout that brings bad luck.

[PLATE]

Try this: Leave the silverware crossed on the plate.

Superstition: This seemingly trivial act has been said to lead to misfortune.

[SALT]

Try this: Spill some salt—but DON'T throw any over your shoulder.

Superstition: Spilling salt is bad luck, but you can reverse the evil by throwing a pinch of the spilled salt over your left shoulder.

[MIRROR]

Try this: Use the hammer to break a mirror.

Superstition: This fate-tempting act will bring you seven years' bad luck.

[CRACK]

Try this: Step on a crack.

Superstition: Your mother won't be pleased—doing this will break her back.

[HOROSCOPE]

Try this: Read your horoscope for Friday the 13th.

Superstition: The position of the stars and planets can predict your future.

[COOKIES]

Try this: Take a cookie and read your fortune.

Superstition: Cookie fortunes can predict or influence the future.

[BROOM]

Try this: If you're unmarried, sweep over your own feet.

Superstition: Doing this will cause you remain single—permanently.

APPENDIX B

How interesting would you say that was? Would you say that was ...

Uninteresting	Somewhat Uninteresting	Neutral	Somewhat Interesting	Interesting
1	2	3	4	5

1. What made it _____ for you?
2. Was there anything about the experience that felt uncomfortable to you?
3. Was there any particular activity that made you think twice? Like, about whether you should do it. [If YES] [Probe: what about it made you think twice? Can you say more about what you thought about?]
4. Did you do anything that you would normally avoid doing [like walking under a ladder]?
 - a. Can you say a little bit about why you did it this time?
 - b. How did you feel doing it?
 - c. Do you think you would go back to avoiding it after this? Why/Why not?
 - d. Anything else that you typically would try not to do, but did in the obstacle course?
5. Was there anything on the obstacle course that you did not want to do and decided to avoid?
 - a. Can you say a little bit about why you decided not to do it?
 - b. Anything else you did not want to do?
6. Was there anything about this experience that was surprising to you? [If YES] What?
7. Was there anything about this that was surprising to you about how you think or act? [If YES] What?
8. What do you think is the point of this experience? Does it have a point? [What message is it trying to tell visitors?]
9. Do you think this belongs at the Exploratorium? Why/ why not?
10. Were there any superstitions that you saw that you weren't familiar with?
11. Are there certain 'superstitions' that you believe in either now or when you were younger, that you thought brought you luck? Can you say a little bit about why you believe(d) it was lucky?
12. Is there any way to figure out if xxx [use their example or an example they are familiar with from the obstacle course] brings you good or bad luck? How would you figure that out?
13. Would you recommend other visitors go through this obstacle course? Why/why not?