A DIFFERENT VIEW

PROBLEM SOLVING FOR ATTRACTIONS WORLDWIDE

What is "fun"?

"Quantifying Fun"
American Association of Museums
Denver, Colorado
April 29, 2008

What is "fun"? Quantifying Fun.

Introduction

The following paper "Quantifying Fun in the Museum Environment" comprises part of a session given at the American Association of Museums. Chaired by Dr. Susan Opotow, Professor at John Jay College of Criminal Justice, we explored definitions of fun and current research on visitors perceptions of what makes an experience fun and personally fulfilling.

Along with Dr. Opotow, presenters included:
Jessica Sickler, Research Associate, Wildlife Conservation Society
Sylvia Matiko, Principal, A Different View
Kelly Shindler, Director of Public Programs, Art21

Jessica Sickler presented WCS's recent research on visitor opinions about what is fun in a zoo environment. Using the Q-methodology, Jessica shared with us the 4 visitor perspectives they found, noting that "fun" can be very subjective.

The following paper is Sylvia Matiko's presentation.

What is Fun?

Jessica Sickler of Wildlife Conservation Society has already pointed out that for some yoga is fun and going to a hockey game is torture. For Jessica and me, however, a hockey game is fun and yoga can be torture! "Fun" can be quite subjective, but let's see if we can find some "fun" generalities in this audience.

We are going to start by taking a poll

- Stand up if you like to laugh.
- Keep standing it you like to watch street performers – if not sit down.
- If you like to get in water and get wet, keep standing – if not sit down.
- If you like to watch laser light shows, keep standing – if not sit down.
- If you like extreme motion such as roller coasters, keep standing – if not sit down.
- If you like loud music, keep standing – if not sit down.
- If you are willing to stand over 1 hour in line for your favorite activity, keep standing – if not sit down.

We've done some psychological surveys and everything I've mentioned is "fun" for those generally under the age of 30. I would guess that approximately 98% of this audience is sitting down and is therefore over the age of 30. Those of you standing are "exceptions."

Now how do we know that?

Years ago, psychologists, mathematicians, and statisticians got together in Oxford, England to define a fun experience. What they found surprised them and they were able to identify some patterns for 8 age groups.

Age Groups	
0-2	18-25
3-6	26-41
6-10	41-65
11-17	65+

How did they do that?

They identified what they considered to be some of the elements of "fun" that could be measured. It was based on the premise that generally speaking, human experience can be broken down into scientifically measurable elements.

They started asking questions such as:

- How does fun differ by age group?
- How can you identify "gaps in fun" in a museum, aquarium or zoo experience?

They then dissected the anatomy of an experience and came up with thousands of elements contributing to "fun". Some elements were affected by others and some weren't. The researchers filtered the elements down and then found similarities amongst 8 different age groups. In addition, they formulated 8 overall parameters which all elements could belong to. More on that later.

After years of testing, Vision XS, a company in England developed an evaluation tool called the X-Mod in the UK and it is known as Exp. DNA™ in North America.

experienceDNA
The world's most advanced visitor experience model

This evaluation tool is now used worldwide by major attractions including:

- The Natural History Museum in London,
- The Manchester Museum of Science & Industry,
- American Museum of Natural History in New York,
- Shedd Aquarium in Chicago,
- National Aquarium in Baltimore,
- Hanover Zoo,

And the list goes on.

This evaluation tool can be used on existing locations, temporary exhibitions before and after they are built, and on museums, zoos, and aquariums that have not yet been built.

Let's take a look at the initial methodology behind Experience DNA ™ in the early days.

A team of psychologists, mathematicians, and statisticians broke down the anatomy of an experience into various elements through observation and their own knowledge. Following testing and retesting, primary research was undertaken in the United Kingdom to poll each age group to determine, for example, what an 8-year-old thinks is fun versus his 35-year old mother and his 60-year-old grandfather. It also explored those things that would impact fun such as time spent standing in a line and capacity issues in some of the exhibit spaces.

This information was housed in what is now the world largest **Experience Database,** allowing
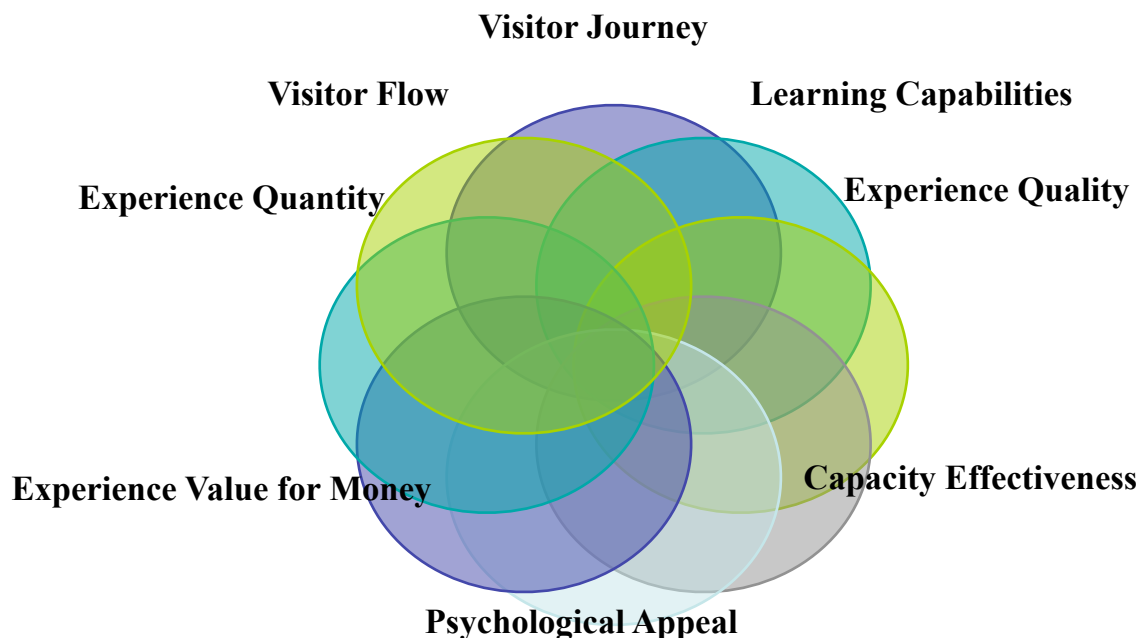
mathematicians to create algorithms that can be used to predict patterns.

Once the team understood what a fun experience was for the 8 age groups, they could then analyze an attraction (whether a zoo, aquarium, museum, etc.) to identify the gaps in visitor experience. While this is a very simplified explanation the model itself is by no means simple. This sophisticated model took years to develop and now helps institutions all over the world create actionable plans to improve visitor experience. And the results have been outstanding.

Currently over 19 countries have been profiled, including the United Kingdom and the United States.

So what is the anatomy of an experience they found? Experience DNA™ has broken down the anatomy into thousands of pieces but they can be combined into 8 parameters.

Experience DNA™ Evaluation Tool
8 Parameters

Visitor Journey

Visitor Flow

Learning Capabilities

Experience Quantity

Experience Quality

Experience Value for Money

Capacity Effectiveness

Psychological Appeal

Let me quickly illustrate what each of these categories means and how they help to identify and locate "gaps in fun." We will then delve into two specific categories have the most relevance to you right now and provide great take home value as you go back to your museum and explore some of these parameters.

Visitor Flow

Visitors comes into your museum. Where do they go? How much time do they spend looking at exhibits, going to a show, shopping, in a bathroom, etc.? What is their average length of stay? What have they missed? How long do they wait in lines? How much time do they spend walking around? Visitor flow obviously has an impact on fun and therefore is one of the 8 parameters.

Visitor Journey

We'll talk about Visitor Journey and Experience Quantity later. You will find this discussion fascinating and immediately relevant for your attraction.

Learning Audit

Learning is considered in terms of how the visitor accesses the experience. It is a predominant ingredient in the quality of an experience. For example, is there too much reading? Not enough creative play? Experience DNA™ uses the 4 MAT system developed by Bernice McCarthy (Imaginative, Dynamic, Common Sense and Analytical) to examine where the gaps may be.

Capacity Effectiveness

Do bottlenecks impact "fun" in your museum? Of course they do! If you can't see something that is popular, there is disappointment. This evaluation tool takes this into consideration. It also takes a look at how much you are spending on a per square foot basis and the throughput it gives you.

Psychological Appeal

Do you have enough psychologically appealing things in your attraction for ALL age groups or at least the age groups you are targeting? How do you know? This evaluation tool identifies which exhibits are psychologically appealing and which are not. This tool can also help marketing make decisions about target messaging.

Experience Value for Money

If you charge $3 or $30 is there a difference in expectation and perceived value? You bet there is. This model takes a look at the value drivers and can predict if your pricing is too much, too little, or just right. It basically assigns a value to each element according to age group.

Experience Quantity

Have you ever gone through your museum and seen kids running around like wild animals? What's causing them to do that? Are they bored or over-stimulated? Experience DNA™ has gathered research by the 8 different age groups that identifies how many experiences per hour are needed. Common sense will tell you that a younger person needs more experiences per hour than an older adult. Do you know how many your museum gives in 1 hour? This evaluation tool will help determine how many experiences per hour you deliver versus how many each of the age groups actually require, based upon the data collected in the United States.

OK, let's get into what I would consider the "juicy stuff".

Experience Quality & Visitor Journey

Lets take a closer look at these 2 important parameters. By understanding how they work for each of the age groups, you will leave this session with some ideas of what to look for in your own evaluation.

First, Experience Quality takes a look at the quality of the experience defined as a number of psychological elements that the experience provides.

Let's have some fun right now. How many of you are familiar with the Wii game? Think about how many psychological elements make up the Wii game. Can you name some of them? Competition, physical activity, pushing buttons, visual entertainment, etc. These are only a handful of psychological elements that kids love. Of course there are many more.
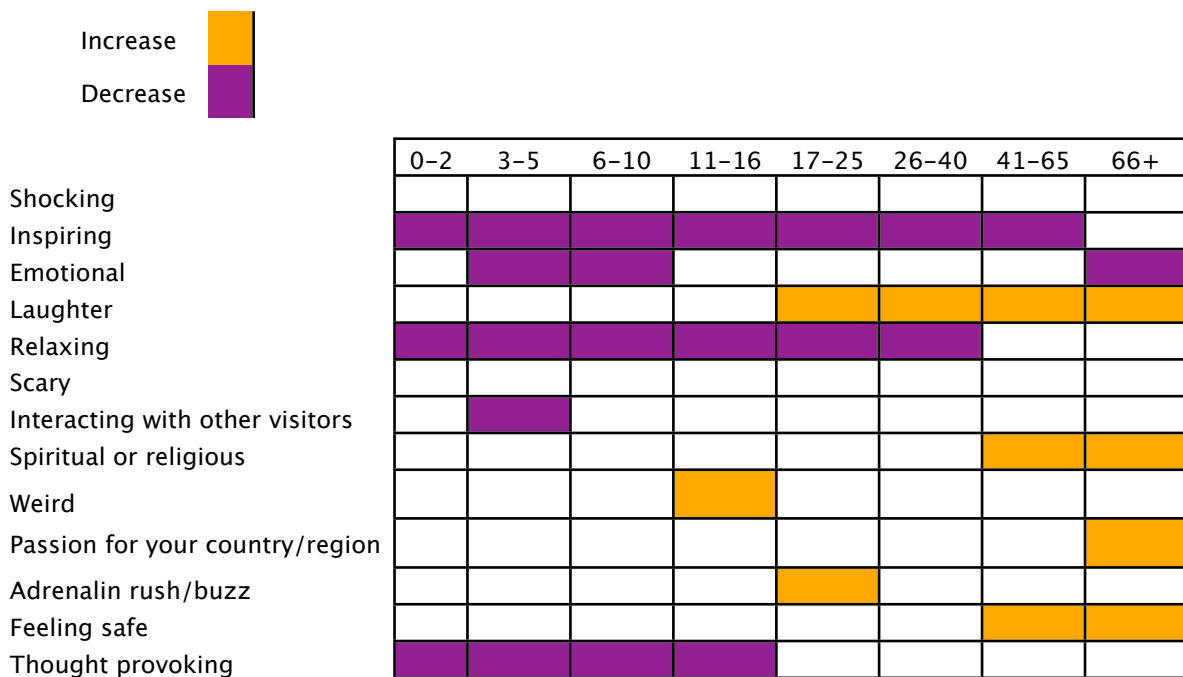
Psychologists identified hundreds of these but summarized them into 6 overall important areas:

1. Skills &Senses
2. Action & Activity
3. Motion
4. Emotion or reaction
5. Learning
6. Surroundings

These areas can be further broken down and the next chart gives you a basic snapshot (not a full one) of some of the psychological elements that fall under emotion or reaction, for example.

In addition, this chart taken from a confidential case study will show you areas where this zoo/aquarium needs to increase or decrease certain psychological elements for any given age group.

Experience Quality

Increase — orange
Decrease — purple

|	0–2	3–5	6–10	11–16	17–25	26–40	41–65	66+
Shocking								
Inspiring	Decrease	Decrease	Decrease	Decrease	Decrease	Decrease	Decrease	
Emotional		Decrease	Decrease					Decrease
Laughter					Increase	Increase	Increase	Increase
Relaxing	Decrease	Decrease	Decrease	Decrease	Decrease	Decrease		
Scary								
Interacting with other visitors		Decrease						
Spiritual or religious							Increase	Increase
Weird				Increase				
Passion for your country/region								Increase
Adrenalin rush/buzz					Increase			
Feeling safe							Increase	Increase
Thought provoking	Decrease	Decrease	Decrease	Decrease				

For example, we can see that laughter really needs to increase for ages 17 and above. The experience is also generally too thought provoking for those under the age of 17.

The next chart illustrates a visitor's journey through this particular location. Through visitor tracking studies we can identify patterns of where people go and then attach to each area what psychological elements they experience, giving us the "highs and lows" of an experience. In this particular example, we see:

1. Good news. The journey is varied with highs and lows to a certain extent.

2. Bad news. No area has an accumulation of elements that add up to more than 20. Our research indicates that a visitor needs at least one exhibit component that gives them more than 20 elements and does that at least once an hour.

3. Another alarming pattern. This chart indicates that at the end of a visitor's experience, the psychological elements keep going down. You want to leave the visitors with a "wow-- that was great" feeling and it's not happening here.

Visitor Journey
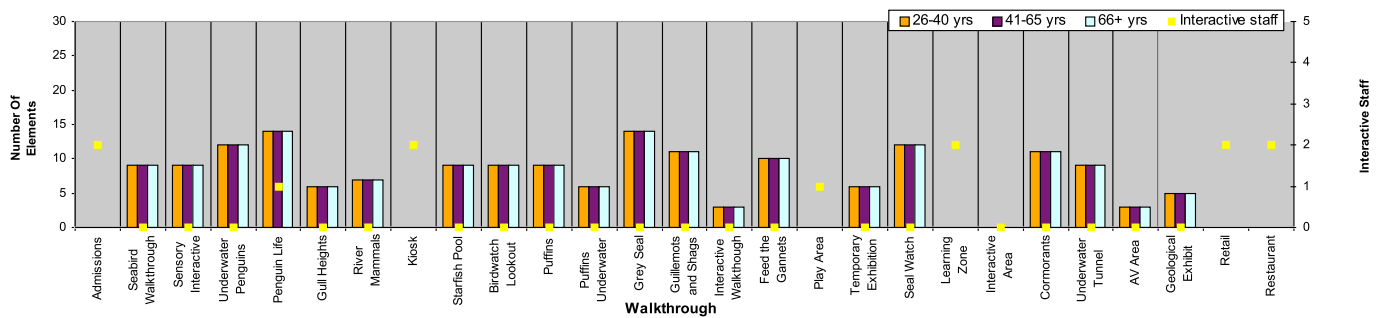
So far we've seen a snapshot of this evaluation tool and in particular 2 parameters. While it seems somewhat simple when I describe it, it's actually very sophisticated, and there are only a few evaluators in North America that can do this.

Now I'd like to put this into action by giving you a case study. This evaluation can work on a museum that has already been built or one that is in the process of being built. It can also work on a temporary exhibition that is still in the design stages.

Lizzy Cox at the Natural History Museum in London used this evaluation and I'd like to go through that case study with you now. There is also a handout you may take after the session. It outlines this case study which was published in the Informal Learning Newsletter in May –June 2007.

"Antarctica "was a planned temporary exhibition that would travel to 3 countries, but the topic was a bit nebulous. NHM wanted to ensure that this exhibition would have a positive resonance for a family market in each location.

The Process:

NHM created a "wish list" of ideas and developed very general design concepts. These were then tested using Experience DNA ™not only for the British market but also for Poland and the United States.

The Result:

The analysis revealed that the design ideas actually exceeded expectations for Poland, fell short of expectations for the US, and was right for the UK market.

More specifically it gave "one liner" suggestion that dealt with issues such as:

a) The pacing of the exhibit. There was too much high interactivity. Visitors didn't need to be assailed with content and they needed time to "graze".

b) The visitor flow and bottleneck issues were identified before the exhibition was built which led to a redesign.

c) The quality of the experience by age group also needed some adjusting.

d) Designers were able to change designs to balance not only interactivity and atmosphere but also learning styles.

e) The value of the experience indicated the price range NHM could potentially charge which helped them set the price.

Summary

We hope that this presentation gives you a better understanding of how Experience DNA ™works and how holistic it is. If you are interested in learning more about the 8 parameters, please feel free to request a"sample report" by emailing Sylvia Matiko at Sylvia@ADifferentViewOnline.com or calling her at (615) 790-8707.