

# Planetarium Visitor Impressions

Getting to know your audience - a discussion based on  'tripadvisor' reviews

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# Introduction

Like any other business, planetariums at several points in their life cycle have to decide what their planetarium is all about. As essentially a visitor attraction, a planetarium's brand identity and how they present their value proposition to the target market is vital. Being part of a broader market, educational and learning centers such as planetariums have to have a clear value proposition against a climate of continuous change (new technology, competitors, economy, etc.). As champions of informal learning, the need for planetariums to reevaluate in order to stay relevant and attractive has never been more critical.



## Mind the gap – What does your audience care about?

Something businesses often slack on when shaping their brand and market offering is thoroughly examining their target group to fully understand their identity, preferences and values - this has become increasingly relevant with science and education centers. Too often our market decisions are made on assumptions and the gap between what the target group values and what we offer becomes unnecessarily large. Organizations with a strong reputation may be able to get away with this for a while, but as the world changes, so does your target group and even the strongest establishments can lose their foothold in the marketplace.

In a recent blog post written by Colleen Dilenschneider, *Entertainment vs. Education: How your audience really rates the museum experience*, she points out how museums are overestimating educational assets as a differentiating factor positively contributing to visitor experience. The statement is made based on results from a survey made by IMPACTS, where data was gathered to inform the development of key performance indicators concerning 224 visitor-serving organizations (zoos, aquariums, museums, theaters, symphonies, etc.). The study, probably surprising to many, shows that visitors' overall satisfaction is very little impacted by the educational experience (4.77%) and highly by the entertainment experience (20.83%). She claims that many organizations try too hard to promote education at the expense of providing an entertaining experience. These organizations are truly "missing the mark,"

since an organization only has the opportunity to communicate what is important after the market dubs you relevant. If nobody wants to visit, then nobody is going to participate in the educational experience that one is trying so hard to perfect.[1]

Why is this interesting for planetariums and this discussion? Whether these results can be applied to a planetarium or not (how I wish planetariums would be included on these surveys more often!), it is important for planetariums to make an effort to reduce the discrepancy between real visitor preferences and what we think of our visitors' preferences. If this is not addressed, we put the viability of the institution at risk by focusing on the wrong value proposition and unsuccessful investments. It is important to spend more time getting to know the target group in order to develop a strong value proposition for the planetarium. The purpose of this report is to begin to develop a better understanding of planetarium visitor preferences by analyzing reviews on TripAdvisor.com and hopefully inspire others to be creative in their market research.

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# Purpose

The goal of this analysis is to get a better understanding of the preferences and expectations of planetarium visitors; after a visit, what do they think about the planetarium as a medium in itself, what content inspires them and what disappoints them? The purpose is two-fold:

**To get a better understanding of the impressions a visitor takes away from a planetarium visit.** What aspects of their visit inspires the greatest emotion, both in a positive and a negative way? What aspects are most important for their overall satisfaction - the deciding points which determine wheth-

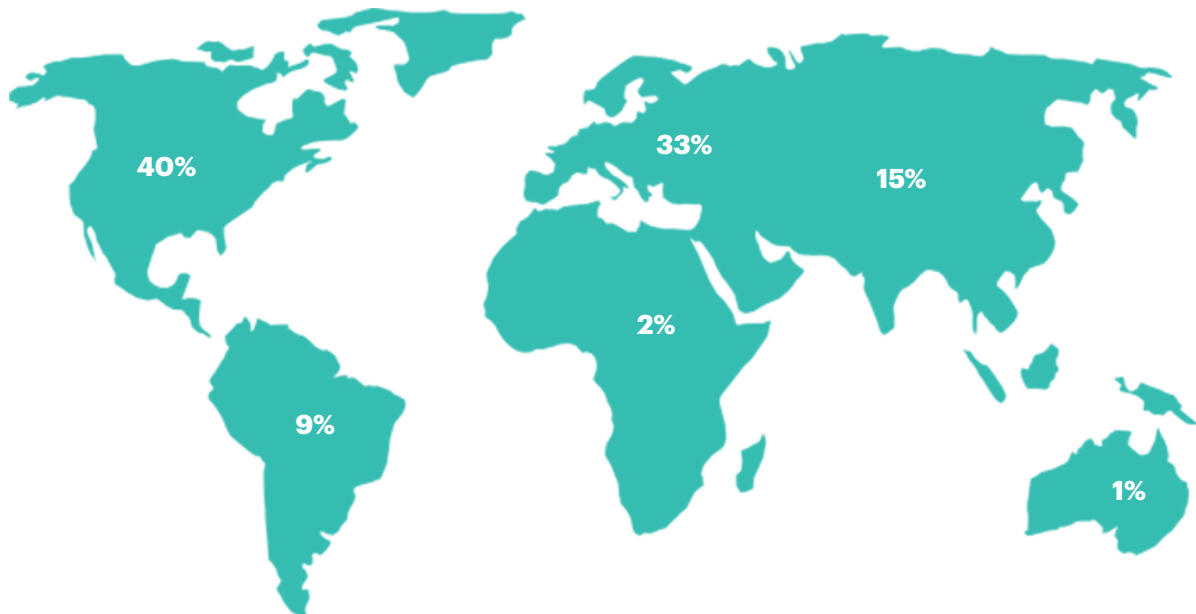
er it was a good or bad visit/experience? I will also get insight into how visitors, through word-of-mouth, market a planetarium visit on social media platforms.

**In order to show how one can be creative with market research without spending too much money.** There are inexpensive ways to get to know your target group better. This is an important process in creating an effective marketing strategy and successful programming for your planetarium. By understanding your target market you can lessen the gap between your value proposition and the audience's real preferences and perceptions.

# Sample group

## 700 Reviews from 38 planetariums around the world:

The numbers below represent the percentage of data surveyed from each region.



### Disclaimer:

- The interpretation of the reviews are subjective interpretations, therefore the results from this data should be taken lightly.
- There's a language barrier that effects the sample group. The geographic spread is limited because only reviews made in English have been surveyed.
- The sample group on Tripadvisor.com is limited and excludes children, for example.

# Method

This analysis is based on 700 reviews made over the last 3 years from planetarium visits around the globe on the world's largest travel site, TripAdvisor.com. The reviews have been analyzed and broken up into different aspects of the visitor's experience mentioned in the review (some mention several), these aspects were then classified as either negative or positive. The aspects below were set organically, based on observations of visitors' most frequent comments.



# Results & Discussion

There is a significant difference between the number of positive and negative comments among the reviews analyzed; only 23% of the comments were negative vs. the remaining 77% positive. Hopefully this means that most visitors have a positive experience when they go to a planetarium. However, it could also mean that satisfied visitors are more motivated to post a review of their experience than dissatisfied visitors. In addition, it's possible that those who visit planetariums are predisposed to view the experience positively. In other words, selection bias.

## Most common *positive* aspects:

Content (41%)  
Activities (16%)  
Location (12%)  
Service (10%)

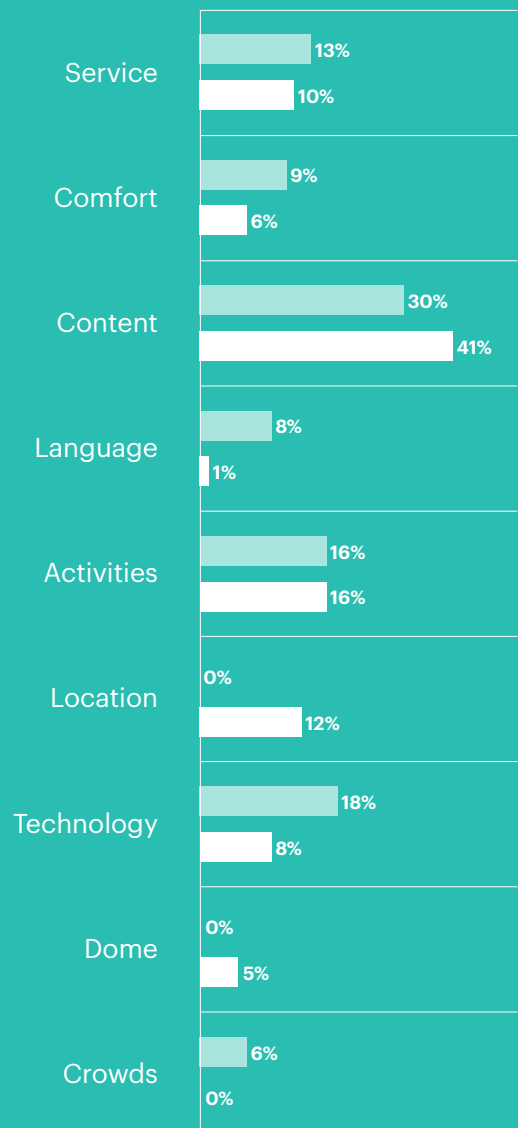
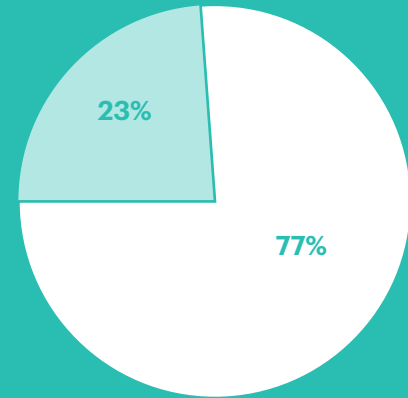
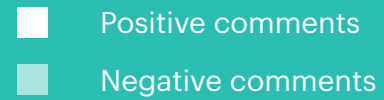
## Most common *negative* aspects:

Content (30%)  
Technology (18%)  
Activities (16%)  
Service (13%)

These results show us that *content* is the aspect which produced the strongest emotion in both categories (41% positive, 30% negative). If you look at the total distribution of both positive and negative comments, positive comments on content are the most common with 41%. Due to the apparent emphasis on content, I felt a more in depth analysis of this aspect was important. You will find this analysis in the pages to follow.

**Interesting to note:** When comparing the results, "bad" technology (18%) is more frequently commented on than "good" technology (8%). According to the Kano Model, described on the following page, this could be evidence that technology is a basic customer requirement.

## Positive vs. Negative







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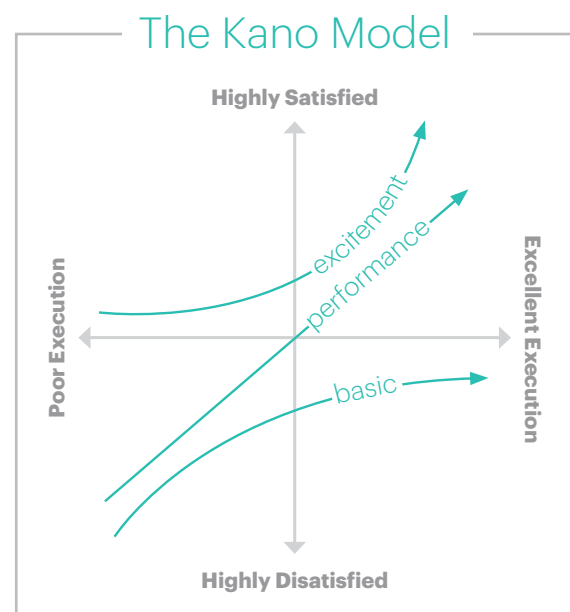
## The Kano Model: Performance vs. Basic Requirements

The Kano model was created in the 1980’s by Dr. Noriaki Kano to demonstrate and explain how different classifications/categories of customer requirements and features have the ability to influence customer satisfaction in different ways.

Looking at the results of this analysis in terms of the Kano model’s classification of customer requirements and how they influence customer satisfaction, one can argue that content is a so-called *performance requirement*. (Discovering the Kano Model, p2) This means that a quality planetarium show (good *Content*) is a requirement that is at the forefront of the customer’s mind when making choices and evaluating options. The better it’s performed, the more satisfaction it brings, conversely, the worse it’s performed, the more dissatisfaction it brings.[2]

Technology, on the other hand, arguably seems to be a so called *basic requirement*, meaning it’s a requirement that customers expect and take for granted (Discovering the Kano Model, p4). When, for example, image quality is good or great, the visitor is neutral

– but when done poorly, the visitor becomes very dissatisfied. This could explain the discrepancy between the positive (8%) and negative (18%) impressions on technology. It would be interesting to further investigate whether this means that there is a line where technology is so good that it’s ignorable (image or audio quality). The technology within a planetarium must meet a minimum requirement not to draw negative attention and when it fulfills this requirement the content/presentation becomes the focus. If such a limit/balance exists, it would be interesting to know where it lies.

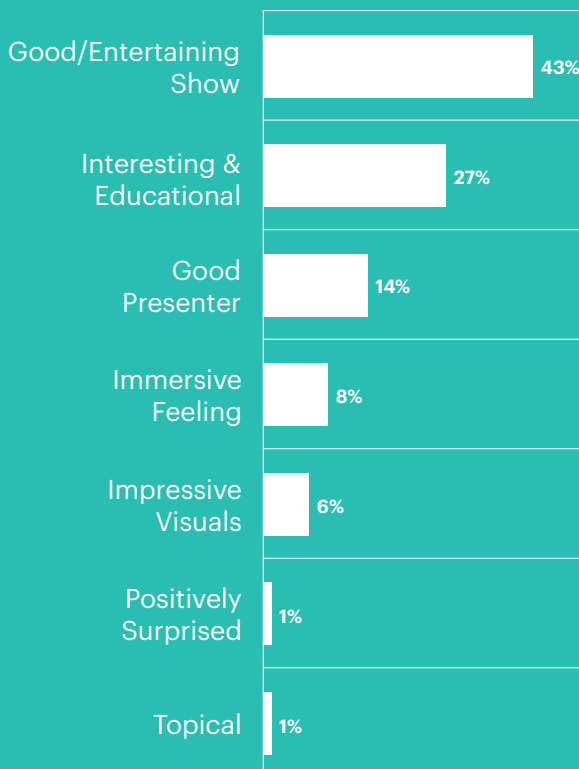


# A closer look at content

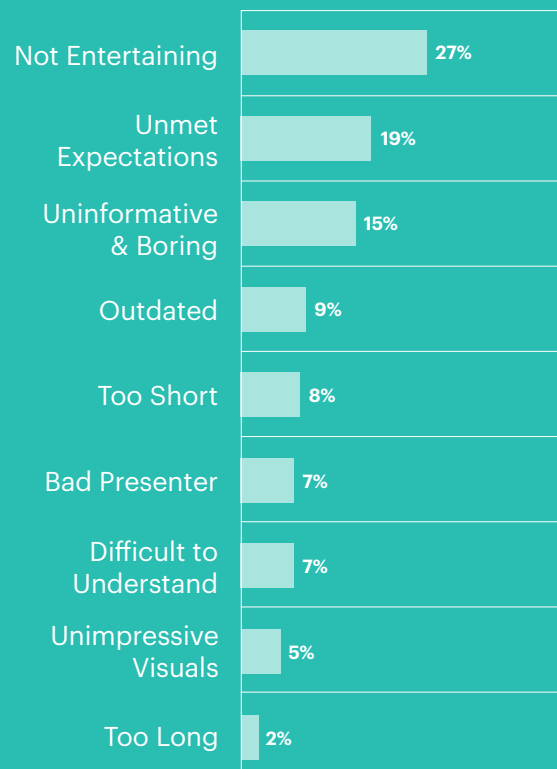
After observing the reviews included in this report, it was apparent that the most frequent comments among both positive and negative reviews were focused on content. Because of this I thought it was important to take a closer look at those comments and break them down further, focusing more on the qualitative parts of the comments. Note that I didn't make a distinction between shows with a live-presenter, pre-rendered films or other types of shows, as this is often unclear in a review. The aspects below were set organically, based on what I observed visitors commenting on most frequently and have been separated into negative and positive comments.



## Positive aspects



## Negative aspects





## Unspecified reactions

Most of the comments were general statements about whether the show was good or bad. 43% of the positive comments fell into the category of a good/entertaining show. The following are a good representation of this category:

*"it was a very cool show"*  
*"loved, loved, loved the planetarium film"*

The same trend occurred throughout the negative comments, where 27% of the total negative comments were general statements about how they felt the content was bad/not entertaining. The following are a good representation of this category:

*"you will come out with a feeling that it could have been much better"*  
*"it was so bad that we asked for our money back"*

However, these comments are hard to analyze as they don't really give any detailed information about what the visitor (dis)liked about the content.

## Education – a basic requirement

Moving on, the second and third most commented categories amongst *positive* comments were based on how the content was interesting and educational (27%) and the quality of the presenter (14%). The second and third most commented categories amongst *negative* comments were based on unmet expectations (19%) and uninformative and boring content (15%).

Comments on whether the show was interesting and educational appeared in the top three categories in both positive and negative reviews. Based on this, we can assume that visitors watching a show consider this aspect a basic requirement according to the Kano Model described on page 7. They expect and are satisfied by an educational and informative experience and are dissatisfied if the show doesn't meet these expectations. The following comments demonstrate this:

*"never has travel from the Earth, into space been so realistic and informative"*

*"some very nice new ways to explain the universe"*

*"information he provided could be easily found online"*

*"we felt that the show was quite short, and didn't really interest us"*

*"the film gives very clear explanations of how climate change is affecting the planet"*

In addition, and likely in connection with this aspect, visitors demonstrated negative emotions when they found the content outdated (9%), too short (8%), or difficult to understand (7%). The latter category includes comments like:

*"it was way too scientific and not kid friendly"*

*"a good description of the expanding universe but then went on further and lost me a bit"*

*"difficult to understand for the 7-year-old"*

## Unmet expectations

19% of the negative comments fell into the category of *Unmet Expectations*. I find this particularly interesting since these comments can provide straight-forward information on what the visitor expects. A further examination of these comments shows that 44% of them mention the disappointment of the show not containing "astronomy," "stars and planets" or similar subject matter. The following comments demonstrate this:

*"... no available films with astronomy content"*

*"we felt that the show was quite short, and didn't really interest us, being all about the sun rather than the stars and planets we had been expecting"*

*"we went wishing to see stars and planets"*

*"we wish there were more astronomical shows"*

*"good enough but would rather have seen something making better use of the title 'planetarium'"*

# Conclusions

**Content quality is most important, but will not succeed if lack of good technology disturbs the experience.**

**Attend to the quality of both.** Quality of show content is a performance requirement and will be evaluated intensely by the visitor, as well as become a deciding factor for potential future visits and word-of-mouth marketing. In the SPECTACLE model presented in a white paper by Dr. Jim Sweitzer, he illustrates the effects of the many factors at play during the early months and years of a new planetarium. He concludes that

*“The quality of the program you deliver is very important because it will be a major factor in the word of mouth marketing. And, a poor program can be disastrous, maybe even worse than indicated by the model described in [his] paper. The overall quality of programs is a serious challenge to the new digital media because the costs of producing extraordinary programs can be very high. The planetarium community will need to find ways to meet this challenge in an affordable way to capitalize on the opportunities the new technologies offer.”*

-Dr. Jim Sweitzer[3]

Based on the TripAdvisor reviews analyzed in this report, some important factors in maintaining quality content include presenting a show that is topical and relevant, making it easy to digest for non-scientists and utilizing a talented live presenter. However, technology (image/audio quality, system performance) is a basic requirement and therefore has to hold up to a certain quality standard in order to not ruin the whole planetarium experience.

**Visitors appreciate the learning aspect of the planetarium experience and they expect astronomy to be on the agenda.** Comments on whether the show was interesting, educational or informative

proved to be important among both the positive and negative reviews. It is an aspect that visitors clearly care about and one which affects their overall satisfaction. Many also expect to be taken into space to see stars and planets – typically a clear differentiator between a visit to the planetarium and other forms of educational experience and related entertainment. Planetariums have an opportunity to position themselves more strongly as the venue for learning about science, one which takes you on an incredible visual journey in doing so. The planetarium has the opportunity to make science easier for all audiences to understand and take in through pedagogical and interactive live presentations and films.

An important point to be made here is that just because people expect astronomy, it doesn't mean that a planetarium only has to offer astronomy-based content. One can also exceed expectations and surprise the target group by offering immersive experiences within other sciences. When you have a clear understanding of your target group's expectations, you're in a better position to exceed expectations with content and other aspects of the visitors experience which they will likely be positively surprised by.

**Clear communication and marketing is important in order to avoid false expectations.** Within the TripAdvisor reviews analyzed in this report, it is apparent that there is a lack of clear communication and marketing from many organizations. People don't know what to expect and become disappointed when they have developed their own ideas of what the experience should entail and those expectations are unmet. This is important for everything from the brand identity of the planetarium to the subject, format and length of a show.

**Communication, marketing and the management of consumer expectations is important for the progress of the planetarium industry as a whole.**

If one doesn't clearly communicate what they have to offer and why they're so great at, no one will know. As Dr. Jim Sweitzer also concludes in the results based on the SPECTACLE model:

*"Don't neglect marketing. If you do, you won't get off the ground. You can slack off on it once word of mouth picks up, but you can't be perceived as an innovator if no one knows what you've done."* -Dr. Jim Sweitzer [3]

With the potential of today's planetarium technology, and in relation to competing

venues and home entertainment, it is important that planetariums work harder to improve their value proposition. This doesn't mean that the industry needs to move away from its roots, but to find its place in the current market. There are fairly easy and non-expensive ways to do this – and a part of it is just getting to know your target group better. Doing this will help to create more successful marketing strategies and programming, and hence lessen the gap between the value proposition and the target group's preferences and expectations.



## References

[1] Colleen Dilenschneider, 'Entertainment vs. Education: How your audience really rates the museum experience', <http://colleendilen.com/2013/07/31/entertainment-vs-education-how-your-audience-really-rates-the-museum-experience-data/>, (accessed 10 May 2016).

[2] Dave Verduyn, 'Discovering the Kano Model', March 19, 2014, <http://www.kanomodel.com/discovering-the-kano-model/>, (accessed 23 April 2016).

[3] Dr. Jim Sweitzer, 'SPECTACLE: A Model for Understanding New Planetariums, Science Communications Consultants'.

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