

The impact of animal presentations and personal interpretation leading to the development and application of Active Messaging Unit at Ocean Park Hong Kong

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Abstract

It is important to evaluate guests' educational experiences in zoos and aquariums. This paper utilizes surveys conducted before and after guests' visits at six facilities and an exit survey at Ocean Park to examine the impact of personal interpretation and animal presentations on guests. A new terminology, Active Messaging Unit, is introduced to quantify the average number of personal interpretation and presentations to which a guest is exposed to.



Introduction

There is no doubt that measuring the effectiveness of our educational messaging is one of the biggest trends in zoo and aquarium education. Conservation education is an important mandate for zoos and aquariums (Penning et al. 2009; WAZA 2005) and the industry must confirm that it is living up to its promise. What is even more important is for the industry to understand the effective ways in delivering messages so it could maximize the potentials of the experience. Ocean Park is a not-for-profit government chartered theme park in Hong Kong and has been accredited by Association of Zoos and Aquariums since 2002. The Park had started its first annual education

exit and attraction pre/ post survey in 2012/2013 to identify the overall and individual attractions' educational value. Through the survey, it was found that animal presentations were rated with the highest educational value. This paper will share key survey findings and how the Park set measurable goals to increase education's overall effectiveness.

Methods

An independent research company was employed to conduct the survey to prevent any potential bias. Six animal attractions at Ocean Park were chosen for this study including the Grand Aquarium, Rainforest, Giant Panda Adventure, South Pole Spectacular, Ocean Theatre and Bird Theatre.



The first four attractions listed are animal displays with interpretive elements and educators conducting narration; while the Ocean Theatre and Bird Theatre are show-type presentations with a conservation storyline in which the animals will demonstrate behaviours that could be seen in their wild counterparts.

While the first four attractions allow the guest to explore at their own pace, the two theatres are structured stories with a duration of 15 minutes. The survey interviews were conducted from November 15 to December 23, 2012.

The interviews were conducted at the entrance and exit of the animal attractions where the respondents were invited to have the pre-visit interview before entering the attractions; and post-visit interview when they left the attractions. To determine if the pre-survey influenced the post-survey outcome, a proportion of the respondents were only given a “simplified” post-only survey to reflect on their change in knowledge, attitude and commitment after viewing the exhibit.

Quota sampling was adopted in this survey. Target respondents were aged 10 or above where samples were evenly divided into three guest segments – local guests (Hong Kong locals), tourist visited as individual traveler and tourists who joined a tour group, which reflects the actual guest segments proportions for the Park. N=133/134 samples for each guest segment resulting in a total of N=400 samples for each animal attractions. In order for the results to be comparable among the six attractions, self-evaluation of knowledge towards conservation before and after the visit was asked using a 4-point scale.

There are certainly disadvantages in using this approach but it could allow a fair comparison among

the attractions. Guests were also asked about their attitude change and verbal commitment on behaviour change after visiting the attraction.

Other than conducting an annual survey focus on educational outcomes, the Park also conducts daily exit survey which covers a larger range of topics including guest demographic, purpose of visit and level of satisfaction. One of the questions which monitor the educational outcomes is “To what extent does the experience at Ocean Park enhanced your commitment to protect animal and environment?” The answers are measured on a 10-point scale. Score 0-6 indicate small or no impact. Scores from 7 to 10 indicate the experience have strong positive improvement on guests. The result of this daily exit survey will be used in the discussion section of this paper.

Results

The pre-survey was confirmed to have insignificant impact to the post-survey outcome when comparing the data obtained from the control group.

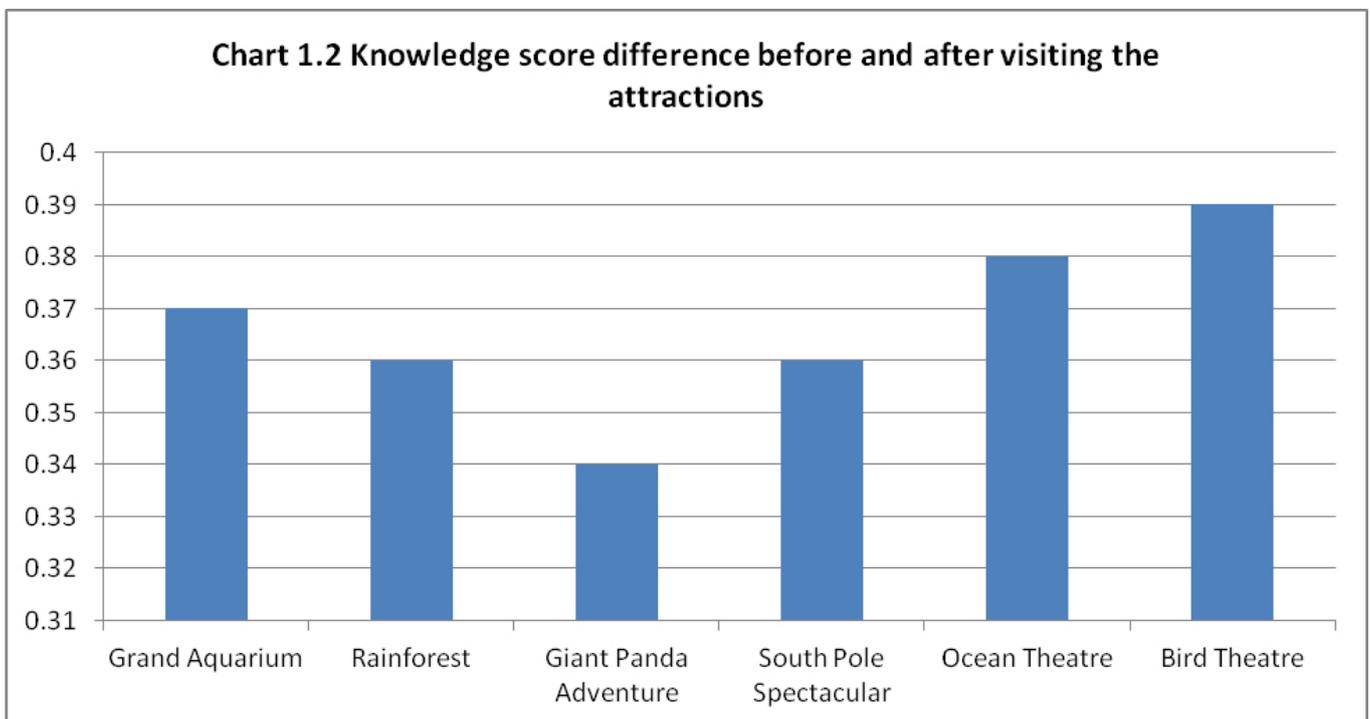
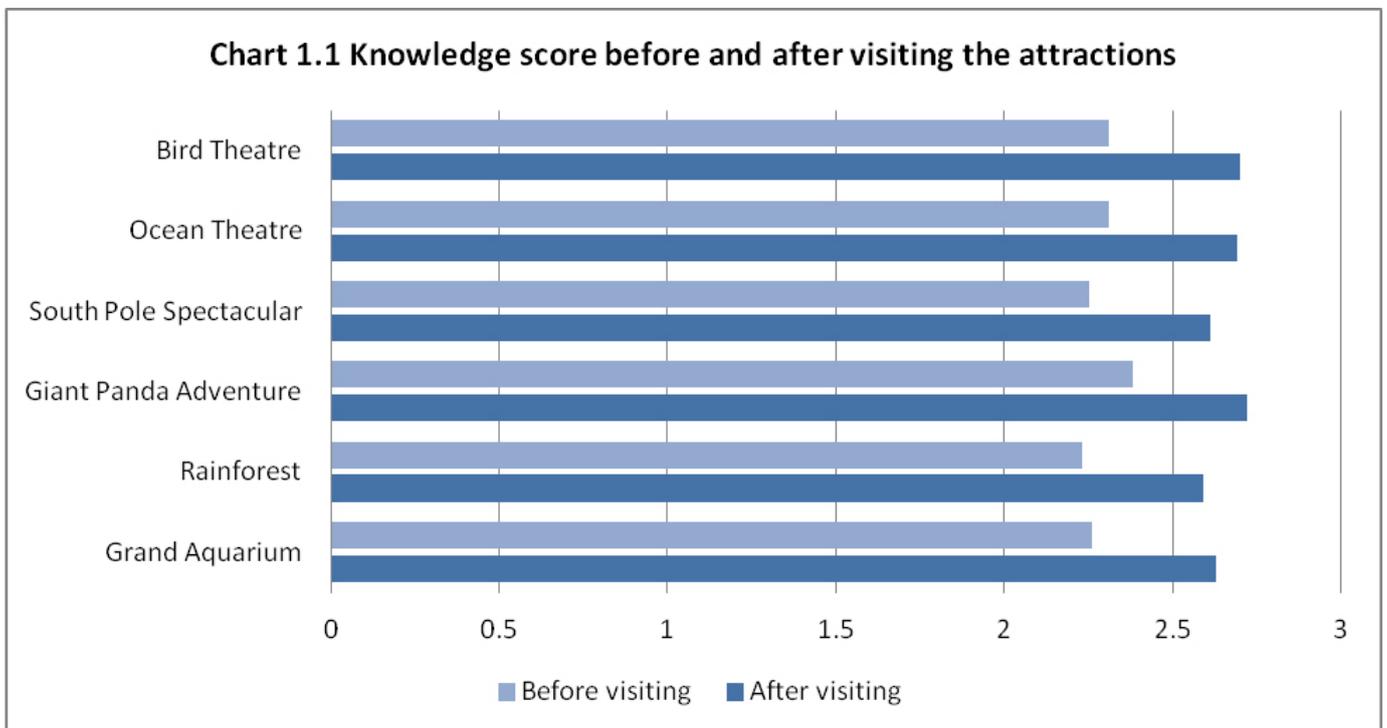
Knowledge change

After visiting the attractions, the respondents self reported that they are more knowledgeable as demonstrated by significant increase in the mean scores of all the six animal attractions.

While Giant Panda Adventure shows the highest self-reported score after the visit, the two theatre type of attractions (Ocean Theatre and Bird Theatre) showed the biggest increase in knowledge change.

Attitude change

On the question “My beliefs and attitude about animals and environment has been positively impacted” which was rated against a 10-point



scale, the mean score ranges from 7.19 to 7.96. The mean score for Rainforest was significantly lower than the other five while the mean score of Bird Theatre was highest, Ocean Theatre is the second, shortly followed by Grand Aquarium.

Verbal commitment

On the question “I am more committed to action that would support conservation” which was rated against a 10-point score, the mean score ranges from 7.32 to 8.09. The mean score for Rainforest was again significantly lower than the other five, while the mean score of Ocean Theatre was highest and Bird Theatre is the second.

This is a very brief survey largely rated in a self-reported manner. More studies will be needed to confirm the

actual knowledge and the behaviour change.

Discussion & Implications

The educational value of animal presentations

From the above results, it demonstrates that the animal presentations have the highest knowledge, positive attitude and verbal commitment impact on the guests. Although the other four animal exhibits do carry a storyline, they use a passive method of delivery and guests might not be able to pick up the storyline easily through a regular self-paced tour. The two presentations, on the contrary, are like a movie setting where you have a captive audience for the 15 minutes to introduce the story and talk about the conservation messages.

Chart 2 Positive beliefs and attitude change towards animals and environment after visiting the attractions

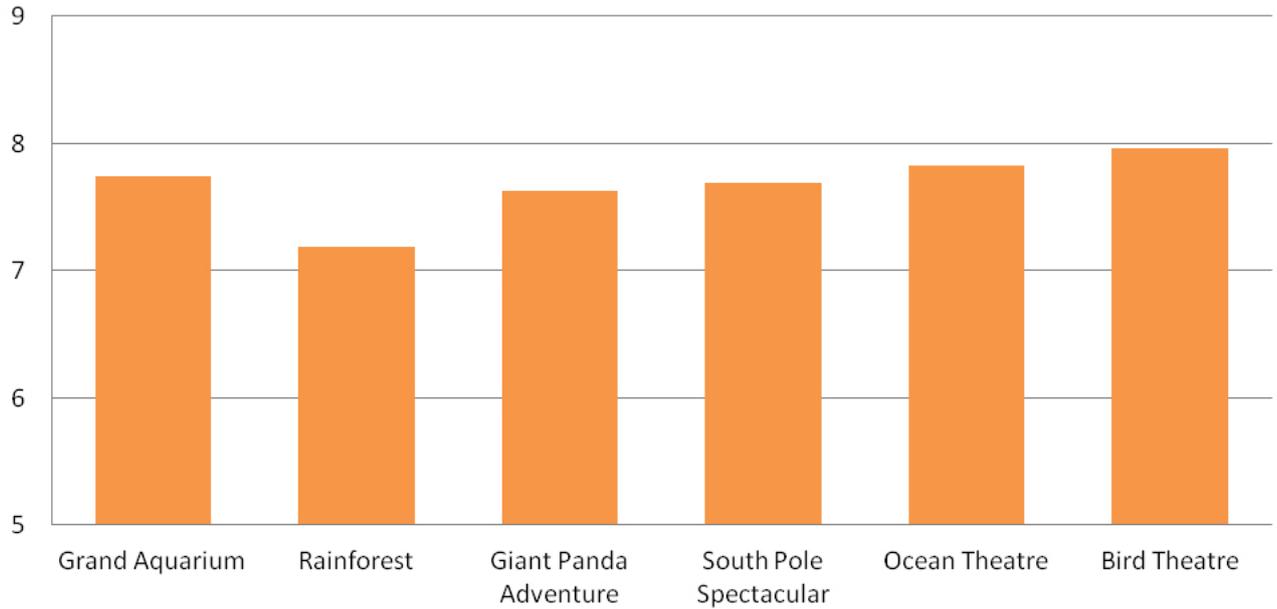


Chart 3 More committed to action that would support conservation

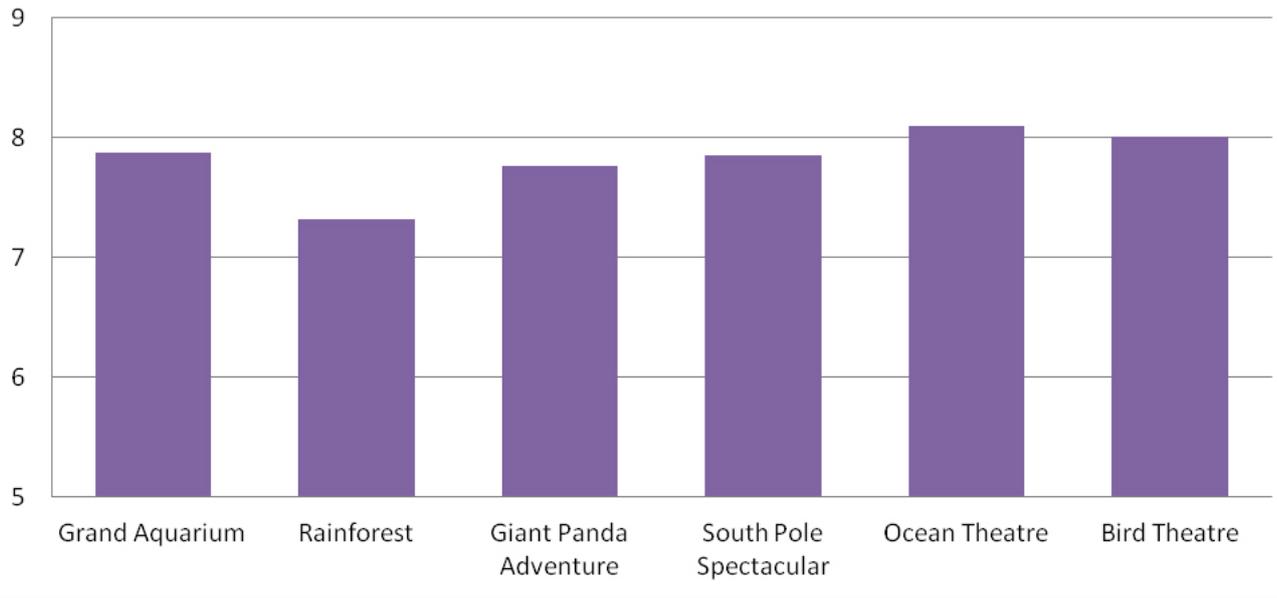
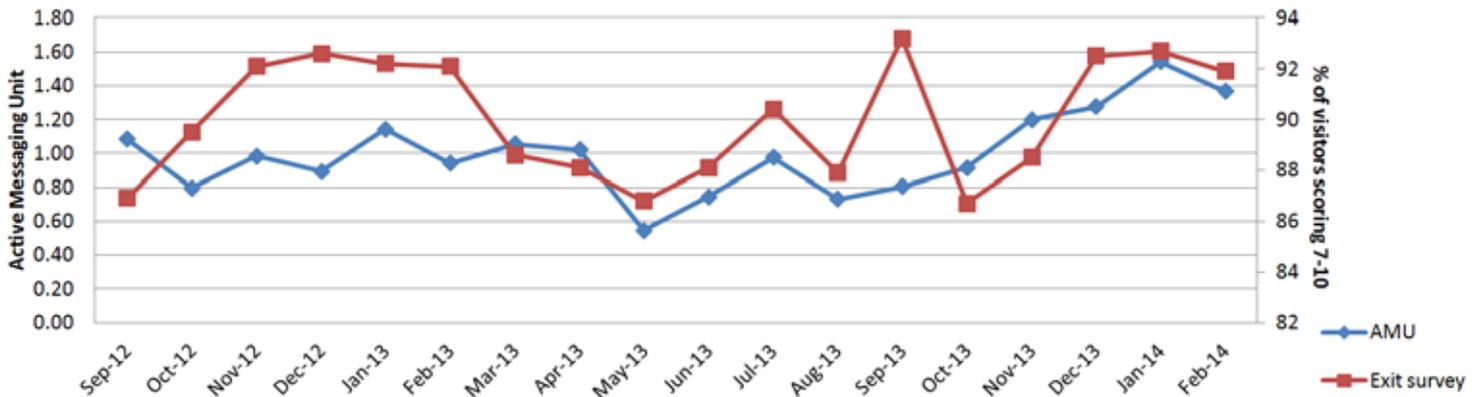


Chart 4 Relationship between Active Messaging Unit and percentage of guests' commitment to conserve



“Story” has been proven effective in education (McDrury & Alterio, 2002, Camiotti & Gray, 2012) and dolphin presentations have also been shown to be effective in United States (Miller et al, 2012). Guests’ actual behaviour change as result of Ocean Park’s dolphin presentation at the Ocean Theatre and bird presentation at Bird Theatre requires further studies, but this survey gives a strong indication that animal presentations have a larger impact over animal exhibits. With the increase in concern on moral and ethics for animal presentations, animal rights group have been requesting zoos and aquariums to ban presentations. It is worthwhile for zoos and aquariums to investigate the respectful way in conducting animal presentations. Ocean Park launched a new dolphin presentation in December 2013 to be more educational. Surveys will be conducted again to test the difference comparing to the previous presentation in the education and entertainment value. In this upcoming annual survey, the Park will also evaluate the exhibit “Secret Life of Seahorse”, which is a temporary exhibit adopted from Monterey Bay Aquarium with their kind support. Again, it would be interesting to see the results to see if such a nicely designed exhibit could give a higher educational value than animal presentations.

The education value of personal interpretation

Previous studies have shown that the more interpretation the guests experience during the visit, the higher is the education outcome (Weiler & Smith, 2009; Vernon et al., 2012). Monterey Bay Aquarium’s Multiphase Research Project – Inspiring Ocean Conservation (Vernon et al., 2012) has also revealed that staff members and volunteers serve important roles in communicating conservation messages. While the Ocean Park survey reflects guests’ positive outcomes in knowledge, pro-conservation attitude and verbal commitment after attending the six attractions, there appears to also be a positive correlation between the number of educators present onsite and the guest’s outcome. To measure the statistical validity of this relationship and explore the optimal numbers of educators, at exhibits with relatively lower education outcome, an index named Active Messaging Unit is created.

The application of Active Messaging Unit

Active Messaging Unit (AMU) is defined as:

(Number of audience for animal presentations + Number of guests the educators and trainers interacted through narration and programmes) / Overall Park attendance.

The Active Messaging Unit is compared against the daily exit survey results on asking the question “To what extent does the experience at Ocean Park enhance your commitment to protect animal and environment?” which is measured on a 10-point scale. Guests that score 7-10 are used to compare against the Active Messaging Unit for that month.

Pearson correlation for AMU and daily exit survey results is 0.44, which implies that there is a medium correlation between the two.

Since zoo and aquarium guest numbers differ every month, setting a target for AMU will help educators set measurable goals and arrange proper manpower (be it part-time or volunteers or full-time staff) each month. It is hoped that more zoos and aquariums could apply this concept and collectively the industry could measure if there is a certain “magical” AMU number which could cause a tipping point for pushing behaviour change.

Conclusion

Animal presentations and personal interpretation are shown to be effective in delivering conservation and influencing commitment to protect animals and the environment. With the use of Active Messaging Unit, it is hoped to set measurable goals for educators so that we could strategically manage the limited resources we have to achieve the highest impact.

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