VISITOR ENGAGEMENT WITH EDUCATIONAL SIGNAGE AT A ZOO EXHIBIT

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Abstract

Zoos provide an excellent location for educating the public about animals, conservation and other issues. Traditional forms of educational outreach include signs at exhibits that display information in a static or sometimes more dynamic manner. The effectiveness of these signs are important considering that education is one of the major goals of modern day zoos. At the Sun Bear and Sumatran Tiger Terrace at Zoo Atlanta, visitors can view the animals from an overlook and read informative signs about conservation status, enrichment practices at the zoo and basic animal demographic information. Previous research has found that visitors spend significantly more time at a zoo exhibit when a video or live presentation is available, while static signs did not enhance performance on survey questions. Other studies have found that technological additions have potential to positively influence visitor behavior and knowledge gain at the zoo. The current work is part of a larger project in which technological additions (i.e., a television monitor) will be added to the Sun Bear and Tiger Terrace to enhance visitor experience, but this data reflects baseline data collection before the installation of the monitor. We were interested in what other factors might influence visitor interaction with signage including the animal activity levels and total time spent at the exhibit. We hypothesized that visitors who spent more time at the exhibit would spend more time looking at signage and that when the animals were more active, people would spend less time looking at signs. We recorded behavioral data for 311 visitors, 68% female, and 77% of individuals had children. We selected the 10th visitor to enter the exhibit space to ensure a representative sample. From the 311 subjects, the average time spent viewing the signs was 7 seconds (*M*=7.34, *SD*=16.32) and the total stay time was 1 minute and 44 seconds (*M*=104.19, *SD*=55.50). There was not a significant relationship between the animal activity level and time spent viewing signage for the bears, *r*(309) = .108, *p* = .056 (Figure 2), nor the tigers, *r*(309) = .084, *p* = .138 (Figure 3). There was a statistically significant positive correlation between total stay time and time spent viewing signage, *r*(309) = .365, *p* < .001 (Figure 1). In conclusion, visitors who spent more time at the exhibit also looked at the signs more, suggesting that finding ways to increase the time spent at various exhibits might be an opportunity to increase visitor education at the zoo.

Background

- The zoo is an ideal place to conduct research because it attracts the general public and offers a semi-controlled environment.
- Modern zoos have four main goals including education, conservation, research and recreation.
- Perdue, Maple & Stoinski (2012) found that videos and/or live presentations increased stay time and knowledge compared to static signs alone at an orangutan exhibit.
- The present research investigated visitor interaction with traditional signage at the Sun Bear and Sumatran Tiger Terrace at Zoo Atlanta.

Results

- **Total of 311 visitors**
  - **68% female, 32% male**
  - **77% had children**
- **Visitors spent an average of 7 seconds (*M* = 7.34, *SD* = 16.32) viewing educational signage**
- **Visitors spent on average almost 2 minutes (*M* = 104.19 seconds, *SD* = 55.50) at the exhibit space**

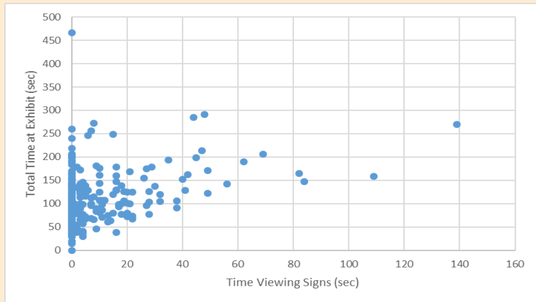

Figure 1: *r(309) = .365, p < .001*

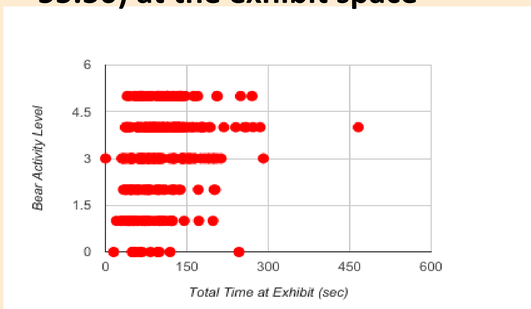

Figure 2: *r(309) = .108, p = .056*

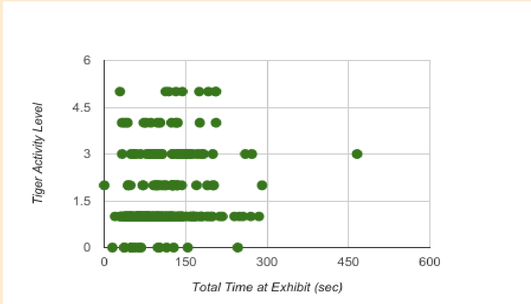

Figure 3: *r(309) = .084, p = .138*

Discussion

- Zoos attract a wide range of visitors that represent a diverse sampling of age, educational background, motivation, etc. Thus, zoos offer a unique opportunity to assess behavior and learning in a real-world environment.
- Various internal factors, such as an individuals identity-related motivation for visiting the zoo (e.g., Schultz & Joordens , 2014), and external factors such as exhibit design influence the knowledge gained at a zoo exhibit.
- It is critical for zoos to continuously evaluate the effectiveness of education programs (Jamieson, 1985).
- We found a significant correlation between the total stay time and the time spent viewing signs, suggesting that getting visitors to spend longer in the exhibit space might increase learning.
- Further research will explicitly examine the time spent viewing signs and knowledge gained.
- This work will help illuminate ways in which zoological institutions might best achieve their mission of educating visitors.