The Exhibits - The observational data showed visitors tended to visit the animal exhibits more frequently than the Zoo Games exhibits, but that they spent most of their time where there was the greatest opportunity for interaction: several of the Zoo Games and the hen and chicks exhibit. The interview data showed that visitors, especially the children, most enjoyed petting the animals and participating in several Zoo Games.

Informal Learning - Animal exhibits inspired twice as many social comments and over four times as many exhibit-related comments as the Zoo Games exhibits. Comments revealed that the visitors were involved in the immediate experience of touching, handling, and empathizing with the animals. The most common comments involved naming the animals and expressing a desire to pet them, as well as emotional responses. There were many comments about animal attributes but fewer about animal behavior. Further evidence that visitors lacked an in-depth curiosity about the animals is reflected by the fact that only 11 written questions were collected during the four days of study.

In contrast to the comments at the animal exhibits, the comments at the Zoo Games were more focused. Interpretive comments were more than twice as frequent at the Zoo Games as at the animal exhibits, making up close to 30% of all visitor statements there. Of these interpretive comments, about 75% involved visitors comparing themselves to the animals. These comparisons often indicated that children were first interested in their own performance, and second in what the animals did.

How might zoos provide more stimulating and educationally effective experiences for their casual visitors? Two recommendations can be made, based on the design and naturalistic study of the Animal Fair. People interested in education should study the social context of the casual visit to the zoo, and develop experience-based, multisensory activities that fit this context. Although the Animal Fair differs from other zoos in size, number of animals exhibited, and its science center location, the above two suggestions may be profitably applied to all zoos.

Exhibits - Four exhibits were selected for study, two which provided an opportunity for hands-on activity and two which were static.

Wind Power. This exhibit consisted of a Pepper’s Ghost device at which the visitor could move a switch to alternate between a scene containing a tornado aftermath and a scene of the result of a hurricane. Moving the switch alternated the illumination of two mirror-image chambers so that either the tornado or the hurricane scene was visible to the visitor. Each chamber contained a label in addition to the scene. While the switch provided an opportunity for hands-on interaction, the exhibit viewing window was about 30 inches off the floor which made it difficult for young children to see. To understand the message of the exhibit, label reading was necessary.

Snake. The first of three live snake exhibit displays was selected for study. This static exhibit was selected because snakes have a fascination for most people. It was also hypothesized that this exhibit would result in gender-related responses to the subject matter (snakes).

Music. This exhibit contained two African musical instruments and a platform on which the visitor could stand. The weight of a visitor on the platform resulted in the playing of recorded African music. This exhibit display had little text associated with it. It was clearly more “hands-on” than the other three exhibits in this study.

X-Ray. This exhibit display was located in the Egyptian Mummy area of the museum. It consisted of rear-lighted X-ray films of the individuals mummified in cases in another part of the exhibit. This exhibit was selected because it relied heavily on text for understanding. This was the second of the static exhibits.
Method

Visitors were systematically selected as they approached the exhibit. The first individual of a dyad (two-member group) to cross an imaginary line on the floor was selected for study. Gender and age of both individuals were recorded. The following behaviors were recorded: duration of viewing the exhibit; first to approach and withdraw from the exhibit; text reading; asking questions; giving information to the other individual; touching objects; and manipulating exhibit devices. After the target dyad left the exhibit area, the next visitor dyad to cross the imaginary line was selected for study. A total of 1,130 groups of visitors were observed in this study.

While a large amount of data was collected in this study, only the viewing time data of male and female adults is reported here.

Results and Discussion

Male adults. Figure 1 is a graph of exhibit viewing time across the four exhibits for male adults either with a child or with another adult. For two of the exhibits (Snake and X-Ray) the viewing time was the same whether with a child or with another adult. Wind Power and Music exhibits, however, resulted in different times with a child versus with an adult.

The Wind Power exhibit seems to have less interest for children than for adults and it is likely that male adults leave earlier than they otherwise would because of the lack of interest to the child.

The snake exhibit has equal interest for adult males whether with a child or with another adult.

The Music exhibit generates short viewing times for male adults who are accompanied by other adults. However, in the presence of a child, male adults show considerably longer viewing times.

The pattern of results suggests that male adults do indeed adjust their viewing times to those of their partners. If they are with a child, their viewing time reflects that of the child more closely. However, there is an exception. At the X-ray display male adults spend the same amount of time whether with a child or another adult. In addition, children spend the lowest amount of viewing time at the X-ray.

Female adults. Figure 2 graphs the exhibit viewing times across the four exhibits for adult females. Except for the X-ray display, females spent more time at the exhibit when with a child than when with another adult. The fact that adult females spent less time at the X-ray display when with a child than when with another adult suggests that female adults decreased their viewing time because of the child they were with.

Females accompanied by children spent about the same amount of time at all four exhibits.

Conclusion

Social influence of the group was strongly evident in this study. Both males and females spent a different amount of time viewing exhibits when they were with children than when they were with another adult. Females tended to adjust their viewing time more than males in the presence of children.

It was also evident that different patterns resulted from different types of exhibits. The Music exhibit was apparently most child-oriented and there was the largest difference between adults with other adults and adults with children.