CHAPTER 6

THE ZOO VISITOR: WHAT VISITORS THINK AND SAY

Victoria, a sun bear at Taronga, extracting food rewards from her enrichment log.

All our knowledge has its origins in our perceptions.

Leonardo da Vinci
Italian scientist, inventor, artist and mathematician (1452-1519).
Both Lars Andersen (1989) and Kenneth J. Polakowski (1989) compared the zoo with the concept of theatre, where the zoo enclosure represents a stage upon which the animals (actors) perform for the audience of zoo visitors. In this imaginary situation, the role of the enclosure was viewed simply as a backdrop against which the animals were displayed. In looking at these backdrops, visitors formed impressions and so developed their perceptions of the zoo. As previously indicated, little research has been carried out in Australian zoos to identify the wide range of viewing behaviours of visitors. Even less work has been carried out to develop an understanding of the way in which people perceive the different enclosures, comprehend the needs of animals and appreciate some of the difficulties of providing for them in captivity.

Human beings are unique in terms of their sensory ability (Robinson, 1989). By using one or more of their senses, it is possible for humans to increase their understanding and so develop their perceptions. In humans, the most important of these senses is stereoscopic vision, particularly since their sense of hearing is relatively limited and their sense of smell is poor. The perceptions formed by visitors during their visit to the zoo developed as the result of images created in their minds, images that were shaped and influenced by the aesthetics of the enclosure. Since it was normal for visitors to draw their own conclusions once they had viewed an exhibit, the possibility existed that in some circumstances the images formed could be illusions, false impressions or misapprehensions, with the potential of leading to misperceptions.

Of the four components of the zoo mission statement, conservation and research relate mainly to the animals, whilst education and recreation relate to zoo visitors. This research has already demonstrated that the characteristics of the animals influence the patterns of behaviour of visitors, particularly since visitors stay longer at the exhibits when the animal is most active. Studying the thoughts and attitudes of visitors provided useful information, which assisted with evaluating the zoo in its educational and recreational roles. The previous chapter explored the patterns of viewing behaviours that were observed as visitors looked at different animals in the zoo. The work discussed in this chapter evaluated the perceptions which formed as a result of visitors looking at different animals in the zoo. An appreciation of the different components of the zoo mission statement was examined. The degree of satisfaction of visitors with their actual visit and their perceptions of various components relating to both the enclosures and the animals on display were determined. The different factors which attracted the attention of visitors and the reasons that some exhibits were more
popular than others were analysed, along with the likes and dislikes of visitors towards different zoo animals and enclosures. In essence, the research reported in this chapter considered the thoughts of visitors and the factors which affected the attitudes and influenced the different feelings and viewing patterns displayed by visitors as they looked at animals in the zoo. The data obtained provided information reflecting the perception and satisfaction of visitors to the zoo. This section of the research was significant in that it supplied evidence relating to visitors’ thoughts and perceptions about the zoo and the different enclosures. The information gleaned from this study should provide valuable assistance to administrators in the planning and promotion of the zoo and in the management of the visiting public.

6.1 Visitor perception of the Zoo mission statement

In general, mission statements have been used to describe the overall aims and objectives of an institution, usually in the form of a concise narrative statement. The mission statements of most zoos reflect a degree of similarity in that they revolve around four basic components of research, conservation, education and recreation (Appendix). In this regard, Adelaide and Taronga Zoos were no exception. The mission statement of The Royal Zoological Society of South Australia includes the words ‘to continue and expand its role in conservation, education and research on the World’s threatened wildlife’; that of Taronga aims to ‘demonstrate a meaningful and urgent commitment to wildlife, our natural environment and the pursuit of excellence in our conservation, recreation and scientific endeavours … to inspire active and enjoyable learning experiences’. Visitors were asked to rank the level of importance of each of the four key roles by giving a ranking score with a maximum of five (5). The means of each of these sets of figures were calculated (Figure 6.1; Appendix Table 6A).

All four components were ranked highly and there was no significant difference between the two sets of results. Education and conservation were ranked the most important of the four components of the zoo mission (mean ranking 4.54), despite the fact that, as shown in Chapter 4, only 13% of visitors specified that they came for educational purposes, and less than 1% of respondents made reference to either research or conservational motivations. Survey responses indicated that education was an assumed quality of the zoo and was considered important once visitors were actually viewing the exhibit. Parents valued the zoo visit highly because of the wide range of opportunities presented, giving the possibility of
enhancing learning. They considered that it was important to visit the zoo to ‘expose children to new ideas of the world around them’ (A172), ‘allow children to learn whilst we have a great day out’ (A263) and allow ‘the children to learn about animals’ (T381). Several responses indicated that in family groups, children expected to see animals that related to storybook animals or were well known because of viewing television programmes. Researchers such as Brown (1973) and Susan Dale Tunnicliffe (1994) have previously recognised similar responses.

![Figure 6.1: Satisfaction ranking: Components of mission statement.](image)

Maximum ranking score 5.
Source: Exit survey question 10.
Total 850 surveys (Adelaide 450 – Taronga 400)
Reference: Appendix Table 6A.

Although ranked lowest, entertainment was still regarded as important by visitors, with mean ranking scores of 3.74 at Adelaide and 3.86 at Taronga (Figure 6.1). In both zoos it was apparent that membership encouraged repeat visiting, particularly with mothers of young children who recognised the value of potential education for their children; while at the same time they appreciated the opportunity to enjoy the recreational and entertainment value offered by the zoo. Family groups considered that their visit to the zoo was an exciting leisure
outing, which may well have been related to the fact that many visitors, particularly in Adelaide, combined their visit with other leisure activities outside the zoo. Tunnicliffe (1995a) also found that the zoo was regarded as a leisure outing for the family group.

As discussed in Chapter 4, the main motivations given by people for visiting the zoo revolved around thoughts of recreation and entertainment, related to their expectations of enjoying a relaxing time of leisure. To attract visitors into the zoo, marketing and management have presented the image of the zoo as an enjoyable centre for recreation. The South Australian Tourism Commission (SATC 2417/796) promoted this idea with the following description:

Adelaide Zoo’s unique combination of contemporary enclosures, heritage buildings, lush garden setting and sensitive landscaping ensures a delightful environment for both animals and visitors.

In promoting their journey to Taronga, Sydney Ferries suggested that visitors:

Take the Sky Safari and enjoy a panoramic view of Sydney Harbour before venturing deep into the lush forests of Taronga Zoo. Discover over 2,000 unique native animals and exotic creatures from around the world.

To the public, the image of the zoo was associated with leisure activity. Although the zoo fundamentally existed for the keeping and display of wild animals, visitors regarded it as a site for recreational purposes and their own enjoyment. Although their motivations for visiting did not revolve around conservational issues or scientific research, visitors perceived these factors to be the most important in the mission of the zoo and recognised the need for the zoo to be a centre of excellence in these areas.

*We came to see the zoo as a holiday activity, and we were most impressed to see the zoo taking such an interest in conservation* (A142 – visitors from New Zealand).

*We came out of interest, but were very impressed with the conservation message of the zoo, to see animals like the elephants, living in a far better environment and hopefully contributing to the conservation of the species* (TG21 – an older couple from rural New South Wales).
6.2 Visitor perception of the zoo

As outlined in Chapter 3, visitors were asked to indicate their satisfaction with the zoo, giving a Likert rating ranging between ‘very poor’ and ‘excellent’. The percentage responses of these ratings were tabulated (Appendix Table 6B) and are shown diagrammatically (Figure 6.2). Overall, visitors rated their level of satisfaction highly in both zoos, with Taronga being assessed slightly more highly than Adelaide. In Adelaide, 43% of respondents rated the zoo as excellent and 39% as very good; at Taronga, 46% rated the zoo as excellent and 39% as very good. In both cities, only 2% of visitors rated the zoos as less than satisfactory.

![Figure 6.2: Satisfaction rating of Adelaide and Taronga zoos.](image)

Source: Exit survey question 16K.
Total 850 surveys (Adelaide 450 – Taronga 400)
Reference: Appendix Table 6B.
To obtain an objective assessment of the zoos, visitors were asked to rank the zoo, giving a score out of five. The mean and standard deviation of these ranking scores were calculated (Table 6.1).

**Table 6.1: Ranking of zoo.**

*(Maximum Score 5)*

<table>
<thead>
<tr>
<th>Zoo</th>
<th>Total Score</th>
<th>Responses</th>
<th>Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adelaide</td>
<td>1900</td>
<td>450</td>
<td>4.22</td>
<td>0.80</td>
</tr>
<tr>
<td>Taronga</td>
<td>1711</td>
<td>400</td>
<td>4.28</td>
<td>0.78</td>
</tr>
<tr>
<td>Combined</td>
<td>3611</td>
<td>850</td>
<td>4.25</td>
<td>0.79</td>
</tr>
</tbody>
</table>

Source: Exit survey question 18.
Total 850 surveys.
(Adelaide 450 – Taronga 400)

As mentioned in Chapter 4, frequent visitors ranked the zoo higher than did infrequent visitors. Although international viewers ranked the zoo highly, their level was not as high as that of locals. At Taronga, international visitors ranked the zoo at 4.14, a figure slightly lower than the overall mean of 4.28. This was thought to be linked with such visitors comparing their expectations with zoos they had visited in other countries, or with other tourist activities. It was also possible that this slight variation may have been the result of a more parochial response from local visitors; these included zoo members and frequent visitors, who tended to rank the zoo higher.

*We love the Adelaide Zoo, because it is so accessible with lovely gardens, just the right size to enjoy all aspects, we come every month* (A162).

*It was such an easy day out with the kids, we come at least once a month, it really is a beautiful zoo, the very best!* (T158).

*Compared to other zoos, this was not much* (T113 – international visitor from the USA).

*We don’t have koalas in Switzerland, and to see them was fantastic – this is the best zoo we have ever been to* (T260 – international couple).
6.3 Visitor perception of the visit

Using Likert ratings, visitors were asked to assess their levels of satisfaction with each of four main aspects of their visit. These represented the recreational, entertaining, educational and informative components experienced when visiting the zoo. The percentages of responses for each level of satisfaction were tabulated (Appendix Table 6C) and are shown in Figure 6.3. The rating levels at both zoos were similar, with no significant difference.

![Figure 6.3: Satisfaction rating: Components of actual zoo visit.](image)

Source: Exit survey question 15, Exhibit survey question 12.
Total 2,175 surveys (Adelaide 1,175 – Taronga 1,000)
Reference: Appendix Table 6C.
Although visitors considered recreation and entertainment as the lowest of the four mission statement components (Figure 6.1), their motivations for visiting centred on these components (Figure 4.11) and they considered these factors as the most important in their actual visit. As shown (Figure 6.3), 44.2% of visitors rated recreation as excellent and a further 37.9% as very good. Although rated as the lowest of the four, the ‘informative’ factor was still rated as very good or excellent by 71.3% of visitors. Less than 3% of respondents considered that these components of their visit were less than satisfactory. Although there was some indication that this lower response was linked with infrequent and international visitors, the numbers were so small that a correlation could not be established.

_The plants and the trees make the place like a botanic garden – it is so beautiful and relaxing, and so entertaining (A107)._ 

_The zoo is an education for both adults and children – they learn a lot more seeing the animals than just looking at books (A378)._ 

_We always enjoy visiting the zoo, the animals are so amazing and we learn so much every time we come (T206)._ 

_This is a beautiful zoo to visit, it was so educational and the animals were so well cared for (T216)._ 

_We loved it, we were just so in awe to see such wonderful animals we will probably never see anywhere else (T222)._
6.4 Visitor perception of enclosures and animals

Using the Likert rating of 1 (poor) to 5 (excellent), visitors were requested to assess their perceptions of ten separate components of their experience in looking at the different exhibits in the zoo. Six of these related to the exhibit enclosure (cleanliness, attractiveness, natural realistic, educational, signage and learning venue) and four related to the animals (animal behaviour, animal activity, happy animals and enrichment items). A comparison of the percentage of responses rating each item as excellent in both zoos is shown in Figure 6.4.

![Figure 6.4: Satisfaction ratings: Enclosures and animals. Percentage of responses rating ‘excellent’. Source: Exit survey question 16. Total 850 surveys (Adelaide 450 – Taronga 400) Reference: Appendix Table 6D.](image)

It is likely that these ratings were influenced by impressions developed as a result of viewing the individual activities of the animals on display, or individual features of the
exhibit which appealed to the visitor, or other factors such as the weather and the time of the day. It was apparent that a number of different factors influenced viewing patterns, such as competition between exhibit features, exhibit signs and neighbouring exhibits, as well as the appeal of the animals themselves together with their degree of activity or inactivity – aspects previously mentioned by Bitgood et al. (1988). At Adelaide, feeding sessions at the seal enclosure distracted visitor attention from the otters, and the sounds of roaring lions and performing siamangs always attracted attention away from surrounding exhibits. Similarly, at Taronga, the activity and general appeal of the meerkats constantly distracted attention from the Himalayan tahr enclosure, and the keeper talks at the chimpanzee or gorilla enclosures always attracted large crowds of people, resulting in lower numbers viewing exhibits in the immediate vicinity.

The satisfaction ratings of visitors in both zoos were similar, with only 7% of responses regarding the various features as less than satisfactory. Exhibit cleanliness rated highest (41.2% excellent), and the zoo as a learning venue was rated second (36.8% excellent). Although visitors indicated that they had come to the zoo expressly to see animals, the features related to animals and animal welfare were rated lower by visitors than those related to exhibits and enclosures. The use of items to enrich animals’ well-being and animal activity was rated lowest (14% excellent), the activity of animals second lowest (18.5% excellent), with the third lowest in both zoos being the visitors’ perception of how happy the animals appeared (20.1% excellent). The greatest variation of opinion and the greatest degree of dissatisfaction were expressed with enrichment items (12.2% being very dissatisfied and 30.1% less than satisfied). This low response may be attributable to various items not being observed, not being appreciated, or their purpose not being understood. The perception of animal activity was variable and appeared to be dependent upon several factors, such as the time of viewing, weather conditions and behaviour of viewing crowds. Several visitors provided a justification for their lower ranking, with responses such as ‘it was a hot day’ or ‘the animal was asleep when we went there’. Consequently, although watching live animals could be regarded as simple viewing, it became apparent that visitors became psychologically immersed when looking at various aspects of the exhibit, particularly when the animals showed behaviour which visitors perceived as unusual or displayed unexpected behavioural patterns such as manipulating the various enrichments.
Throughout this research, the two most commonly used terms by visitors were ‘natural’ when referring to the enclosures; and ‘happy’ when referring to the animals. These two features are now considered in further detail.

6.4.1 ‘Natural’ enclosures

As indicated in Table 6.2, overall 27.2% of visitors rated the natural appearance of enclosures at both zoos as excellent. At Adelaide 62.7% of visitors rated the natural and realistic appearance of exhibits highly. At Taronga this figure was slightly higher at 67%. Less than 8% of visitors rated the appearance of enclosures at Adelaide as less than satisfactory, compared with 4.3% at Taronga, although it was noticeable that those who rated the appearance as less than satisfactory were mainly interstate visitors (35%) or infrequent (37%) visitors. Throughout the period of this research, considerable construction work occurred in both zoos, with the development of the South East Asian Rainforest immersion exhibit in Adelaide and the Wild Asia display incorporating the new elephant enclosure at Taronga. This work meant that a small number of older enclosures were temporarily unoccupied, a factor which was commonly perceived by visitors in a negative sense. Visitors did not regard these ‘empty’ enclosures highly.

<table>
<thead>
<tr>
<th>Ratings</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adelaide</td>
<td>0.7</td>
<td>6.9</td>
<td>29.8</td>
<td>35.1</td>
<td>27.6</td>
</tr>
<tr>
<td>Taronga</td>
<td>0.3</td>
<td>4.0</td>
<td>28.8</td>
<td>40.0</td>
<td>27.0</td>
</tr>
<tr>
<td>Combined</td>
<td>0.5</td>
<td>5.5</td>
<td>29.3</td>
<td>37.4</td>
<td>27.2</td>
</tr>
</tbody>
</table>

Figures expressed as a percentage.

Source : Exit survey question 16E.
Total 850 surveys (Adelaide 450 – Taronga 400)
In Chapter 5 the popularity rankings of different exhibits were determined. These exhibits were then grouped in terms of the classification order developed in Chapter 3, and the means of rankings were calculated for each of the three orders, so as to gain an appreciation of the way in which visitors considered the different enclosures as being 'naturalistic'. In both zoos visitors ranked the third order (more naturalistic) highest and the first order (least naturalistic) lowest (Figure 6.5).

Figure 6.5: Ranking of enclosures – natural classification.

**Maximum score 10**

Source: Exhibit survey question 6.
Total 1,325 surveys (Adelaide 725 – Taronga 600)
Reference: Appendix Table 6E.
Visitors considered that the most naturalistic and realistic exhibits in Adelaide were the siamang, otter, meerkat, and flamingo enclosures; at Taronga they were The Creatures of the Wollemi, sun bear, gorilla and meerkat enclosures. In both the siamang and the Wollemi enclosures, visitors had the opportunity to see animals moving freely, with clear uninterrupted vision from close quarters, in a manner that created the impression that the animals were in their natural surroundings. Viewers regarded these enclosures as ‘natural’, particularly since they assumed that the animal was allowed a greater freedom of movement. Typical visitor responses included:

*It looked so natural with spacious attractive surroundings – Siamang (AS2).*

*We were so close to animals playing in their natural environment – Otter (AO34).*

*The surroundings really made us feel we were in a natural habitat – Wollemi (TW3).*

*I loved seeing animals so close, they did not seem to be enclosed – Gorilla (TG6).*

The perceptions of visitors were greatly influenced by the general surroundings to the enclosures. This influence was particularly apparent when comparing responses given regarding the giraffe enclosures in the two zoos. Both enclosures were similar in age and structure and featured older style animal shelters, bare substrate surfaces and minimal vegetation. At Adelaide, viewers formed the impression that the enclosure was barren, probably because they viewed the animal against the bare brick wall forming the background of the enclosure. Visitors regarded this enclosure as unnatural in appearance and rated it low in the exhibits studied in Adelaide (Appendix Table 6D). In comparison, scenic views of Sydney harbour and the city skyline provided the background at Taronga, leading to the finding that visitors perceived the enclosure as natural, as mentioned previously in Chapter 5.

Comments made referring to the giraffes included:

Adelaide:

*The poor thing must be bored to death in such a poor space (AG21).*

*It’s totally boring and unnatural (AG39).*

Taronga:

*The natural way they are displayed (TG3).*

*Seeing beautiful animals so close in a natural environment (TG16).*
The meerkat enclosures in both zoos reflected simple constructions. In Adelaide, an elongated enclosure consisting of sand, succulents and some mock rock was positioned in front of the giraffe enclosure (Plate 6.2). Further interest was generated by the presence of new babies, which were clearly visible and easily seen in close proximity. At Taronga, the enclosure was composed simply of loose sand mounds surrounding a tree, with a concrete and brick enclosing wall, on which had been depicted desert scenery. Surveys confirmed that visitors in both zoos believed that the meerkat’s natural habitat was a desert environment similar to that depicted in the exhibit. Visitors were attracted to the meerkat exhibit because of their personal feelings and emotions, as well as by the constant playful activities of the animals. Both exhibits proved popular with visitors and created a centre of attention for long periods, mainly as a result of the activity and closeness of the animals. Not only were the meerkats clearly visible, their wide range of behaviours could be observed constantly. The positive interest and feelings that visitors developed towards the animals probably increased their rating of the naturalness of the enclosure.

Some comments relating to the meerkats included:

*The meerkats are so inquisitive, playful, curious and cute (TM18).*

*They are gorgeous and make cute sounds (TM24).*

*They are so cute, I love watching them, they remind me of the Lion King (TM40).*

*They are very cute, but are smaller than they appear on TV (TM32).*

*They are so playful (T414).*

Plate 6.2: The meerkat enclosure in front of the giraffe enclosure at Adelaide Zoo.
Viewing times at the beaver enclosure in Adelaide were markedly related to visitors’ negative impression of the enclosure. They perceived it as not natural. These negative impressions may have developed because the beavers were not normally active until late in the afternoon, spending most of the daytime viewing hours out of sight in their lodge. Visitors often complained that the enclosure appeared to be old and barren. Although the beavers had constructed the wooden lodge from natural materials (Plate 6.3), viewers failed to recognise it as such, as it was not always appreciated nor understood. In some responses visitors indicated that they considered that the enclosure had not been adequately cleaned because of the presence of the branches. When the animals were not seen there was a tendency for visitors to concentrate their attention on either the concrete surroundings or the wooden lodge, with the consequence that they formed the idea that the enclosure was not natural. These negative perceptions appeared to develop as the result of a lack of explanation providing knowledge and understanding of the animal.

Some comments included:

The exhibit was not very attractive – rather dull and uninspiring (AB4).

It was not a natural environment, there was nothing there (AB3).

It was too small, there was nothing there (AB12).

Plate 6.3: Beaver lodge at Adelaide Zoo.

It was boring, dull and unimpressive (AB15).
The Helmore Aviary, which housed the Australian parrots at Taronga, was described as uninteresting, unnatural, boring, providing insufficient space for the birds and presenting too much metal and concrete (Plate 6.4). The mean viewing time for all groups passing this exhibit was only six seconds (Chapter 5). A number of misconceptions were noted at this particular exhibit, which visitors rated as one of the least popular at Taronga. Many viewers indicated that an aviary was not a natural environment for birds. Even though viewers realised that wooden surrounds would not be adequate and would be subjected to attack from the parrot beaks, the amount of visible metal present in the structure was not appreciated.

Comments included:

*Maybe the birds were there, we only glanced in passing (TH28).*
*There was too much concrete and metal to see the birds (TH39).*
*Birds are boring, you can see them anywhere (TH25).*
*There was no movement, they just sat there (TH15).*
*There was nothing there, it was too small (TH23).*

Plate 6.4: Helmore aviary in Taronga Zoo.

Viewing times at the Himalayan tahr enclosure at Taronga were affected by the proximity of the meerkat and red panda enclosures. Many visitors who approached completely ignored the tahr because they were distracted by the meerkats. Once visitors had
finished viewing the meerkats, their attention invariably diverted to the red panda enclosure (which was perceived as natural because of the tree and the amount of surrounding visible vegetation) rather than the tahr enclosure (which was perceived as boring because of the large concrete mountain and the bare surrounding concrete). At Adelaide, a similar enclosure that displayed the Barbary sheep was situated opposite the main entrance (Plate 6.5). Visitors who entered the zoo through the main entrance invariably looked at this enclosure first, so this provided the first impressions which formed in the minds of the visitors.

Plate 6.5: Barbary sheep in Adelaide Zoo.

*It's rather boring and unimpressive, it doesn't look natural*

It was apparent that visitors’ thoughts and ideas were negatively influenced by a range of factors which included old enclosures (tiger in the old enclosure at Adelaide, spider monkey at Taronga), inactivity (orang-utan in the old enclosure at Adelaide, Kodiak bear at Taronga), perceived boredom of animals (giraffe in Adelaide, Burma the elephant at Taronga) and the difficulty of viewing the animal clearly (beaver in Adelaide, Helmore Aviary in Taronga). As demonstrated in Section 6.7, the main reasons visitors gave for disliking particular exhibits related to their assumptions that the enclosures were too artificial or lacking in vegetation, together with misconceptions that an animal which remained inactive or paced was either unhappy or bored. Enclosures with artificial items, often enrichment devices, were also often perceived as unnatural and consequently were considered not good for the animals’ welfare.
6.4.2 ‘Happy’ animals

The concept of animals being happy has created differences of opinion and debate. In this research the use of the word *happy* was not necessarily regarded as anthropomorphic. It was simply a word that language readily made available to cover the many meanings visitors were attempting to express. Some zoo researchers and administrators have denied the existence of psychological well-being in animals, let alone the possibility of their experiencing ‘happiness’. In agricultural species, the psychological state of different animals has often been ignored. On the other hand, pet owners have often maintained that they are aware of different moods of their pet and that these moods can be easily identified. Within the zoo environment, visitors commonly interpreted different behavioural activities of the animals as being related to happiness. Some researchers, such as Shepherdson (2003), have preferred to use the term ‘well-being’; others such as Jeffrey Masson and Susan McCarthy (1996) have provided compelling arguments for animal sensibility. Biologist Ian Redmond has even reported that gorillas sing when they were especially ‘happy’ (Montgomery, 1991:146). Certainly, visitors to the zoo had no problem in expressing their opinion and in describing the different species: more than 96% of visitors used terms such as ‘happy’, ‘sad’ or ‘bored’ to describe the animals they observed. Since these terms were commonly used and clearly understood by the public, they were consequently used throughout this research. The satisfaction ratings, in terms of how the visitor interpreted how happy the animal appeared to be, are summarised in Table 6.3.

*Table 6.3: Satisfaction ratings: Happy appearance of animals.*

(Poor: 1 - Excellent: 5)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adelaide</td>
<td>1.6</td>
<td>9.1</td>
<td>33.3</td>
<td>38.4</td>
<td>17.6</td>
</tr>
<tr>
<td>Taronga</td>
<td>1.0</td>
<td>9.5</td>
<td>29.8</td>
<td>36.8</td>
<td>23.0</td>
</tr>
<tr>
<td>Combined</td>
<td>1.3</td>
<td>9.3</td>
<td>31.7</td>
<td>37.6</td>
<td>20.1</td>
</tr>
</tbody>
</table>

Figures expressed as a percentage.

Source: Exit survey question 16H.
Total 850 surveys (Adelaide 450 – Taronga 400)

These responses reflected that the majority of viewers (89.3% at Adelaide and 89.6% at Taronga) considered that the animals appeared happy. This rating factor was determined for individual exhibits, using responses from the exhibit surveys, and the results are shown diagrammatically in Figures 6.6 (Adelaide) and 6.7 (Taronga).
Figure 6.6: Satisfaction rating: Happy appearance of animals at Adelaide Zoo. (Percentage rating ‘excellent’)

Source: Exhibit survey question 9H.
Total 725 surveys.
Reference: Appendix Table 6F.

All the animals looked so happy (A37).
Figure 6.7: Satisfaction rating: Happy appearance of animals at Taronga Zoo.
(Percentage rating ‘excellent’)

Source: Exhibit survey question 9H.
Total 600 surveys.
Reference: Appendix Table 6G.

We loved the animals, they were all every happy (T81).

At Adelaide, visitors rated the meerkat and the flamingo highly in terms of how happy they appeared. This high rating was a response to the way in which the meerkats attracted attention because of their constant activity and their high emotional appeal, whereas the flamingo interacted and vocalised with people as they passed the enclosure. The rating given to the beaver was the lowest, which was a response to either the animal being out of sight or the appearance of the enclosure. The bearing of the enclosure on visitors’ assessment of happiness was also apparent in the ratings given to the tiger and the orang-utan. During the progress of this research, these animals were moved into new exhibits, so that visitors viewing patterns were observed at both the old and the new enclosures. In their old enclosures, the
‘happy appearance’ of both these animals was perceived as low, which was attributed mainly to the facial appearance of the orang-utan or the camouflage patterns of the tiger which made the animal difficult to see. In their new enclosures in the South East Asian Rainforest development, both animals were considered more happy (Figure 6.7). Similarly, at Taronga, new developments were carried out during the research period, where similar responses were noted.

Contrasting perceptions were observed among visitors at Taronga’s gorilla enclosure. When the animals were moving actively around the enclosure during feeding sessions or when the juveniles were playing, visitors displayed more interest, perceived the enclosure as natural and the animals as happy. On days of inclement weather, when the gorillas tended to remain inactive and sheltered in their den, the animals were perceived as bored or unhappy (Plate 6.6). It was noticeable that visitors often made an assessment relating to one of the older gorilla mothers, Kriba, that was based solely on her facial appearance. Although Kriba was actively nursing and caring for her young offspring, viewers often perceived her as bored, simply because of her ‘serious’ facial appearance. These responses confirmed that perceptions were the results of individual interpretations and might not necessarily be accurate.

![Plate 6.6: Mother gorilla with her young baby at Taronga.](image)

*She looked bored* (TG31).
Similarly, varieties of views were recorded at the koala enclosures. Since the koalas spent the majority of the day asleep, they were generally inactive, resting in the treetops. At Adelaide, where viewing was from ground level, the koalas received minimal attention, particularly since many visitors did not take the time to look for them. Koala Walkabout at Taronga Zoo (Plate 6.7) featured an elevated walkway which allowed visitors to view these marsupials from a close distance, at tree top level, while at the same time it provided excellent photographic opportunities of a unique Australian animal. As a consequence, both the animals and the enclosure were rated highly, and visitors perceived the enclosure as natural because of their close proximity to the koalas and the amount of visible green vegetation.

Inaccuracies of perception often developed because of misconceptions related to animal activity, as well as emotional feelings. At Adelaide, the otters were generally active for long periods throughout the day. However, survey responses showed interesting correlations. When the otters were active the enclosure was perceived as natural. However, when the otters were inactive or sleeping, the animals were perceived as dull and boring and the enclosure was regarded as unnatural since too much concrete was visible in the construction. Similar circumstances were observed at the sun bear exhibit at Taronga. When the sun bears were busy manipulating various enrichment devices, viewers perceived the enclosure as natural and the animals as happy. When either of the sun bears commenced pacing (in some cases only a
few minutes before the keepers were due to arrive with the main feed of the day), the enclosure was seen as inadequate and the animals were perceived as being unhappy or bored.

When visitors observed an animal pacing in its enclosure, they perceived that animal as bored or unhappy and consequently assumed that the animal was not well cared for by the keepers. A number of misconceptions were apparent in this interpretation of pacing, particularly in relation to the golden cat and the sun bears (Plate 6.8). These misconceptions were likely to be the result of a lack of knowledge of the animals and their patterns of behaviour. At times, when one of the sun bears commenced pacing near the den doors immediately prior to their feeding session, viewers misinterpreted this activity as the result of some form of boredom rather than the animal showing an awareness and anticipation of receiving food. This misunderstanding reflected the problem of signage inadequacy in fully explaining and accurately describing the animals’ behaviour. Tracking observations showed that pacing behaviours always resulted in shorter viewing times. Such correlations suggest that the potential existed for the zoos to provide a better means of educating their visitors in facets of animal behaviour.

Comments about sun bears:

They looked bored (TSB2).

The bear looked restless, so I just walked away (TSB 30).
The bear appeared distressed, it was pacing back and forth, I felt sorry for it, the enclosure must be too small (TSB35).

We like to come to the zoo every two weeks, and just look at one or two animals, just to learn about their behaviour (A346).

Viewers almost demanded that animals were active, specifically at the time when they themselves arrived to view the exhibit. Visitors often perceived inactive animals as bored, and their behaviour as boring, with the consequence that the enclosures were perceived in a negative light and considered unnatural. Both the beaver enclosure at Adelaide and the Kodiak bear enclosures at Taronga were examples of exhibits regarded as unnatural since visitors saw little activity and thought that these enclosures had too much visible concrete.

Plate 6.9: Cynthia, a Kodiak bear, asleep in her enclosure at Taronga Zoo.

The bear looked sad, it wasn’t doing anything (TKB32).

It would appear that there is a need for zoo administrators to consider possible ways of explaining to visitors the reasons for some animals, such as bears (Plate 6.9), koalas and lions, to either sleep or remain inactive for long periods throughout the day. Although it may appear that a potential exists for the use of interactive signage at enclosures to explain such behaviours, such introduction needs to be approached cautiously. A recorded message installed at the tree kangaroo enclosure in Adelaide received only the same degree of attention.
and usage from visitors as other standard labels throughout the zoo. Similarly, an interactive set-up installed at the old elephant enclosure at Taronga to explain ‘Why Burma Sways’ received little attention from viewers (Table 6.4). Despite the fact that this audio had been designed to provide recorded information relating to the elephant’s behavioural patterns, it was observed that less than 8% activated the device and less than 1% listened to the description in full.

**Table 6.4: Attracting power and holding power of interactive recording. ‘Why Burma Sways’**

<table>
<thead>
<tr>
<th>Elephant (Burma)</th>
<th>Attracting Power</th>
<th>Holding Power</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7.6%</td>
<td>27%</td>
</tr>
</tbody>
</table>

Source: 250 tracking observations.
Reference: Appendix Table 6H.

Plate 6.10: Burma, an elephant, exhibiting swaying behaviour at Taronga Zoo, a behaviour which, unfortunately, was often misinterpreted by visitors. Having been taught in a circus to sway before receiving her food, Burma continued similar swaying patterns in the zoo prior to her feeding times.

*It was so bored, the elephant was not happy and its cage was so unnatural (TEo5)*

*The elephant was bored because it was in such a small pen, it was dirty, awful and unnatural (TEo28)*
6.5 Animals visitors wanted to watch

Once in the zoo, visitors indicated that they wanted to see certain favoured animals, even though this might not have been their initial motivational factor for visiting. The response was similar in both zoos, with 80% of Adelaide visitors and 79% of Taronga visitors naming specific animals they wished to view during their visit to the zoo. The mean number of animals mentioned by respondents was approximately the same at both zoos (Adelaide 2.0; Taronga 2.1), although a wider range of animals was chosen at Adelaide. The responses depicted in Figure 6.8 gave an indication of this preference and favouritism.

![Figure 6.8: Animals visitors wanted to see.](source)

**Source:** Exit survey question 13.
**Total 850 survey responses (Adelaide 450 – Taronga 400)**
**Reference:** Appendix Tables 6I, 6J.

In both zoos the animals visitors most wished to see were the big cats (lions and tigers), large ungulates (elephant, giraffe and hippopotamus) and primates (gorilla, chimpanzee and siamang). It was apparent that visitors had already formulated these opinions prior to visiting, in terms of their preferences for viewing the animals. The big cats were popular with families with children. Whereas this level of popularity was linked with specifically advertised feeding sessions in Adelaide, the proximity of the animal and the clear viewing were the main factors that influenced visitors at Taronga. Primates were more
popular with adult couples and singles. At Adelaide, several survey responses used the term ‘monkey’, probably an inaccurate reference to either the siamang or the chimpanzee. Interestingly, only one respondent used the term ‘monkey’ at Taronga. This more frequent correct nomenclature could have been the result of keeper talks at the gorilla and the chimpanzee enclosures, during which the correct terminology was explained and the animals properly identified. In comparison, at Adelaide only the signage indicated the genus, and as noted in Chapter 7, exhibit signs were generally not read by visitors.

The main difference in responses between the two zoos occurred with a higher number of Australian species being preferred at Taronga, a figure linked with the higher percentage of international visitors in Sydney. Travellers from overseas indicated that their main reason for coming to the zoo was the express desire to glimpse rare and unusual Australian native animals that had previously been experienced only as images in television documentaries, photographs in travel brochures or descriptions in textbooks.

Animals evoked a wide range of emotional responses from visitors. Many survey responses indicated a preference for animals that were perceived by viewers as majestic, beautiful or cute, whilst others were thought of as dangerous, ugly or scary, and still others were simply regarded as common. The number of emotional responses was particularly evident at the meerkat enclosures. In Adelaide, this response was linked with media references to new births, the development of a new exhibit, and excellent viewing facilities, which allowed close proximity to the animals. However, these influences did not apply at Taronga, which shared a similar high response. The common factor in both zoos was that the meerkat was observed as ‘cute’ and its popularity was frequently associated with comments likening the small animals to the fairy tale Timone from The Lion King (1994) or to the television series Meerkat Manor (2005).

Visitors expressed a desire to see large animals in the zoo. Although elephants were on display at Taronga for approximately half of the research period only, they represented the highest individual response as to visitors’ desire to view. In Adelaide, elephants were the seventh highest response, despite the fact that none were present and the zoo had clearly indicated that, because of space limitations, there were no intentions to display elephants in the future.
Several responses referred to animals that were not present in the zoo. This number was considerably more in Adelaide than at Taronga, with 52 responses at Adelaide compared to only three at Taronga. In Adelaide, survey responses suggested that this might possibly have been linked with the murals on the outside wall near the main entrance, since 35 of responses related to the elephant and two to the black and white panda (Plate 6.11). Other survey responses, particularly those from infrequent visitors, indicated that some of these selections may have been enjoyed during some previous zoo visit and there was a desire to see them again. At least one response in Adelaide indicated that the visitor was confused between Adelaide and Monarto Zoo, a misapprehension that seemed to be the result of advertising for the Monarto Zoo having been displayed on the city bus link.

Plate 6.11: Murals on the wall adjoining the main entrance from Frome Road at Adelaide.

*We couldn’t find the black and white pandas* (A209 – interstate tourist).

*We enjoyed ourselves, but we could not find the elephants* (A123 – interstate tourist).
6.6 Exhibits most liked by visitors

The previous section considered animals people most wanted to see during their time at the zoo. This section looks at the animals that were most liked by people after they had visited the zoo. Respondents were asked to indicate these particular animals. The results were tabulated (Appendix Table 6K, 6L) and are depicted graphically in Figure 6.9. Since no two exhibits were identical, it was almost impossible to make specific comparisons between individual exhibits within the two zoos. However, certain similarities were apparent in the responses. The five most highly regarded exhibits were selected by 54% of Adelaide exit survey respondents, and the five most highly regarded exhibits at Taronga were chosen by 52% of respondents. Similarly the nocturnal and reptile houses were selected by 6% in Adelaide compared with 5% at Taronga, and the children’s section was preferred by 8% in Adelaide compared to 4% in Taronga.

Figure 6.9: Animals visitors liked best.

Source: Exit survey question 17.
Total 777 survey responses (Adelaide 406 – Taronga 371)
Reference: Appendix Tables 6K, 6L.

Overall, the animal enclosures that were liked best by exiting visitors were the big cats (lions and tigers), large ungulates (elephants, giraffes and hippopotami) and primates (siamangs, chimpanzees and gorillas). In terms of the individual animals most liked, at
Adelaide these were the lions, the siamangs, the tigers (in the new enclosure), the meerkats and the seals. In contrast, at Taronga the five most liked exhibits were the gorillas, the tigers, the chimpanzees, the giraffes and the seals. Survey responses also indicated that some of the reasons for visitor preferences were linked with feeding sessions, clear viewing and proximity to these animals. Throughout the period of this research, viewers had the opportunity to observe a number of newly born and young animals, which proved to be a dominant factor influencing viewing behaviour. The most popular of these new offspring included baby meerkats, young lions and siamangs in Adelaide and baby gorillas, chimpanzees and a young giraffe at Taronga. To a lesser extent, young tamarins (Adelaide) and snow leopards (Taronga) drew considerable attention.

At Adelaide the lion exhibit proved most popular, mainly because of the large, open enclosure, which permitted several vantage points from which visitors could view clearly the different activities of the lions, from a close distance (Plate 6.12). The size of the animals attracted the attention of the visitors. A number of frequent visitors made comments about the family structure, particularly the young adolescent lions that had been born in the zoo. Visitors commonly made remarks about the series of attractive labels that provided interesting and detailed information about the lions. These were appreciated, particularly when the lions were inactive in the middle of the day. At Taronga, the open, naturalistic gorilla enclosure (Plate 6.13), with large uninterrupted viewing areas gave visitors the opportunity to view various behavioural patterns. Viewers were fascinated by the activities of the gorilla family and several responses compared the similarity of the animals’ behaviours with that of humans. Other responses referred to the family structure of the gorilla family, particularly the relationship between the three young gorillas with their mothers. Invariably the large silverback attracted attention, particularly when he actively moved and foraged around the exhibit at feeding times.

At Adelaide, the smaller animals most liked by visitors were meerkats and birds, and at Taronga the smaller animals most liked were meerkats and red pandas. In both zoos the free flight bird shows provided excellent views of the birds as they flew in close proximity to the viewing audience. These shows were popular with viewers, many of whom would take up advantageous viewing positions up to half an hour before the show was due to commence. In Adelaide, as well as the popular lunchtime flight show of macaws, a series of keeper talks were given during feeding sessions with pelicans, penguins and in the rainforest aviary, all of which increased the general perception and appreciation of birds. Unlike the flamingo
enclosure and the walk-through aviaries in Adelaide, the bird displays at Taronga (throughout the duration of this research) were not as close to the visitor and did not permit the same degree of interaction between the viewing public and the animal on display.

Plate 6.12: The large open enclosure for the lions in Adelaide allowed visitors several vantage points for clear viewing, and a series of attractive labels provided informative material.

Plate 6.13: The large naturalistic-looking gorilla enclosure at Taronga. Opened on 3 January 1997, Gorilla Forest is home to Kibabu, and his family of three adult females and their offspring.
A number of different features caught the attention of visitors, causing them to stop and look at various animals in different enclosures. The range of reasons suggested for liking individual exhibits, expressed as a percentage of the total number of reasons, are depicted in Figure 6.10 (Appendix Table 6M). These reasons related to individualistic appreciation of features of the animals (60%) and the enclosure (25%).

![Figure 6.10: Reasons visitors liked exhibits. (expressed as a percentage)](image)

Source: Exit survey question 8.
Total 798 survey responses (Adelaide 401 – Taronga 397)
Reference: Appendix Table 6M.

The majority of reasons suggested by visitors for liking exhibits revolved around the animals on display. These included the animals themselves (24%), their behavioural and activity patterns (20%), their individual features such as colour and size (10%), and the presence of young animals or babies (6%). The main attracting features relating to animal activity included patterns of behaviour such as feeding, active movement, or manipulating enrichment items. Although animal vocalisations always attracted visitor attention,
respondents did not rate this factor highly in terms of their reason for liking the particular exhibit. Physical features centred around characteristics of the actual enclosure (10%), the provision of clear visibility (5%) and the close proximity to the animal on display (5%). Only 2% of responses specifically referred to the natural appearance of the enclosure as a reason for liking the exhibit, although several comments reflected the way in which visitors perceived the overall enclosure as natural. These positive comments contrasted with those of respondents who disliked enclosures that were suspected or assumed not to be natural.

At Adelaide, several references were made to the old barred enclosures that had been seen during previous visits and that, because of their age and structure, had become well known. The siamang enclosure was appreciated because of the boardwalk that provided good viewing from an elevated position. This boardwalk was also acceptable to visitors, not only because it allowed viewing in pleasant sheltered conditions, but also because of the ease of accessibility for wheelchairs, strollers and Kiddy Kabz throughout the enclosure. At Taronga, both the gorilla and chimpanzee enclosures were perceived as very natural. As with the lion enclosure at Adelaide, good vision of these animals could be gained from a number of vantage points. Glass viewing areas allowed visitors the opportunity of looking at the these primates when they were sheltering in their dens during inclement weather. It was evident from responses that visitors were impressed by the size of the enclosures. These larger viewing areas were not only an advantage for visitors but also affected their perception of the animals, particularly since they provided a number of good photographic opportunities.

In depicting the exhibits that were most liked by visitors, the survey responses revealed that certain features initially attracted visitors’ attention, causing them to stop and view the animals. The proportional responses of these features are shown diagrammatically in Figure 6.11. These results showed that the behaviour of the animals and the animals themselves were the two factors which most attracted visitor attention. However, the influence of the presence of children on the viewing patterns of visiting groups was apparent, as 19% of responses indicated that visitors were initially attracted to an exhibit because of an interest or preference shown by children. Emotional responses, the most common of which was ‘They were cute’, were given by 15% of visitors (Plates 6.14, 6.15). At Adelaide, meerkats and otters were emotional favourites, and at Taronga the presence of baby gorillas impressed viewers, as well as the behavioural activities of the gorilla family, which were seen to be ‘human-like’ and ‘just like us’ (Plate 6.16). It was evident that the activities of the young chimpanzees, particularly their playful performances and antics, impressed visitors.
Plate 6.14: Koala – the most liked Australian animal at Taronga Zoo does not need lessons in being cute.

*It was so cute* (T66).

Plate 6.15: Penguins – the most liked bird at Adelaide Zoo.

*They were absolutely gorgeous* (AP33).
Figure 6.11: Features liked by visitors.

Source: Exit survey question 7.
Total 674 survey responses (Adelaide 374 – Taronga 300)
Reference: Appendix Table 6N.

Plate 6.16: A young gorilla at Taronga, contemplating its next mischievous deed.
They are just like us (TG33).
6.7 Exhibits liked least by visitors

When asked to indicate the exhibit which they had liked least during their visit to the zoo, 18% of respondents specified ‘None’, and a further 18% provided no response. Whereas the results tabulated (Appendix Table 6.P) indicated that 91% of respondents most liked an average 1.8 animal exhibits, in comparison only 64% of respondents least liked an average of 1.0 exhibits. The exhibits least liked in both zoos are shown in Figure 6.12.

![Pie charts showing exhibits liked least by visitors](source: Exit survey question 8. Total 850 survey responses (Adelaide 450 – Taronga 400). Reference: Appendix Table 6P.)

The most disliked exhibits, in both zoos, were the bird displays. Whilst the reasons for this selection varied, a number of responses indicated that many visitors did not consider birds to be animals. They were described as ‘dull’, ‘boring’ or ‘uninteresting’. There was a strong personal dislike of birds being kept in cages, with a common response being, ‘I don’t like seeing animals kept in cages’. The display of birds created an interesting paradox, in that although they were the most disliked exhibits, they were also most liked by many visitors, particularly those who had an interest in aviculture.

The main reasons suggested for disliking an enclosure were linked with negative perceptions. The old tiger and bear enclosures at Adelaide were regarded as being ‘too small’,
‘too old’ or having ‘insufficient space’ for the animal. At Taronga, both the old elephant and seal enclosures were disliked. The old elephant enclosure was seen as being ‘boring’, ‘unnatural’ and having ‘too much concrete’. Prior to the new enclosure being opened, a number of responses complained that the area was empty. The seal enclosure was described as being ‘old’, and ‘boring’, and that the depth of water made the animal ‘hard to see’. As a consequence, in both zoos, when visitors perceived the enclosure as ‘old’, ‘tired’, or having ‘too much concrete’, they expressed a dislike for the animal based on the assumption that it was ‘unhappy’ or ‘bored’, and the animal was not regarded favourably.

*You’d be bored witless if you were kept locked up like that all day* (T302).

A strong dislike was also expressed in reference to reptiles, which in most cases reflected an apprehension and fear of reptiles generally. Although the reptile houses in both zoos proved to have a strong attracting power and visitors had no hesitation in viewing them, several responses expressed negative emotions including dislike, anxiety, apprehension and trepidation. Similarly, although the nocturnal houses had a strong attracting power, visitors did not always appreciate the concept of displaying animals in darkened conditions. Observations revealed that many visitors were impatient with what was perceived as inactivity, and many were not prepared to allow their eyes to accustom to the lower levels of illumination. Responses indicated that visitors found the animals difficult to see, and others did not appreciate the restrictions relating to flashlight photography. At Taronga, a number of responses indicated dissatisfaction with viewing in the nocturnal house which related to the level of noise, often generated by unsupervised school groups. At Adelaide, family groups expressed concern about supervision, typified by the comment *‘I tend to loose [sic] the kids in the dark’* (A 128).

A graphic interpretation of the visitor’s response
Reasons suggested by viewers for disliking exhibits tended to be individualistic and reflect personal points of view. Photographers in both zoos made negative responses, the presence of wire mesh at the lion enclosure in Adelaide and the occurrence of glare from glass windows at Taronga both evoking unfavourable comments. Similar responses were often expressed by visitors as a result of their sensory abilities, in particular the sense of smell. In Adelaide, this was most apparent at the wild dog, seal and hippopotamus enclosures, where some visitors objected to what they considered unpleasant smells. At Taronga, similar responses were made in relation to the farm animals in the children’s section.

Their reasons for these selections, expressed as a percentage of the total number of reasons given, are summarised and shown in Figure 6.13.

Figure 6.13: Reasons visitors least liked exhibits.
(expresses as a percentage)
Source: Exit survey question 9, Exhibit question 6.
Total 583 survey responses (Adelaide 287 – Taronga 296).
Reference: Appendix Table 6Q.
The main perceptions of visitors in relation to either liking or disliking exhibits concerned either the animals themselves or the visitors’ impressions of the enclosure (Figure 6.14). A higher percentage of respondents liked features relating to the animals, and a higher number disliked the enclosures. Overall, when enclosures were disliked, it was as a result of them being perceived as old, unattractive or unnatural. Individual perceptions reflected visitors’ dislikes which revolved around fears or anxiety, particularly dislike of reptiles, spiders and insects.

**Figure 6.14: Comparison of percentage of appreciation of visitor likes and dislikes to exhibits.**

Source: Exit survey questions 8, 9; Exhibit question 6.  
Total 1,381 survey responses.  
(Adelaide 688 – Taronga 693)
6.8 Case study: New enclosures

Throughout the duration of this research, new enclosures were developed in both zoos. The South East Asian Rainforest exhibit provided a new area for the tigers and orang-utans in Adelaide, and the Wild Asia exhibit at Taronga included the new elephant enclosure. With the improvements and development of more modern enclosures, visitors quickly found themselves engrossed in enclosures as they looked at exhibits that had been specifically designed to hide any human aspects and artificiality. Instead of viewing animals in ornate late 19th century constructions, visitors observed animals in displays that had been developed to simulate the animal’s natural environment. These new enclosures resulted in marked changes being observed in the perceptions and appreciation of visitors.

6.8.1 Adelaide Zoo

As part of the Adelaide Zoo Master Plan, the new exhibits gave visitors access to views overlooking a lowland rainforest, leading into riverside vegetation with split water reserves at different heights, which allowed the creation of a cascading waterfall. A central feature of the exhibit was the ‘O-Line Tower’, which enabled the orang-utans access to swing high above the tiger enclosure. The $4 million exhibit represented the largest capital works project in the 126-year history of the zoo and provided the public with an insight into animals and their natural habitat. Speaking in the South Australian Parliament, the Minister for Environment and Conservation, the Hon. G. E. Gago referred to ‘this excellent exhibit, which enhances the zoo’s reputation and which is providing the people of South Australia, overseas visitors and interstate guests with an experience of visiting one of the finest zoos of this type in the world’ (Hansard, Tuesday 2 May 2006).

Comments made by visitors reflected their thoughts and ideas relating to the different exhibits. The old tiger enclosure (Plate 6.18) was thought to be too small (67%), and with the exception of one response indicating that the tiger was lonely, all responses indicating dislike made reference to the enclosure. Features which were liked were mainly the proximity of animal (22%), the animal itself (22%), the vegetation (31%) and the visibility of the tiger when it was close to the front of the enclosure (18%).

_The tiger was the most impressive thing, the surroundings weren’t that impressive (ATo26)._
In the new enclosure (Plate 6.19), 31% liked the possibility of viewing the animal underwater in its new pool. A range of comments related to natural appearance, vegetation, ease of viewing and the amount of space available for the animal. Less than 25% of viewers disliked aspects of the new enclosure, with their main concerns relating to the difficulty of distinguishing the tiger from the surrounding vegetation cover.

Tigers are good at hiding (ATn36).
The tiger looked very healthy and clean in a more natural environment (ATn26).
I enjoyed seeing the animal in a more pleasant and natural way at close proximity (ATn28).

With the removal of barriers, the new enclosure shifted from the traditional exhibit design to one of immersion, which was positively received by visitors. This approval was reflected in a marked increase in the mean ranking scores for each of the exhibits (Figure 6.15).

![Figure 6.15: Comparison of mean ranking score for old and new exhibits at Adelaide Zoo.](image)

Source: Exhibit survey question 6.
Total 160 survey responses.
It was noted that at the old tiger enclosure, the ratio of like to dislike comments was 1:1. At the new enclosure, the ratio was 4:1, demonstrating the change in perceptions of viewers. This increase in appreciation was also apparent as respondents indicated a marked increase in their level of satisfaction with individual aspects of the animal and the enclosure. The increases in the percentage of visitors rating the exhibits as excellent were most apparent in Figure 6.16.

The new immersion exhibits at Adelaide resulted in changed perceptions of both the animal and the enclosure. Overall, the percentage of respondents who considered the new exhibit excellent increased from 14% to 36%. Although the degree of animal activity remained the same, it was perceived to be higher, whilst a higher percentage of visitors...
perceived that the animals on display were happier in their new enclosures (Figures 6.17). It was apparent that visitors formed their impressions of the animal not only against the backdrop of the enclosure, but also displays surrounding the new enclosures (Plate 6.17).

Figure 6.17: Satisfaction rating: Happy appearance of tigers and orang-utans at Adelaide Zoo.  
(Percentage rating: Excellent)

Source: Exhibit survey question 9H.  
Total 160 surveys.  
Reference: Appendix Table 6F.
Plate 6.18: The old heavily barred enclosure for the tiger at Adelaide Zoo.

Plate 6.19: The new South East Asian exhibit at Adelaide Zoo permitting clear viewing of the animals through the glass panels.
6.8.2 Taronga Zoo

The Wild Asia complex developed at Taronga consisted of ten different exhibits and provided visitors the opportunity to walk along a jungle path joining different displays that covered 2.4 hectares of rainforest, landscaped with over 27,000 plants. Like the new enclosures at Adelaide, these new exhibits represented an immersion display where visitors could experience the joy of acquiring new insights in face-to-face encounters and ‘discover’ animals through artificial mists that recreated the home of these forest creatures. As part of this new display, the elephant exhibit comprised different sections that included a massive barn, a swimming pool deep enough for the animals to completely submerge themselves, grassy fields, dirt mounds, mud wallows and a waterfall. As previously mentioned, the importation of the elephants received international opposition before an extensive review by the National Administrative Appeals Tribunal confirmed that the importation was primarily for conservation purposes and approved their introduction. With access to an area of 5,666 square metres, the five elephants finally made their public debut in November 2006.

The old elephant enclosure (Plate 6.21) had been perceived as having too much concrete (18%), lacking space and being too small (23%), and appearing to be old and run-down (33%). These perceptions were exemplified by responses such as

Lots of the other exhibits are wonderful, but I wasn’t very keen on this one (TEo7).
This was actually my least favourite exhibit in the zoo, it was quite bare and there was a lot of concrete (TEo27).

In contrast to these thoughts relating to the exhibit, viewers appreciated the opportunity not only to see large animals in close proximity, but also to interact with them on occasions. Responses indicated that features that were liked referred mainly to the animals themselves (29%), the overall enclosure (18%) and the proximity of viewing the animals (13%). Positive perceptions formed at the old enclosure were reflected in comments such as:

I was really impressed by how close the elephant was to the public and the amount of space the animal had to roam (TEo3).
The way it reached through the bars and you could touch it was fantastic (TEo39).

At the new elephant enclosure (Plate 6.22), 24% liked the new pool area best, particularly since it provided good photographic opportunities and viewers could observe the animals playing together in close proximity. A range of positive comments related to natural appearance (17%), the ease of viewing (9%) and the attractiveness of the new exhibit (8%).
Surprisingly, 37% of viewers disliked certain aspects of the new enclosure, with more than half of their concerns relating to a perception that the area was too small for the elephants. It was thought that these remarks could have been related to references in the media to comments made by activists who had opposed the introduction of the elephants. The contrast in opinions was typified by:

*It is far too small* (TEn10).
*I was impressed with the large area they have to roam* (TEn24).
*It doesn’t seem big enough for five elephants* (TEn38).
*I liked the lovely way it was presented and the amount of space for the elephants* (TEn31).

The overall opinion of visitors was reflected in their ranking of the new enclosure being considerably higher than rankings previously assigned to the old enclosure (Figure 6.18). The old elephant enclosure was ranked lowest of the exhibits studied at Taronga, whereas the new enclosure was ranked highest.

![Figure 6.18: Comparison of mean ranking score for old and new exhibits at Taronga Zoo.](image)

*Source: Exhibit survey question 6.*
*Total 80 survey responses.*
*Refer Table 5.3.*
At the old elephant enclosure the ratio of like to dislike comments was 1:1; at the new enclosure it was 2.7:1. Similar to the results obtained at Adelaide, this change in ratio reflected the perception of the viewers. The change in satisfaction ratings for different components of the enclosures was most apparent at the new elephant enclosure (Figure 6.19).

![Comparison of satisfaction ratings for old and new exhibits at Taronga Zoo.](chart)

*Figure 6.19: Comparison of satisfaction ratings for old and new exhibits at Taronga Zoo.*

(Percentage rating: Excellent)

Source: Exhibit survey question 6.
Total 80 survey responses.
Reference: Appendix Table 6R.

The new Wild Asian exhibits at Taronga also resulted in changed perceptions of both the animal and the enclosure. The percentage of respondents who considered the new exhibit excellent increased from 3% to 55%. The degree of animal activity was perceived to be higher, whilst a higher percentage of visitors perceived that the animals on display were
happier in their new enclosures (Figures 6.20). As was the situation in Adelaide, it was also apparent that the impressions visitors formed was influenced by the ambience and atmosphere of the surrounding environment (Plate 6.20).

**Figure 6.20: Satisfaction rating:**

*Happy appearance of elephants at Taronga Zoo.*

*(Percentage rating: Excellent)*

Source: Exhibit survey question 9H.

Total 80 surveys.

Reference: Appendix Table 6G.

**Plate 6.20: Viewing area adjoining the new elephant enclosure at Taronga Zoo.**
Plate 6.21: An elephant, Burma, feeding in the old enclosure at Taronga Zoo.

This exhibit was really poor, it looked boring and dirty (TEo25).

Plate 6.22: Section of the new elephant enclosure at Taronga Zoo, showing the large barn (sleeping area), open enclosure and waterway.

This is the best, the exhibit was just like the real habitat (TE40).
6.9 Visitors’ thoughts relating to elephants

In carrying out this research, the one species that received most attention from visitors was the elephant. Respondents in both zoos indicated that they expected to see elephants on display. People remembered earlier visits to the zoo and often recalled their experiences with these animals, in some cases having ridden around the zoo on them. Zoos and animal welfare advocates have differed widely in their opinions relating to the keeping of elephants in captivity. The introduction of the five new elephants into Taronga’s new enclosure created a dichotomy of opinion relating to keeping these animals for display. Prior to their arrival, Taronga’s director, Guy Cooper, was reported as saying ‘We did research which showed 90% of people were supportive of our plans to bring the elephants here for conservation and breeding programmes’ (Rural Press Interactive, 2006). Stephen Rares, senior counsel for IFAW, informed the appeals tribunal hearing that placing the elephants in Taronga’s new enclosure was akin to the giving of a life sentence: ‘To an elephant (the new enclosure) is a jail’ (IFAW, 2006). During this research, it became apparent that zoo visitors showed little interest in the conflicting opinions and simply expressed the desire to see elephants. At Taronga, in the period during which elephants were not on display, more than half (55%) of respondents added comments to their responses such as, ‘Where are the elephants?’, even though no specific questions had been included in the survey. At Adelaide it was noted that in fully 20% of responses to the surveys similar comments were made, even though elephants had not been on display since 1994 and there was no intention of keeping them in Adelaide again. People who visited the zoo wanted to see elephants.

At the new exhibit, many comments referred to the animals themselves, their size and their activities (Plates 6.23, 6.24).

*Elephants are just so amazing, they love playing in water* (TEn6).

*The elephants are fabulous; I was impressed by the obvious joy of the animals* (TEn16).

*The animals showed a genuine affection for their keepers* (TEn20).

*It was interesting to see the way in which they foraged food with their trunk and how they fed it into their mouths* (TEn12).

A number of viewers referred to the long and frustrating delays that had been experienced with the importation of the elephants from Thailand.
It’s lovely to see the elephants here after waiting for so long (TEn15).
They looked so happy and much better than where they came from (TEn30).
It was just really exciting to see the elephants finally here and having a great time (TEn39).

Responses reflected a change in perception of visitors, with the increase in comments related to education and conservation issues. At the old exhibit, no references had been made to conservation, and the only comment relating to education referred to the way in which one viewer had been intrigued by the method in which the elephant collected food by the use of its trunk. At the new enclosure, visitors were more aware of conservation and the need to keep the species alive.

Seeing the animals in their natural habitat was just so educational (TEn25).
The elephant is living in a far better environment and contributing hopefully to the conservation of the species (TEn21).
It was so educational seeing animals which are endangered in the wild (TEn33).

As with all the exhibits researched, a number of responses reflected emotional and poignant thoughts of the respondent. At the old exhibit, responses centred on perceptions that the animals were bored or unhappy, mainly as a response to the swaying behaviour of one of the elephants, which was often misinterpreted. At the new enclosure, visitors were influenced by the playful activities of the elephants, seen at close proximity to the viewer.
The elephants looked so happy (TE364).
The elephants are so beautiful (TE384).

The change in perception with the new enclosure was possibly best summarised by the response of the mother of a two-year old child, who after seeing two of the elephants playing under the waterfall in their new enclosure, commented:
Its very emotional seeing the elephants here for the first time, this really is a special moment in time (T375).
Plate 6.23: Two young female elephants playing together in the new enclosure at Taronga.

Plate 6.24: Gung, a young male elephant at Taronga, manipulating an enrichment food reward. The elephant’s appearance is the result of Gung having had a dust bath in a large pile of red soil.
6.10 Summary

The previous chapter examined the viewing behaviours of visitors in the zoo; this chapter considered their thoughts and appreciation of various displays. Despite the generally accepted notion that the public regard the zoo simply as a collection and display of rare and exotic animals, at their most fundamental level, zoos are not merely for animals, they are for people. Zoos are extraordinary places where viewers can experience and understand a wide range of happenings and events.

The long-standing image of the zoo as a place of leisure and recreation has tended to overshadow conservation-based activities. From the end of the 1960s, a major concern of many zoos has been an attempt to present an increasingly perfect imitation of nature as they have attempted to become wildlife conservatories. In both zoos, management has regarded conservation highly. At Adelaide, the yellow-footed rock wallaby is the Zoo’s signature species and is featured on the zoo’s coat-of-arms. Displayed at the zoo since 1883, they have been bred successfully since the 1920s and have been re-introduced to part of their former habitat in the Flinders Ranges. Taronga has also shown a keen interest in conservation and research projects, having been successfully involved with a ten-year study of the little penguin. Mazur (1995) pointed out that many zoo administrators would agree that the most important role for zoos in conservation is to educate the visiting public in the hope of stimulating an increased awareness of various conservation issues. These two roles of conservation and education are very different. Whereas captive breeding can be seen as an attempt to protect animals for the future, education can be regarded as changing the future to protect animals. Both zoos promoted an awareness of conservation. At Adelaide, the zoo’s commitment to conservation and research was emphasised at a number of exhibits (such as the yellow-footed rock wallaby), in their magazine (Zoo Times) and in behind-the-scenes tours (like their after-hours walk ‘Cage to Conservation’). At Taronga, keeper talks at the gorilla and chimpanzee feeding sessions specifically referred to the bushmeat crisis and the manner in which this unsustainable trade is wiping out wildlife in Africa and other parts of the world.

Captive breeding programmes in zoos have often been criticised because of the limited ability to breed endangered species and restore them into their wild habitats. One of the arguments promoted by Rares (representing IFAW, RSPCAS and HSI) at the hearing of the
Administrative Appeals Tribunal against the importation of the elephants related to the fact that elephants had not been successfully bred in Australian zoos and ‘There is no plan to breed elephants so that they can be put back in the wild’ (IFAW, 2006). In reply to such criticisms, zoos have increasingly turned to research to help them achieve their aims. Zoo research has included a broad range of activities that have often been described by the term ‘science’. Adelaide Zoo has played an important role in the re-introduction of numerous native and exotic species, in particular the release of two sub-species of *Petrogale* at the Aroona Sanctuary in the Flinders Ranges, which has been claimed to be the most successful mainland macropod reintroduction in Australia (Andrews, 2006:13). At Taronga Zoo, a Conservation Research Centre has been established, which in 1998 listed 48 different research projects.

During their time at the zoo, visitors were faced with several challenging alternatives. Linn (1981) demonstrated that in a museum, objects and their interpretation could be categorised according to their effect on visitors. Likewise, both Hills (1993) and Falk and Dierking (1992) demonstrated that visitors to a zoo already hold certain attitudes and expectations before they arrive at an exhibit to start looking at the animals on display. Kellert (1985) and Bitgood (1992b) explained that some animals have the ability to evoke aesthetic and emotive responses, whereas others evoke different reactions, either positive or negative (such as the fear of spiders or reptiles). As a consequence of these different responses, it became clear that visitor perceptions of animals and their enclosures were not simple to determine. Some survey responses indicated that the simple fact that the animal was alive was an exclusive characteristic of animals displayed in the zoo, an attribute that the static displays in museums or pictures in a textbook was unable to replicate.

*It was so good to see real animals in a natural environment* (A127).

People who visited the zoo expressed a desire to see healthy animals. Their enjoyment was enhanced when they were able to see various forms of activity, whether it was the animals’ simple investigation of the enclosure and playing in pools, or the more complex behavioural patterns observed in searching for food rewards from enrichment devices. Visitors expected that the animals they wanted to see would be active at the time they arrived at the enclosure. However, many species spend long periods during the day either asleep or resting, a feature described by workers such as Joan Herbers (1981). Visitors had an anthropomorphic view of animals, particularly the ‘human-like’ apes. This work indicated that viewers related closely to ‘beautiful sun bears’ and ‘cuddly koalas’, confirming the
research of Melissa Kaplan who found that the most popular animals were those that displayed anthropomorphic features and possessed large eyes or soft, cuddly bodies (Kaplan, 1997:272). Visitors did not appreciate looking at animals that they perceived as bored or inactive, such as the sun bears when pacing, or the tiger when sleeping. They expressed concern when they observed pacing, thinking that this action was unnatural and that the animal was bored – even when the animal was pacing in anticipation of receiving its food supplies.

Coe (1985) suggested that when animals were exhibited in naturalistic conditions, or when they displayed what is accepted as natural patterns of behaviour, viewers would develop a better understanding of the animals’ place in nature. Coe further suggested that should animals be placed in ‘ugly’ conditions, the visitor might be repelled by the exhibit and feel some pity for the animal. Apart from any preconceived desires about wanting to see specific animals, the main reasons visitors preferred different exhibits related to the prospect of seeing active animals, clearly, in an enclosure that they perceived as natural. Visitors judged the different exhibits as being ‘natural’ or ‘unnatural’, formulating their thoughts and opinions on the way in which they perceived the particular animals’ environment, even though this perception may have been based on false assumptions. When looking at different exhibits in a zoo, viewers tended to consider the animals’ actions in anthropomorphic terms. They developed perceptions and understandings that the animal, from their point of view, appeared to be happy, sad or bored, without having any knowledge of the animal or its behavioural patterns. In the majority of cases visitors formed their opinions after only a few seconds of viewing.

The preferences about viewing captive animals in the zoo were often clouded by various emotional factors. Visitors showed a marked preference for large mammals, whose sheer bulk and strength often seemed to astonish viewers as a feat of nature. Visitors appreciated the elephants because they could establish some form of contact with them, many recalling previous encounters when zoos had elephant rides. Big cats were a focus of interest not only because they symbolised majesty, but also because they symbolised some sort of a fear of nature. Visitors empathised with animals such as the sun bears, which drew responses of compassion as visitors reflected upon what was perceived by some as apparent cruelty of humans and by others as culture. They enjoyed viewing the constant activity of animals like the siamangs and the chimpanzees, which were considered to be having, or creating, fun – even when hostility patterns of behaviour were being displayed. They showed keen interest
when animals started manipulating enrichment items and considered that this was a natural behaviour.

Koran et al. (1986:10) pointed out that in any exhibit in the zoo, a number of significant animal characteristics existed, which included both the activity and the behaviour of the captive animal. This activity has clearly been increased through animals interacting with different enrichments, the use of which has supported the findings of workers such as Coe (1985), who showed that attention-catching items tended to have their dimensions overestimated, making them seem even more important.

This research showed that visitors to the zoo possessed particular likes and dislikes towards different zoo animals, with larger animals preferred to smaller animals and more naturalistic looking exhibits preferred to older enclosures. Bitgood’s informal observations led him to believe that the size of an enclosure influenced the attracting and holding power of an exhibit. He reported that the animals that attracted the greatest amounts of attention were those of larger body size and those that were perceived to have a higher level of intelligence. Bitgood (1999) also established that visitors continued to look at exhibits for longer periods when the animals were clearly seen, or when viewers were able to get closer to the animal. He also noted that visitor perceptions about the welfare of animals were greatly influenced by the size of the enclosure.

Survey responses indicated that there was little doubt that during their visit to the zoo visitors developed a range of impressions that influenced the perceptions they developed. These impressions were developed by visitors observing the animals, their range of activities and the enclosures in which they were displayed. Robert Wolf and Barbara Tymitz (1981) suggested that once people were in the zoo environment, learning was unavoidable and although mainly subtle, this learning occurred mainly through observation and subsequent interpretation. The visiting public generally considered education as the most important role of the zoo. Essentially, learning can be thought of as a journey from one point to another. Consequently, to be effective, it is important to assess the starting point and to evaluate the end point of such an experience. Zoo visitors brought with them a wide range of values, attitudes and perceptions that had been developed from a variety of different backgrounds and cultures. These visitors arrived with empathy for some animals and dislike for others. Aversion might have been developed from some unknown fear, or phobia, which had governed their reactions. International visitors, on arrival, often immediately headed towards
the koala enclosure, since these animals were among the best known Australian natives, and were commonly regarded as being ‘lovable, cute, cuddly little creatures’. Visitors rarely headed directly towards the reptile house to make close analysis of animals that were often considered a threat to human life and where the common attitudinal response was to despise the ‘scary, horrible, nasty cold-blooded creature’.

The results revealed something of the complex nature of the relationships that existed between animals held in the zoo and the viewing public who came to see them. Zoo visitors tended to perceive the animals as happy, well cared for and attractive to look at, and they believed most enclosures were clean and naturalistic. Most respondents considered that it was important to create as natural a habitat as possible, which supports the conclusion reached by Bronwyn Burton and Jennifer Ford (1991) that naturalistic settings lead to more positive responses towards the animals.

In terms of their actual visits to the zoo, viewers considered that recreational activities and entertainment were the most important components of the visit. Although they rated the cleanliness of the zoo highest, they also regarded highly the zoo as a learning venue. Enclosure features, such as cleanliness and well-kept appearance, were regarded as more important to visitors than animal behavioural and activity patterns. The lowest level of satisfaction related to items supplied to enrich the lives of various animals, although this was linked to these enrichment items not being observed or being misunderstood, a topic that is discussed further in the next chapter.

Visitors showed a desire to develop their knowledge and understanding of the different exhibits that they viewed. Packer and Ballantyne (2002), who studied three different leisure settings, illustrated the importance of learning for visitors. Although people were attracted to zoos because of their recreational appeal, they perceived that the zoo presented the opportunity to develop a better understanding of nature. The way in which visitors constructed meaning from their visit to the zoo was greatly influenced by their previous knowledge, thoughts, attitudes and interests. The complex interplay between what visitors brought with them to the zoo, and what they took away, ensured that zoo visits were personal experiences. This provided the potential for significant learning within the zoo environment. A basic requirement for interpretation and learning is that the viewer must make a choice to be involved and participate. Once the viewer’s thoughts have effectively been attracted and held by some action of the animal, then their attention can be redirected towards other more
detailed information, allowing learning to take place. This curiosity about animal activity
differed from person to person, and it remained entirely the choice of the viewer to become
actively involved with the exhibit.

The World Zoo Conservation Strategy (IUDZG, 1993) emphasised that the use of a
variety of educational techniques, combined with knowledge, creativity and inventiveness can
make zoos highly interesting, attractive and effective places for education. Throughout the
progress of this research, interpretive areas were developed in both zoos. In Adelaide, this
area utilised the old historic elephant house; while the new area at Taronga was developed as
part of the new elephant exhibit (Plate 6.25). As these new displays helped impress on
visitors the crucial link between the past and the present, they provided the opportunity to
open a new world of curiosity and interest in the natural world. Being interactive, they
provided the opportunity for the visitor to develop meaning and understanding from their
experiences, their imagination, their memories and their fantasies. As such they formed the
very basis for understanding and learning in the zoo environment.

Plate 6.25: The interpretive area in the new elephant enclosure at Taronga Zoo. Prior to 1976, this area
was previously a miniature fairground where the elephants gave rides to the public. Featured below the
photograph on the wall is one of the old specially constructed saddles, which were used to carry up to ten
people at a time.