

Conservation and Education: Prominent Themes in Zoo Mission Statements

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Abstract:

In this study, the authors examine the mission statements of 136 zoos in the United States that the American Zoo and Aquarium Association (AZA) has accredited, and report on the predominant themes of education and conservation in the statements. To explore the relation between these two themes, the authors present a literature review of the roles and purposes of zoos and discuss how the literature compares with the roles and purposes of zoos as found in the zoo mission statements. They conclude that with more than 134 million visitors a year, zoos are in a unique position to provide environmental education and conservation education to large numbers of people. **KEYWORDS:** zoo conservation, zoo education, zoo mission statement

Article:

In this study, we examine the mission statements of zoos in the United States that have been accredited by the American Zoo and Aquarium Association (AZA). Two prominent themes I appeared in the zoo mission statements: (a) conservation and (b) education. However, most of the zoo mission statements that we examined did not explicitly identify the relations between conservation and education.

Review of Relevant Literature

The specific aim of conservation education is to develop lifelong knowledge and skills for conservation action. Conservation education recognizes the central role of people in all nature conservation efforts and is designed to affect the awareness, attitudes, and behaviors of people toward natural resources. Zoo conservation education promotes the public education and awareness of the conservation of biodiversity, by providing information about species and their natural habitats (AZA, 2004) It is important that zoos' administrators, focus on keeping conservation education aims in mind and formally define the zoos' roles in education and conservation education.

Students, teachers, and the general public have a weak base of conservation-related knowledge, attitudes, and practices (Swanagan, 2000). As zoo programs continue to grow and improve, students and teachers remain a core audience served by classes, tours, outreach programs, and special curricular materials. Progress in conservation depends on reaching out to schools through educational opportunities (Dierking, Burtnyk, Buchner, & Falk, 2002). Zoos are in a critical position to contribute to conservation education. Because zoos have been placed in that position, they must reevaluate their conservation educational efforts and conservation messages (Balmford, et al., 2004; Boyle, 2005; Gwynne, 2004; Mazur & Clark, 2001; Sterline, Wood, & Lee, 2004).

Zoo mission statements are educationally important because they are the guides around which all of the zoo's educational activities should revolve. A mission statement is a written declaration of the purpose of an organization, which guides critical and strategic decision making. It divulges the unique reason for existing as an organization; focuses the allocation of financial resources; articulates the goals, culture, and strategies of the organization; and reflects the ethics of the organization (Stone, 1996). Moreover, a mission statement is

designed to provide guidance for institutional planning, administration, and communication (Stone). Effective mission statements are assets to organizations.

Most zoological institutions have mission statements that guide the operation of the zoo and set goals for the facility (Mazur & Clark, 2001). Zoos should know who their visitors are and have educative materials designed for those particular audiences. The 2006 AZA Guide to Accreditation of Zoological Parks and Aquariums requires a copy of the stated purposes of the institution, which is typically a mission statement, as a part of its application for accreditation (AZA, 2005). Mission statements describe the reasons zoos exist, who they serve, and how they will serve. These statements ensure that organizational designs, culture, and operations promote ecological values, conservation, and education (Mazur & Clark). By analyzing the mission statements, conservation goals can be more clearly defined, leading to an increase in the societal and ecological relevance of zoos (Mazur & Clark).

We examined the mission statements of 136 zoos to determine if these aims and goals were articulated in their mission statements. In this article, we provide an overview of the content of zoo mission statements concerning education and conservation and the relations between their two purposes. An understanding of how zoos describe their role in education, conservation, and conservation education will provide teachers with a scaffold upon which they may ground their decisions to take students to the zoo and determine how to better design a zoo visit.

Research Questions

It is critical to evaluate zoo mission statements (Miller, et al., 2004) to determine whether they indicate a strong focus on education, conservation, and conservation education. We addressed the following research questions in this study of the content of 136 AZA-accredited zoos:

1. Are education and conservation prominent themes in zoo mission statements?
2. If so, what terms are used to describe these themes in zoo mission statements?
3. What are the relations among these two predominant themes (conservation and education) in zoo mission statements?

Method and Data Sources

In 2004, AZA listed 213 accredited zoos and aquariums worldwide. This study was limited to 142 USA zoos and zoos with aquariums (excluding stand-alone aquariums and wildlife parks or centers). AZA's Web site (www.AZA.org) had individual links to the home pages of zoos, but the mission statements did not always appear on the home pages. Eighty zoos provided mission statements on their Web sites. We obtained 51 additional mission statements by emailing and five additional mission statements by calling individual zoos, thus giving us a final number of 136 zoo mission statements for analysis.

We analyzed the mission statements by using a systemic network (Bliss, Monk, & Ogburn, 1983; Tunnicliffe & Reiss, 1999). Systemic networks structure data into large themes, which then can be subdivided into smaller units until the words used to describe each theme are categorized. Once we developed a systemic network, we used it to analyze the mission statements. We identified seven prominent themes that could encompass most of the data: (a) education (including affective, cognitive, and general education), (b) conservation, (c) recreation, (d) facilities, (e) research, (f) administration, and (g) culture. See T1 for our coding of the mission statements. In this article, we focus on an analysis of the first two prominent themes: education and conservation.

Results

The theme education was mentioned in 131 mission statements. On the basis of Bloom's (1956) Taxonomy, we grouped the three categories of education that emerged as: (a) affective education (88), (b) general education (70), and (c) cognitive education (43). Bloom's taxonomy suggested a number of verbs that implied different levels and domains of education, and we used those verb choices to guide our groupings within the education theme. For example, when a mission statement mentioned understanding or knowledge of topics, we placed the words in the cognitive education group. When mission statements used affective words, such as enhance, instill, inspire, and foster, we placed the topic in the affective education group. If we could not discern the nature of the educational goal (affective or cognitive) from our examination of the language used in the mission statement, we identified the mission as general education. Table 1 also contains specific words and phrases identified in the mission statements as cognitive, affective, and general education. Twenty-two mission statements used only the word education.

One hundred and eighteen mission statements specifically mentioned conservation. Twenty-eight mission statements used only the word conservation without providing further detail. Zoos define conservation in their mission statements by describing their practice or advocacy. Zoos describe their conservation practices by providing examples such as reintroduction, Species Survival Plans, and breeding. Nineteen zoos mention conservation programs supporting diversity; nine mention global programs, six mention local programs, and five mention national programs (these categories are not mutually exclusive). Conservation advocacy is identified in mission statements by promoting conservation and awareness or advocating stewardship. Although the 2006 AZA Guide to Accreditation of Zoological Parks and Aquariums (AZA, 2005) clearly states that conservation must be an element of the mission statements of zoological institutions, 18 AZA-accredited zoos made no mention of conservation in their mission statements.

Forty-four mission statements mentioned education in direct relation to conservation. Of these, five mission statements used the exact phrase environmental education, and two mission statements used the exact phrase conservation education. With respect to cognitive educational references, three zoo mission statements included the exact phrase knowledge of conservation and five statements included the exact phrase understanding of conservation. All 44 mission statements that mentioned education in relation to conservation used affective terms, such as promote learning of conservation, promote an awareness of conservation, create an awareness of wildlife conservation, encourage participation in conservation, inspire a conservation ethic, and appreciate conservation. Twenty cognitive references refer to conservation education using the terms understanding of the interrelationship between wildlife and environments and understanding our place within the natural world.

TABLE 1. Analysis of Zoo Mission Statements: Themes, Categories, and Descriptors

Theme	Category
Descriptor	
Education ^[sup2] (n = 131)	Affective education (88)
Instill/inspire/encourage/stimulate/ (36)	motivate/influence
Promote/cultivate/foster/nurture (26)	
Acquaintance/awareness/appreciation (12)	
organisms (17)	Cognitive education (43)
interdependence (12)	Understanding
world (5)	Understanding
	Knowledge of the

environment (1)		Knowledge of the
impact (1)		Understanding man's
(7)	General education (70)	Discover/explore
(5)		Create/develop (6)
Conservation ^[supb] (n = 118)	Conservation practice (60)	Enhance/increase
the species (24)		Conserve/protect
		Rehabilitation (2)
		Reintroduction (2)
		Species Survival
Plan (4)		Husbandry (3)
(3)		Captive breeding
conservation (5)	Conservation advocacy (29)	Promote
stewardship (3)		Advocate
(3)		Promote awareness
conservation (2)	General description (8)	Facilitate
generations (3)		Interdependence (2)
activities (2)		Conservation for
Conservation	Affective terms	Conservation
conservation		Promote learning of
education (n = 44)		Promote awareness
of conservation		Create awareness of
wildlife conservation		Encourage
participation in conservation		Inspire
conservation ethic		Appreciate
conservation	Cognitive terms	Understanding the
interrelationship between		wildlife and
environments		Understanding our
place in the natural world	Direct terms	Environmental
education (5)		Conservation
education (2)		Knowledge of
conservation (3)		Understanding of
conservation (5)		

[supa]Of the 131 mission statements, 110 described education and 21 used only the word education.

[supb]Of the 118 mission statements, 90 described conservation and 28 used only the word conservation.

Note: The numbers in parentheses indicate the number of mission statements in which the category or

descriptor appeared. Mission statements often address more than one subtopic. For example, conservation practice and conservation advocacy are not additive.

Discussion

The results of our study indicate that although most zoos do not articulate conservation education in their mission statements, they do mention both conservation and education. Furthermore, zoo mission statements do not address the goals of conservation education. Zoo mission statements do not convey how zoos will develop lifelong knowledge of conservation or affect the awareness, attitudes, and behaviors of people toward natural resources. However, zoo mission statements do promote education by stating that zoos will provide information about species and their natural habitats.

The presence of education and conservation as prominent themes suggests that these are important aspects of zoo culture. Although it is beyond the scope of this study to demonstrate a direct relation between an institution's culture and its practices, the general literature on organizational behavior consistently shows that such a relationship exists.

Because conservation education is a key function of zoos, we propose that priorities of conservation and education be integrated so that conservation education is clearly articulated in zoo mission statements. Zoos must be clear as to why they adhere to the conventional wisdom that education and conservation are important. Is it a rationale to placate monetary contributors and local communities or do zoos really believe what they say in their mission statements?

Before conservation can be understood, people need to know basic or fundamental concepts concerning the features that define certain organisms, their behaviors, their habitats, and their interactions with other organisms and the environment. Furthermore, people must learn to better understand the size of populations, the changes in population over the past decades, and the reasons for these changes. Only then can visitors appreciate the dilemma facing zoos that are interested in saving the diversity of organisms. Is the goal of zoos too specialized? Average visitors must comprehend so much information about the world, including environmental concerns such as population growth and dwindling energy resources that it is unlikely that they have or acquire more than a superficial knowledge of these things.

Visitors gain various levels of understanding through learning strategies that build on the innate human curiosity of other living organisms. Zoos avow to interest their visitors in learning conservation through scaffolding concepts of biodiversity and sustainability. However, it appears that the study of conservation is reserved for zoo staff. Zoo staff should be responsible for articulating their ideals concerning a lifelong commitment to conservation in a clear, concise manner. By lowering the aspiration of zoos regarding education and conservation to fundamental ideas, zoo visitors and the nonvisiting public might acquire a basic understanding of conservation, and zoos may achieve the first level of their mission.

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ADDED MATERIAL

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