Elephant Dentistry: A Brave and Noble Profession

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The title page should have the title (capitalize the first letter of all words except for a, an, the, but, or, and), your name, and the school in which you conducted the research. These should be down around one third of the page.

Note: The entire paper should be in Times New Roman 12 point font and double spaced throughout, including the References page at the end. There should be 1” margins around the entire paper. Do not bold, underline, or change the size of the font in the paper for any reason.

A pure APA style paper would include an abstract, however, it is not necessary for the high school level.
Before the specialty of elephant dentistry, no one considered treating elephant tusks when they became infected. After a lifetime of hauling goods and people, elephants were sent away to live out their final days in suffering. Today, elephant dentists not only treat infected tusks, but also provide preventive care to elephants. This routine maintenance supports the elephants with healthy tusks and improves their overall well-being. The elephant dentist is in demand by wildlife professionals and is a vital member of the zoo care-taking team. The bravery and expertise of the elephant dentist is distinguished and admirable, providing elephants with a level of care that could only have been imagined in the past.
Elephant dentistry has a long and interesting history. In ancient times, Asian elephants were viewed as labor animals and were discarded after they were no longer useful. In 1832, Dr. Wang Chung of the Shanghai Zoo performed the first tuskectomy. Chung later developed several of the basic techniques of elephant dentistry such as cleaning, flossing, and sterilization (Simon, 2010, p. 89). The specialty followed Chung’s practices until 1855 when Dr. Doo Little modernized these procedures.

Dr. Doo Little was a collector and professor at the University of Wisconsin who visited Asia and Africa at the turn of the century (Sampson, 1964, p.7). According to colleague Paul Robinson, Little loved elephants “more than his own children” (Horace, 2000, p.50). In 1855, Doo Little, while on safari in South Africa, came across a small elephant at a lake, lying on his side in obvious pain. After a quick examination, the ranger told Doo Little there was nothing that could be done. There was no obvious signs of injury, but the elephant appeared to have an infection of some kind. In a moment of what he would later call “divine animal contact,” Doo Little claimed to communicate telepathically with the elephant who told him that his tusk hurt. Against the advice of everyone, Doo Little insisted on having the elephant transported to the nearest hospital and was given an x-ray to determine the cause of the pain. Because the elephant
was relatively small, they were able to x-ray him and discovered the elephant was suffering from an abscessed tusk. Since Doo Little had acquired riches from his investment in the railroads, he paid the then kingly sum of $1000 for a local dentist, Dr. Van de Workeen, to perform the first root canal on an elephant. The RCT was a success, saving the elephant his tusk and changing the face of elephant dentistry forever (Sampson, 1964, p.180-183).

In the short quotation above, there is a “signal phrase” before it (According to colleague Paul Robinson,) This is called a signal phrase because it introduces the quotation and gives it some context. Quotations without signals are called “dropped quotes” and are discouraged.

Today, every zoo in America has an elephant dentist on staff who performs a variety of procedures. Because of the unique needs of elephants, specialists are required to provide regular check ups, just like for humans (“Zoo Dentistry,” n.d.). Elephants have 26 teeth total. The incisors are known as tusks and they have 12 deciduous premolars and 12 molars. Unlike other animals, elephants have six sets of teeth that grow from the back of their mouths and move to the front over time. As they are worn down, they fall out and are replaced. New teeth are larger than the ones before. Final teeth can grow to 8” long and weigh more than 8 pounds. Tusks, however, do not grow back. An elephant with an infected tusk can find himself in a life threatening situation. Initially, elephant dentists only performed procedures on tusks, but now they operate on final adult elephant teeth, as the elephant needs them in order to survive (Olbrich, 2016). Over time, these procedures have evolved to include crowns and even dentures.

In the citation, (“Zoo Dentistry,” n.d.) there was no author or date listed on the website. The article title is in quotes, and n.d. Is substituted for a date. If the title is long, then it is permissible to shorten to a word or two. As with citation (Olbrich, 2016), there are no page numbers so they are left out.
ELEPHANT DENTISTRY: A BRAVE AND NOBLE PROFESSION

Elephant Dentistry, a subset of Wildlife and Zoo Dentistry, is defined as a specialty that provides both primary and comprehensive preventive and therapeutic oral care for elephants. These specialists belong to the International Association of Elephant Dentists (IAED), which certifies educational programs and provides professional development. Elephant Dentistry involves a wide range of techniques, diagnostic procedures and skills that are specific to the unique nature of the elephant. Common procedures include fillings, x-rays, fluoride treatment, extractions, pulp treatment including root canals, and cleanings.

In order to clean an elephant’s tusk, the elephant is first placed in a harness in the zoo’s medical facility. The dentist carefully scrapes the hard and soft deposits around the gumline. After flossing, the tusks are polished using a specialized formula for elephants. X-rays are performed on elephants once every two years. If the tusk is beyond saving, then it must be removed for the safety of the elephant (Bellows & Glover, 2012).

You will notice that there is no citation in the paragraph above this one. That is because the information used in both paragraphs is from the same database source. If there are two authors, just list their last names with an &.

Removing a tusk is a very involved task and must be done carefully to avoid injury. The animal must be anesthetized and placed on a sterilized floor. Both local and general anesthesia is applied. Dosage must be calculated precisely. According to Philip Simon from the Sri Lanka University:

Too much can kill the elephant while not enough can cause the elephant to wake up during surgery. The elephant is monitored the entire time as the amount of anesthesia
may need to be increased depending on the length of the surgery. If the elephant wakes, it could endanger the life of the dentist and others (Simon, 2000, 90).

The tusk is removed by loosening the periodontal ligament, and then loosening it from the socket. The tusk is then lifted from the elephant’s skull. Since an adult male elephant’s tusk can weigh up to 175 pounds, the dentist may need more than one dental assistant on hand. After removal, packing material is placed inside the socket and sutures are administered. The elephant is then slowly revived. While the anesthesia is wearing off, the dentist reassembles the tools needed to perform the task.

Instruments that are specific to elephant dentistry include specialized mouth mirrors, forceps, and explorers. The mouth mirror provides indirect vision for the dentist and retracts lips, cheeks, and tongue. The elephant dentist has a mouth mirror 10” in diameter on a stand with a handle that brings the mirror inside the elephant’s mouth. The forceps grasp and transfer material in and out of the oral cavity. In the case of the elephant dentist, the forceps are 300% larger. The explorers examine the teeth for decay, calculus, furcation, and canals. The elephant dentist uses explorers with tips that range in size from 2” to 10” in order to make an accurate examination. When using the larger explorers, the dental assistant helps by holding the end of the explorer in place. Dental assistants to elephant dentists need additional training for this different environment (Olbrich, 2016).
The road to becoming an elephant dentist is a long one. It requires a bachelor’s degree in a science related field, four years of dental school, and two additional years of elephant dentistry school. It also can be very expensive. For example, four years at Fitchburg State College in Massachusetts for unsubsidized students is $20,000 for tuition and fees (“Tuition & Fees,” n.d.). At Alabama State College, tuition and fees are slightly lower at $15,800 (“Alabama State,” n.d.).

At the conclusion of four years of undergraduate education, the promising elephant dentist will apply to dental school, which is very competitive and costly. There are often no subsidies for dental school. Four years at Tufts University Dental School costs $220,000 for tuition and fees (“Comprehensive Fees,” n.d.). Harvard University School of Dentistry costs a similar $225,000 (“Cost of Attendance,” n.d.). After four years of Dental School, one must apply to a two year program in elephant dentistry. Because these schools are in countries in which the standard of living is much lower, these schools are considerably less expensive to attend. For example, two years of elephant dentistry school at Sri Lanka University will cost $12,500 (“Graduate Studies,” n.d.). Two years at Bali Technical School will cost only a little more at $15,000 (“Studying,” n.d.).

The total cost for educating an elephant dentist at its lowest is $248,300. At its highest it will cost $260,000. The career of an elephant dentist requires a lot of travel and living in varying conditions. Working on a safari or for a foreign government may only pay $50,000 per year,
however, usually housing and other expenses are usually included. Zoo work pays considerably more at $80,000 per year. There is a lot of travel assumed as most elephant dentists are only needed at zoos on an as needed basis. Circuses used to be a source of employment, however, they are no longer needed as elephants are no longer part of the circus life. The majority of elephant dentists find employment at zoos (Kanters, 2002).

Conclusion:

1. Restate your thesis in different words or in a different way.
2. Briefly summarize each subtopic.
3. End it with a strong clincher for a meaningful final sentence. This can be the hardest sentence to write, especially if you are in a rush. If, during your writing, you think of a clincher, write it down somewhere immediately!

Zoologists and animal wildlife experts agree that the elephant dentist has one of the daunting jobs at the zoo. Because of the vast amount of expertise and courage necessary for the position, these dentists are highly compensated and continue to be in demand. The specialty of elephant dentistry has evolved and become more refined, along with the instruments needed to perform the craft. The schooling involved to be an elephant dentist requires several years of study, including an undergraduate degree and a four year school of dentistry at either Tufts or Harvard. Through preventative cleanings and tuskectomies, elephants have a higher quality of life and an even longer lifespan. Through their care and diligence, elephant dentists have proven that these noble animals deserve the same level of care afforded to humans and other animals.
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Second lines are indented. First names and titles are never listed. Titles of websites are not italicized, only book titles. Titles only capitalize the first letter in the first word, unless it is a proper name. The year goes after the first entry. If there is no date, you must state (n.d.). URLs are listed after “Retrieved.” If there is more than one author, list all of them (up to seven).

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