



Laidlaw Scholarship

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Conservation Education Project Report

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I. Introduction

This project was led by the first generation of Laidlaw Scholars to work under the Kibale Forest Schools Program (KFSP). The Conservation Education (CE) Project, composed of the four authors of this report, was one of three projects running simultaneously in the summer of 2022.

Six weeks were spent in the Kabarole District of Uganda, based at the KFSP Office in the village of Kasiisi. The CE Project worked primarily with – and taught at – four of KFSP’s partner schools (Kanyawara, Kasiisi, Kigarama, Kiko), however developed a curriculum aimed at all sixteen KFSP schools.

The CE Project focused on two major streams. The first of these was the *Elephant Project*, a curriculum on elephant conservation within Kibale National Park; the second was *World Chimpanzee Day* (July 14th), on which assemblies relating to chimpanzees conservation were held at the four focus schools.

This report will detail the work carried out by the CE Team, along with the challenges encountered and advice to future generations participating in similar projects. It aims to guide future curriculums and programs, under KFSP or within similar settings.

II. The Elephant Project

The main focus of the CE Project was increasing awareness around elephant conservation within Kibale. A curriculum of four sessions was developed, focusing on basic elephant knowledge, safety in elephant encounters, human-elephant conflict, and elephant deterrents. Relevant murals were painted at two schools with the pupils’ assistance, with the aim of leaving a tangible reminder of the curriculum whilst improving the schools’ facilities.

There are two species of elephants in Kibale National Park: forest and savannah elephants (as well as interbred hybrids). As African elephants were reclassified into these two species in 2021, many are unaware of this development and the differences between the two species. As such, the first session focused on basic facts about elephants with an emphasis on differentiating between the species.

First, students were asked to draw elephants on the chalkboard whilst others shared any experiences they had had of seeing elephants in the wild and any facts they knew about elephants. Background facts were shared, such as there only being 5000 left in Uganda. After this, the team focused on the differences between the two species through a drawing exercise. Then, students were asked what positive impacts elephants made in their ecosystems, including a discussion on elephants being Keystone species. Finally, the pupils acted out a story about an elephant rescuing a baby to try and increase empathy towards elephants.

The second session was very different to the first and focused on safety in encountering an elephant (anecdotal evidence suggested this was important to teach). An experienced field assistant at the Makerere University Biological Field Station (MUBFS) was consulted during the

session's development. The session was conducted outside. Firstly, students were taught the warning signs that an elephant is close by. Next, the session covered warning signs of elephant aggression. During these tasks, the pupils were asked to imitate the actions. Next, the pupils were taught how to safely escape an elephant encounter: methods such as zig-zag running, dropping decoys and veering off were covered. Again, the pupils practiced these - both through demonstrations and chasing games.

A debate was held for the third session, aiming to increase awareness of human-elephant conflict in the area. Elephant-human conflict has increased in prevalence due to Savannah elephants migrating from Queen Elizabeth National Park (QE) to Kibale National Park, caused by poaching in the DRC forcing elephants out and into the highly-populated QE Park. Savannah elephants are much larger and more aggressive than forest elephants and in their search for food have increasingly turned to crops for their source, much to the detriment of the local farmers and communities.

However, the majority of farms stand on historical elephant territory; habitat loss is one of the biggest threats to elephants today. On this topic, the motion presented was "Elephants should be permitted to roam freely on farmland around Kibale National Park". One half of the class would argue for, the other half against. Information sheets were distributed for argument planning and debate. After the debate's resolution, a winning team was selected with emphasis placed on the fact there is not one answer to solve this complex issue. Although farms should be protected, elephant conservation should not be overlooked.

The final session focused on elephant deterrents - specifically beehives - and, similar to the second session, was activity based. Beehive kits were provided and built in advance of the session; this was an opportunity for the students to decorate them with elephants, bees, and facts that they learned. Beehives are increasingly used to deter elephants and can also provide a source of income to local farms. As all the students could not paint and decorate at the same time, whilst one group was painting, the others were drawing in the savannah vs forest elephant activity or were discussing relevant material and recapping everything covered up to this point.

In addition to the curriculum, worksheets were shared to examine what pupils remembered from the sessions and to evaluate how we should change the curriculum. Worksheets were tested on students at Kasiisi P.S.; it was quickly realized that the students had never encountered crosswords, anagrams, or multiple choice worksheets before. Very clear and simple instructions were needed for all of the worksheets. In spite of this, the students were excited and requested more worksheets after completing the first. They also asked to be graded on all worksheets and drawings in sessions, which was an effective means of reviewing correct and incorrect answers.

As the Elephant Project only involved four schools (Kasiisi, Kanyawara, Kigarama and Kiko), to extend the curriculum's reach and to increase the sustainability of the project a workshop was held with the Wildlife Club Patrons from all 16 KFSP schools. At this workshop the sessions were presented to the Patrons and necessary resources shared. This saw high levels of engagement and interest; it is the authors' hopes that this will ensure the curriculum's teaching across most - or all - sixteen KFSP schools.

The final aspect of the Elephant Project was murals. Although the original aim was to run this at all four schools, strikes meant only Kasiisi and Kigarama's walls could be completed. The walls (see appendix i) depict a family of elephants. The aim was to increase students' interest, both by involving them in the process and through using the mural as a reminder of the curriculum. In addition, the walls act as a reminder of elephants' size and physical characteristics (the closest and safest way of having the students see elephants). A family of elephants were chosen to increase empathy towards the species; due to the aforementioned human-elephant conflict, attitudes towards elephants are very divided in this area. These paintings, in conjunction with the curriculum, aim to improve knowledge, awareness, respect and empathy towards elephants.

In addition to the murals, three signs were designed by the CE team to be placed at the Kasiisi Farm with facts about elephants and bees as well as general information for tourists and visitors to see as they walk through the farm. These signs were painted in part by the students of Kasiisi Primary School in order to have them be a part of the Kasiisi Farm in a new way and have them use their creative abilities to express their knowledge of wildlife and conservation.

The overall aim of this project was to improve knowledge about, and attitudes towards, elephants. Whilst the first objective was relatively simple, the second was more complicated. Elephants are endangered animals that are a 'keystone' species in their habitats so they need to be protected, yet the sessions couldn't portray them as friendly as this might cause risk to pupils. As such, this curriculum aimed to strike a fine balance between empathy and reality; based on anecdotal evidence, this has worked effectively.

This project (and the resources such as printouts, session plans, posters and paint) was supported by a grant from the International Elephant Foundation.

III. World Chimpanzee Day

World Chimpanzee Day, taking place on July 14th, is an annual celebration of chimpanzees and their conservation; within the Kabarole District, it is common for the schools to use this day as an opportunity to teach relevant lessons.

From the project's outset, the CE Team aimed to work with the four partner schools to hold assemblies intended to develop pupils' understanding of the chimpanzee communities in Kibale National Park and the employment opportunities relating to conservation.

In advance of the day, the schools' Wildlife Clubs met and the CE team delivered a session on chimpanzees and their behaviour. The pupils were divided into four groups, each representing one of four chimpanzee communities in Kibale (Kanyanchu, Kanyawara, Buraiga and Ngogo - the fifth, Sebitoli, was reserved for a talk on poaching). Each group was educated on a different area of chimpanzee behaviour, ranging from communication to nest building and parenting, through interactive tasks. The groups were then asked to prepare a presentation on their community by World Chimpanzee Day, to be presented to the whole school.

On the day, scholars travelled to each of the schools to oversee the assembly. The pupils delivered presentations of various forms; examples included poetry readings, dances, songs, readings and games. These were a success at each school, with the Wildlife Clubs enjoying the opportunity to creatively present. Appendix *ii* contains photography from each of the four major assemblies.

In addition to the presentations, rangers from the Ugandan Wildlife Authority (UWA) and MUFBS delivered talks on conservation in the area, and how they came to be employed in their various organisations. Some chose to deliver the session in English, others in Rutooro; it is suggested that, should future projects hold similar assemblies, the speakers should all deliver in Rutooro to avoid language barriers and maximise pupil engagement.

Overall, the World Chimp Day project is seen as a success. All four assemblies saw high levels of interest and engagement from the Wildlife Clubs and wider student body; it is hoped that this structure can be repeated annually.

IV. Successes & Challenges

Industrial action proved to be the greatest project limitation. For three of the six weeks, all government primary schools in Uganda were on strike. Whilst the CE Team was able to visit schools, plan sessions and develop materials, no teaching could occur. Luckily, Kasiisi P.S. had a large contingent of boarding pupils; the project could begin on a smaller scale. Sessions were improved for the other schools in advance of the wider launch of the project.

Lesson engagement varied significantly between schools. During the first sessions it proved difficult to keep the students engaged, however the problem dissipated with time as they got used to new teaching styles, new accents, and new teachers. It was suggested that this resulted from pupils being unfamiliar with “mzungus” (the Rutooro word for *foreigners*) in and out of the classroom, especially since the COVID pandemic. Generally, Kasiisi students, who had greater exposure to the CE Team, were more engaged and forthcoming than other schools, but with time this challenge lessened across the board.

Another cause of the engagement block the CE Team faced was the language barrier; whilst most students spoke English to a good level, understanding Western accents proved quite difficult. To overcome this the team learned to simplify their language and speak slowly and clearly. The presence of a teacher to translate acted as further support, especially for the younger classes.

The cultural differences between US/UK schools and Ugandan schools demands discussion. All the classes had greater than 60 students in them, and the style of teaching was repetitive and focused on absorbing information rather than critical thinking and independent learning. To overcome this, teaching styles were adapted to be similar to standard Ugandan practices (including greater use of the chalkboard and repetition activities).

It is worth noting that the effectiveness of the curriculum was prevalent throughout the project; pupils' abilities to recap previous material proved encouraging during the teaching stages. Further, the pupils were found to disperse their knowledge throughout the school. When multiple classes were taught, it was quickly realised that the information had already reached the later sessions by word-of-mouth across classes.

The longevity and reusability of the project is to be considered a success. Over 20 worksheets were created, including a colouring book, and were also tested on students to ensure they were effective learning tools. Similarly helpful to longevity, the curriculum's delivery to the WLC Patrons shows promise of repetition and reuse.

Finally, the effective cooperation between the CE Team and KFSP played a large part in the success. Close contact with one another and KFSP's central team meant that communication, with one another and the schools, was sharp. Teaching was able to commence immediately after the strike's conclusion, which was three weeks after our arrival.

V. A Note to Future Scholars

When planning first began, an initial aim was to observe the lessons at each school in order to understand early on how classes are conducted; this would enable the CE Team to structure lessons in a similar manner. Due to the industrial action in schools this became impossible, meaning that lesson plans were built on the teachers' advice rather than first-hand experience. Future scholars should try to take advantage of lesson observation *before* teaching to minimise later changes required to meet the needs of their students.

Adapting sessions to suit each group of students contributed largely to the successful delivery of lessons. Each class varied greatly with regards to their English speaking ability, background knowledge and level of engagement. Consequently, the CE team altered the technicality of language, depth of material and practicality of activities so that all students could enjoy and learn from the sessions. Future scholars should aim to emulate this style of teaching to maximise the students' learning potential.

One particular challenge faced was the aforementioned language barrier with students; although the students at Kasiisi P.S. spoke English particularly well, the students at Kiko, Kanyawara, and Kigarama were more limited. This created challenges when teaching - it proved more difficult to explain particular concepts or activities. However, teaching groups were often accompanied by one of the teachers who could translate English into Rutooro when instructions were not clear. Future scholars should anticipate this challenge and try to ensure that there is a member of staff present who can translate when communication issues arise, in addition to slowing sessions down for accessibility to *all* pupils.

The common theme between the above is the importance of adapting to the new educational environment early on, and ensuring that sessions are planned and delivered with recognition of this.

VI. Concluding Remarks & Note of Thanks

At the start of our time in Uganda, we set out to build a curriculum useful for, and enjoyable to, KFSP's 16 schools. Despite facing hurdles ranging from industrial action to illness, it is hoped that our project will benefit pupils and teachers from the KFSP schools long after its conclusion.

This achievement would have been impossible without several key supporters. Firstly, Derrick Kajura of KFSP has been an ever-present project lead for our team, going far out of his way to help get any task on its feet regardless of the deadline. Additionally, the wider KFSP organisation has been forever vigilant in meeting our many requests, for which we are enormously grateful. The staff of the Kasiisi Guest House, in particular, have cared for us to an exceptional standard and made our time here extremely comfortable.

Dr Zarin Machanda is not only responsible for bringing us to Kabarole, but giving shape to a conservation project in a new and unusual landscape. Herself and Dr Emily Otali were vital to the entirety of the project as well as our stay in Uganda. Their elite understanding of primatology was additionally vital to our work in Section III.

Our four partner schools are also deserving of our gratitude - in particular the endlessly positive Moses Musinguzi of Kasiisi P.S., who has generously accommodated our every wish for more time in lessons.

Finally, we are grateful to the Laidlaw Foundation for funding our travel and expenses.

VII. Appendix

i. The Elephant Project



a. *The mural, decorated by the CE Team and pupils, at Kasiisi P.S.*



b. Session 1 being delivered to P7 at Kasiisi P.S. and Kigarama Boys School



c. The Wildlife Club Patrons' curriculum workshop

ii. World Chimpanzee Day



Kanyawara P.S.



Kasiisi P.S.



Kigarama P.S.



Kiko P.S.

World Chimpanzee Day assemblies at the four focus schools

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