

SCIENTIFIC OUTREACH

TO

**THREE PUBLIC PRIMARY SCHOOLS
IN THE RURAL COMMUNITIES IN
ASA LOCAL GOVERNMENT AREA,
KWARA STATE, NIGERIA**



Afon LGEA Primary School A

Afon LGEA Primary School B

Odo-ode LGEA Primary School

On 9th May, 2024

Organised by:



University of Ilorin, Zoonoses and Environmental Health Initiatives (ZEH) and BioCORE
Veterinary Diagnostic Center

Sponsored by:



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SUMMARY

Dr Daodu Oluwafemi was awarded an outreach grant of £1000 by the Biochemical Society to run an outreach tagged **“I am not Alone”** to pupil in the age range seven to eleven in rural community of Kwara State, Nigeria.

The aim of the outreach was to sensitize and encourage the future leaders in science and show them the essence of education. The outreach also aimed to bridge the gap of limited teachers in public primary schools expected to educate the pupils on science and the practical science classes. The essence of the outreach is to help the pupil to be focused and have their orientation properly sharpened about science, and education in general.

Ahead of the outreach, a permission letter was obtained from the Head (through the Secretary) to the Asa Local Government Education Authority (LGEA), Nigeria on 30th April 2024. The approval letter was thereafter presented to Heads of the benefitted primary schools to consent. These schools include **Afon LGEA Primary School A, Afon LGEA Primary School B** and **Odo-ode LGEA Primary School**. The classes involved in this were pupils in Class 4 to 6.

The event took place on the Thursday 9th May, 2024 at Nigeria Union Teachers’ Hall, Afon. A total population of pupils that participated was 250 pupils with 10 adults (4 teachers, 4 organizer and 2 logistics personnel). Interactive session, hands-on practical experiments and storytelling were done and the outreach was entrenched within career talk in Elementary and integrated sciences (biosciences). Additionally, the outreach was voluntarily supported by postgraduate students, microbiologist, and veterinarians.

Feedback after the event indicates that the pupils found the experience enlightening and engaging. The teachers of the schools were also pleased with the overall quality and content of the outreach. We advocate that more of this enlightening outreach be supported by the society as it is very obvious to reach many more young ones in Nigeria in preparing them for future.

KEY MILESTONES

SECURING SPEAKERS

Dr Daodu is a lecturer of the Faculty of Veterinary Medicine, University of Ilorin, Ilorin, Nigeria. Leveraging on this, we were able to secure two professionals and 3 postgraduate students. The range of professions presented include:

- Microbiologist
- Veterinary Laboratory Scientist
- Agriculturist
- Veterinarian

REGISTERING PARTICIPANTS

A permission letter was sent to the Secretary of the Asa Local Government Education Authority on 30th April 2024 to seek approval to conduct the Biochemical Scientific outreach to pupils in the three schools under the authority. These schools include Afon LGEA Primary School A, Afon LGEA Primary School B and Odo-ode LGEA Primary School.

Upon approval, the headmasters of the three schools were served with the letter and were asked to indicate best time (based on the school calendar) to release their pupils for the event. Subsequently, each schools agreed to release their pupils to attend the outreach at a central location for three hours. In all, a total of 250 pupils attended the programme.

PLANNING AND PREPARATION

Owing to the large number of pupils and a request for selection of a Central location under the control of the LGEA, Nigeria Union Teachers' Hall Afon was used to host the event. This location provided enough space to group pupils in various classes for different scientific events. Banners were designed and printed by a graphics designer while Videos to illustrate the concepts were also made by an animation expert. Six volunteers were involved in planning this event. Overall, it was well organized and this reflected on the day.

HAPPENINGS ON EVENT DAY

The event preparation began early on morning of Thursday 9th May, 2024 with arrangement of the venue, sound system, and refreshment. The students were separated into 4 groups. The event began with a brief introduction of the Biochemical Society. Afterwards, a 15 minutes interactive session was hosted by one of the speakers on pH changes with household items, and leaning about food molecules. Practical demonstrations using safe and intriguing experiments were showcased. They include;

- (i) Chemistry: pH change in varying water hardness, soil drainage experiment using different soil types.
- (ii) Physics: temperature measurement using different instrument, microscope demonstrations to view water samples and plant cell
- (iii) Biology: Release of oxygen by germs when exposed to hydrogen peroxide

A storytelling session was held. Stories narrated were about Rosalind Franklin and Jan Ingenhouz for their famous discoveries in science about the structure of DNA and the process of photosynthesis respectively. The stories about the scientists were narrated in a way to spark interest and curiosity of the pupils about science while relating the stories to connect science with real-world achievements.

Finally, questions and answers section was conducted when Biochemical Society inscribed T-Shirts were given to pupils that gave correct answers, school prefects, and other active pupils. As the event rounded up, a vote of thanks was rendered by one of the teachers to organizers and Biochemical Society. Then, refreshments were given to all the attendees.

PHOTO GALLERY



Pupils gallant entry to the venue of the Scientific outreach



Introduction of Biochemical Society to the pupils and the teachers present



The recitation of the National Anthem of the Federal Republic of Nigeria



Demonstration during the Soil experiment



Preparation for experiment on oxygen release by microbes



Story-Telling session on Scientists who discovered wonders of the world



Demonstration on different types of thermometer and its use



Question and Answer session: Do you know the answer to this question?



Vote of thanks by one of the Teachers



Appreciation by Dr Daodu to the teachers and pupils



Closing prayer said by on of the students



National anthem at the end of the programme



Pupils stating what they have learnt during the Outreach



Organisers, teachers and some of the students at the outreach



Organisers, teachers and some of the students at the outreach



Organisers, teachers and some of the students at the outreach

POST EVENT EVALUATION

Event evaluation was done using a checklist for the pupils selected randomly among the four groups. Also, the teachers were asked to appraise the Scientific Outreach.

Generally, the pupils and the teachers commented that the outreach was educative, outstanding and enlightening. They however solicited that outreaches should be done regularly.

SUCCESSES

- The pupils agreed that the outreach was educative, enlightening and interesting.
- The pupils were elated at the wide array of opportunities.
- The teachers commended the event as outstanding, educative and well organized.
- The teachers also desire more outreaches of this nature to hold in the school.
- Pupils had the opportunity of asking questions on scientific innovation and answers were given by facilitators.
- Pupils showed positive attitude to become scientists in future.
- Teachers are optimistic that the event will contribute to pupils' interest to read more and improve their academic performance in science related subjects.

LIMITATIONS

- The time allotted by the schools for the event was short. Hence, we had to cancel some of the planned demonstration sections.
- Because of poor understanding of English language among pupils in public schools in rural communities, the event was mainly conducted by facilitators in local language (Yoruba). Unfortunately, the use of an interpreter would consume already limited time.

LESSONS LEARNT

- Activities should be more fun and enlightening.
- Outreach should be organized outside teaching period or during vacation

- Adequate numbers of Facilitators/Interpreter that understand local language should be selected during an outreach among pupils in public primary schools in rural communities in Nigeria.

FUTURE PLANS

- There is a need to encourage the parents of these pupils to see to the employment of more English language teachers in these schools.
- Activities such as scientific site visit like laboratories, standard hospitals, livestock farms, should be advocated for inclusion in primary school curriculum.
- More funds should be sought to host outreaches on a regular basis.
- To host science and English literacy outreaches among pupils in public primary schools in rural communities all around Nigeria.
- To broadcast science outreaches using internet and other media (television, radio station etc) to increase audience.

Video link

The activities that occurred during the Scientific outreach can be watched here [https://drive.google.com/file/d/10At66xXl0RCNU70yPQJgcuCdFWQzLv/-/view?usp=drive link](https://drive.google.com/file/d/10At66xXl0RCNU70yPQJgcuCdFWQzLv/-/view?usp=drive_link)