

Nigeria Agriculture Policy Activity

September 2021

NAPA Highlights #8

R LANGUAGE FOR STATISTICAL ANALYSIS WORKSHOP AT UNIVERSITY OF NIGERIA NSUKKA, ENUGU STATE NIGERIA

An R statistical programming language workshop was organized to train faculty and graduate students at the University of Nigeria Nsukka (UNN) in Enugu State. The workshop took place at the University ICT building from the 8th to the 15th of August 2021.

The training was organized under a partnership between Michigan State University (MSU) and UNN. Participants were drawn from various departments scholar program of the comprising UNN professors, graduate students, and directors of centers. A total of 28 participants (16 males and 12 females) were in attendance.

Dr. Blessing Iveren Agada, the facilitator for the R training, is an alumnus of the USAID Feed the Future Nigerian Agricultural Policy Project (NAPP). She was trained on the use of R for performing statistical analysis at MSU through the support of NAPP.

The opening remarks were given by Professor Mrs. Achike The Director, Centre for Gender Studies who was represented by Mr. Afamefuna James of the UNN Gender Studies Centre. She acknowledged the need to build strong skills in data analysis to ensure evidence-based policy and urged the participants to give their all.

The training started off with downloading the free and open-source R software and installing the folder containing the structured modules and daily labs. The modules covered several topics such as: importing/exporting data, statistics refresher, data management and wrangling, (entails cleaning, transforming, mapping and unifying data from a 'raw' data) data visualization, regression (linear/nonlinear)

and correlation analysis, analysis of variance (ANOVA) and mean separation.

At the request of participants, they were taught how to perform analysis on categorical data from survey tools and trend analysis. We then explored logit models too and stayed on to interpret results. All sessions were hands-on with syntax and scripts introduced to participants for easier understanding of the software. Participants were introduced to external links to sites such as, stack overflow (<https://stackoverflow.com/>), RPUBS (<https://rpubs.com/>) and STHDA (<http://www.sthda.com/english/>) that cover various topics in R programming so that they could become part of the larger R community and continually improve their skills.



Dr. Agada explaining syntax

Participants were divided into two groups so that they could import personal data to perform any statistical analysis of their choice (descriptive or inferential) using R and make presentations. They were also given a short quiz at the end of the training to confirm that they had

a good grasp of the sequencing to any data analysis. They were supported to start creating their own script for individual/peculiar statistical analysis. A WhatsApp group was created and is now in use. Queries those participants are unable to handle themselves, can be posted on the platform so that the facilitator (or other participants) can provide support to debug such codes.

The training came to a close with the presentation of certificates to each participant. They were all excited, promising to put the skills learnt to good use.



PARTICIPANTS PAID CLOSE ATTENTION.

A participant, Mr. Valentine Udeh, expressed appreciation to the facilitator and organizers reporting that he had been to two other, longer R-training sessions but that he could not just use the software well, until after these 5 days of training. He further stated that he appreciated how the modules were structured by labs and days. He was particularly happy that participants had all the materials to further practice and use R.



PARTICIPANTS AND FACILITATOR AT THE TRAINING.

By Dr. Blessing Agada

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