

BESPOKE ESTYLE STATISTICAL TRAINING FOR AFRICA: CHALLENGES AND OPPORTUNITIES OF DEVELOPING AN ONLINE COURSE

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Problem

In Africa, as well as the rest of the world, it is difficult for field scientists to access statistical support. This leads to poor field study design and inadequate analysis of the resultant data (Mouyelo-Katoula, 2006). There is also a need for support in data collection, data management, analysis and interpretation of results amongst early career agricultural researchers (Thabane, Chinganya, & Ye, 2008).

Plan

While statistical and software training sites exist such as those on EdX and Lynda, these sites generally focus on either simple statistical theory or the software. Our plan is to produce an end-to-end training system that takes users through the complete process of conducting high quality research in Agriculture. This training will show how the theory and software work together and demonstrates and explains procedures which lead to high quality reproducible research. It includes examples from Agricultural research some of which have been conducted by the team.

Action

The development of 'BeST' an online course for African scientists and early career researchers aimed to provide support for experimental design principles and the use of R software. It is available at yieldingresults.org and is supported by the Australian Centre for International Research (ACIAR). A team of developers produced materials with an emphasis on visual and practical materials. The site is continuously available and is in modular format and aims to assist in developing designs and following through with analysis and reporting. Due to the target audience and the potential reliability of service in Africa, the website has been designed to be lightweight and have a mix of online and downloadable resources. While the primary focus is for Agricultural researchers with limited mathematical backgrounds, extensions to modules are provided for those who wish to know more of the "mechanics" behind the methods. The software used throughout the website for statistical analysis is the R Statistical language, which follows in the site Open Source, creative commons mission.

Reflection

While we are still in a late-Beta stage in the website, we have had many users' comments on how well the website has been designed and the general ease of accessibility of the topics. In the feedback we have received a suggestion to provide the website on DVD or usb stick has been put forward for those areas without reliable internet service. This is currently being developed as well as extending the programme to other areas which have shown high traffic, such as South East Asia and South America.

REFERENCES

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