Experiences, Challenges, and Opportunities in Building Capacity in Statistics Education and Practice: The Story of LISA 2020

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Abstract:
Development is a collection of sustainable actions that positively impact society. We believe that three main components lead to development: scientific and research innovations, creating jobs for sustainable activities, and implementing effective policies. Statistics, as a discipline and a practice, enables and accelerates all aspects of data-driven research, business, and policy. Data is key to knowledge, and statistics and data science are the bridge to understanding that data. Understanding data allows people to make scientifically sound decisions, thereby answering questions, solving problems, and generating development benefits in research, business, and policy. Such data-driven development is especially relevant for developing countries, which often have pressing needs for which solutions can be guided through both the production and analysis of data and the implementation of policy based on these data analyses.

The LISA 2020 Network is building capacity in statistics education and practice through a network of more than 30 statistics and data science laboratories in 10 developing countries to work in the intersections of data-driven development. The labs in the network educate and train students and staff to collaborate with data producers and data decision makers to transform evidence into action for development.

This paper describes current barriers and challenges for building capacity in statistics education and practice and what is needed to shape the next generation of statisticians and data scientists to gain valuable technical skills and the ability to apply statistics to real-world challenges through the development of collaboration and communication skills.