

The Challenges of Teaching In-Service Statistics Courses in Tertiary Business Schools in Nigeria

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1. Introduction

Business students in Nigerian tertiary institutions (universities and polytechnics) offer a wide variety of general education, foundation and professional courses within their study period of four years. In polytechnics, students undergoing diploma programmes in business studies, accountancy, marketing, insurance and banking take compulsory foundation courses in business statistics during the first or second year of their study. While these courses vary in number and scope across careers, there is a high degree of similarity in content and scope of such courses in same or similar careers in different institutions. This is largely attributable to the existence of common curricula developed jointly with The National Board For Technical Education (NBTE), the accrediting institution for polytechnics in Nigeria.

These courses are taught to students not as would-be academics (in statistics) or professional statisticians but as professionals who would apply statistics to their professions. Though there exists presently a raging controversy on who should teach these in-service courses, they are in most cases taught by professionals in the 'home' departments of the students. In a few cases, lecturers in the various departments of statistics and/or mathematics also handle these courses. A number of problems are encountered in the process of instruction most of which are not peculiar to Nigeria as highlighted by several other authors (Day et al, 1990; Srivastava et al, 1985; Gandhi et al, 1991).

2. The Challenges

One of the greatest challenges in the teaching of business statistics is the low level of preparedness of students before they come into their various programmes. At the secondary school level, mathematics is at times taught by unqualified and /or demoralised teachers who are hardly able to cover the entire syllabus. Very few students, therefore, have the opportunity of being taught statistics as a subject, which would have facilitated an in-depth treatise of basic statistical concepts. Even within the mathematics syllabus, topics in statistics and probability constitute only about five percent of the content, which is also arranged to be taught at tail end of their secondary education. So, in some cases, these topics are not taught to students at all. This situation further worsens the apathy that students generally have towards mathematics.

Teaching of business statistics, whether by professionals in 'home' departments or statisticians lacks the required quality because of the diverse backgrounds and varying talents of the teachers in the art and craft of teaching. Inadequate training of such teachers in appropriate pedagogy results in their inability to communicate effectively. This is further compounded by the extremely large sizes of most business course classes that render the teacher helpless in meeting the learning needs of individual students.

The most disturbing development is the lack of access to the use of technology in the teaching of business statistics in spite of the opportunities it offers in the practical exposure of students to realistic data analysis. Where the hardware is available, appropriate software may be lacking. Most of the teachers are also deficient in the use of such facilities. These put together affect the content and delivery of such courses and limit the scope of teaching and learning.

3. Suggested solutions

The large variation in the aptitudes and interests of fresh business students for mathematical and statistical work suggest that the secondary school mathematics curriculum needs a review and restructuring to include more topics in statistics. Beyond this, an introductory component can be added to the business statistics course content to enable fresh students remedy possible deficiencies.

Irrespective of who is considered qualified, between non-statistics professionals and academic statisticians, to teach business statistics what is clearly evident is the need to train such teachers in teaching methodology. This would equip them with the tools for designing more effective and intelligible course modules and course delivery, as noted by Mascoloni (1998). This is particularly important as most business students are motivated towards the study of core business courses but with very little interest in the study of statistics. There is also the need for collaboration between the 'home' departments and the servicing statistics departments for an integration of the essential theoretical and application components, and reduce the level of abstraction in the course delivery.

To take advantage of the enormous opportunities offered by prevailing IT revolution, polytechnics in Nigeria need to invest in the acquisition of adequate quantities of computer hardware and appropriate software that would allow for visualization, analysis of real-life data and make teaching and learning more interactive. This would translate into increased government funding since most institutions are government-owned. Teachers also need to get better exposed to the use of application software in actual teaching situations. Ultimately, institutions would be expected to develop facilities to the extent that they can come 'on-line' with video conference links and have access to courses made available through the Internet.

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RESUME

Cet papier est un point culminant sur les problèmes l'inter-service cours statistique aux étudiants d'affaire dans institution tertiaire au Nige^①ria. Temps il reconnaites que quelques problèmes ne sont pas particuliers de Nige^①ria, solutions possible ont e^①te^① suggere^① pour rendre l'enseignement et connaissance plus effectif.