Adoption of Latin Square Experimental Design in Minimizing Cheating During Examination

Abstract

Sitting arrangement of students during examination has been observed as a fundamental factor that can influence or aid cheatings/examination malpractices. This paper therefore proposed and investigated statistically some methods of overcoming the problem of sitting arrangement, and thus reduces examination malpractice especially when examination questions are basically objective. The first method requires dividing the number of questions into groups, such that the first question in each group has all the information needed to answer other questions which may be in the group. The second method requires using the number of different options in a question instead of dividing the number of questions into groups. In each method, a Latin Square Design is then formed from which blocks are randomly chosen. The order of arrangement in each block is then followed to re-organize the questions/options into different groups/types of questions. The question papers after printing are arranged and parceled such that a question paper from each different group/type of questions is allowed to follow each other. The other proposed method is a combination of the two methods to form a two factor experimental design. Statistical investigations of these methods revealed that the students are not at any disadvantage in term of their performances as a result of different re-arrangements of questions. The methods are thus recommended for usage.

References
Adoption of Latin Square Experimental Design in Minimizing Cheating During Examination

- Ojerinde, D. 2004. Examination Malpractice in our Educational System - the NECO Experience. A Faculty of Education Lecture delivered at the Obafemi Awolowo University, Ile-Ife on 23rd February.
Adoption of Latin Square Experimental Design in Minimizing Cheating During Examination

Annual Congress of the Nigeria Academy of Education, Jos, p. 82 – 100.

Index Terms

Computer Science
Applied Sciences

Keywords
Questions Examination Mal-practices Latin Square Design Factorial Experiments