Research

(a) Completed

Mentioned below are some of the research works carried out by me and in collaboration with colleagues and postgraduate students.

1. Assessment of Perceived Difficulty, Frequency of Practice and Achievement in Mathematics of Junior Secondary School Students in Ibadan Less City of Oyo State, Nigeria

2. Assessment of Correspondence Knowledge and Practices in the Registry of the University of Ibadan, Oyo State, Nigeria

3. Value-added Measures as Predictors of Student' Achievement in Mathematics

4. Relational Analysis of Student Self-Efficacy and Classroom Mathematics Engagement

(a) In Progress

1. Assessment of Analytical Competence of Postgraduate Students of University of Ibadan

The primary purpose of establishing training institution is to develop manpower that can sustain a nation and by extension, sustain other economies. It appears that many institutions are failing already in this major responsibility. Some institutions find it difficult to employ the graduates of their institutions because of poor quality. Employability status of graduates Nigerian institutions are turning out has been challenged by many stakeholders. The reason for this might not be too far from the fact that basic skills that make both teachers and students perform their roles effectively are quite lacking. One of such skills is data analytical skills which is in demand in any progressive establishments. This formed the background for a study on Assessment of Analytical Competence of Postgraduate Students of University of Ibadan which adopted a descriptive type of research. The sample size on which Analytical Competence Scale was administered was 353, selected across all the faculties and the Institutes. Development of the background and data collection were completed between January and August 2019. Both quantitative and qualitative data analyses as well as report writing are hoped to be completed in June 2020. It is anticipated that the findings will reveal specific analytical needs of postgraduate students from various disciplines.

Co-Researchers: Olanike K. Adeyemo, Professor of Aquatic Epidemiology & Toxicology and Deputy Vice-Chancellor (Research, Innovation & Strategic Partnerships) University of Ibadan, Nigeria; Folajogun V. Falaye , Research Professor, Institute of Education, University of Ibadan and J. G. Adewale , Research Professor, and Director, Institute of Education, University of Ibadan

2. Assessment of Teachers' level of Information Communications Technologyknowledge, Competence and Electronic Examination Adoption Disposition

Information and Communication Technology plays an important role in education. It enables both teachers and students to be abreast of the latest trend in learning and to navigate through the digital divide capable of rendering an individual almost useless in this digital age if ignored. It is worthy of note that most teachers that are supposed to be givers of knowledge lack basic knowledge and requisite skills in the parlance of Information and Communication Technology (ICT). Of great concern and grave consequence in education are the seeming sheer ignorance and the inability of teachers to demonstrate ICT competence needed in their pedagogical approach.This invariably affects the professional development of teachers and also has the tendency to limit the ability of the students as they will not be able to compete favourablywith their counterparts. Some important public examinations are now written using Computer Based Test (CBT) approach and it appears that most of the students that are taught by incompetent teachers in ICT have difficulty in operating the system being used for such examinations and this has the tendency of resulting into undeserved failure. The need to assess the ICT knowledge, competence and electronic examination adoption disposition informed this study that targeted secondary school teachers in Ogun State Nigeria, that prepare students for external examinations with the aid of survey design. ICT Knowledge, ICT Competence and electronic examination adoption disposition scales were the major instruments used for data collection. Data have been analysed and the draft of the report is ready. The findings are likely to make available empirical facts that will inform the direction of policy. The study should be completed by February 2020.

Co-Researcher: KolawoleOlotu, Institute of Education, University of Ibadan.

3. Parent-Teacher Partnership, Student Interest and Engagement as Determinants of Achievement in Senior Secondary School Mathematics in Oyo State.

Mathematics plays a vital role in supporting people to relate meaningfully with their immediate environment. In the recent time, attention is being drawn to various stakeholders whose involvement can enhance mathematics learning. Partnership among those stakeholders and conscious engagement of the concerned students can explain observed variance in achievement. Research efforts have been directed to combination of variables

that can explain the learning of this dreaded subject, yet a combination that can explain hundred percent of variance in students' learning outcomes in mathematics is not yet obtained. This suggests the need to investigate : Parent-Teacher Partnership, Student Interest and Engagement as Determinants of Achievement in Senior Secondary School Mathematics. The researchers adopted survey design and have carefully investigated the issue using a new dimension, Structural Equation Modelling [Partial Least Square (PLS)-Variance type] with adoption of SmartPLS. Multi-stage sampling technique was adopted for sample selection. The different stages the sample spanned were senatorial district, Local Government Area, School and classroom levels which resulted into selection of 4,146 students and 74 mathematics teachers. Validated instruments were used to measure five exogenous, eight endogenous and one criterion variables that constituted the model. Formative and reflective approaches PLS analysis were used and the study is on report writing stage and should be completed in March 2020.