INPUT FACTORS AND STUDENTS’ SKILL ACQUISITION IN TECHNOLOGY PROGRAMMES OF POLYTECHNICS IN SOUTH-SOUTH NIGERIA

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APPROVAL

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CERTIFICATION

This is to certify that the Thesis:

INPUT FACTORS AND STUDENTS’ SKILL ACQUISITION IN TECHNOLOGY PROGRAMMES OF POLYTECHNICS IN SOUTH-SOUTH NIGERIA.

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DOCTOR OF PHILOSOPHY (Ph.D)

Is a record of original research carried out

By

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In the Department of Educational Administration

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DEDICATION

This research effort is dedicated to God Almighty and to my husband, Engr. L.O. Binitie-Cassidy and our lovely children, Rukevwe, Ochuko, Tega, Orue and Tejiri.

LINDA OBRUTSE BINITIE-CASSIDY
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ABSTRACT

The need for Nigeria’s industrial advancement or development, as Africa’s largest economy, has become rife in recent times. This need became more resonate as a result of Nigeria’s desire to become one of the 20 most developed economies by 2020. Industrialization requires a retinue of skilled middle level manpower to see through especially in the strategic oil and gas sector which accounts for over sixty percent (65%) of the nation’s economy. However, industries currently consider polytechnic graduates deficient in skills acquisition. But in spite of the perceived skills deficiency, polytechnic programmes get annual accreditation. Accreditation of programmes implies that there is availability and or adequacy of inputs in those educational programmes. This study therefore evaluated polytechnic graduates’ skills acquisition for employability through input factors availability and or adequacy assessment. The study looked at adequacy of inputs in the education and training of polytechnics students for acquisition of relevant skills needed for industrial alignment. Seven independent variables were examined for their relationship with students’ skills acquisition. These were infrastructural and material resources, lecturer quantity, lecturers’ exposure to professional improvement programmes, curriculum content, funding, school-industry linkage and students’ entry qualification. Possible correlates for determining the production of skilled and competent graduates needed for industrialization of Nigeria were thus evaluated. Descriptive survey research design was adopted for this study. The population of the study comprised 31 heads of departments, 332 lecturers and 899 final year students from four polytechnic in the south-south geopolitical zone. An admixture of purposive and simple random sampling techniques was used to select a total of 420 subjects, comprising 20 heads of departments, 200 full time lecturers and 200 HND final year students as sample for the study. Four sets of instruments were designed and adopted for the study: the School Resource Profile Checklist (SRPC) (form I for Heads of Department), the Technology Education Lecturers’ questionnaire (TETQ) (form II for Lecturers), the Technology Education Students’ Acquired Skills Questionnaire (TESASQ) (form III for students) and the General Aptitude Technology Education Test (GATET) (form IV for students). To test for relationship between the independent variables and students’ skills acquisition, eight hypotheses were postulated and the data collected were analyzed using the Pearson Product Moment Correlation Coefficient. The finding revealed among others, that physical and material resources, lecturer quantity, lecturers’ exposure to professional improvement programmes, curriculum content, funding and students’ entry qualification have significant relationship with students’ skills acquisition. In the light of the above findings, it was recommended among others that adequate physical and material resources, as well as funds should be adequately provided for technology related department of polytechnics in the south-south; that lecturers’ exposure to professional improvement opportunities be improved through seminars, short courses, workshops and conferences; that current curriculum content of polytechnic programmes should be reviewed to meet UNESCO’s (2006) specifications and that entry qualification of polytechnic students in technology related programmes (which are essentially science based) be upgraded to attract quality students. The study is significant in that the information in concrete data provided in this study could be used to initiate policies in technology education as a way of enhancing the achievement of the goals of technology education as enunciated in the National Policy on Education. As contributions to knowledge this study
developed a conceptual model (the Integrated School Systems Flowchart) to explain the relationship between input factors and skills acquisition leading to the production of competent technologists in polytechnics. It also identified four input factors as critical success factors in the production of skilled and competent technologists - facilities, funding, curriculum content and lecturer quantity. The theoretical model created for this study - Skilled Manpower Value Creation Chain is also a contribution to knowledge in this study. It also identified the important and required relevant skills in technology education that would make graduates employable.