

EXTENT OF UNDER GRADUATING CLASS UNDERSTANDING ON BASIC EXPONENT AND POLYNOMIAL QUESTIONS OF PRE- CALCULUS MATHEMATICS: ACASE OF AN ETHIPIAN UNIVERSITY BSC MATHEMATICS GRADUATING STUDENTS

ASNAKE MULUYE BEKELE

M Sc & MED in Mathematics, Dilla University, Dilla, Ethiopia

ABSTRACT

The main purpose of this study was to assess the understanding of BSc mathematics students regarding basic exponent and polynomial questions of pre- calculus mathematics. This study was conducted at one of Ethiopian University, Ethiopia/Africa. Population of the study is 3rd year mathematics graduating class at one of Ethiopian University. There was one 3rd year mathematics graduating class which contained 41 students in this University in 2016 Where 18 males and 23 females. They have taken several Mathematics courses throughout their university education. Among them 8 males and 8 Females selected by random lottery sampling technique. Parameters of population for this study were all selected 3rd year mathematics graduating class at this University. The instruments of this research was a test that prepared by researcher from topic of basic exponent and polynomials. Data was interpreted based on descriptive statistics percentage, mean and standard deviation and inferential statistics T-test. Mean result on exponent and polynomial questions of BSc graduating class male students is 6 (six) out of 11 (eleven) i.e they scored 54.5% and their standard deviation is 1.6. And mean result on exponent and polynomial questions of BSc graduating class female students is 4.75out of 11 (eleven) i.e they scored 43.2% and their standard deviation is 2.0, the significance level is 0.011 less than 0.05 which indicate there is a significant difference in academic performance between males and females on basic exponent and polynomial questions. In the present study, the results showed that Bsc graduating class do not have sufficient exponent and polynomial concept, especially female students. They have difficulty to understand the relationship between positive exponent and negative exponent. It is not possible to teach these operations to pupils unless the teachers explain different and similar features of positive and negative exponents. The data also revealed that some of the student teachers don't know the properties of positive exponent and negative exponent and factorization of polynomials. The study showed that Math major BSc graduating class understanding of basic exponent and polynomial questions are not satisfactory. For this reason it is recommended that the teaching service department and the MOE have to step up conscription efforts.

KEYWORDS: Pre- Calculus Mathematics, Random Lottery Sampling Technique, Exponent and Polynomials