

Mathematical Anxiety and Misconceptions in Algebra of Grade Vii Students in General Emilio Aguinaldo National High School

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Abstract : This is a descriptive research on the level of math anxiety and mathematics misconceptions in algebra. This research is composed of four parts: (1) analysis of the level of anxiety of the respondents; (2) analysis of the common mathematical misconceptions in algebra; (3) relationship of socio-demographic profile in math anxiety and mathematical misconceptions and (4) analysis of the relationship of math anxiety and misconceptions in algebra. Through the demographic profile questionnaire it was found out that most of the respondents were female. Majority had ages that ranged from 13-15. Most of them had parents who finished secondary education. The biggest portion of Grade Seven students where from families with annual family income ranging from PhP 100, 000 to PhP 299, 999. Most of them came from public school. Mathematics Anxiety Scale for Secondary and Senior Secondary School Students (MAS) and set of 10 open-ended algebraic expressions and polynomials were also administered to determine the anxiety level and the common misconceptions in algebra. Data analysis revealed that respondents had high anxiety in mathematics. Likewise, the common mathematical misconceptions of the Grade Seven students were: combining unlike terms; multiplying the base and exponents; regarding the variable x as 0; squaring the first and second terms only in product of two binomials; wrong meaning attached to brackets; writing the terms next to each other but not simplifying in using the FOIL Method; writing the literal coefficient even if the numerical coefficient is 0; and dividing the denominator by the numerator when the numerical coefficient in the numerator is smaller than the numerical coefficient of the denominator. Results of the study show that the socio-demographic characteristics were not related to mathematics anxiety and misconceptions. Furthermore, students from higher section had high anxiety than those students on the lower section. Thus, belonging to higher or lower section may affect the mathematical misconceptions of the respondents.

Keywords : algebra, grade 7 math, math anxiety, math misconceptions

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