ABSTRACT

There are different factors that affect the students' academic performance in mathematics. Among these factors, three known external factors are used in this study – learning environment, peers, and parents. The aim of this research is to use those external factors in determining latent class models that affect the students' academic performance. A self-made questionnaire checklist or survey consisting of forced-choice questions/statements, as opposed to rating-scale questions, was conducted to the Grade 7 students (A.Y. 2018-2019) of De La Salle Santiago Zobel School – Vermosa and Alabang Campus. Optimal fitting model, which was determined thru AIC and BIC value, was used to determine the conditional and class probabilities on the external factors scale to the preferred number of class model. ANOVA was further applied to investigate the mean difference. From the three known external factors, the latent classes formed were dual factors, peers & parents, multi-factor, and peers. Results showed that there is a significant difference in the mathematics performance of the students between the latent classes formed for external factors. Possible remediation programs should be given to address the issue on the external factors that mostly affect the students' academic performance in mathematics.

Key terms: Latent class analysis, learning environment, peers, parents, RStudio, SPSS