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## **A preliminary study of undergraduates' motivation and perceived mental stress for online education during COVID 19**

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E-learning has gained massive popularity during COVID 19 period but made different impacts on students. This study aims in analyzing factors affecting creating a virtually favorable environment with less mental stress for motivating teaching and learning investigating the motivation and the perceived mental stress of University of Ruhuna undergraduates during online education, applying descriptive and inferential statistical techniques. Data were collected from July-October 2021 using a customized questionnaire. The registered students in the Faculties of Science, Humanities & Social Sciences, Fisheries and Marine Sciences & Technology (FMST), Management & Finance are 1536, 2169, 363, 1754, respectively. Taking the significance level, the maximum size of the proportion, and the margin of error as 0.05, 0.5, 0.07 respectively, the required sample size was computed to be 196 using the Daniel sample size formula. The proportion sample size of each faculty was found to be 51, 73, 12, 59, respectively. The box plots show undergraduates' motivation and mental stress variation levels separately. One-way ANOVA test results infer that the motivation and mental stress of the students is highly statistically significant ( $p = 0$ ) and is insignificant to student's family income ( $p = 0.472; 0.547$ ), gender ( $p = 0.060; 0.777$ ), and living environment ( $p = 0.235; 0.251$ ). The post hoc comparison using Dunnett's T3 test indicates that the mean scores of FMST students ( $p = 0.001$ ) are significantly different from other faculties. The questionnaire responses highlight that FMST students are motivated for online education with less mental stress due to the practical-based course structure. Possible interactive teaching and learning methods can enhance the motivation of students in online education and spending free time with their loved ones will reduce mental stress. The insights from this article can help design the curriculum for the new normal.

*Keywords: Online education, Undergraduates, Motivation, Daniel sample size formula, Dunnett's T3 test.*