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Gender Differences in Performance in Physics Practicals

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An analysis of Physics practicals data is presented. In particular, we study the association between gender of students and their overall mark and their Physics practicals marks (Mechanics, Thermodynamics, Optics, and Electricity). Together with gender, all variables are binarized. To visualize performance of students, the qualitative method of plotting a two-dimensional orbit is used to represent binary multivariate longitudinal data of each student. Analysis of orbits reveals information of patterns in the data. This study gives a good indication of which fields of Physics females perform well in and which fields the male students are stronger in (equivalently where gender struggled in various practicals). Details of the analysis of past exam papers will also be discussed. A comparison to the GEE statistical model tells us that visual results present initial insights to help and complement statistical data analysis.

Apply to be considered for a student award (Yes / No)?

No

Level for award (Hons, MSc, PhD, N/A)?

N/A

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