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An evaluation of students' performance in a typical first year non-calculus based Mechanics Module

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Abstract content
   (Max 300 words)

This presentation will focus on the evaluation of students' performance in a class test based on Mechanics in the first year syllabus. The sections covered in the test were Dimensional Analysis, Vectors, Kinematics and Forces. The questions were coded by the lecturers either as or a combination of (a) Bookwork, (b) Routine Operation and (c) Novel problem. The test paper examined their understanding of units, dimensions, vector addition/subtraction, illustrations of a physical situation in the form of diagrams, the application of kinetic equations and Newton's Second Law of Motion. The overall pass rate for the class (˜350 students) was 71% however a closer inspection of the overall averages obtained per question produced some interesting results. In particular, students performed moderately to poorly in attempting questions on forces and projectile motion. These questions tested problem-solving skills. Therefore, in order to understand the reason(s) of their poor performance in these questions, the test results will be discussed. Also, the corresponding lectures, lecture examples and tutorial exercises will be reviewed. A report from the assessor and a summary of a student survey probing their difficulties experienced during the examination will be discussed.

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