

Teaching and learning using Mathematics software "The New Challenge"

ABSTRACT

Teaching and learning in mathematics curriculums in Universities by using mathematical software can be a difficult and demanding task, especially for novice learners. This paper presents efficient mathematical tool for teaching and learning of Linear Algebra courses. MAPLE software tool was used for teaching and learning of parts of the Linear Algebra course. Using MAPLE in teaching and learning mathematical concepts is a great challenge both from a didactical and a scientific point of view. In this paper we provide mathematical examples by using mathematical software and necessary steps as evidences that didactically it increases mathematical skills. By using interactive Maple worksheets and animated graphics, students can find the opportunity of numerous experiments that provide well understanding. Further the use of Maple provide conceptual and meaningful understanding for the student, several Maple can be designed to see, geometrical application of Linear Algebra topics. Indeed, utilizing ICT and particular the use of interactive facilities of Maple in teaching and learning which will provide a newchallenge to both mathematics educators as well as students.

Keyword: Teaching and learning; MAPLE; Mathematics software; Utilizing ICT