Professorial Lecture UiTM

NURTURING THE INTELLECTUAL MIND

The Story of Mathematics and Technology

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PREFACE

There are a number of pervasive myths about mathematics learning and the usage of technology in current classroom practices in enhancing students' intellectual mind. These different myths often hinders the learning and intellectual growth of the students significantly. There is a widespread agreement that mathematics should be taught as a thinking activity. However, the quality of this mathematical knowledge in relation to college students' mathematical thinking development at present times must be identified. Secondly, it is evident that the assimilation of technology in societal domains has crucially impacted the daily lives of society at large. However, the question remains as to this flip side of the coin with regards to this assimilation, particularly in relation to classroom pedagogical practices at Higher Education Institution (HEI).

The common misconception is that "doing mathematics" is the same as getting involved in "mathematical thinking". This misconception stems from the pedantic mathematical education in our systems that highlight the mastery of mathematics through rote memorization of formulaic structures especially from the expression of practice makes perfect. The negative impact flowing therefrom is perceived when such an approach loses viability as students climb the academic stairways, progressing to higher levels of tertiary education. Societal concern pertaining the intellectual demand

NURTURING THE INTELLECTUAL MIND: THE STORY OF MATHEMATICS AND TECHNOLOGY

INTRODUCTION

Various thoughts juxtaposed in the course of my thought process as I contemplated on writing this book for my professorial talk, specifically to elucidating my focal area. My journey as an educator began on 15th July 1986 as a school teacher and continued in UiTM as a university lecturer since 2002. My area of interest centres on teaching, learning, researching and inventing especially in mathematics. In fact, I dare say, despite with teaching experience of 33 years, till date, I am still learning and seeking on how to teach! It truly is a continuous voyage in pursuit of knowledge.

As an educator throughout these years, I would say that teaching at the tertiary level, dealing with both undergraduate and postgraduate students is undoubtedly no walk in the park. However, it is still easier in comparison to educating early learners. Personally, teaching postgraduate students is indeed a walk in the park than teaching primary one students. After all, just imagine - how one is to shed light on some elementary concepts, which we are all familiar with and accompany this with a viable explanation to make sense of them, such as explaining that One and One is two! If an adult was asked this, he would just say, "Well, that's how it is!". A child being told this would merely give a blank stare and question,