THE REASONS BEHIND STUDENTS’ DISINTEREST IN MATHEMATICS AS A MAJOR AT COMMUNITY AND SCIENCE COLLEGES, AL-KHARJ UNIVERSITY

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Abstract

The number of Mathematics majors is dropping across the Kingdom of Saudi Arabia. Possible reasons include an incorrect perception of what mathematics Scientists do and the students' disinterest due to a lack of familiarity with the subject. The reasons may be different for males and females. Improving student performance in mathematics is the focus of considerable attention in Saudi Kingdom state. Identifying the reasons behind the students' reluctance to specialize in mathematics is essential to introduce some suggested solutions so as to find a way to reduce this phenomenon in Al-Kharj university and Kingdom of Saudi Arabia as well. In order to assess the students' knowledge, attitudes and practice toward students' disinterest in Math as a major in Al-Kharj university, a survey was conducted in students and instructors of Community and Sciences colleges in Al-Kharj university in the academic year 2010-2011. In this study, we will restrict ourself for the Community and Sciences colleges to reduce the cost and because we couldn't perform it in more colleges in this stage. An anonymous self-administered questionnaire was used. A total of 400 students were interviewed. The response rate was 74 %. To better understand the reasons behind students' disinterest in Math as a major at Community and Science colleges, the students surveyed are not representative mathematical department in the university-wide. Survey also, involved some teachers and students from high schools at Al-Aflaj area. The survey results provided evidence to support the belief that students choose not to major in mathematics because of the nature of mathematics itself. The results supported the belief that students greatly influenced by the society's opinion about difficulty of mathematics. The survey results also, show that the existence of essential reasons which make students reluctant to specialize in mathematics concerning with the ways of teaching mathematics.

Keywords: Student's disinterest in Math as a major, instructors, Community and Sciences colleges, Al-Kharj university, High School.

1 INTRODUCTION

Mathematics is quite literally the language of science and engineering. In the past, mathematics was perceived as “a fixed, static body of knowledge” filled with memorizing facts and practicing procedures. The curriculum was one in which each course was a prerequisite for the next. The class content would consist of reviewing the homework, presenting new information through direct instruction, followed by a few practice problems for students to practice the procedure [1]. In today’s society mathematical skills are becoming more essential. The importance of mathematics is not only in its content, but also in its ability to apply that knowledge to problem solving skills [2]. Educators face the challenge of preparing students for careers that increasingly depend on science and technology. Traditionally, at colleges and universities mathematics has served as a prerequisite for the study of any kind of science or engineering. In practice, the high failure rate in introductory mathematics courses served to filter out science and engineering majors [3]. Everybody Counts places great emphasis on the need for the change in perception and attitude towards mathematics by the public [4]. The United States has a track record of believing that mathematical success is achieved more with ability than effort [4]. Society, as a whole, is more likely to accept poor performance in mathematics than in other subjects [3]. In recent years, different lines of investigation have been developed, coinciding with analyzing the causes of the decreasing interest of students towards the study of mathematics, as well as possible solutions [5,6,7,8,9,10]. Some declare that the reasons are different depending on the gender of the student [11,12]. There is a growing concern about the reduction in students choosing to study mathematics at Al-Kharj university in Saudi Arabia. For this reason, the present work investigates students’ disinterest in Math as a major at Al-Kharj university. The