

STUDENT'S ATTITUDE TOWARDS MATHEMATICS AT THE UNIVERSITY OF ÉVORA, PORTUGAL

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Abstract

Mathematics is generally everywhere. Its laws can be observed in the most basic living organism to the very complex nature of the universe. The importance of learning mathematics during undergraduate training cannot be understated as it is necessary for students to understand the rudiments and complexity of the world around us. It follows that as they study mathematics, it is important that they maintain a favourable attitude towards math. Attitude influences not only how a person perceives the world around him, but also how he interprets situations, circumstances and actions of others. Hence, a more positive attitude has to be developed among students at early stages to enable them to make the right choices and decisions in life and in learning.

This study is an attempt to determine the attitude of freshmen students who were taking a math subject in the fall semester of the academic year 2013-2014 at the University of Évora, Portugal. A questionnaire was developed, which underwent validity and reliability analyses, and used to gather data about students' attitude towards math and their motivation, interest, perceived competence, and anxiety levels. The results of this research show that freshmen students generally have positive attitude towards mathematics prior to commencing university formation. There is a strong positive correlation between attitude and the motivation and interest, perceived competence and anxiety dimensions.

As far as the researchers' knowledge is concerned, this is the first time that attitude of freshmen students in the said university is investigated. This assessment is important to the university faculty and administration as it raises concern on the affective aspect of learning. It also helps them to understand the disposition of their students in math and create possible means of intervention to help those with a negative attitude towards the subject.

Keywords: attitude towards math, factor analysis, freshman students, Likert summated rating scale.

1 INTRODUCTION

The initial training ground in preparation for the professional world is college or the university. The course program chosen prior to entering a higher institution is affected by certain belief systems that a person upholds. Most of the time, they choose the course which they believe would give a significant impact in their lives and pave a path for a brighter future. These course programs provide relevant skills and training needed to become successful in the chosen field, which are reflected on the subjects or curricular units included in its respective curriculum.

In most academic disciplines offered in the university, mathematics has always been a part of the curriculum. It is often a compulsory requirement in courses related to engineering, social science, commerce and hard science. The offering of the subject is perceived and historically understood to have an impact and utility to which it anchored to. For instance, statistics is taught to students taking a course in economics to forecast the possible rise and fall of an economy.

Mathematics is as important as any major subject in any undergraduate program. Math provides the rudiments necessary in any profession such as computational and statistical skills that are useful in expanding one's potential and productivity in the workplace. It also provides the mental training which results to better analytical, critical and evaluative skills.

Learning of any subject matter is not entirely dependent on the cognitive ability, but also on the manner of how learning is perceived, character towards the subject, and sense of control. Mathematics is of no exception. The values and beliefs of an individual that forms his attitude and that were gathered in the course of his learning experiences affect his decisions and actions. The attitude