Abstract—With lack of student motivation, there will be a little or no real learning in the class and this directly affects student achievement and test scores. Some students are naturally motivated to learn, but many students are not motivated, they do care little about learning and need their instructors to motivate them. Thus, motivating students is part of the instructor’s job. It’s a tough task to motivate students and make them have more attention and enthusiasm. As a part of this research, a questionnaire has been distributed among a sample of 155 students out of 1502 students from Foundation Program at Qatar University. The questionnaire helped us to determine some methods to motivate the students and encourage them to study such as variety of teaching activities, encouraging students to participate during the lectures, creating intense competition between the students, using instructional technology, not using grades as a threat and respecting the students and treating them in a good manner. Accordingly, some hypotheses are tested and some recommendations are presented.

Keywords—Learning, motivating, student, teacher, testing hypotheses.

I. INTRODUCTION

There is no magical formula for motivating students, many factors affect a given student’s motivation to work and to learn, such as; interest in the subject matter, perception of its usefulness, general desire to achieve, self-confidence, self-esteem and patience and persistence [2], [9]. Also, not all students will be motivated by the same values, needs, desires or wants. Ericksen [3] said that effective learning in the classroom depends on the teacher’s ability. Lowman [4], Lucas [5], Weinert and Kluwe [10] and Bligh [2] have begun to identify those aspects of the teaching situation that enhance student’s self-motivation. Ames [1] clarified that students need a reason to do their assignments, giving them a good reason may motivate them to study. Yunus and Wan [7] and Yunus and Tarmizi [6] focused on methods of delivering the lecture to include power, energy and use sense of humor to add enjoyment to the class. Middleton and Spanias [8] emphasized the goal of test to assess the course learning objectives; its level should be suitable for the level of students and the course learning objectives.

Doing such studies will help the instructors at Qatar University and the Foundation Program to understand some methods better to motivate their students and encourage them to study. Also, since the survey asks the students about their opinions, they were asked not to write their names and the participation in answering the questionnaire was optional.

A. Objectives of the Study

The objectives of this study are to gather students’ opinions regarding the best methods that may motivate and encourage them to study as well as exploring some factors that have negative effects on motivating students. In addition, introducing some recommendations to help the teachers to motivate and encourage their students to study.

B. Categorizing the Questions of the Questionnaire

Questions of the questionnaire are categorized into eight categories as the following:

Category 1: The diversity of teaching methods and their effect on motivating students.
Category 2: Instructors behaviors during the lecture.
Category 3: The effect of structuring the course on motivating students.
Category 4: Grades and their effects on motivating students.
Category 5: Motivating students by responding to their work during and after the lecture.
Category 6: The effect of using instructional technology on motivating the student.
Category 7: The clarity of the teacher with the students.
Category 8: Other questions.

C. The Population and the Sample

The data were collected from Foundation program students in Qatar University which had student enrollments of approximately (1500) for the second-semester spring 2012 of the academic year 2011/2012. The students in foundation program at Qatar University were divided into four levels Math1, Math2 for non-scientific majors, and Math3, Math4 for scientific majors with the number of students (501), (318), (263), and (397) respectively, and each level is divided into males and females.

DISTRIBUTION OF STUDENTS IN MATH COURSES DEPENDING ON COURSE LEVEL, GENDER, AND NUMBER OF STUDENTS

<table>
<thead>
<tr>
<th>Course Level</th>
<th>Gender</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 1</td>
<td>337</td>
<td>164</td>
</tr>
<tr>
<td>Math 2</td>
<td>215</td>
<td>103</td>
</tr>
<tr>
<td>Math 3</td>
<td>188</td>
<td>98</td>
</tr>
<tr>
<td>Math 4</td>
<td>263</td>
<td>134</td>
</tr>
<tr>
<td>Total</td>
<td>1003</td>
<td>499</td>
</tr>
</tbody>
</table>

The questionnaire consists of 17 questions was distributed among the students by using “Survey Monkey” to save the...

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time of the lectures, and the sample consisted of 155 students from different levels Math1, Math2, Math3, and Math4.

**D. The Quality of the Students in Foundation Program**

Every academic year, Qatar University accepts more than 2500 students, all students who apply to Qatar University take international entrance exams which used as a complete exemption test from Foundation Program courses at Qatar University. These exams are TOEFL or IELTS for English, ACT for Math and IC3 for Computer. The students who cannot pass these international entrance exams or some of them will take some courses in Foundation Program.

In Foundation Program we have three programs; Math, Computer and English, and there are several courses for each program as shown in the following table:

**TABLE II**

<table>
<thead>
<tr>
<th>COURSES</th>
<th>FOR ACADEMIC YEAR 2011/2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 1 Computer 1 English 1</td>
<td></td>
</tr>
<tr>
<td>Math 2 Computer 2 English 2</td>
<td></td>
</tr>
<tr>
<td>Math 3 English 3</td>
<td></td>
</tr>
<tr>
<td>Math 4 English 4</td>
<td></td>
</tr>
</tbody>
</table>

For Math courses in Foundation Program at Qatar University, there are four levels Math1, Math2 for non-scientific majors, and Math3, Math4 for scientific majors and each level is divided into males and females.

Also, it is important to talk about the nature of students during the case study; where English is the language of instruction, Arabic is the mother tongue for over 99% of the students. Most of the students are also enrolled in an intensive English ESL course and IT-skills course. Students have 27 hours of in-class instructions every week, all FP courses are non-credited, there are separate male and female campuses, and math classes are distributed on morning and afternoon shifts and are spread all over both campuses.

**II. STUDY HYPOTHESES**

Hypothesis (1): Varying teaching activities and methods, encouraging students to participate in the class and creating intense competition among students by the teach lead to motivate them positively to study harder.

Hypothesis (2): The character of teachers during the lecture, enthusiasm about their subject and respecting the students and treating them in a good way, all these will motivate and encourage the students to study.

Hypothesis (3): The intensity of the course materials will not motivate the students to study, while increasing the difficulty of the course materials and exams as the semester progresses will comfort the students and encourage them to study.

Hypothesis (4): The students study for the grades more than understanding the materials of the course or getting the knowledge.

Hypothesis (5): Using the grades as threats will affect negatively on students and will not motivate them to study.

Hypothesis (6): The teacher’s comments during the lecture and positive comments from the teacher after the lecture on the student’s answering sheets motivate the students to study.

Hypothesis (7): Using instructional technology is one of the factors that motivates the students to follow up the course and gets students to pay more attention.

Hypothesis (8): The clarity of the teacher with the students such as telling them the distribution of the marks and what they need to do to success in the course will motivate them to study seriously.

**III. ANALYSIS OF THE STUDY AND THE RESULTS**

**A. Testing the Hypotheses of the Study**

To test the study hypotheses, we use one sample z-test with the level of significant ($\alpha = 0.05$) and the null hypothesis $H_0: \mu = 3$ and the alternative hypothesis $H_1: \mu \neq 3$. By comparing the $p-value$ and the significant level $\alpha$. If $p-value < \alpha$ then we reject $H_0$, otherwise we don't reject $H_0$.

The key to the answers in the questionnaire is as the following: Strongly Agree: 5, Agree: 4, No Opinion: 3, Disagree: 2, Strongly Disagree: 1. Tests are summarized in the following table:

**TABLE III**

<table>
<thead>
<tr>
<th>THE HYPOTHESIS</th>
<th>MEAN</th>
<th>P-VALUE</th>
<th>THE RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tests of Hypothesis 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Varying teaching activities and methods, encouraging students to participate in the class and creating intense competition among students by the teacher to motivate them positively to study harder</td>
<td>4.252</td>
<td>0.003</td>
<td>Reject $H_0$ so the students agree with this hyp.</td>
</tr>
</tbody>
</table>

**TABLE IV**

<table>
<thead>
<tr>
<th>THE HYPOTHESIS</th>
<th>MEAN</th>
<th>P-VALUE</th>
<th>THE RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tests of Hypothesis 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The character of teachers during the lecture, enthusiasm about their subject and respecting the students and treating them in a good way, all these will motivate and encourage the students to study.</td>
<td>4.594</td>
<td>0.000</td>
<td>Reject $H_0$.</td>
</tr>
</tbody>
</table>

**TABLE V**

<table>
<thead>
<tr>
<th>THE HYPOTHESIS</th>
<th>MEAN</th>
<th>P-VALUE</th>
<th>THE RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tests of Hypothesis 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The intensity of the course materials will not motivate the students to study while increasing the difficulty of the course materials and exams as the semester progresses will comfort the students and encourage them to study.</td>
<td>3.797</td>
<td>0.011</td>
<td>Reject $H_0$.</td>
</tr>
</tbody>
</table>

**TABLE VI**

<table>
<thead>
<tr>
<th>THE HYPOTHESIS</th>
<th>MEAN</th>
<th>P-VALUE</th>
<th>THE RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tests of Hypothesis 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The students study for the grades more than understanding the materials of the course or getting the knowledge</td>
<td>3.893</td>
<td>0.013</td>
<td>Reject $H_0$.</td>
</tr>
</tbody>
</table>
The clarity of the teacher with the students such factors that motivates the students to follow up encourage them to study.”

“Increasing the difficulty of the course materials and exams as the semester progresses will comfort the students and treats them in a good way, this will motivate and encourage the students to study and follow up the course.”

“94% of students believed that “the character of teachers and their comments during the lecture will motivate the students to study,” while 90.7% of students believed that “instructor’s enthusiasm about his/her subject will motivate the students to study more.”

86.2% of students said that “if the teacher tells the students the distribution of the marks and what they need to do to succeed in the course, this will motivate them to study seriously,” while 90% of students believed that “the positive comments from the teacher on the student’s answering sheets will motivate and encourage the students to study and follow up the course”.

95.3% of students agreed with “if the teacher respects the students and treats them in a good way, this will motivate and encourage the students to study,” while 80% of students felt that their teachers are ardent in teaching their courses.

84.1% of students agreed that their teachers encourage them to depend on themselves in the study, while only 62.9% of teachers listen to the opinions of their students about what makes their classes more or less motivating.

B. Recommendations

The teachers should understand the student’s needs, behaviors, how to deal with them and reviewing their teaching methods and to vary their teaching activities, such as; encouraging their students to participate, creating intense competition among students, distributing the students into small groups, using instructional technology and listening for their opinions.

The clarity of the teachers with their students is a very important factor to increase the level of motivation among them. The comments of the teacher during the lecture and by responding to their work after the lecture have a great effect on students, so the teacher should be conscious and understand of this point. Teachers should not use the grades as threats because this will affect negatively on students and will not motivate them to study.

University should offer continuously training courses to teach teachers how to deal and motivate their students. This investigation should be replicated with more Universities so that we can reveal and investigate the opinions of all students in different universities more precisely.

ACKNOWLEDGMENT

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REFERENCES