

DO THE INSTRUCTORS APPLY SOME BASIC SKILLS IN TEACHING TO REACH TO AN EFFECTIVE LECTURE?

Mahmoud Syam and Maysoon Swalim

*Math & Computer Department, Foundation Program, Qatar University (QATAR)
M.syam@qu.edu.qa, maysoon.swalem@qu.edu.qa*

Abstract

Lectures are probably the best teaching method in many circumstances and for many students; especially for communicating conceptual knowledge, and where there is a significant knowledge gap between lecturer and audience. The term "lecturing" refers to both planning and delivering a classroom presentation. While the lecture has certain elements in common with a formal speech, a classroom lecture places greater emphasis on the importance of presenter-audience (instructor-student) interaction.

In this paper we asked the students in Foundation program about their opinion through a questionnaire which contained 19 questions and distributed among all of them. The questionnaire will help us to answer the question "Do the instructors apply some basic skills in teaching to reach to an effective lecture?"

An analysis of the results and some figures are presented, some hypotheses were tested and finally conclusions and recommendations are presented.

Keywords: Basic teaching skills, Stratified simple random sample.

1. INTRODUCTION

When we distribute the questionnaire we were sure that all instructors in foundation Program are excellent and they apply the requested skills to get an effective lecture, and we don't ask the students to evaluate their teachers, because the student can't evaluate the teacher, but the aim of this study to see if the students can see and notice these skills during the lecture or not.

1.1. Restrictions of the study

Since the survey asks the students about our colleagues, the department distributed the questionnaire on the students and the department determined the chosen groups, we just provide the department with requested numbers of students for each level, and when the distribution of questionnaire finished, we received the envelopes without names of instructors or students.

1.2. The purpose of the study

The purposes of this study are:

- To answer the question "Do the instructors apply some basic skills in teaching to reach to an effective lecture?"
- To answer the question "Can the students decide whether the instructors apply the basic skills in teaching or not?" or in another words "Can the students evaluate the instructors work?"

1.3. The Population and the sample

To satisfy the purposes of the study, the data were collected from Foundation program students in Qatar University which had student enrollments of approximately (2000) students for the first semester fall 2008 of the academic year 2008/2009. The students in foundation program in Qatar University were divided into four levels Math1, Math2 for non-scientific majors, and Math3, Math4 for scientific

majors with number of students (1182), (144), (514) and (160) respectively, and each level is divided into males and females.

Table 1: Population Information on Course level, Gender and Number of Students:

Course Level	Gender		Number of Students
	Females	Males	
Math 1	975	207	1182
Math 2	108	36	144
Math 3	341	173	514
Math 4	103	57	160
Total	1527	473	2000

Since the foundation students are divided into four levels and in each level we have males and females then the suitable sample to be used is the stratified simple random sample (SSRS) with the following numbers of students (157), (20), (61) and (22) respectively, from Math1, Math2, Math3 and Math4 with total (260) students, which equivalent (13%) of foundation program students for the semester fall 2008 of the academic year 2008/2009. The sample was collected from twenty groups and instructors representing all specializations, all levels and from males and females. A listing of the various levels and the corresponding number of students surveyed is presented in table 1.

Table 2: Survey Information on Course level, Gender and Number of Students:

Course Level	Gender		Number of Students
	Females	Males	
Math 1	130	27	157
Math 2	13	7	20
Math 3	48	13	61
Math 4	17	5	22
Total	208	52	260

2. STUDY HYPOTHESES

- The instructor keeps repeating questions and encourages students to ask questions continuously to make sure that students understand the materials.
- The instructors use a variety of modern education technology in their lectures.
- There exist a weak reaction between the instructor and the students among the instructor pays his/her attention to the board more than to the students and the instructor uses the same level of voice throughout the lecture
- Most of instructors explain a lot of materials that need time more than the time allocated for the lecture and the instructors elaborate on a point which does not need a lot of elaboration.
- Most of instructors write the objectives of the lecture from the beginning of the lecture and summarize the ideas and the objectives at the end of the lecture.
- The thoughts of the instructor are well-paced and the instructor moves from one idea to another in a logical sequence.

3. ANALYSIS OF THE STUDY AND THE RESULTS

3.1. Testing the first hypotheses of the Study

To test the study hypotheses, we used one sample t-test with level of significant ($\alpha = 0.05$) and the null hypothesis $H_0 : \mu = 3$ and the alternative hypothesis $H_0 : \mu \neq 3$. By comparing the *p-value* and the significant level α

If *p-value* $< \alpha$ then we reject H_0 , otherwise we don't reject H_0 .

The key of the answers in the questionnaire is as the following:

Strongly Agree = 5, Agree = 4, No opinion = 3, Disagree = 2, strongly Disagree = 1

We summarized these tests in the following table

Table (3): Tests of the study hypotheses:

The hypothesis H_0	Mean	$t_{0,05,259}$	p-value	The result
The instructor keeps repeating questions and encourages students to ask questions continuously to make sure that students understand the materials.	4.2115	23.51	0.000	Reject H_0 The students agree with this hypothesis.
The instructors use a variety of modern education technology in their lectures.	3.59	8.63	0.000	Reject H_0 The students agree with this hypothesis.
There exist a weak reaction between the instructor and the students among the instructor pays his/her attention to the board more than to the students and the instructor uses the same level of voice throughout the lecture	2.4865	-9.42	0.000	Reject H_0 The students don't agree with this hypothesis.
Most of instructors explain a lot of materials that need time more than the time allocated for the lecture and the instructors elaborate on a point which does not need a lot of elaboration.	2.5981	-7.25	0.000	Reject H_0 The students don't agree with this hypothesis.
Most of instructors write the objectives of the lecture from the beginning of the lecture and summarize the ideas and the objectives at the end of the lecture.	3.3269	5.00	0.000	Reject H_0 The students agree with this hypothesis.
<i>The thoughts of the instructor are well-paced and the instructor moves from one idea to another in a logical sequence.</i>	3.0462	-15.53	0.000	Reject H_0 The students agree with this hypothesis.

3.2. Percentages of student's responses about some questions

The following table shows the percentages of student's responses about some questions in the questionnaire:

Table (4): The proportions of the student's answers for some questions:

The question	YES	NO
Does the instructor divide students into groups in order to do some exercises?	26.9%	73.1%
Does the instructor show students some educational web sites which are of great benefit to students learning?	55%	45%
Does the sitting of the instructor all time of lecturing have a negative impact on student understanding of the lesson?	53.1%	46.9%

Do the instructor method of teaching and his /her way of getting along with his students affect their participation during the lecture?	86.5%	13.5%
Does knowing the objectives of the lecture from the beginning of the class help students to focus during the lecture?	86.5%	13.5%
Does the instructor play a role in getting students to like or hate mathematics?	91.2%	8.8%
<i>Do the instructor methods of teaching lead you to understand mathematics?</i>	88.1%	11.9%

4. CONCLUSIONS AND RECOMMENDATIONS

4.1. We can obtain the following conclusions

1. 80% of students agree that the thoughts of the instructor are well-paced and the instructor moves from one idea to another in a logical sequence.
2. 88.5% of the instructor keeps repeating questions to make sure that students understand the materials.
3. 23.5% of instructors explain a lot of materials that need time more than the time allocated for the lecture.
4. 45.4% of instructors write the objectives of the lecture from the beginning of the lecture.
5. 63.5% of instructors summarize the ideas and the objectives at the end of the lecture.
6. 84.6% of instructors encourage students to ask questions continuously.
7. 60.4% the instructors use a variety of modern education technology in their lectures.
8. Only 14.6% of students say that there exist a weak reaction between the instructor and the students among the lecture because the instructor pays his/her attention to the board more than to the students.
9. 27.7% of instructors use the same level of voice throughout the lecture.
10. 18.9% of the instructors elaborate on a point which does not need a lot of elaboration.
11. Only 26.9% of the instructors divide students into groups in order to do some exercises.
12. 45% of the instructors don't show students some educational web sites which are of great benefit to students learning.
13. 53.1% of the students say that the sitting of the instructor all time of lecturing have a negative impact on student understanding of the lesson.
14. 86.5% of students say that the instructor method of teaching and his /her way of getting along with his students affect their participation during the lecture.
15. 86.5% of students say that knowing the objectives of the lecture from the beginning of the class help students to focus during the lecture.
16. 91.2% of students say that the instructor play a role in getting students to like or hate mathematics.
17. 88.1% of students say that the instructor methods of teaching lead you to understand mathematics.

4.2. The following recommendations are introduced

The results show that the instructors in our department are very excellent and they apply most of basic skills in their class rooms, and we recommend continuing in the same level forever, but we emphasize on the following points:

1. Dividing students into groups in order to do some exercises and this will help the students to understand the lecture.
2. Showing the students some educational web sites which are of great benefit to students learning.
3. Moving between the students among the lecture has a positive impact on students understanding of the lesson.
4. Explaining amount of the content to be suitable with the time of the lecture.

5. Writing the objectives of the lecture from the beginning of the lecture.
6. Summarizing the ideas and the objectives at the end of the lecture.
7. Using a variety of modern education technology in their lectures.
8. Using different levels of voice throughout the lecture.

5. ACKNOWLEDGEMENT

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