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Engineering Students' Attitudes towards Teaching and Teachers*

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The findings of a research study aimed at the examination of Kuwait engineering students' evaluation of teaching effectiveness are reported. Following a review of the related literature, the spatial transferability of the faculty evaluation mechanisms, without regard to spatial socio-cultural differences, are discussed. The influence of engineering students' attitudes towards this important teaching evaluative mechanism is then documented. It was found that the ratings of a large percentage of engineering students were positively influenced when their exam grades were inflated; the entire course material was not covered during the semester; a project was not assigned to the course; and students were allowed to arrive late as well as be absent from lectures from time-to-time. This may partly be due to the influence of the socio-cultural environment on students' motivation and attitudes toward learning and education. On the other hand, it was also found that the evaluation of a large majority of students (high and low academic performers) was influenced very positively when lecture materials were tied to real-life situations; lectures were delivered in a clear and understandable manner; the faculty was fair in grading, and punctual and efficient in the use of class times. The faculty evaluations of this group is in conformity with those of their peer groups elsewhere. Students' GPAs affected their attitudes towards the evaluation of teaching effectiveness significantly. The rest of their socio-demographic traits did not.

INTRODUCTION

THE OBJECTIVES of this paper are threefold:

1. To present an overview of the importance of the role of socio-cultural background on student evaluation of faculty.
2. To determine faculty and teaching-related factors which influence Arab students' evaluation of teaching performance.
3. To examine the interrelationship between students' socio-academic traits and their evaluation of teaching effectiveness.

Finding an appropriate mechanism to evaluate teaching and its effectiveness has always been, and continues to remain, a difficult task. Student evaluation of faculty has perhaps been the most prevalent mechanism in use to examine teaching for the last three decades [1–3]. In a national study that tracked the use of student evaluations of faculty in 600 colleges between 1973 and 1993, Seldin found that the use of student evaluation of faculty increased from 20% to 86% during that period [4].

The philosophy behind the student evaluation of faculty is based on the following assumptions [5]:

a) Students have the responsibility of maintaining maturity and objectivity.
b) Faculty have the responsibility of seriously considering student input and implementing changes as appropriate.
c) Administration recognize that such evaluations are useful as only one measure of teaching performance.

Student evaluation of faculty is generally used to:

- determine if instructional objectives are met effectively;
- identify effective and ineffective teaching practices for the purpose of awarding tenure and promotions;
- provide the feedback necessary for the improvement of teaching effectiveness [6–8].

A major strength of student evaluation is that their reliability and validity have received more empirical support than any other method of teaching assessment. For example, Cashin found that between 1971 and 1988, over 1300 references dealt with research on the topic of student ratings [9]. By 1995, this number had increased to more than 1500 [10]. Findings of these studies provide support for a number of conclusions about student evaluations:

- students' judgments correlate positively with those of faculty peers, administrators, alumni, and trained external observers [11–13];
- students' overall ratings of course quality and teaching effectiveness positively correlates with their learning in the course [14–16];
- students' years of college experience does not have a significant effect on their assessment of teaching effectiveness [17].

However, despite its widespread use and research

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support worldwide [18], student evaluation of faculty is viewed by many academicians as an infringement on academic freedom. These views contend that such evaluation:

1. is prima-facie evidence of administrative intrusion into the classroom [3]
2. are often used as an instrument of intimidation forcing conformity to politically correct standards [19];
3. create pressure for a self-policed lowered teaching standard and grading leniency [6, 20];
4. are responsible for a considerable amount of grade discrepancy and inflation [6, 21–23]
5. are misused for promotions, salary raises or continued employment [7, 24];
6. have the potential for manipulating the behavior of faculty [25];
7. contrary to their original intent of improving teaching, do not eliminate poor or below-average faculty but instead increases poor teaching practices [26];
8. illustrate a mercantile philosophy of 'consumerism' in class rooms [27, 28], which erodes academic standards [29];
9. lead to the inappropriate dismissal of faculty [30];
10. constitute a threat to academic freedom [24].

GEOGRAPHIC TRANSFERABILITY OF EVALUATION SYSTEMS

An objective of this paper was to highlight the importance of the role of socio-cultural background on student evaluations of teaching effectiveness. In this regard, two points deserve attention. One, is the fact that the number of American- and European-supported institutions of higher education in the Arab nations of the Persian Gulf is increasing at an accelerated pace. The establishment of American University of Sharjah, in 1997, and American University of Kuwait in 2004 (and plans for three such institutions in Qatar) are examples of this rapid growth.

These institutions also heavily emphasize—as their choice of faculty—the hiring of individuals who are natives of these western nations. And, as often is the case, most of these faculty remain strangers to the socio-cultural traits of the Gulf Arab nations, which are dramatically different from those of their own.

Students' interests, and attitudes towards learning and higher education in general, are influenced by their socio-economic and cultural environment. In the State of Kuwait, for example, the State's strong provision of healthcare, education, and welfare for all citizens, as well as guaranteed employment for college students upon graduation, have affected students' motivation and attitudes towards learning and education [31].

The greatest challenge facing the incoming faculty of new universities in the region will thus be finding mechanisms for improving motivation and attitudes toward higher education. Effective communication, stimulating student interest, and rapport building skills on the part of the faculty are believed to be essential for improving motivation [32, 33]. The task, however, will not be easy.

Numerous institutions of higher education in non-industrialized nations around the globe are also utilizing student ratings to evaluate faculty performance and effective teaching. Rather than developing an effective faculty evaluation system based on specific goals and objectives of the institution as well as the socio-economic and cultural environment of the nation/region where the institution is located, most institutions have simply 'borrowed' and applied the evaluation forms developed in western industrialized nations. It is also unfortunate that research is totally lacking in geographic transferability and applicability of these faculty evaluation mechanisms. A search of the scirus web site (www.scirus.com), for example, failed to produce a single reference on transferability of faculty evaluation forms from one geographic area to another.

As stated by Cashin [34] developing an effective faculty evaluation system is a comprehensive process incorporating both cognitive (changing ideas), and normative re-educative, which would also address changing values and attitudes. When considering the tremendous differences in the socio-cultural and associated values and attitudes existing from nation to nation, a 'transferred' evaluation form (without modification) may not produce the intended desired results when applied in a new cultural environment.

Although student evaluations of faculty in the College of Engineering and Petroleum and in other colleges of Kuwait University have been routinely performed for more than a decade, students' attitudes toward this important evaluative mechanism have never been studied before. This study was undertaken to narrow this information gap.

The data

The College of Engineering and Petroleum at Kuwait University includes seven departments and has an undergraduate student enrollment of nearly 2500. A simple, yet structured questionnaire was designed to collect information for the analysis. The developed and pre-tested/modified questionnaire contained six student-related socio-academic questions; seventeen faculty teaching and performance- related questions, and a final question seeking students' opinion on the three most important characteristics of an outstanding faculty. A team of three senior civil engineering students and a MS graduate student were trained to perform the task of person-interview survey. A total of 800 engineering students (32% of the student population) were systematic randomly selected and person-surveyed. Of these, 698 completed questionnaires (87.3% response rate) were obtained and were processed for the analysis.

FINDINGS

Student traits

The study sample included 283 (40.5%) male and 415 (59.5%) female students, 632 (90.5%) of which were Kuwaitis and the remaining 66 (9.5%) were non-Kuwaitis. On the average, a sample student has been enrolled in college for 3.6 years, 3.7 years for the Kuwaiti, and 3.0 years for the non-Kuwaiti students. The mean GPA for the male and the female samples were 2.64 and 2.82 (out of 4.0), respectively. The non-Kuwaiti students also enjoyed a higher GPA than their Kuwaiti counterparts (3.05 vs 2.71). 92.3% of the male samples were singles; 6.3% were married, and the rest, 1.4%, were divorced. These percentages for the female samples were 83.0, 15.3, and 17, for singles, married and divorcees, respectively.

Student responses

A category analysis was performed on the data to examine the sample students' responses to the survey questions. The seventeen teaching, academic performance, and behavioral questions began with the following statement. I usually evaluate a faculty very positively, if:

Q1. My exams' grades are higher than I really deserve

The five-category response options for questions 1–5, for the male and the female sample students are presented in Table 1. Nearly 45 percent of the sample male and 41.2 percent of the sample female students responded either 'no' or 'not at all' (combined) to the stated questions. However, as the data in Table 1 shows the faculty evaluation of a rather significant percentage of both student genders (28.1% and 23.6% of the sample male and female students, respectively), are positively affected when their exam grades are higher than what they really deserve. This finding favors the view of those faculty who argue that student evaluation of faculty is responsible for a considerable amount of grade inflation.

Q2. Course materials are not fully covered

While 48.1 and 39.5 percent of the sample male and female students, respectively, totally disagreed with the stated question, the faculty evaluation of the majority of students was, at least to 'some extent', positively affected when a faculty did not cover the entire course material during the semester. For nearly 20 percent of both genders the response was definitely yes. This finding is also in support of those academicians who believe that the student evaluation of faculty encourages a mercantile philosophy of consumerism in academic institutions.

Q3. No project is given in the course

A similar distribution to that of Question 2 was found to exist for students' responses to Question 3. While a very large percentage of both male and female students responded 'no' and 'not at all', to the question, the majority stated that their evaluation of faculty would be positively affected (higher evaluation) if no project was assigned to the course (Table 1). When considering the significance of a course project in terms of the practical experience gained, the teamwork process and the improved communication skills, this finding is rather disappointing when considering the basic goals of engineering education.

Q4. Lecture materials and assignments are tied to real-life applications

Faculty who try to relate the lecture materials and assignments to real-life situations will certainly benefit from the positive evaluation of students, both males (~88%), and females (~96.5%). Only 12.3 and 3.5% of the sample male and female students, respectively, responded 'no' and 'not at all', to the positive impact of real-life lecture

Table 1. Distribution of responses to academic-related questions by gender

Variable / Question	Sample student response (%)					
	Definitely	Yes	To some extent	No	Not at all	Total
I usually evaluate a faculty *very positively*, if:						
Q1. My exam grades are higher than I really deserve.						
Male	6.3	21.8	27.5	23.6	20.8	100
Female	7.2	16.4	35.2	23.4	17.8	100
Q2. Course materials are not fully covered.						
Male	5.6	11.9	34.4	24.9	23.2	100
Female	4.8	15.9	39.8	25.5	14.0	100
Q3. No project is given in the course.						
Male	4.9	17.5	35.8	22.8	19.0	100
Female	7.3	16.9	36.2	21.7	17.9	100
Q4. Lecture materials & assignments are tied to real-life applications.						
Male	33.8	39.8	14.1	6.3	6.0	100
Female	56.6	31.3	8.7	2.9	0.5	100
Q5. She/he is fair and just in grading.						
Male	26.4	36.3	22.9	4.2	10.2	100
Female	38.8	36.8	21.9	1.5	1.0	100

Table 2. Distribution of responses to academic-related questions by gender

Variable Question	Sample student response (%)					
	Definitely	Yes	To some extent	No	Not at all	Total
I usually evaluate a faculty *very positively*, if:						
Q6. Students are allowed to arrive late to class.						
Male	10.5	16.1	35.4	19.7	18.3	100
Female	4.4	12.8	28.7	34.1	20.0	100
Q7. Students are not prohibited from talking to each other during lectures.						
Male	1.4	16.9	23.2	26.1	32.4	100
Female	1.9	7.3	20.8	42.3	27.7	100
Q8. Students are allowed to miss lectures.						
Male	7.7	18.0	35.9	22.9	15.5	100
Female	4.8	15.9	34.2	27.5	17.6	100
Q9. There is no strict date for returning assignments.						
Male	5.6	27.5	28.5	22.9	15.5	100
Female	4.8	17.4	31.3	28.7	17.8	100
Q10. She/he accepts lower standards for class performance.						
Male	7.0	9.9	17.2	27.5	34.4	100
Female	1.9	6.7	12.1	32.8	46.5	100
Q11. She/he provides ample office hours.						
Male	35.2	37.3	18.0	6.3	3.2	100
Female	50.6	35.7	10.8	1.9	1.0	100
Q12. Lectures are delivered in a clear and understandable manner.						
Male	53.9	26.8	10.5	2.8	6.0	100
Female	70.6	25.5	2.4	0.5	1.0	100

materials and assignments on their evaluation of faculty (Table 1)—a finding which is encouraging.

Q5. She/he is fair in grading

The question of fairness in grading also received serious attention from the sample students, in general, and the sample girls, in particular. As presented in Table 1, 85.1 percent of the sample male, and 97.5% of the female sample students indicated 'definitely', 'yes', and 'to some extent', to the positive influence of grading fairness in their evaluation of faculty.

The distribution of the sample students' responses to another seven academic performance-related questions are given in Table 2. The main heading for the questions was again: I usually evaluate a faculty very positively, if:

Q6. Students are allowed to arrive late to class

As expected, a rather large percentage of the male (26.6%), and the female (17.2%) sample students were surely in favor of some flexibility in their class arrival times. Nonetheless, 38 percent of the male and 54%. of the female students felt negatively towards flexibility in late arrivals and firmly stated that their evaluation of a faculty's performance would not be positively affected by the provision of flexibility in late class arrivals to class (Table 2).

Q7. Students are not prohibited from talking to each other during lectures

A clear majority of the sample students—both male and female—were against the idea of students talking to each other during the lecture time. More than 58% of the male, and 70% of the female samples disliked (surely and to some extent), when students were allowed to talk to each other during the lecture (Table 2). The acceptance of this inappropriate class freedom would negatively affect students' evaluation of faculty.

Q8. Students are allowed to miss lectures

More than a quarter of the sample male, and one fifth of the sample female students, were in favor of such a class freedom. However, as the statistics in Table 2 shows, the rest of the sample students (which are by far the majority), appose such an allowance by faculty and would not consider this as a positive academic performance-related factor in their faculty evaluations.

Q9. There is no strict date for returning assignments

Again, a large percentage of both, males and females in the sample were in favor of some time-flexibility in returning their weekly assignments. The data shows that when we include the responses of students whose evaluation of faculty would 'to some extent' be positively affected, with those who are in favor, 71.6 and 53.5% of the male and the female samples' evaluations will be positively affected when the faculty allows some time-flexibility in returning weekly assignments (Table 2).

Q10. She/he accepts lower standards for class performance

An examination of the response data in Table 2, shows that 61.9% of the male, and 79.3% of the female students were certainly against the idea of a faculty accepting lower standards for the class performance. Less than 17% of the males, and only 8.6% of the females in the sample however would evaluate a faculty positively if she/he accepted a lower standard for the class performance.

Q11. She/he provides ample office hours

The provision of a generous quantity of office hours ranks very high for the engineering students (as well as students in other colleges), at Kuwait University, and perhaps in other institutions of higher education. More than 90% of the study sample students indicated their desires for out-of-class discussions and guidance in problem-solving, during office hours. Only less than 10% of the male, and an insignificant 2.9% of the female samples stated that their evaluation of faculty will not be positively affected when he/she provided ample office hours (Table 2).

Q12. Lectures are delivered in a clear understandable manner

Even us—the faculty—are always impressed with those colleagues who make clear, and well-rounded presentations at conferences we attend. The responses of the study sample students also strongly supported this point. Nearly 81% of the male, and 96.1% of the female students in the sample pointed to the very positive impact of clear and understandable lectures on their evaluation of faculty as is shown in Table 2.

The other faculty-related teaching and organizational traits such as punctuality, efficiency in lecturing, positive and friendly attitudes, sympathy for students' personal problems, and the faculty's physical appearance (to a lesser extent), also played important roles in a positive evaluation of faculty by students. As presented in Table 3, the two sample student response categories of 'no' and 'not at all' combined, included 11.7% of the male and 9.4% of the female samples, for punctuality and lecture efficiency; 7.4 and 1.5%, respectively, for positive and friendly attitudes; and 7.7 and 2.4%, respectively, for showing sympathy and understanding for students' problems.

The remaining percentages all favored these faculty-related performance traits towards others by indicating a 'definitely', 'yes', or 'to some-extent' response categories. Friendly and sympathetic attitudes towards others have traditionally been a major part of the Middle East social culture.

The physical appearance of faculty, while being positively considered by students, did not score as high as the other performance-related traits. As presented in Table 3, 35.5% of the sample male and 40.2% of the sample female students did not think that their evaluations of faculty would be affected positively by a faculty's physical appearance. The rest however did.

ANALYSIS OF CORRELATIONS

How do students' socio-academic traits (gender, nationality, number of years in college, specialty, GPA) influence their teaching evaluation of faculty? Which group of students favors the acceptance of a lower student performance, uncompleted course materials, and/or the provision of time-flexibility in returning assignments? Who is against lowering class academic standards? Who is in favor of class punctuality and lecture efficiency? In order to provide answers to these questions a correlation analysis was performed on the data. The correlation coefficient between any two variables, x and y, (γ_{xy}), may be computed from the following equation.

$$\gamma_{xy} = \frac{\mathrm{Cov}(x\ \&\ y)}{[\mathrm{Var}(x)\,\mathrm{Var}(y)]^{1/2}} = \frac{\sum_{i=1}^{n}(x_i-\overline{x})(y_i-\overline{y})}{\left[\sum_{i=1}^{n}(x_i-\overline{x})^2\right]^{1/2}\left[\sum_{i=1}^{n}(y_i-\overline{y})^2\right]^{1/2}} \quad (1)$$

The resulting correlation coefficients indicated that the sample students with fewer number of years in college (freshmens and sophomores), were mostly Kuwaiti ($\gamma_{xy}=0.149$), single ($\gamma_{xy}=0.146$), had a lower GPA ($\gamma_{xy}=0.101$), talked less to each-other in class ($\gamma_{xy}=0.118$), and were in favor of faculty's

Table 3. Distribution of responses to behavior-related questions by gender

Variable / Question	Sample student response (%)					
	Definitely	Yes	To some extent	No	Not at all	Total
I usually evaluate a faculty *very positively*, if:						
Q13. She/he is punctual and efficient in the use of lecture time.						
Male	29.3	38.9	20.1	5.7	6.0	100
Female	29.6	39.8	21.2	6.5	2.9	100
Q14. She/he has a positive, friendly & gentle attitudes.						
Male	53.0	31.1	8.5	2.8	4.6	100
Female	59.0	29.9	9.6	0.5	1.0	100
Q15. She/he shows sympathy and understanding of students' problems.						
Male	52.5	26.4	13.4	3.2	4.5	100
Female	56.8	32.6	8.2	1.4	1.0	100
Q16. She/he is well-dressed and has a clean appearance.						
Male	9.2	27.1	28.2	14.4	21.1	100
Female	11.1	24.1	24.6	22.7	17.5	100

punctuality ($\gamma_{xy} = 0.140$), and his/her pleasant physical appearance ($\gamma_{xy} = 0.142$).

The study sample also included more Kuwaiti females than males ($\gamma_{xy} = 0.179$), more married females than married males ($\gamma_{xy} = 0.119$); the females had a higher GPA ($\gamma_{xy} = 0.166$), and were against the late student arrival to class ($\gamma_{xy} = 0.144$); disapproved of students talking to each other during lectures ($\gamma_{xy} = 0.073$); and disliked the lowering of class performance standards by faculty ($\gamma_{xy} = 0.153$). The female sample students were also more in favor of a faculty's understanding of students' personal problems ($\gamma_{xy} = 0.127$), and were strongly in favor of the provision of ample office hours ($\gamma_{xy} = 0.200$); as well as clear lecturing ($\gamma_{xy} = 0.244$); real-life application of lecture materials ($\gamma_{xy} = 0.259$); and faculty fairness in gradings ($\gamma_{xy} = 0.220$).

The married students in the sample had lower GPAs ($\gamma_{xy} = 0.081$); were in favor of late class arrivals ($\gamma_{xy} = 0.106$), and did not mind when students talked to each other in class ($\gamma_{xy} = 0.072$).

Students with higher GPAs however, were against missing lectures by faculty ($\gamma_{xy} = 0.086$), and disapproved the acceptance of a lower class performance by faculty ($\gamma_{xy} = 0.156$). Instead, they favored such course and faculty traits as having projects assigned to the course ($\gamma_{xy} = 0.103$); providing ample office hours ($\gamma_{xy} = 0.080$); lecturing clearly ($\gamma_{xy} = 0.103$); real-life applications of lecture material ($\gamma_{xy} = 0.170$), and faculty fairness ($\gamma_{xy} = 0.155$). It should be noted herein that all correlation coefficients greater than 0.07 were statistically significant at the 95% confidence level, ($\alpha = 0.05$).

The analysis of correlations also indicated that the sample students who favored lower class performance standards, also did not care for class punctuality; for faculty's friendly attitudes and sympathy; for the provision of ample office hours; for clear lecturings, and real-life applications of lecture material, or even for a faculty's fairness in gradings. On the other hand, those who were strongly in favor of class punctuality, were also strongly in support of a faculty's physical appearance, friendliness and sympathy as well as the provision of ample office hours, clear lecturings, real-life applications of lecture material, and fairness in gradings.

EXAMINATION OF TRENDS

Interestingly enough, out of the six student-related socio-academic traits (gender, nationality, marital status, major field, number of years in college, and GPA), only their GPA demonstrated a statistically significant relationship with a number of faculty performance-related questions. A common characteristic of the sample students' response-distributions (by GPA), was the similarity of the response curve to the normal distribution curve, as may be expected—the majority of students had a GPA in the range of 2.5 to 3.5 (out of a 4.0 point scale), with a maximum frequency in the range of 2.6 and 3.

The impact of inflated exam grades on student evaluation of faculty is charted in Fig. 1. While none of the students in the 'more than 3.5 GPA' category were among those who would 'definitely' evaluate such a faculty trait positively, nearly 43% of responses of those with a GPA in the range of 2.6–3.0, would do so. Interestingly enough, only 10% of the students with the poorest academic performance ($GPA < 2.0$) also selected this response option. The test of chi-square confirmed the statistical significance of differences in students' responses ($\chi^2 = 38.8$, $df = 16$, $p < 0.001$).

Practical experiences have shown that engineering students in the Persian Gulf region usually avoid taking courses in which a project is a part of the course requirement, when other options are available. Again, as presented in Fig. 2, the students with a GPA of less than 2, mainly and those with a GPA of >3.5, did not evaluate a faculty negatively when a project was assigned to

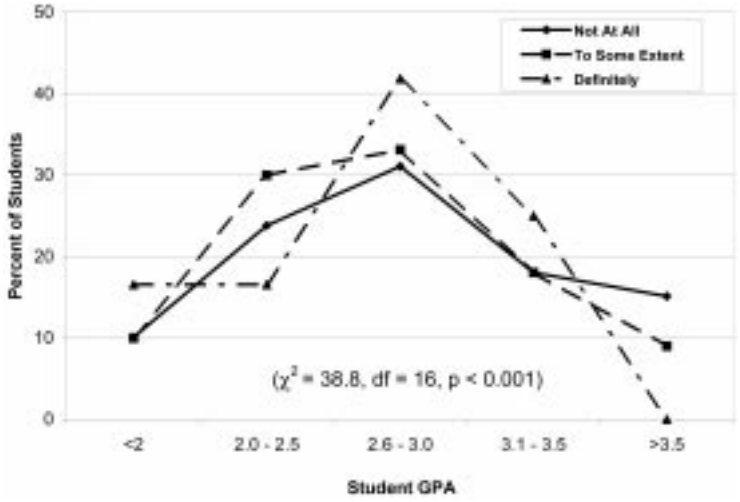


Fig. 1. Inflated exam grades and student evaluations, by GPA.

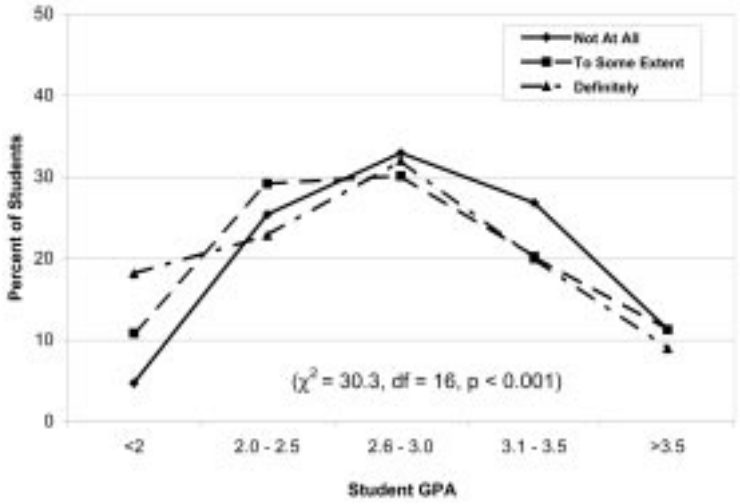
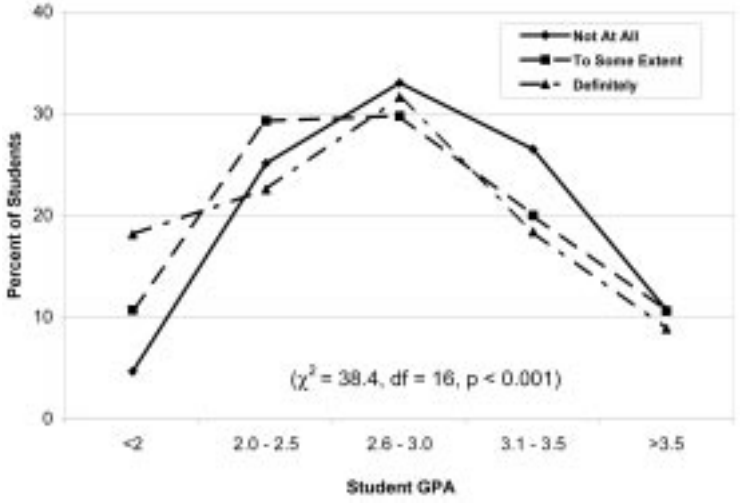


Fig. 2. Course project and student evaluations, by GPA.



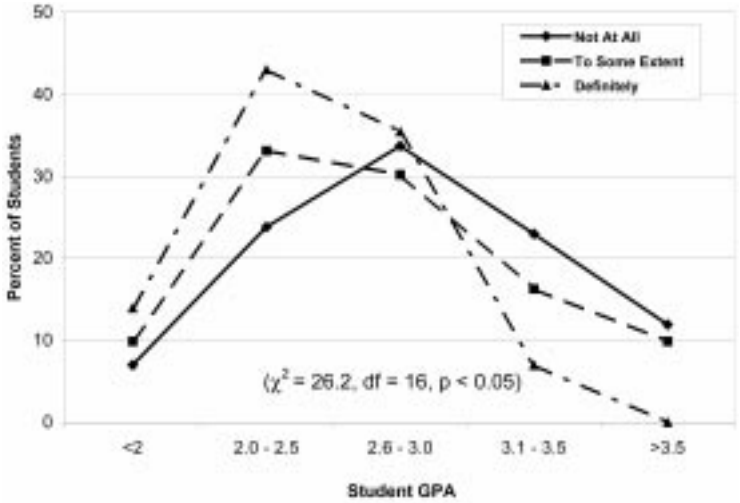


Fig. 4. Lowering class performance and student evaluations, by GPA.

a course. Nearly a third of respondents with a GPA ranging from 2.6 to 3.0, stated that their evaluation of a faculty would be positively affected if he/she did not assign a project to the course. As the result of the chi-square test indicates, the difference in the student response to this question was statistically significant ($\chi^2 = 30.3$, $df = 16$, $p < 0.01$).

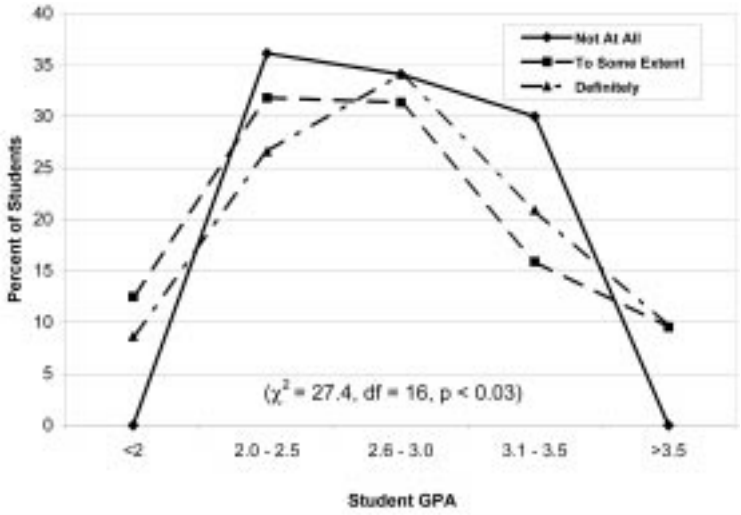


Fig. 5. Friendly, Positive Attitudes and Student Evaluations, by GPA.

A nearly exact response distribution to that shown in Fig. 2, was also found to exist between the sample students' responses to the question of time-flexibility in returning assignments (late returns), and their evaluation of the faculty. While only 10% of the sample students with a GPA of more than 3.5 were for—and the same percentage were against, the provision of such a time-flexibility, nearly 32% of those with a GPA in the range of 2.6–3.0, were in favor, and another 33% were against, the late returning of the weekly assignments. These findings, along with the result of the chi-square test, are shown in Fig. 3.

The distribution of the sample engineering students' responses (by student GPA) to the question dealing with the faculty's acceptance of a 'lower class performance' (academically) is presented in Fig. 4. This skewed-to-the-right distribution indicates that the bulk of the sample students with low GPAs (2.0–2.5), approved of such a faculty trait. But, interestingly enough, no one in the GPA > 3.5 category, evaluated a faculty positively when he/she accepted a lower academic performance for the class, in order to receive a higher evaluation rating from the students.

While the sample students with the best and the poorest academic performance records responded favorably to the positive impact of a faculty's friendly attitudes toward students, on their evaluations, 37, 34, and 30% of the sample students, with GPA of 2–2.5, 2.6–3, and 3.1–3.5, respectively, were of the opposite opinion concerning this attitudinal trait. The percentage of students who evaluated a faculty's friendly attitudes positively however was quite significant for all categories of GPA (Fig. 5).

The provision of ample office hours was also viewed very favorably by all sample students. As presented in Fig. 6, the faculty evaluation of those students with a GPA between 2.0 and 3.5, was strongly and positively influenced by the faculty's provision of extended office hours. The data in Fig. 6 indicate that the best students do not need extended office hours, and the poorest academic performers also do not take advantage of this face-to-face opportunity. The statistical significance of

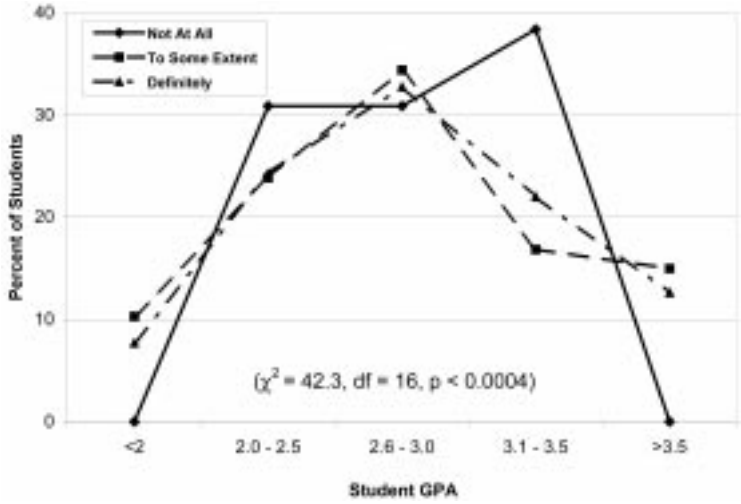


Fig. 6. Provision of office hours and student evaluations, by GPA.

differences in students' response to this question is also given by the result of the chi-square test, shown in Fig. 6.

The differences in the sample students' responses to the other faculty performance-related measures however were not statistically significant (at the 95% confidence level), and thus are not presented and discussed in the paper. The gender response differences to the posted questions for example, were not significant; students' nationality did not significantly affect their evaluation of faculty; and their evaluations seemed unaffected by their major study area, their age, or the number of years they spend in the college.

CONCLUSIONS

Like many other institutions of higher education in the Persian Gulf region, student evaluation of faculty is routinely performed in the College of Engineering and Petroleum at Kuwait University.

An overview of the importance of the role of socio-economic and cultural background of students in their evaluation of faculty and teaching effectiveness has been presented. Also discussed was the apparent inappropriateness of spatial transfer and application of faculty evaluation mechanisms without regards to specific goals of the 'borrowing' institutions as well as the socio-economic and cultural environment of the nation/region where the institutions are located. Research is badly needed on spatial transferability of faculty evaluation systems.

The paper also highlighted the rapid rate of growth in the number of American/European-supported institutions of higher education world-wide, in general, and in the affluent nations of the Persian Gulf, in particular. The strong preferences of these institutions for native faculty of these western nations, and the unfamiliarity of most of these faculty (if not all) with the socio-cultural, attitudinal and motivational background of local students, further adds to the complexity and the effectiveness of student ratings of faculty. The paper also presented and discussed the findings of a research study aimed at the determination of students' attitudes toward faculty evaluation and teaching effectiveness.

Findings of the study have indicated that the teaching performance evaluation of faculty by a large percentage of students—both girls and boys, and all in mid-range of academic performance—was positively influenced when:

- exam grades were higher than what they really deserved;
- the entire course material was not covered during the semester;
- a project was not assigned to the course;
- late arrivals to class were permitted;
- students were allowed to talk to each other during lectures;
- their time-to-time absence from lectures was accepted;
- the faculty was willing to lower the performance standards of the class.

It was also found that the faculty and teaching evaluation of a large majority of students (those with the best academic records and those with the worst) was influenced very positively when a faculty:

- tied the lecture material to real-life situations;
- was fair and just in gradings;
- provided ample office hours;
- delivered lectures in a clear and understandable manner;
- was punctual and efficient in the use of class times;
- showed sympathy for, and understanding of, students' personal problems.

University administrators and faculty should search for ways and mechanisms to address the special needs of the low performing students and improve their motivation and attitudes toward learning and higher education.

The analysis also indicated that students' evaluation of faculty was not significantly affected by their gender, nationality, marital status, specialty area, and by the number of years spent in college. Students' GPA, however, affected their evaluations of faculty and teaching significantly. Students with high GPAs were usually against the freedom to miss lectures, and the lowering of class performance standards. These students strongly favored the provision of a course project, ample office hours, real-life applications of lecture materials, and faculty's fairness in gradings. The opposite was found to be true for students with poor academic performance records. The test of chi-square supported these trends.

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