

**Using Students' Feedback to Improve Course Materials
and Teaching Methods at the College of Education
at Sultan Qaboos University**

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Abstract

This paper aims to explore the faculty members' use of students' feedback to improve course materials and teaching methods at the College of Education at Sultan Qaboos University. Triangulation was used by applying literary evidence, a questionnaire composed of the students' course survey items, and interviews to answer the research questions. The survey sample was (72) faculty members for the questionnaire and (7) of them for the interviews. Findings show that all the survey items on course materials and teaching methods are used by faculty members. These items were studied in terms of their relation to academic rank and teaching experience variables. It was also found that the faculty members review their instructional methods in line with the students' feedback and that they vary in their approach of revision. In light of these findings, the paper put forward its conclusions and recommendations.

Key words: students' feedback, teaching methods, teaching evaluation.

استخدام التغذية الراجعة من الطلاب لتحسين مواد المقرر الدراسي وطرق تدريسه بكلية التربية بجامعة السلطان قابوس

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الملخص

تهدف هذه الورقة للكشف عن استخدام أعضاء هيئة التدريس بكلية التربية بجامعة السلطان قابوس للتغذية الراجعة من الطلاب لتحسين مواد المقرر وطرق تدريسه. وقد تم استخدام عدة طرق بحثية كالاستدلال النظري وتطبيق استبانة تقويم المقرر الدراسي والمقابلات. وذلك للإجابة على أسئلة الدراسة. وتكونت عينة الدراسة من ٧٢ عضو هيئة تدريس للاستجابة عن الاستبانة و٧ من أعضاء هيئة التدريس للمقابلات. أظهرت نتائج الاستبانة أن جميع الفقرات حول مواد المقرر وطرق التدريس استخدمت بواسطة أعضاء الهيئة التدريسية. وقد تمت دراسة فقرات الاستبانة بالنسبة لتغيرات الرتبة الأكاديمية والخبرة التدريسية وأظهرت النتائج أيضاً أن أعضاء الهيئة التدريسية يراجعون مواد التدريس وفقاً للتغذية الراجعة من الطلاب مع اختلافهم في أساليب المراجعة. وفي ضوء هذه النتائج تم التوصل للخلاصة والتوصيات.

الكلمات المفتاحية: التغذية الراجعة، طرق التدريس، تقويم التدريس.

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Introduction

Students' evaluation of course materials and teaching methods is well known and usual practice in higher education institutions. Usually, it is assumed that these evaluations serve three main goals (Cohen, 1980; Howell & Symbolic, 2001). The first one is to help decision makers' evaluations by measuring teaching effectiveness, which is an important criterion for decisions on matters such as promotion of college faculty (Carter, 1989). The second goal of students' evaluations is to help students in choosing courses and instructors. The focus of the present study is on the third goal of students' evaluations of course materials and teaching methods which help instructors improve their teaching methods and course materials by using students' feedback and evaluations. In this paper, student feedback refers to those in which students are asked to complete a form or write a short free-form evaluation anonymously at the end of each semester.

Weimer, (2009) indicated that Students' feedback can be humbling, but it may lead instructors to admit that something in the course or their teaching needs to change. Meaningful change, according to instructors who have made significant improvements in end-of-course ratings, does not require great effort (McGowan & Graham, 2009). Improvements in ratings are most frequently associated with creating opportunities for active learning in the classroom, fostering better student-teacher interactions, setting expectations and maintaining high standards, being prepared for class, and revising procedures for assessing student work (McGowan & Graham, 2009). Students' feedback is just one component of important processes

of evaluation. Higher education faculty believes that the teaching-learning process is an active, ever-changing interaction between the student, teacher, and environment (input and process within context) that should be focused on a particular outcome. It is therefore reasonable to expect students to make important contributions to this system and it is imperative that teachers be receptive to students' feedback. However, there is no one correct method of teaching (Joyce & Weil, 1996). In fact, teaching and learning are contextual by nature, with different methods showing superiority for different outcomes and different students. This diversity of student characteristics, faculty objectives and preferred teaching methods, and institutional contexts must be considered when developing the evaluation process.

Lang and Kersting (2007) found that student ratings increased from the no-feedback baseline semester to the second semester and then gradually decreased from the second to the fourth semester, although feedback was provided after each semester. The findings suggest that student ratings not augmented with consultation are far less effective than typically assumed when considered from a long-term perspective. Abu Alhija & Fresko (2009) found that students' comments were more often positive than negative and tended to be general rather than specific. Written comments addressed dimensions similar to those identified in the closed-ended items, but they are also related to unique aspects of the courses as well. Unfortunately, the actual use of student ratings for formative purposes falls far short of its potential. Pallett (2006) suggested three reasons for this shortcoming. First, institutions sometimes place too much emphasis on the summative component of ratings. When student ratings are overemphasized for summative evaluation and underutilized for developmental purposes, faculty often lose trust in the process and see little or no benefit in collecting student feedback. Such misuse erodes the potential benefits of ratings and can create a negative climate for faculty evaluation. A second reason student ratings tend to be underutilized for formative purposes is the difficulty associated with creating valid and reliable ratings instruments that provide helpful feedback. Third, at some institutions there is insufficient mentoring. Credible mentors who are trusted colleagues, not necessarily involved in personnel decisions, should be available to provide feedback and make

recommendations for improvement.

Research in the area of student evaluation of instruction has resulted in the publication of more than numerous studies (Cohen, 1980; Benton & Cashin, 2012). In the literature on the evaluation of teaching there has been a tradition of distinguishing two forms of evaluation: summative evaluation—made for personnel decisions like tenure and promotion, and formative evaluation—conducted for the improvement of practice. This tradition has maintained that these two evaluative practices be conducted separate from each other. There are strong arguments for this separation. One is that summative evaluation serves the purposes of administrators and is a public process, whereas formative evaluation serves the individual teacher and is therefore confidential. Another argument for keeping formative and summative evaluation processes separate is the concern that the evaluator may have a conflict of interest between serving the needs of the teacher and serving the needs of the administration.

Recently, Sultan Qaboos University (SQU), established in 1986 and the only national university in the Sultanate of Oman, invested a good amount of money for purchasing educational technology software and hardware (WebCT, MOODLE learning systems, Computer labs, Computers in every teaching room with different projectors) to be used in teaching and learning. The Centre for Educational Technology at SQU conducts a series of professional development workshops for faculty members to help them in integrating technology in their teaching (Al Musawi, 2008, Abdelraheem, 2004). All these efforts are expected to increase the productivity of the instructional process and the overall educational outputs of the university (Al Musawi & Abdelraheem, 2004). These efforts were accompanied with students' ratings of instruction which started in 1996 at SQU. Faculty members are the ones who are supposed to use students' ratings for improving teaching and encourage their students to provide them with valuable feedback. Simply, having the feedback from students does not necessarily mean that the staff will use them in improving their teaching. Educational planners wish to increase the effectiveness of students learning of the subject matter and that requires consideration of teachers' use of students' rating of instruction and their observations.

Statement of the Problem

Student evaluation of teacher performance, or student ratings is one of the most controversial techniques used to identify teacher effectiveness. Some faculty members question the usefulness of ratings in providing feedback about teaching that can result in improved instruction, but many continue to challenge student rating use in making personnel decisions (Marsh, 1999). Benton and Cashin (2012) came to the conclusion that student ratings tend to be statistically reliable, valid, and relatively free from bias or need for control, perhaps more so than any other data used for faculty evaluation. Regardless of this conclusion, faculty are concerned about the use of student ratings in both formative and summative evaluations for the following reasons: 1) students lack the maturity and expertise to make judgments about course content or instructor style; 2) students' ratings are measures of popularity rather than of ability; 3) the rating forms themselves are both unreliable and invalid; and 4) other variables (such as grades received from the instructor, class size, or whether the course was required or elected) affect student ratings. Aleamoni (1981) offers the following arguments to support the use of student ratings of teacher performance:

- Students are the main source of information about the learning environment, including teachers' ability to motivate students for continued learning, rapport or degree of communication between instructors and students.
- Students are the most logical evaluators of the quality, the effectiveness of, and satisfaction with course content, method of instruction, textbooks, homework, and student interest.
- Student ratings encourage communication between students and their instructor. This communication may lead to the kind of student and instructor involvement in the teaching-learning process that can raise the level of instruction.
- Student ratings of particular instructors and courses can be used by other students to select courses and instructors, and may increase the chances that excellence in instruction will be recognized and rewarded.

The researchers observed that there were different opinions from faculty members at SQU about the usefulness of the students rating of instruction. Faculty members often have difficulty making sense of students' written

comments on teaching evaluation. Although such comments are usually quite rich with observations and insights, instructors frequently struggle to draw conclusions from them. Rather, they remark that students' comments seem contradictory; half of the students say one thing, and the other half say the opposite. Understandably, this can frustrate faculty members and lead them to believe that there is no way to satisfy everyone. As a result, faculty may choose to ignore the important messages that students' written comments provide.

As a result of this observation and the literature on this topic in addition to the energy, money and time spent on the evaluation process, the current study aims to explore the faculty members' use of students' feedback to improve course materials and teaching methods at the college of education at Sultan Qaboos University (SQU).

Study Objectives and Questions

The study focuses on the ways in which students' feedback helps instructors improve their teaching and course materials. With this concern in mind, this paper addresses the following questions:

1. To what extent do faculty members use students' feedback to improve course materials?
2. To what extent do faculty members use students' feedback to improve teaching methods?
3. Is there any difference between faculty member use of students' feedback for improving course materials and teaching methods?
4. Do faculty members' use of students' feedback for improving teaching methods vary according to their academic rank and teaching experience?
5. Do faculty members' use of students' feedback for improving course materials vary according to their academic rank, and teaching experience?
6. How do faculty members convert students' feedback into useful revisions for course materials and teaching methods?
7. What types of revision do faculty members make when using students' feedback?

Importance of the Study

The findings of this study can help administrators recognize the extent

to which faculty members use students' feedback to improve their teaching and course materials and shed light on the effectiveness of the evaluation process. In addition to that, the findings might justify money, time and energy spent on the evaluation process.

Limitations of the study

The results of this study could be considered within SQU context for the spring semester of the academic year 2010/ 2011 and for the sample used in that semester only with the use of SQU course survey instruments.

Definitions of terms

Students' feedback: refers to forms in which students are asked to complete or write a short free-form evaluation anonymously at the end of each semester (Cohen 1980). In this study, it represents students' opinions on course materials and teaching methods measured by responses to the SQU course survey.

The use of Students' feedback: refers to the degree of considering the utilization of students' opinions for revision purposes. In this study it is measured by faculty member rate of utilization of students' opinions for revision purposes.

Course materials: refer to the learning experiences, the content and activities of the course. Materials prepared for use in teaching, fixed or unfixed, in any form, including, but not limited to, digital, print, audio, visual, or any combination thereof. They are measured by the responses for three items in the SQU course survey.

Teaching methods: different approaches used to deliver, present and communicate the content of the course. Cohen, Raudenbush, and Ball (2003) defined teaching as what teachers do, say, and think with learners, concerning content, in particular organizations and other environments, in time" (p. 124). In this study, they are measured by responses for the thirteen items in SQU course survey.

Methods and Procedure

• Course and Teaching Survey Procedure at SQU

The process of course and teaching survey at SQU started in the academic year 1996/97 to improve the teaching effectiveness and course materials. To achieve this goal, a course evaluation questionnaire was developed by the college of education and underwent several revisions until it reached reasonable validity and reliability. At the beginning, the process of evaluation was administered during class time by the instructor and then changed to be administered by administrative staff, and the instructor was asked to leave the room during the evaluation process. The evaluation process is usually administered in the last two weeks of each semester every academic year. After the evaluation was done and analyzed, the results of the evaluation were sent to each instructor showing his or her rank in both teaching effectiveness and course materials with respect to the university, college and department levels. This comparison procedure was criticized by instructors due to the different nature of colleges, courses, timetable, class size and gender of students. With the continuing growth in the use of web-based technology to support teaching and learning at SQU, in the year 2008 the evaluation process was changed to be administered electronically. The argument for that is electronic evaluation eliminates paper costs, requires less class time, permits efficient data processing, data is less vulnerable to influence of the faculty and it is a fast and convenient method for students to submit their evaluation. In addition to that, Dommeyer, Baum & Hanna, (2002) conclude that in online evaluation, students have higher levels of satisfaction with the online method of faculty evaluation over the traditional in class method. Ballantyne, Borthwick & Packer, (2000) add the following advantages of online evaluation in comparison to paper evaluation: longer, more thoughtful student comments; reduced turnaround time; more accurate data collection and reporting. Bullock (2003) also points out that online evaluation presents a user-friendly format. Dommeyer, Baum, Hanna & Chapman (2004) found that although the response rate to the online survey was generally lower than that of the in-class survey, a response rate can be comparable to that of the in-class survey when a grade incentive was used to encourage students' response to the online survey.

The survey instrument at SQU consists of (16) items, three for teaching methods and thirteen for course materials plus two open questions. Faculty members ask their students to fill out the evaluation questionnaires at the end of each semester. The students complete the survey online before the final exams were taken, and all efforts were made to ensure anonymity of students. Students' anonymity was maintained: they were not required to identify themselves on the survey form. Shortly after the questionnaires were administered, feedback was sent to instructors via email. The results of the evaluation were also made available in the university portal.

• **Research Method**

Triangulation was used by applying literary evidence, a questionnaire generated from the students' course survey items, and interviews to answer the research questions. Therefore, it is a descriptive survey study of faculty members' utilization of students' feedback for the purpose of improving their performance in teaching and course materials.

• **Research Variables:**

Dependent variables:

1. Faculty use of students' feedback to improve course materials.
2. Faculty use of students' feedback to improve teaching methods.

Independent variables:

1. Faculty academic rank which has four levels (Professor, Associate professor, Assistant professor, and Lecturer)
2. Faculty teaching experience which has three levels (Less than 5 years, between 5 and 10 and more than 10.)

• **Population and Sample**

The research population includes all SQU faculty members with a total number of 142. An electronic questionnaire was sent to faculty members at the College of Education and after two weeks the researchers received only a few from them. However, the researchers decided to make a print copy and send it randomly to faculty members and followed it until they received (72) responses. This represents the study sample. They consist of 7 professors,

15 associate professors, 30 assistant professors and 20 lecturers. Regarding their experiences, they were 22 with less than 5 years of experience, 34 with experience of more than 5 and less than 10 and 16 with experience more than 10 years.

• Instruments

The researchers used the SQU students' survey with minor modification to fit the sample to answer research questions (1, 2, 3, 4, and 5). They asked the faculty members about the degree of utilization of each item response to improve their teaching and course materials. The instrument consists of two parts: the first part is for demographic information about faculty members and the second part are of the instrument is for the sixteen items of evaluation. Three items for measuring course materials (written instructional materials, lab and application sessions, overall course design, and the statement and clarification are of course objectives), and thirteen items are to measure teaching effectiveness. These items were generated from Sultan Qaboos University course survey. The instrument was given to a panel of SQU faculty members for face validation. The reliability of the instrument was found to be 0.89 as measured by alpha Cranach and this value is sufficient for the purpose of this study. In addition, interview questions were used for answering questions 6 and 7.

• Statistical Methods

The data was then treated by the use of SPSS for analysis. After that, interviews were used with a sample of seven of the faculty members to answer the qualitative questions 6 and 7.

Findings and Results

• Analysis of the First and Second Questions

To answer the first and second questions which deal with the extent (from 5 to 1) of using students' feedback for improving teaching methods and course materials, the faculty members were asked to rate their responses regarding both the teaching methods and course materials items. Their responses to the instrument items range from 5 which mean they always use

students' feedback for revision to 1 which means they never use students' feedback for revision. Therefore, the range for the overall teaching methods items is between 13 and 65 (thirteen items) and for the course materials items is between 3 and 15 (three items). Table (1) shows the means and standard deviations of faculty members' responses to the instrument items.

Table (1)
Means/Standard Deviations of Teaching Methods
and Course Materials Items

Item	Mean	Std Deviation	Item	Mean	Std Deviation
1	3.8750	1.04730	9	3.8889	1.23967
2	3.6389	1.20218	10	3.9444	1.29885
3	3.7639	1.06801	11	3.8889	1.22825
4	3.7083	1.08040	12	3.6944	1.21770
5	3.7639	1.18075	13	3.8750	1.09978
6	3.9722	1.00663	14	3.7917	1.08689
7	3.7222	1.15334	15	3.7917	1.08689
8	3.7222	1.31323	16	3.8732	1.12033
Teaching Method	3.8750	1.38451	Course materials	4.0089	1.20451
* Theoretical Mean between 1-5.					

Table 1 shows that the means of the sample responses to the instrument are between (3.8750) and (3.9722) for teaching methods items which means that faculty members often use students' feedback to revise their teaching methods and between (3.6944) and (4.0089) for course materials. Item 6 which is about explanation and clarification of the course materials was the most used item for revision for teaching methods because it deals directly with the jest of teaching. Item 1 which is about written instructional materials was the most used for revision for course materials because it deals directly with the course content (books, handouts). Item 2 which is about laboratory and application sessions was the least used item for improving course materials because it deals directly with skills application of the theoretical content. Item 12 which is about questioning skills was the least used item for teaching methods because students lack skills to measure faculty questioning skills. After comparing these means with the

theoretical mean (3), it was found that all items for both categories are used often by faculty members to improve their teaching methods and course materials. This reveals that they see these items contribute to a great extent (as students' feedback) towards their professional development.

• Analysis of the Third Question

To answer the third question of the study which states that "Is there any difference between faculty use of students' feedback for improving course materials and that for teaching methods? Paired sample T test was used to test for differences if any. Table 2 below shows the results.

Table (2)
T test for paired sample of Teaching Methods
and Course Materials Items

		Mean	Std. Deviation	Std. Error Mean	Correlation	Sig.
Pair 1	Course	4.0089	1.20451	.14195	.664	.000
	Teaching	3.8750	1.38451	.16317		

As shown in Table 2 which analyzes the whole samples' responses towards both categories of items: teaching methods and course materials. It was found that a significant difference exists at ($\alpha \leq 0.05$) among faculty members in regard to their frequent use of both categories of items. This finding indicates that there is a significant difference in means of faculty members' use of students' feedback in favor of course materials items. They use course materials items more frequently than teaching items and contribute to a great extent (as students' feedback) towards their course materials improvement. This result could be explained by the fact that course materials are built by a group of experts and it has only three items (item 2, item 14 and item 15) in the instrument which makes it easier for faculty member to revise as compared to thirteen items for teaching methods. In addition to that, teaching methods consist of so many variables (e.g., instructor language, instructor explanation, instructor statement of objectives...etc.) to deal with, and every faculty member may look at them from different views.

• Analysis of the Fourth Question

To answer the fourth question of the study which states “Do faculty members’ uses of students’ feedback for improving teaching methods vary according to their academic rank and teaching experience?”

ANOVA test was conducted to test the effects of faculty members’ academic rank on the responses of the first category: teaching methods. The results listed in Table (3) below.

Table (3)
ANOVA Test for the effects of Academic Rank
on teaching methods items

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	26.718	3	8.906	5.537	.002
Within Groups	109.379	68	1.609		
Total	136.097	71			

The results in the above table show that there is a significant difference at ($\alpha \leq 0.05$) among the academic ranks with regard to the use of students’ feedback generated from teaching methods items. From the above table, one can say that different academic ranks use students’ feedback differently. Therefore the frequencies of using students’ feedback for revising teaching methods vary according to the academic rank. To further investigate this and determine which academic rank has more frequent use of students’ feedback, Schaffe’s pairwise comparison test was used as indicated in Table (4) below.

Table (4)
Pairwise Comparison of Academic Rank and teaching method items

(I) rank	(J) rank	Mean Difference (I-J)	Std. Error	Sig.
Professor	Associate	.44048	.54480	.884
	Assistant	.34432	.54005	.939
	Lecturer.	1.81270*	.58054	.027
Associate	Prof.	-.44048	.54480	.884
	Assist.	-.09615	.35901	.995

Table (4)

(I) rank	(J) rank	Mean Difference (I-J)	Std. Error	Sig.
Associate	Lect.	1.37222*	.41744	.018
Assistant	Prof.	-.34432	.54005	.939
	Assoc.	.09615	.35901	.995
	Lect.	1.46838*	.41122	.008
Lecturer	Prof.	-1.81270*	.58054	.027
	Assoc.	-1.37222*	.41744	.018
	Assist.	-1.46838*	.41122	.008

It was found that a significant difference exists at ($\alpha \leq 0.05$) between ranks of professor, associate professor, and assistant professor as compared to lecturer rank. This indicates that students' feedback on the teaching method items are used by the three upper ranks more frequently than the lower rank (lecturer rank). This could be justified by the fact that the upper ranks involve in research on teaching and learning and that might help them in improving their use of students' response and feedback on teaching. Another ANOVA test was also conducted to test for the effects of the faculty members' experience on the responses of teaching methods items.

Table (5)
ANOVA Test of the effects of teaching Experience
on Teaching Methods items

Source of variability	Sum of Squares	Df	Mean Square	F
Between Groups	6.636	2	3.318	1.768
Within Groups	129.461	69	1.876	
Total	136.097	71		

The results which are listed in Table (5) show no significant difference was found at ($\alpha \leq 0.05$) among the means of the ranges of experiences with regard to the use of students' feedback on teaching methods items. This result means that the experience variable has no effect on the use of students' feedback for revising teaching methods. From the above result

one can say that different teaching experiences have no effects on the way of using students' feedback to revise teaching methods. This could be explained by the fact that experience sometimes might be a repetition of doing the same thing without any improvement and if this is the case it will be of no value. In addition to that, teaching to some extent is a habitual and routine action which makes it difficult for instructors to change easily from students' feedback.

• Analysis of the Fifth Question

To answer the fifth question of the study which states that "Does faculty members' use of students' feedback for improving course materials vary according to their academic rank and teaching experience"? ANOVA test was conducted to check the role of faculty members' rank in the responses of the second category: course materials. The results are listed in Table (6) below.

Table (6)
ANOVA Test for the effects of Academic Rank
on Course Materials items

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	13.178	3	4.393	3.325	.025
Within Groups	89.831	68	1.321		
Total	103.010	71			

The above table shows a significant difference at ($\alpha \leq 0.05$) among the means of the academic ranks with regard to the use of students' feedback on revising course materials items. From the above result, it is clear that different academic ranks use students' feedback differently for improving course materials. Therefore the frequencies of using students' feedback for revising course materials vary according to the academic rank. To further investigate this and determine which academic rank has more frequent use of students' feedback, Schaffe's pairwise comparison test was used as indicated in Table (7) below.

Table(7)
Pairwise Comparison of Rank and Course Materials

(I) rank	(J) rank	Mean Difference (I-J)	Std. Error	Sig.
Prof	Assoc	.21726	.49373	.978
	assistant	.24451	.48942	.969
	Lect	1.24286	.52611	.145
Assoc	Prof	-.21726	.49373	.978
	assistant	.02724	.32535	1.000
	Lect	1.02560	.37830	.050*
assistant	Prof	-.24451	.48942	.969
	Assoc	-.02724	.32535	1.000
	Lect	.99835	.37267	.076
Lect	Prof	-1.24286	.52611	.145
	Assoc	-1.02560	.37830	.050*
	assistant	-.99835	.37267	.076

It was found that a significant difference exists at ($\alpha=0.05$) between the means of the associate professor and lecturer ranks but there were no significant differences between professors and lecturers, There were also no differences between associates professors and assistant professors. Also, there were no differences between assistant professor and lecturers. These results could be explained by taking into consideration that professors might not need to always use students feedback to improve course materials because of their ability as subject matter experts and their involvement in research could help them making revisions without relying heavily in using students feedback. Assistant professors and lecturers use of students' feedback could be similar due to the fact that both of them lack research ability to improve course materials without feedback from students. Associate professors are better user of students' feedback than lecturers. This indicates that feedback items for improving course materials are used more frequently in the revision by associate professors as compared to the lecturers.

ANOVA test was also conducted to check the effects of faculty members' experience on the use of students' feedback and responses of the second category: course materials. The results are listed in Table 8.

Table (8)
ANOVA Test of Teaching Experience and Course Materials

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	10.795	2	5.397	4.039	.022
Within Groups	92.215	69	1.336		
Total	103.010	71			

The above table shows a significant difference at ($\alpha \leq 0.05$) among the means of teaching experience ranges with regard to the use of students' feedback on teaching methods items. To further investigate this and determine which teaching range has a better use of students' feedback for revising course materials, a pairwise comparison test was used as indicated in Table (9) below.

Table (9)
Pairwise Comparison of Teaching Experience and Course Materials

(I) teaching	(J) teaching	Mean Difference (I-J)	Std. Error	Sig.
Less than5	5and10	-.61905	.44147	.379
	More than10	-.95617*	.33749	.022*
5and10	Less than 5	.61905	.44147	.379
	More than 10	-.33712	.37649	.671
Morethan10	Less than 5	.95617*	.33749	.022*
	5and10	.33712	.37649	.671

From the above table it was found that a significant difference between the means exists at ($\alpha \leq 0.05$) in favor of faculty members with more than ten years and those with less than five years with regard to course materials items. This indicates that the uses of students' feedback in revising course materials by more experienced faculty member categories are higher than those of less experience. This result could be explained by the fact that a faculty member with less than 5 years' experience in teaching might not be able to translate and convert students' feedback into useful revision and thus lowering their use of these items. This result is supported by Centra (2009) who found that first-year teachers tend to receive lower ratings

compared to experienced assistant professors and higher-ranking faculty. He concluded that the lower ratings do not point to bias but probably reflect differences in teaching skills, because first-year faculty are most likely still learning how to teach.

• Analysis of the Sixth and Seventh Questions

In response to the sixth research question: “How do faculty members convert students’ feedback into useful revisions for course materials and teaching methods?” it seems that faculty members give due concern to students’ written feedback. For example, FM1 stated that: «first I read carefully the qualitative feedbacks... written comments are important because they reflect my students’ thoughts on my teaching styles and course materials». I contact the instructional designer to help me in converting these feedbacks into useful revision e.g., redesigning my audiovisual materials according to instructional design principles. In addition, faculty members respond positively to these comments; as FM3 put it: “usually I take their comments seriously and modify my teaching methods and evaluation accordingly. I modify my exams using table of specifications and I add new teaching strategies like small group discussion and cooperative methods”. FM6 expressed that: “students’ comments have deep effects on my teaching styles and materials. I determine the most positive and negative comments and compile them into a list... changes built gradually over time...” FM7 explained that: “I read a lot in order to look into new methods of teaching and assessment...”. These comments imply that faculty members review their instructional methods in line with the students’ feedback. They seem to take the feedback seriously, responsibly, and regularly.

In response to the seventh research question: “what types of revision do faculty members make when using students’ feedback?” Faculty members varied in their replies. Some think of it in terms of quantity in that they remove teaching materials and replace them with new ones (FM2 and FM5). Others conduct it in terms of quality through improvements and alterations to their methods and materials (FM1, FM4, and FM6). FM3 said that: “many times I keep the materials as they are but change the activities... making them more cooperative and interesting... students like the same

materials to be given in different ways”.

From the examples above, it could be concluded that faculty members vary in their approach of revisions. They either go quantitative, qualitative, or substantive. These types, as a whole, show their active interest in using their students’ feedback.

Discussion and Implications

• The importance of students’ Feedback

Aleamoni (1981) cites research which indicates that “the correlation between student ratings of the same instructors and courses ranged from .70 to .87.” He found that students frankly praised instructors for their warm, friendly, humorous manner in the classroom, but if their courses were not well-organized or their methods of stimulating students to learn were poor, students equally frankly criticized them in those areas.” Later, Peterson and Kauchak (1982) stated “students can successfully differentiate between teaching effectiveness and other affective dimensions such as attitude, interest, and friendliness of the teacher.” (Abu Alhija & Fresko, 2009) have indicated that despite the extensive research literature on student ratings, little is known about the quality of data obtained from students’ written comments, their content, and the relationship between them and other variables. The few studies which have been reported in the literature tend to focus on the frequency of comments, their length, direction, and content, and the characteristics of the students who write them. When relating to the frequency of written student comments, great variation has been noted.

Students’ written comments ranged between 10–12% (Theall & Franklin, 1991), 40–50% (Hardy, 2003; Zimmaro et al., 2006; Abu Alhija & Fresko, 2009), and 60–70% (Oliver, Tucker & Pegden, 2007). Abu Alhija & Fresko (2009) added that comments were more often positive, general in nature and lack precision. Written comments usually address dimensions similar to those identified in the closed-ended items, but they also relate to unique aspects of the courses as well. These research findings show the importance of using students’ written comments. These findings support this results in that the faculty members show their active interest in using students’ feedback for revision and improvement as indicated by the means which

fall between (3.8750) and (3.9722) for teaching methods items and between (3.6944) and (4.0089) for course materials.

• **Faculty Reaction to the Feedback**

Some studies (Centra, 1993; Lewis, 2001; Svinicki, 2001) have indicated that instructors tend to prefer receiving written comments from students as opposed to statistical summaries and claims have been made that comments from students are more informative (Nasser & Fresko, 2002; Smith & Welicker-Pollack, 2008), more specific, and often contain concrete suggestions for improvement (Hammond, Taylor, & McMEnamin, 2003). The results of this study show that faculty positively react in using students' feedback for the improvement of their teaching methods and course materials. However, senior faculty members show greater utilization using the feedback to improve their teaching methods and course materials as compared to junior faculty members. The findings also show that while experience has no effect on the use of students' feedback for revising teaching methods, more experienced faculty member categories are higher than those of less experience in using the feedback in revising course materials.

Fresko and Nasser (2001) indicated that knowing what to change and how to change still does not guarantee that change will take place. The key concepts here are feedback and reflection. It is not sufficient to merely solicit feedback on instructional quality from students and peers and deal with them. Reflection on the meaning of that feedback is necessary if development in teaching is to take place. In terms of feedback types, the literature seems to suggest that written comments have greater potential in influencing instructors. However, the results of this study show that faculty members revise their teaching methods and course materials seriously, responsibly, and regularly by redesigning their audiovisual materials and modifying their teaching methods and evaluation. The results also indicate that faculty members vary in their approach of revisions. This variation depends on their background, knowledge in instructional design, and self-motivation. Fresko and Nasser (2001) commented that instructors should be internally and externally motivated to make changes. While internal motivation is a personal matter, external motivation to improve instruction

can and should be an institutional matter. To reinforce motivation, institutions should acknowledge excellence and the scholarship of teaching by providing appropriate incentives to outstanding instructors. In 2003, Sultan Qaboos University (SQU) established an award for excellence in teaching to motivate instructors.

Conclusion

The objective of this study was to explore the faculty members' use of students' feedback to improve course materials and teaching methods. Analysis of data has shown that all survey items on course materials and teaching methods are important as perceived by faculty members. Items related to academic rank and teaching experience variables show that significant differences exist at ($\alpha \leq 0.05$) among the ranks in relation to teaching methods and course materials items, specifically between associate professor and lecturer ranks; between faculty members with more than 10 years and those of less than 5 years in regard to course materials items. However, no significant difference was found at ($\alpha \leq 0.05$) among the ranks in regard to teaching methods items. In addition, a significant difference exists at ($\alpha \leq 0.05$) among faculty members in regard to their use of both categories of items. Junior faculty members (faculty at a rank lower than associate professors) were more likely to make regular use of students' feedback than their senior counterparts. Junior faculty members had strong motivation for using the feedback in order to get positive evaluation results in the annual review and promotion process. This leads to the fact that the greatest teaching improvement occurred during a faculty member's first few years of teaching.

It was also found that faculty members review their instructional methods in line with students' feedback and that they vary in their approach of revisions. In light of these findings, the paper put its conclusions and recommendations.

Recommendations

The study recommends the following:

1. Administrators at the college and university should encourage faculty
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members to use students' feedback effectively to improve their performance and reward them for that.

2. Workshops should be conducted for new faculty members and those of less teaching experience on how to make good use of students' feedback and revise the instructional materials properly.

3. Faculty members from all ranks and experiences should learn how to redesign their course materials according to the principle of instructional message design in response to students' needs.

4. In-depth studies should be conducted to emphasize the importance of using students' feedback on planning for teaching improvements at the college level.

5. In-depth studies should be carried out to indicate what type of students should be used for valuable feedback.

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