UNDERSTANDING ROLE OF STUDENT FEEDBACK IN QUALITY ASSESSMENT: A CASE STUDY

RASHID KARIM SIDDIQUI[1], SAQIB SAEED[2] ,FAZAL WAHAB[3]
[1] Department of Computer Science, Bahria University Islamabad
rksiddiqui@gmail.com
[2]Department of Computer Science, Bahria University Islamabad
saqib@bahria.edu.pk
[3] Department of Computer Science, Bahria University Islamabad
wahhabfazal718@yahoo.com

ABSTRACT. *There has been a recent trend in fostering quality cultutre in higher educatin institutes. Students evaluation of teachers and courses at the end of semester are an integral part of Quality Assessment process. It has been heavily debated in academic communities that whether students are competent enough to judge teacher and course quality. Furthermore in semester system where grading is solely in the hands of faculty student's opinion can be biased . In this paper we have carried out an empirical study to understand the student evaluation practices. Our study highlights that in some cases the students may be biased but generally they are very objective in portraying the ground realities.*
Keywords: End of semester feedback; Quality assurance; biasing factors .

1. **Introduction.** The quality of education, particularly in higher education, has been identified as one of the key factors which will allow a country to succeed in a global competition. Primary responsibility for quality assurance lies with government and higher education institutions. In Pakistani context various policies and guide lines have been set by Higher Education Commission to improve quality in higher education institutes [1]. There have been some studies which have looked into improving education quality in Pakistan [cf. 2, 3, 4, 5]. A precondition to success of quality assurance process is honest input from all stakeholders. A lot of research has been done worldwide on various aspects of students feedback and there is no consensus. Skeptics of student feedback argue that there is no direct evidence that student evaluation of teaching improves learning, and student motivation and expected grades can bias student evaluations Student evaluations of teaching can lead to grade inflation and a lowering of standards by teachers [6]. On the other hand, there is plenty of evidence to suggest that students can provide useful feedback about the effectiveness of teaching methods[7, 8].

According to Filak and Sheldon student course evaluations are valid measures and students understand what is good and what is bad learning experience[9]. Researchers argue that students spend long periods of time observing and interacting with their instructors so they are qualified to make assessments of the teaching they receive [cf. 10, 11, 12, 13]. Aleamoni described that students are logical evaluators of the quality and effectiveness of course content, methods of instruction, textbooks, homework, and student interest and their findings remain consistent over a longer period of time [14]. On the other hand there are some myths about student feedback, one of the most controversial myths about student evaluations of teaching is that if a teacher gives good grades he will get good ranking. Many studies have been done to see if there is any correlation between teaching evaluations and students' anticipated grades. Researchers have reported the correlation at .20[15], between .10 and .30 [16], and, more recently, at .11 [17]. Other factors that may affect student feedback

has also been studied by researchers and they include electivity, course level, class size and subject area, instructors rank and experience, instructor gender [cf. 18,19]. Despite these contributions there is no study in Pakistani context highlighting the implications of students feedback on teaching quality. In this paper we are describing the experiences while fostering quality assurance activities at Bahria University (BU). BU has implemented a quality policy and under this policy various surveys of faculty and students are undertaken at the end of each semester. Data is analyzed and results are used for continuous improvement.

Remaining part of paper is structured as follows: Section 2 describes research methodology and section 3 discusses result followed by conclusion in section 4.

2. **Research Methodology.** The quantitative approach is followed to collect empirical data in this research project. The survey was conducted from undergraduate and graduate university students. A questionnaire was designed comprising of 24 questions. The questions were grouped into different categories to ascertain various aspects and to facilitate easy judgment of responses. 150 Questionnaires were distributed in computer science department, and 136 responses were received back. Data collection was carried out by authors during the month of October 2013. First part of questionnaire comprised of 11 questions to determine students awareness of quality assurance department and its effectiveness and students willingness and motivation to take part in end of semester students feedback. Second part of questionnaire contained 6 questions to determine students response to different biasing factors that may influence students evaluation of teachers . Third part of the questionnaire contained 7 questions to determine students approach to course evaluation. Students provided their responses on 5 point Likert scale. The questionnaire was pretested during summer semester in August 2013 for internal stability where a random sample of 50 students was taken . Coronbach Alpha was used to check internal reliability which was > 0.7. As a result of pre testing questionnaire was improved by rephrasing some questions and questions were placed in order to make it possible to detect false input by nonserious participant. There were two types of questions in the questionnaire one type focused to test positive attitude and second type of questions were worded to test negative/ biased attitudes. Every answer was rated using Likert scale with 5 = Strongly Agree , 4 = Agree , 3 = Un-Decided , 2 = Disagree and 1= Strongly Disagree. The mean score of the scale is $(5 + 4 + 3 + 2 + 1) / 5 = 3.0$ A mean score of 3.0 and above for a question is considered affirmative and below 3.0 is considered as negative answer. A total of 136 computer science students participated in the study.
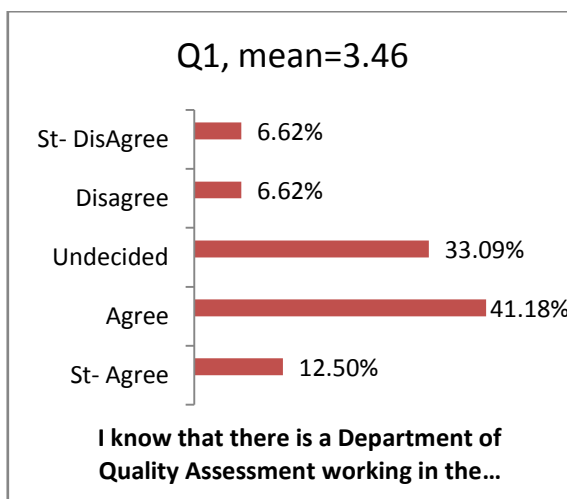
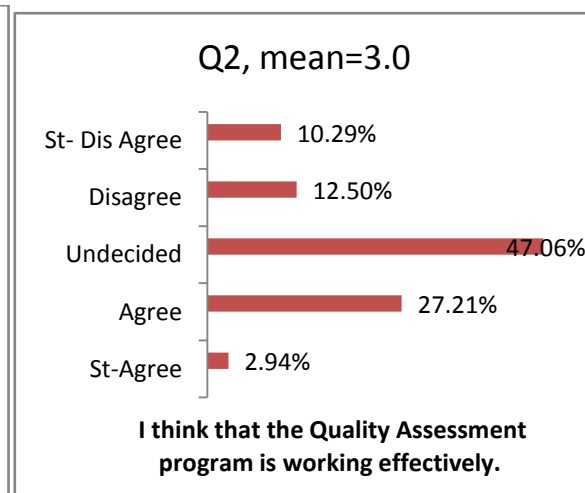3. **Results and discussion.**

Figure1.

Figure 2.

3.1 Students Awareness about Quality Assurance. In the first part of questionnaire first two questions were about quality assurance department and about its effectiveness as seen by students. The first question was "I know that there is a Department of Quality Assessment working in the university". figure-1 shows the response where 53% of students know about it and a large majority of 46.33% students do not know about the existence of such department. The mean value of response is 3.46, thus indicting that there is some awareness

but there is need to put more effort to create awareness. The second question was "I think that the Quality Assessment program is working effectively. ", and in response only 30% students agreed to it but 69% students were undecided or disagreed, as shown in figure-2.Thus the majority of students do not agree with the working of quality assurance department or its efforts. This result may be because of lack of awareness.

3.2 Student's Willingness and motivation check. It is of utmost importance that students give honest feedback by reading questions carefully provided in survey forms. Therefore in this survey students were asked whether they read the questions in evaluation forms carefully or not and the response is shown in figure-3. The response gathered was positive with a high mean value of 4.00 and 82.35% students responded in strongly agree or agree category. This response adds to overall confidance in present system.
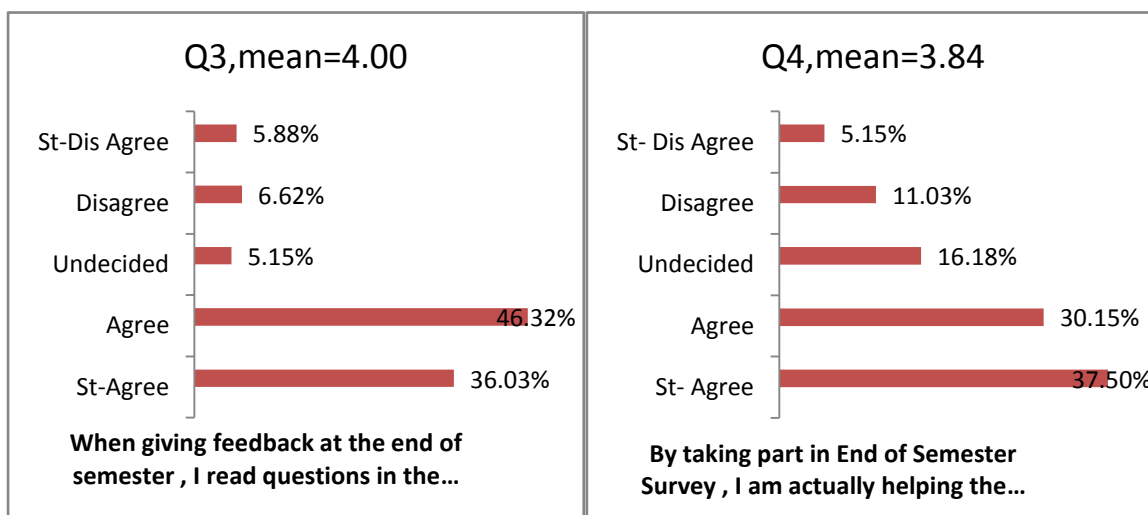

Figure3.

Figure 4.

It is also important that students understand the usefulness and purpose of students feedback of teaching and courses thus making them an active contributer in improving teaching. Therefore in question 4 of this survey they were asked to respond to question, "By taking part in End of Semester Survey , I am actually helping the Department to improve teaching effectiveness. " and figure 4 shows the response. Response is positive with mean value of 3.84 , and 67.65% of students responding strongly agree or agree category, this indicates that students are eager to contribute .

Students feedback is usually taken at the end of semester, and at this time students are very busy in their end semester activities like semester project and revising course work to prepare for final semester exam, so willingness of students at the end of semester to provide feedback is questioned. Similarly university administration's desire is to get as many students input as possible, so they employ some administrative measure to make sure that they get maximum inputs. So this makes it look like a forced feedback and to ascertain this two questions were asked from respondents. In Question 5 students were asked to give opinion on the statement "I take part in the end-of-semester survey Willingly. " and in Question 6 they were asked to give opinion on the statement "I will take part in the survey even if it not tied to examination slips. ". Response of question 5 is shown in figure-5 showing a positive response with a mean values 3.95, and 77.2% agreement of respondents and in response to question 6 mean value of 3.76 was reached with 69.12% of students agreeing as shown in figure-6. The students motivation to support the end semester feedback was further proved by asking additional questions like questions 8 and 10. In Question 10 students were asked whether University should continue having students feedback and the response was positive with mean values 3.96, and 77.94% of students agree as shown in figure-8. In Question 8, students were asked to give

opinion that evaluation survey should be done twice during a semester. Their response is shown in figure 7. Students respons was positive with mean values 3.28, and 54.42% of students agreed and 44.86 remain undecided or disagreed. Results of these two questions further confirm that students are in favour of end of semester feedback system but fewer students were in support of increasing the number of feedback. Although some students suggested in coments that feedback should be taken earlier so that corrective measures may be taken well before the semester ends.
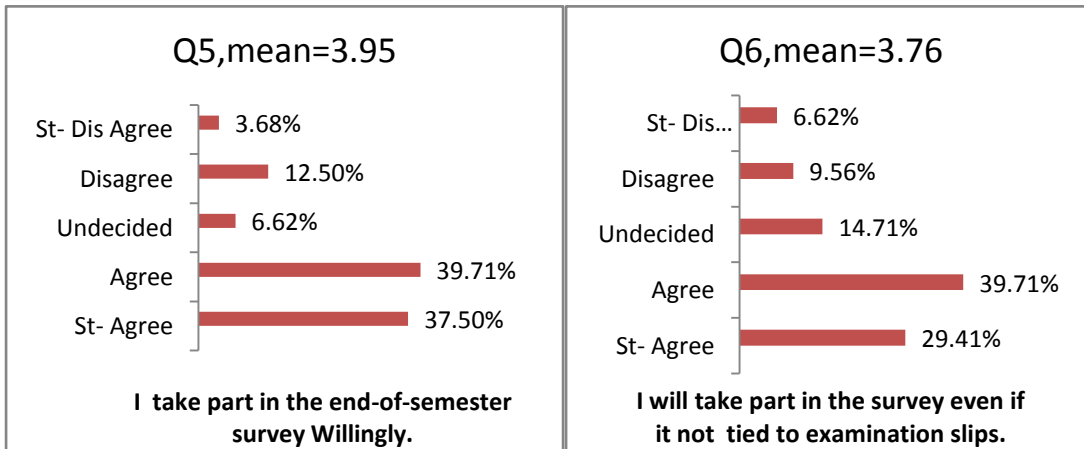
Q5,mean=3.95

St- Dis Agree	3.68%
Disagree	12.50%
Undecided	6.62%
Agree	39.71%
St- Agree	37.50%

I take part in the end-of-semester survey Willingly.

Figure5.

Q6,mean=3.76

St- Dis...	6.62%
Disagree	9.56%
Undecided	14.71%
Agree	39.71%
St- Agree	29.41%

I will take part in the survey even if it not tied to examination slips.

Figure 6.

Q8, mean=3.28

St- Dis Agree	14.71%
Disagree	20.59%
Undecided	9.56%
Agree	28.68%
St-Agree	25.74%

I think that the survey be done twice during semester.

Figure 7.

Q10,mean=3.96

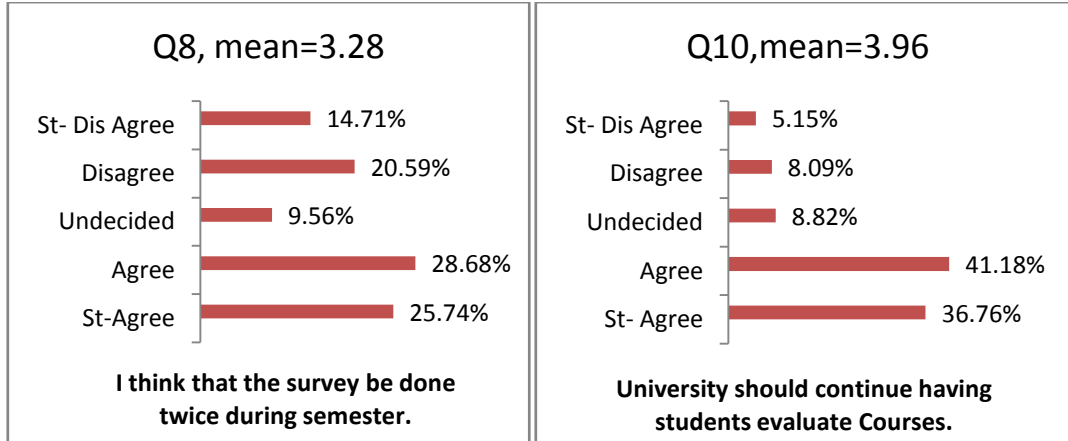|	
St- Dis Agree	5.15%
Disagree	8.09%
Undecided	8.82%
Agree	41.18%
St- Agree	36.76%

University should continue having students evaluate Courses.

Figure 8.

The main purpose of students feedback is to evaluate the teachers and course and use the results to take corrective measures. The results of students feedback is conveyed to teachers and also discussed in the university at various levels. It is natural for students to expect changes in teaching and courses as they desire as a result of their feedback but there is no formal mechanism to update students on any action taken by the department and administrators. Thus students feel that their input is wasted so they become less enthusiastic over time. The feelings of students on this point is clearly reflected by response to the following questions in our research.

In Question 7 students were asked to respond to the sentence "**From my experience, I think students take evaluation process seriously.**", and the response was negative with mean values 2.95, and 40.44% of respondents agreed or strongly agreed and 59.53% students were

undecided or disagreed, as shown in Figure-9. Majority of students were of the opinion that students do not take the end-of-semester feedback seriously. This may be due to timing of evaluation process or lack of information regarding the end results of evaluation.
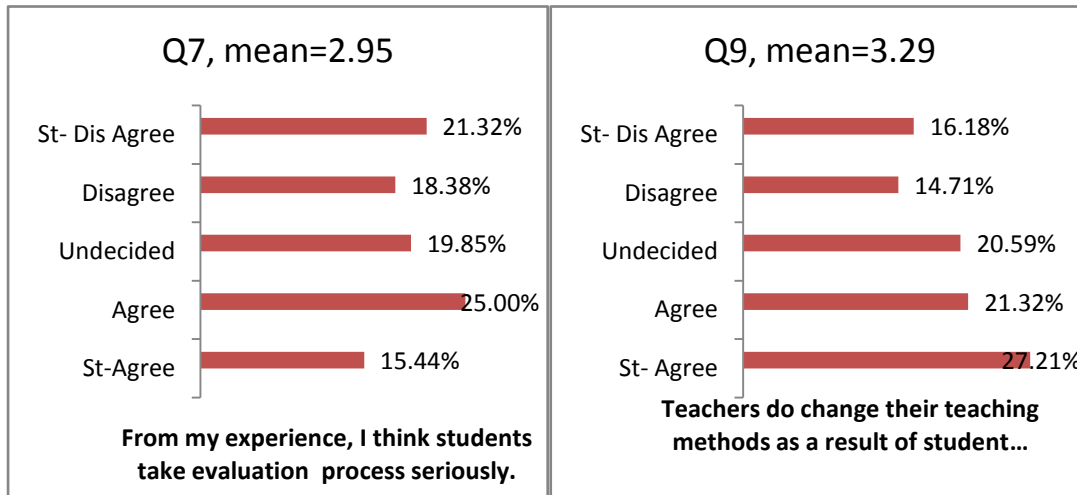
Q7, mean=2.95

St- Dis Agree	21.32%
Disagree	18.38%
Undecided	19.85%
Agree	25.00%
St-Agree	15.44%

From my experience, I think students take evaluation process seriously.

Figure9.

Q9, mean=3.29

St- Dis Agree	16.18%
Disagree	14.71%
Undecided	20.59%
Agree	21.32%
St- Agree	27.21%

Teachers do change their teaching methods as a result of student…

Fgure 10.

In response to Question 9, "**Teachers do change their teaching methods as a result of student evaluation.**", students provided a positive response with mean value 3.29, and 48.53 % respondents agreed or strongly agreed and 51.48% students remained undecided or disagreed, as shown in figure-10.

As discussed in the previous paragraph, students feedback is taken at the end of semester after courses have been covered , it is a busy time for students and this creates a pressure on students thus it may affect the quality and reliability of students feedback. To ascertain this question 17 asks for comments on the statement ""The survey is done at the end of semester and students don't have time to fill it carefully. "" The students response is positive response with mean values 3.93, and 72% of students agree as shown in Figure-11. Indicating that a large majority , 72% of students surveyed is not satisfied with the timing of student feedback therefore there is a need to look into it.
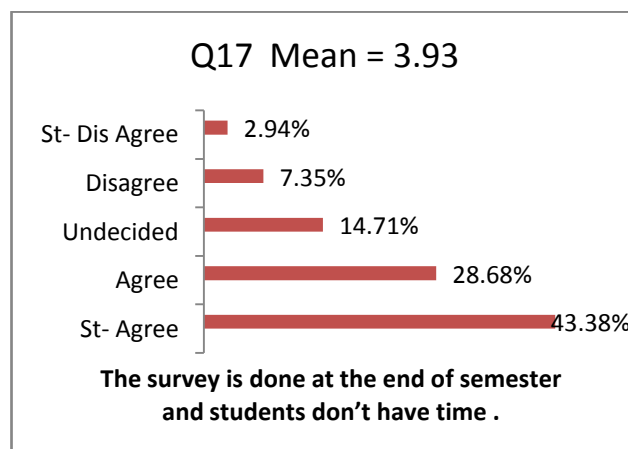
Q17 Mean = 3.93

St- Dis Agree	2.94%
Disagree	7.35%
Undecided	14.71%
Agree	28.68%
St- Agree	43.38%

The survey is done at the end of semester and students don't have time .

Figure-11

3.3. Students opinion on factors that may bias student feedback. A lot of research has been done to find how students feedback is affected negatively and a number of potential biasing factors are

reported. In part three of this study a number of questions were used to determine affect of the biasing factors of BU students. One of the myths is that students evaluation of teachers is affected by their expected grades in the course, so to test this myth in question 11 we asked students to answer the statement, "**I give feedback about teachers according to my expected grades in the course.** ". The result showed a negative response with mean value of 2.57, where 28.68% respondents agreed or strongly disagreed and 71.32% students being undecided or disagreed as shown in figure 12. This result shows that only about 29% student's feedback is influenced by their expected grades and thus this myte is rejected. Another myth is that students evaluation of teachers is affected by teacher's gender. To test this myth question 12 required students opinion on the statement, "**The gender of my teachers (male or female) affects my evaluation or feedback.**". The results showed a negative response with mean value of 2.35, and 24.98% respondents agreed or strongly agreed and 75% respondents were undecided or disagreed, as shown in figure 13.This result shows that only about 25% student's feedback is influenced by gender of teacher ,Thus this myth is also rejected.
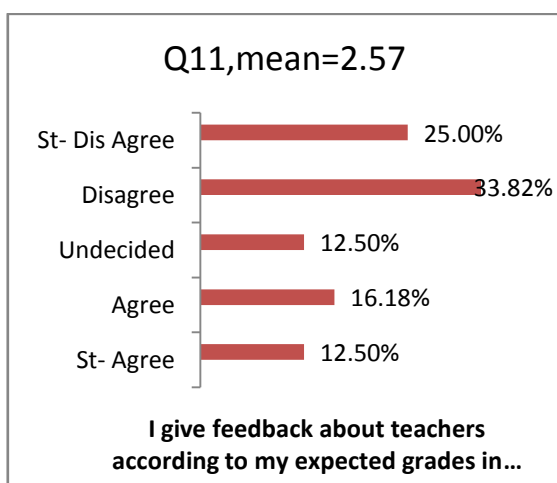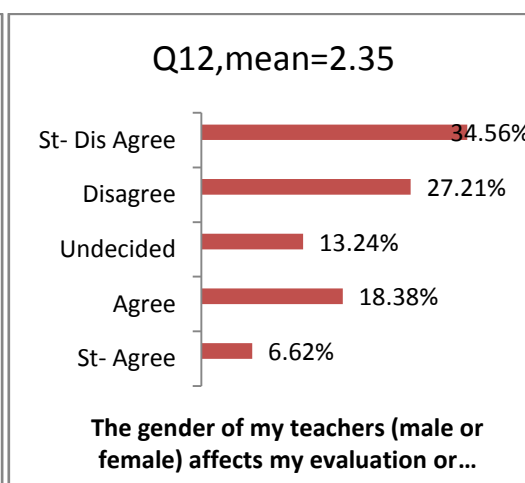

| Figure12. | Figure 13. |

Another myth that age of teacher influences students feedback is common. To test this, question 13 of our questionnaire asked students opinion of the statement "**The age of my teacher (old or young) affects my evaluation of teacher or course.**" The response was negative with mean value of 2.49, where 31.61% respondents agreed or strongly agreed and 67.65% respondents disagreedas shown in figure 14. This result shows that only about 32% student's feedback is influenced by age of teacher thus this myth is also rejected.

Yet another mythe is that qualification of teacher influences student's evaluation of teacher. So to test this myth question 14 of questionnaire asked students opinion of the statement "**The Qualification of my teacher (PhD or non-PhD affects my evaluation or feedback**". Its response was also negative with mean value of 2.67 where 34.56% respondents agreed or strongly agreed and 64.71% respondents remained undecided or disagreed, as shown in figure 15. This result shows that only about 34.56% student's feedback is influenced by qualification of the teacher and thus this myth is also rejected.

Another popular myth is that personality of a teacher influences student's evaluation of teacher, i.e. it's a popularity contest. Hence to test this myth, question 15 of the questionnaire asked students opinion on the statement, "**When evaluating my teacher, I usually pay more attention to their personality (i.e. friendliness, leniency, looks than their teaching methods or course contents.**". The response of this question was also negative with mean value of 2.49 where 27.94% respondents agreed or strongly agreed and 72% respondents remained undecided or disagreed, as shown in figure 16. This result shows that only about 28% student's feedback is influenced by the personality of teacher and as a result this myth is also rejected.
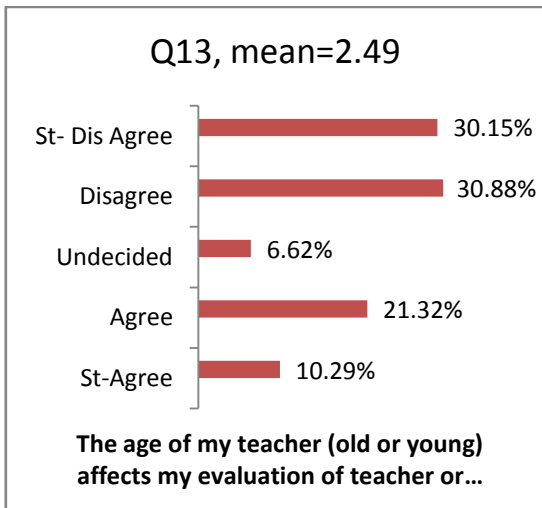
27

Q13, mean=2.49

St- Dis Agree	30.15%
Disagree	30.88%
Undecided	6.62%
Agree	21.32%
St-Agree	10.29%

The age of my teacher (old or young) affects my evaluation of teacher or…

Figure 14

Q14. Mean = 2.67

St- Dis Agree	26.47%
Disagree	23.53%
Undecided	14.71%
Agree	23.53%
St- Agree	11.03%

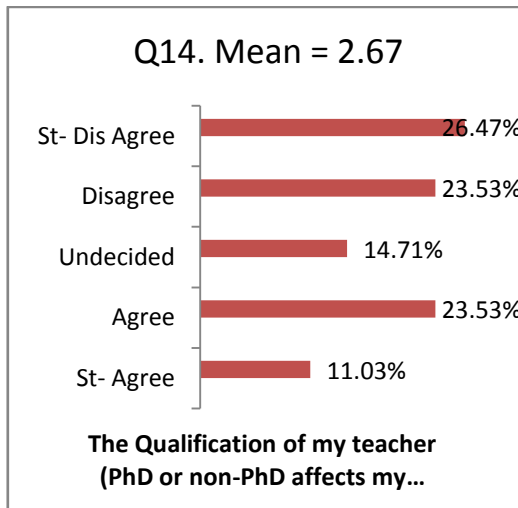**The Qualification of my teacher (PhD or non-PhD affects my…**

Figure 15

Another myth is that friendly relationship with student influence the teacher's evaluation. Thus to test this hypothesis, question 16 of questionnaire asked students to provide opinion on the statement, "**If I have a good relationship with my teacher, I will rank him/her high on teaching effectiveness even if he/she is not an effective teacher.**". The results showed a negative response with mean value of 2.46, where only 27.21% respondents agreed or strongly agreed and 72.8% respondents remained undecided or disagreed as shown in figure 17. This result shows that only about 27% student's feedback is influenced by the personality of teacher and as a result this myth is also rejected.
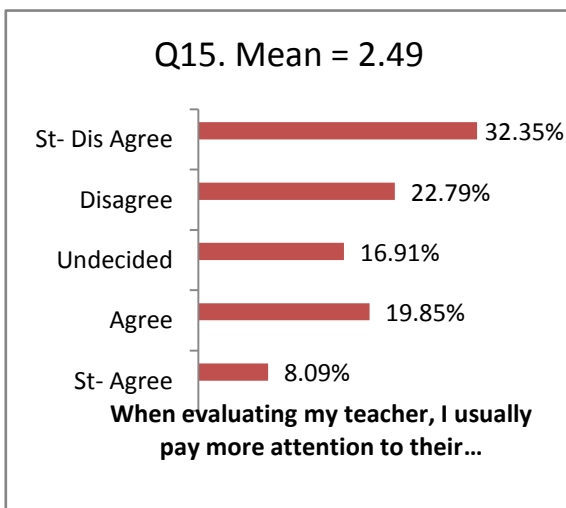
Q15. Mean = 2.49

St- Dis Agree	32.35%
Disagree	22.79%
Undecided	16.91%
Agree	19.85%
St- Agree	8.09%

When evaluating my teacher, I usually pay more attention to their…

Figure 16

Q16. Mean = 2.46

St- Dis Agree	34.56%
Disagree	23.53%
Undecided	14.71%
Agree	16.18%
St- Agree	11.03%

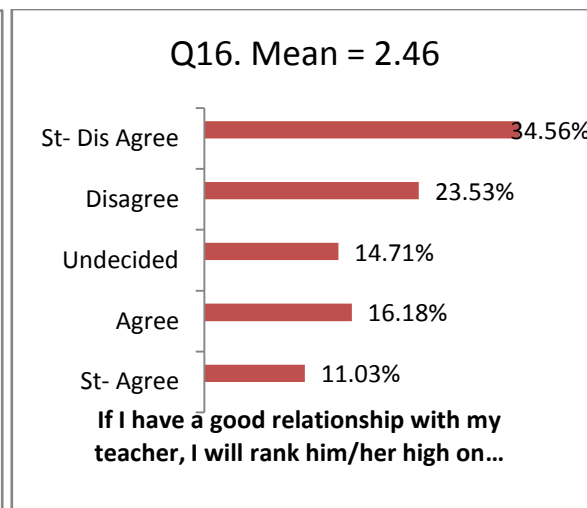**If I have a good relationship with my teacher, I will rank him/her high on…**

Figure 17

3.4 Course Evaluation. The fourth section of survey was to determine students perception about Course evaluation. These questions tried to determine characteristics of course that are liked by students.

3.4.1 **Organised course vs Expected grades.** Question 18, tried to determine whether expected grades were dominating factor as compared to course organization, Students were asked to give opinion on the statement "**If   a Course is well organized , I give high rank even if I do not expect good grade in it.**". The response to this question was positive with mean value of 4.09 where 80.88%

respondents agreed or strongly agreed and only 14.72% respondents remained undecided or disagreed, as shown in figure 18. This means students enjoy well organized courses.

3.4.2 **Less number of assignments or more assignments.** In question 19 we tried to determine whether a course with more assignment is liked by students or not. Students were asked to give opinion of statement "**If a Course does not involve lot of assignments and quizzes, I will rank it higher.**" The result showed a negative response with mean value of 2.57 where 26.47% respondents agreed or strongly agreed and 69.85% respondents remained undecided or disagreed, as show in figure 19. This means students like courses with a lot of assignment, and it points to the fact that assignment help in clarifying concepts.
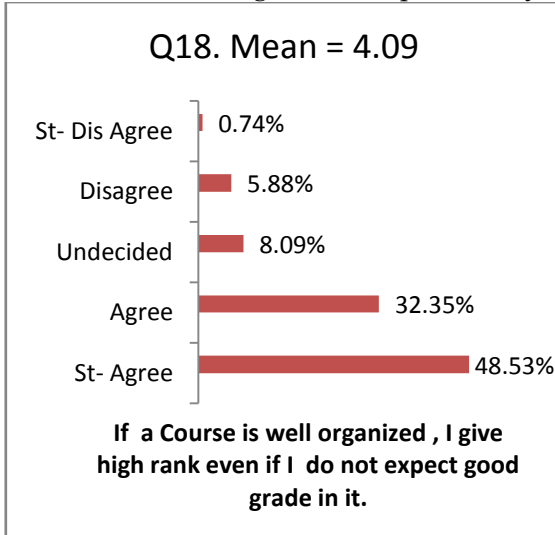
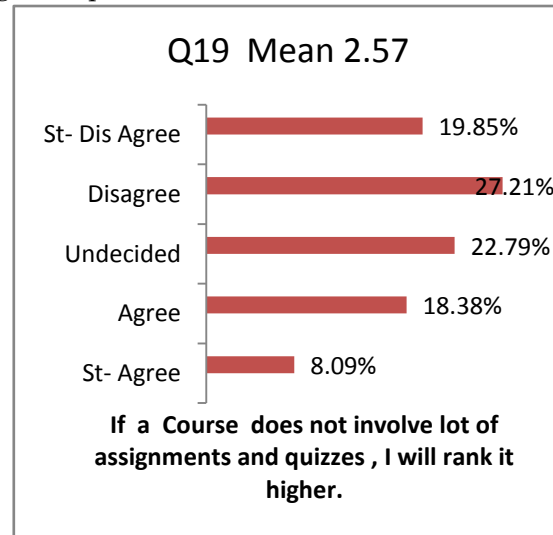| Q18. Mean = 4.09	Q19 Mean 2.57
St- Dis Agree 0.74%	St- Dis Agree 19.85%
Disagree 5.88%	Disagree 27.21%
Undecided 8.09%	Undecided 22.79%
Agree 32.35%	Agree 18.38%
St- Agree 48.53%	St- Agree 8.09%
If a Course is well organized , I give high rank even if I do not expect good grade in it.	**If a Course does not involve lot of assignments and quizzes , I will rank it higher.**
Figure-18	Figure-19

3.4.3 Difficult course with new knowledge.

In question 20 and 21 we tries ro understand whether students are after knowledge or they preffer easy course without new knowledge. In response to statement "**If a Course is difficult but gave me new knowledge, I will rank it high.**" a positive response emerged with a mean value 4.12 where 81.61% respondents agreed or strongly agreed and only 14.71% respondents remained undecided or disagreed, as shown in figure 20. Similarly in response to statement "**If a Course was not difficult but it gave me no new knowledge, I will rank it high.**" students gave a negative response with a mean value 2.34 where 20.59% respondents agreed or strongly agreed and 75.74% respondents remained undecided or disagreed, as shown in figure 21.
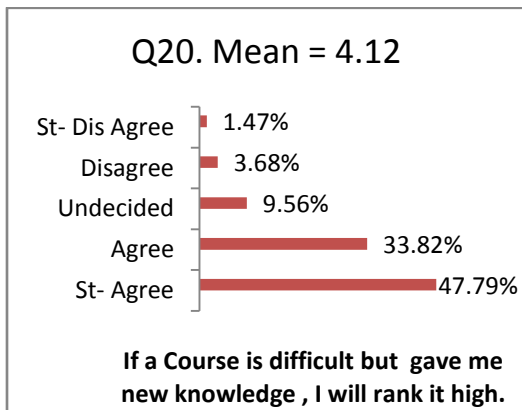
Q20. Mean = 4.12

St- Dis Agree — 1.47%
Disagree — 3.68%
Undecided — 9.56%
Agree — 33.82%
St- Agree — 47.79%

If a Course is difficult but gave me new knowledge , I will rank it high.

Figure – 20

Q21. Mean 2.34

St- Dis Agree — 25.74%
Disagree — 30.15%
Undecided — 19.85%
Agree — 14.71%
St- Agree — 5.88%

If a Course was not difficult but it gave me NO new knowledge , I…
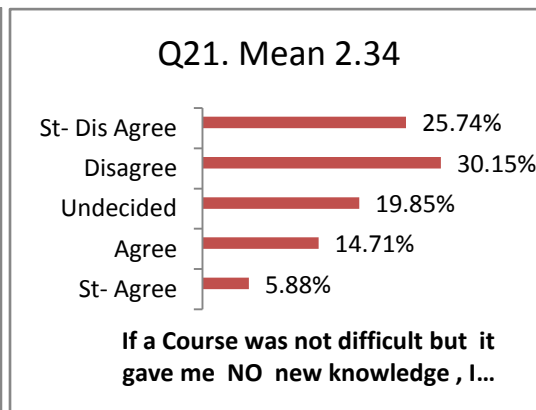
Figure-21

3.4.4 **Programming vs less programming course.** Computer programming is the main skill for computer science students so in question 22 and 23 we tried to understand whether students like a course with a lot of programming or they avoid programming. In response to statement , "**If a Course requires a lot of Computer programming, I like it and I will rank it high.**" students gave a positive response with mean value of 3.51 where 58.82% respondents agreed or strongly agreed and 37.5% respondents remained undecided or disagreed, as shown in figure 22. In response to statement, "**If a Course does not require a lot of Computer programming, I will rank it high.**", students gave a negative response with mean value of 2.71 where 30.14% respondents agreed or strongly agreed and 66.18% respondents remained undecided or disagreed, as shown in figure 23.
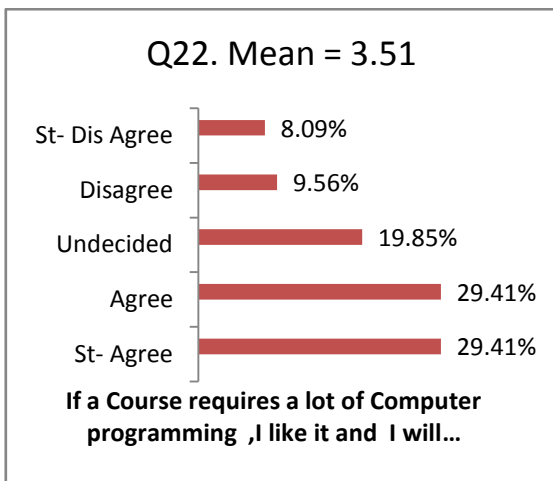
Q22. Mean = 3.51

St- Dis Agree — 8.09%
Disagree — 9.56%
Undecided — 19.85%
Agree — 29.41%
St- Agree — 29.41%

If a Course requires a lot of Computer programming ,I like it and I will…

Figure-22

Q23. Mean = 2.71

St- Dis Agree — 17.65%
Disagree — 20.59%
Undecided — 27.94%
Agree — 22.79%
St- Agree — 7.35%

If a Course does not requires a lot of Computer programming , I will rank…
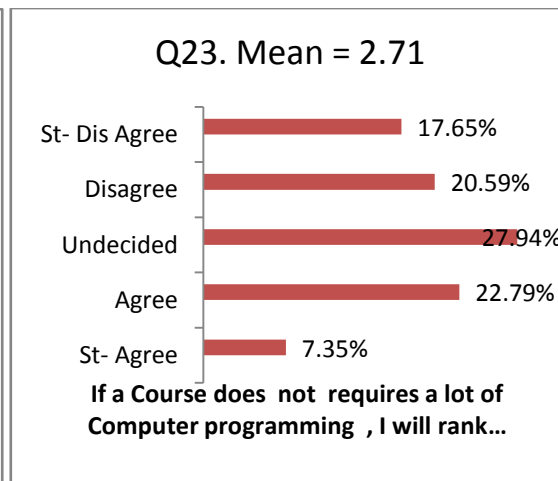
Figure-23

3.4.5 **Course imparting skills immediately useful in industry**. In question 24 we tried to determine whether students like a course with industrial application. Students were asked to give opinion on statement, "**If a Course teaches me skills that will be useful in job/ industry, I will rank it high.**" The results showed a positive response with a mean value of 4.19 where 81.62% respondents agreed or strongly agreed and 14.71% respondents remained undecided or disagreed, as shown in figure 24.
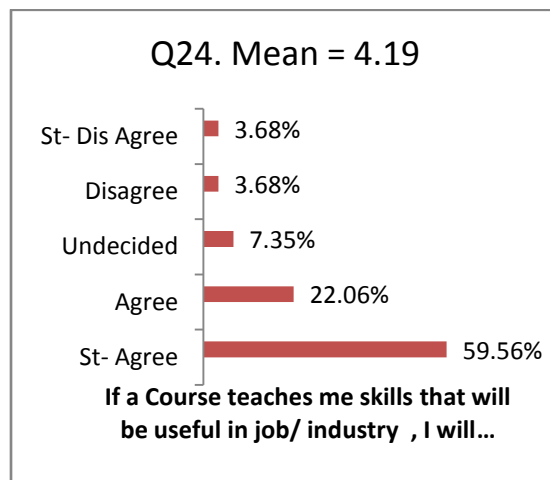
Figure 24

4. **Conclusion**. The study shows that, there are some factors that influence students opinion but on the whole their feedback is objective.The survey results show that students are highly motivated and willing to take part in end of semester surveys and majority of students have shown their satisfaction with the questionnaire . A large majority of students is not satisfied with the timing of student feedback but majority of students give unbiased opinion regarding teachers. The results clearly show that a large proportion of students think that students and teachers do not take feedback results seriously and students feel that teachers teaching methods do not improve as a result. The survey result also show that students like those courses which are well organized, give them new knowledge despite being difficult, impart skills useful in job/industry. A common myth that students avoid programming courses is also rejected and it can be said that programming courses are popular among student

REFERENCES

[1]. Higher Education Commission of Pakistan. www.hec.gov.pk [last accessed 07/07/2013]

[2]. Mehmood, Z., & Saeed, S. (2008). Teaching Quality Assurance and Project Management to Undergraduate Computing Students in Pakistan In Proceedings of 4th International Conference on Business, Management and Economics (ICBME 2008) Cesme, Turkey 5-7 June 2008.

[3]. Saeed, S., Aamir, R., & Ramzan, M. (2011). Plagiarism and its implications on higher education in developing countries. *International Journal of Teaching and Case Studies*, *3*(2), 123-130.

[4]. Saeed, S., Aamir, R., & Mahmood, Z. (2011). Reflections on teaching database management systems to undergraduate students. *International Journal of Education Economics and Development*, *2*(4), 398-411.

[5]. Mumtaz,H.; Saeed, S. & Wahab, F.(2013) "Quality of University Computing Education: Perception of Pakistani Students" in *Research Journal of Recent Science* 2(7), 24-30

[6]. J. Scott Armstrong (june1998) Are Student Rating of Instructors Useful? Published in American Psychologist, 53 (1998), 1223-1224.

[7]. Schmelkin, L. P., Spencer, K. J., & Gellman, E. S. (1997). Faculty perspectives on course and teacher evaluations. *Research in Higher Education*, *38*(5), 575-592.

[8]. Moore, S., & Kuol, N. (2005). A punitive bureaucratic tool or a valuable resource? Using student evaluations to enhance your teaching. *Emerging issues in the practice of university learning and teaching*, 141-48.

[9]. Filak, V., & Sheldon, K. (2003). "Student Psychological Need Satisfaction and College Teacher-Course Evaluations." Educational Psychology 23: 3, 235-247.

[10]. Theall, M., & Franklin, J. (1990) ed. Students rating of Instruction: Issues for Improving Practice. New Directions for Teaching and Learning no 43. San Frnciscon: Jossey-Bass

[11]. Arreola, R. A. (1994) Developing a Comprehensive facuty Evaluation Syste Boston: Anker

[12]. Theall, M., & Franklin, J. (2001). Looking for bias in all the wrong places: a search for truth or a witch hunt in student ratings of instruction?. *New directions for institutional research*, *2001*(109), 45-56.

[13]. Scriven, M. (1995), "Student ratings offer useful input to teacher evaluations", Practical Assessment, Research and Evaluation, Vol. 4 No. 7.

[14]. Aleamoni, L. (1999). "Student Rating Myths Versus Research Facts from 1924 to 1998." Journal of Personnel Evaluation in Education 13:2, 153-166.

[15]. Centra, J. A., & Creech, F. R. (1976). "The Relationship between Students, Teachers, and Course Characteristics and Student Ratings of Teacher Effectiveness" (Project Report 76-1), Princeton, NJ: Educational Testing Service.

[16]. Feldman, K. (1997). "Identifying Exemplary Teachers and Teaching: Evidence from Student Ratings." In Effective Teaching in Higher Education Research and Practice, eds. Raymond Perry and John Smart, 368-395.

[17]. Centra, J. (2003). "Will Teachers Receive Higher Student Evaluations by Giving Higher Grades and Less Course Work?" Research in Higher Education 44:5, 495-518.

[18]. Feldman, K. A. (1983), Seniority and experience of college teachers as related to evaluations they receive from their students. Research in Higher Education, 18, 3-124..

[19]. Charles R. Emery , Tracy R. Kramer and G. Tian Return to academic standards: a critique of student evaluation of teaching effectiveness. Quality Assurance in Education Volume 11 – Number 1-2003 pp. 37-46.