Anonymous Feedback (Student Survey) 2001

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Introduction

This is a report on a study that investigated student usage of an Anonymous Feedback facility within the School of Computer Science and Software Engineering.

A Web-based asynchronous discussion forum was developed by a staff member in the School of Computer Science and Software Engineering (CSSE) in 1996. This facility is known within CSSE as *Anonymous Feedback*. Since 1996 Anonymous Feedback has undergone various enhancements and refinements and the current version now provides facilities for:

- Linear and threaded asynchronous discussion
- Optional anonymity of postings
- Email notification of postings for teaching staff
- Moderation of postings by staff
- Administrative facility allowing for customisation of interface

For a full description of the facilities provided by Anonymous Feedback see ????

Anonymous Feedback is now used within CSSE in subjects at each year level in the undergraduate and graduate programs and across both campuses. In 2nd Semester 2001 approximately ??? subjects used this facility. An impressionistic view in some subjects is that a high proportion of the students use the facility. However due to the anonymity of postings, it is impossible from the data available from the facility to form an accurate picture of student use. Is it used intensively by just a few students or widely by many?

Teaching staff who have chosen to provide Anonymous Feedback for their students find that the management of this facility impacts on their time, in some cases dramatically. Added to this concerns have been raised recently by some staff about unrealistic expectations students have of staff in terms of their responsiveness to postings on the facility. Once again, however, because of the anonymity of the facility, it is not possible to determine how widely held these views are.

This study aimed to gather information about students' use of Anonymous Feedback with the aim of establishing a picture of the extent of its use. In addition the study aimed to establish students' perceptions of its usefulness as a help facility and its effectiveness as a feedback mechanism for staff. A further stage of this study will investigate the staff view of these issues. An outcome of this study will be the establishment of guidelines for staff for the effective use of this facility in its dual role as a help facility and feedback mechanism.

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Research Method

Students from six undergraduate and two graduate subjects in CSSE courses were surveyed in the last week of second semester 2001. A paper questionnaire was administered to the students in their tutorial classes or lectures. The questionnaire contained questions to determine:

- demographic information
- students' rating of the difficulty of their subject and how were coping
- students' use of the Web
- students' use of Anonymous Feedback
- students' opinions of the usability of Anonymous Feedback
- students' satisfaction with the usefulness of the facility as a source of assistance
- students' satisfaction with the effectiveness of the facility as a mechanism to provide feedback to staff

A copy of the Anonymous Feedback survey form can be found at:

http://cerg.csse.monash.edu.au/techreports/Anonymous Feedback survey

The following is a report of the results of the Anonymous Feedback surveys.

Student Profile

Demographic Profile

A total of 434 students responded to the surveys. Most students (82.9%) were studying at the Caulfield campus. All others were studying at Clayton and most of these were in the subject CSE2302. Table 3 shows the numbers of students in each subject code classified according to gender and enrolment mode.

Table 1. Subject descriptions

Subject code	Name	Year level	Course	Campus
CSE1203	Programming 2 with Java	1	Bachelor of Computing	Caulfield
CSE1434	Web Development with Java	1	Bachelor of Computing	Caulfield
CSE2201	Software Engineering Practice	2	Bachelor of Computing	Caulfield
CSE2203	IT Project management	2	Bachelor of Computing	Caulfield
CSE2302	Operating Systems	2	Bachelor of Computer Science	Clayton
CSE3420	Developing Graphical WWW Applications in Java	3	Bachelor of Computing	Caulfield
CSE5230	Data Mining	Postgraduate	Master of Information Technology	Caulfield
CSE9000	Foundations of Programming	Graduate	Graduate Diploma in Computing	Caulfield

Table 2. Subject enrolments, numbers of survey respondents, and response rates for each subject

Subject	Enrolment	Survey respondents	Response rate
CSE1203	207	87	42.0%
CSE1434	111	35	31.5%
CSE2201	138	44	31.9%
CSE2203	204	76	37.3%
CSE2302	220	69	31.3%
CSE3420	117	39	33.3%
CSE5230	19	8	42.1%
CSE9000	138	78	56.5%
Total	1154	436	37.8%

Table 3. Numbers and percentages of survey respondents in each subject group by gender and enrolment mode

Subject	Gen	der	Enrolment mode	
Subject	Female	Male	Full time	Part time
CSE1203	32	54	77	7
	(37.2%)	(62.8%)	(91.7%)	(8.3%)
CSE1434	9	26	35	0
	(25.7%)	(74.3%)	(100%)	(0%)
CSE2201	13	31	41	1
	(29.5%)	(70.5%)	(97.6%)	(2.4%)
CSE2203	38	38	72	2
	(50.0%)	(50.0%)	(97.3%)	(2.7%)
CSE2302	18	51	67	0
	(26.1%)	(73.9%)	(100%)	(0%)
CSE3420	10	29	31	7
	(25.6%)	(74.4%)	(81.6%)	(18.4%)
CSE5230	3	5	8	0
	(37.5%)	(62.5%)	(100%)	(0%)
CSE9000	27	50	55	19
	(35.1%)	(64.9%)	(74.3%)	(25.7%)
Total	150	284	386	36
	(34.4%)	(65.1%)	(88.5%)	(11.5%)

Students' views of subject difficulty and workload (Questions 7 and 8)

Table 4. Students' ratings of difficulty of subject (1 indicates very difficult and 7 indicates very easy)

Subject	Mean	SD
CSE1203	3.44	1.55
CSE1434	4.31	1.30
CSE2201	3.75	1.40
CSE2203	4.09	1.34
CSE2302	2.74	1.28
CSE3420	2.56	1.50
CSE5230	3.63	1.51
CSE9000	3.09	1.92
Overall	3.41	1.60

A one way analysis of variance revealed a significance difference in difficulty ratings between subject groups F(7, 428) = 8.50, p < 0.05.

For the purpose of further analysis the students were divided into two groups, those who found the subject difficult (ratings 1-3) and those who did not find the subject difficult (ratings 4-7).

Table 5. Students' ratings of how they are coping with their subject (1 indicates not coping and 7 indicates coping well)

Subject	Mean	SD
CSE1203	4.48	1.33
CSE1434	4.76	1.18
CSE2201	4.43	1.25
CSE2203	4.92	1.14
CSE2302	3.83	1.38
CSE3420	3.67	1.69
CSE5230	4.25	1.67
CSE9000	4.01	1.78
Overall	4.31	1.47

A one way analysis of variance revealed a significance difference between subject groups in how students were coping with their subject F(7, 427) = 5.50, p < 0.05.

For the purpose of further analysis the students were divided into two groups, those who were coping with the subject (ratings 1-3) and those who were not (ratings 4-7).

A Pearson's correlation coefficient was used to determine the relationship between the students' ratings of how easy they were finding their subject and how well they were coping. A significant relationship was shown (r(435) = 0.62, p < 0.05).

Students' use of the Internet (Questions 9 and 10)

Table 6. Students' ratings of how much they used the Internet (1 indicates no use and 7 indicates heavy use)

Subject	Mean	SD
CSE1203	5.75	1.04
CSE1434	5.97	1.18
CSE2201	5.81	1.37
CSE2203	5.82	1.30
CSE2302	5.62	1.48
CSE3420	5.89	1.33
CSE5230	6.63	0.74
CSE9000	5.62	1.23
Overall	5.77	1.27

An Independent groups t-test was used to determine any differences in the means obtained for the male and female students' usage of the Internet. The female students indicated significantly more usage of the Internet (M = 5.96, sd = 1.11) than the male students (M = 5.68, sd = 1.38; t(424) = 2.22, p < 0.05).

Independent groups *t*-tests also showed that usage of the Internet was significantly greater for students who were not finding their subject difficult (t(346) = -2.80, p < 0.05).and students who felt they were coping (t(310) = -4.14, p < 0.05).

Table 7. Students' ratings of how much they used the Internet for communication (1 indicates no use and 7 indicates heavy use)

Subject	Mean	SD
CSE1203	5.64	1.35
CSE1434	5.44	1.78
CSE2201	5.77	1.36
CSE2203	5.77	1.34
CSE2302	5.24	1.69
CSE3420	5.49	1.45
CSE5230	6.13	0.99
CSE9000	5.18	1.76
Overall	5.51	1.54

An Independent groups *t*-test was used to determine any differences in the means obtained for the male and female students' usage of the Internet for communication. The female students indicated significantly more usage of the Internet for communication (M = 5.92, sd = 1.21) than the male students (M = 5.31, sd = 1.64; t(420) = 3.96, p < 0.05).

An Independent groups *t*-test also showed that usage of the Internet for communication was significantly greater for students who felt they were coping.

Students' access of subject Web page (Question 11)

Table 8. Students' ratings of how frequently they had accessed their subject Web page

Subject	Never %	Monthly %	Weekly %	Twice weekly %	At least daily %
CSE1203		1.2	39.5	46.5	12.8
CSE1434		2.9	45.7	28.6	22.9
CSE2201		11.4	38.6	40.9	9.1
CSE2203	1.3	9.2	32.9	40.8	15.8
CSE2302		5.8	31.9	39.1	23.2
CSE3420		2.6	17.9	48.7	30.8
CSE5230			25.0	75.0	
CSE9000		2.6	46.2	33.3	17.9
Overall	0.2	4.8	36.6	40.7	17.7

A Chi square test revealed a significant difference between subjects for frequency of access of subject Web page $(X^2 (28, N = 435) = 39.83, p < 0.05)$.

A Chi square test was used to determine any difference in access based on gender. The female students indicated significantly greater access of subject Web pages than the male students $(X^2 (4, N = 433) = 9.75, p < 0.05)$.

Students' use of Anonymous Feedback facility (Questions 12 to 17, 19 to 21)

Table 9. Students' ratings of how frequently they had accessed the Anonymous Feedback facility

Subject	Never %	Monthly %	Weekly %	Twice weekly %	At least daily %
CSE1203	11.8	29.4	38.8	12.9	7.1
CSE1434	14.3	31.4	28.6	17.1	8.6
CSE2201	18.2	25.0	29.5	25.0	2.3
CSE2203	18.4	19.7	34.2	23.7	3.9
CSE2302	37.7	17.4	20.3	14.5	10.1
CSE3420	10.3	17.9	20.5	33.3	17.9
CSE5230	12.5	12.5	37.5	37.5	0
CSE9000	31.6	18.4	23.7	18.4	7.9
Overall	21.3	22.2	28.9	19.9	7.6

A Chi square test revealed a significant difference between subjects for frequency of access of the Anonymous Feedback facility (X^2 (28, N = 432) = 51.66, p < 0.05).

Table 10. Students' ratings of ease of reading Anonymous Feedback postings (1 indicates very difficult and 7 indicates very easy)

Subject	Mean	SD
CSE1203	5.09	1.47
CSE1434	4.80	1.35
CSE2201	5.60	1.22
CSE2203	5.48	1.48
CSE2302	4.53	1.74
CSE3420	4.74	1.69
CSE5230	5.86	0.90
CSE9000	5.16	1.79
Overall	5.11	1.56

A one way analysis of variance revealed a significance difference between subject groups in the students ratings of the ease of reading postings F(7, 320) = 2.47, p < 0.05. A post hoc analysis showed that CSE5230 was responsible for this significant difference. This is explainable when it is considered that this subject had the fewest number of students and consequently the least number of postings to search.

An Independent groups t-test was used to determine any differences in the means obtained for the ease of reading Anonymous Feedback postings based on how difficulty they found their subject. This showed that students who did not find their subject difficult felt it was significantly easier to read the Anonymous feedback postings (M = 5.48, sd = 1.46) than students who found their subject difficult (M = 4.97, sd = 1.61; t(266) = -2.53, p < 0.05).

Table 11. Students' ratings of ease of making an Anonymous Feedback posting (1 indicates very difficult and 7 indicates very easy)

Subject	Mean	SD
CSE1203	5.65	1.41
CSE1434	5.56	1.12
CSE2201	5.64	1.34
CSE2203	5.88	1.16
CSE2302	5.56	1.26
CSE3420	5.73	1.48
CSE5230	6.00	1.00
CSE9000	5.55	1.32
Overall	5.67	1.29

An Independent groups t-test was used to determine any differences in the means obtained for the ease of making an Anonymous Feedback posting based on how difficulty they found their subject. This showed that students who did not find their subject difficult indicated it was significantly easier to make Anonymous feedback postings (M = 5.94, sd = 1.19) than students who found their subject difficult (M = 5.52, sd = 1.35; t(266) = -2.35, p < 0.05).

A Pearson's correlation coefficient was used to determine the relationship between the students' ratings of the ease of reading and ease of making an Anonymous Feedback posting. A significant relationship was shown (r(290) = 0.54, p < 0.05).

Table 12. Main reason for students' last access of Anonymous Feedback

Subject	Browsing %	Read postings %	Make a posting %	Check response %	Other %
CSE1203	26.4	47.2	7.0	19.4	_
CSE1434	37.9	34.5	6.8	20.7	
CSE2201	18.2	39.4	3.0	39.4	
CSE2203	28.3	48.3	3.4	20.0	
CSE2302	12.2	61.0	7.3	19.5	
CSE3420	17.6	58.8		20.6	2.9
CSE5230	14.3	57.1		28.6	
CSE9000	12.3	56.1	7.0	24.6	
Overall	21.6	50.1	5.1	22.8	0.3

The main reason for accessing Anonymous Feedback for most subjects was to read postings. An interesting trend can be observed across year levels where more students in the lower levels of the course than the higher levels indicated browsing as the main reason for accessing the facility.

Table 13. Percentages of Anonymous Feedback users who made at least one posting

Mean
61.3
63.3
75.0
66.1
62.8
74.3
71.4
73.1
67.1

Of the students who posted to Anonymous Feedback, 40% made only one or two postings for the whole semester and 80% made six or less postings. In a couple of extreme cases students claimed to have posted more than ten postings to seek assignment help, seek help with other aspects of their work and to respond to postings. The most frequent type of posting was for seeking help with assignment work as shown in table **Table 14**.

Table 14. Percentages of each types of Anonymous Feedback postings for all users*

Subject	Subject admin question %	Seeking assignment help %	Seeking other help %	Comment on subject %	Responding to posting %	Other %
CSE1203	17.3	40.0	22.7	14.7	10.7	4.0
CSE1434	30.0	43.3	26.7	30.0	26.7	10.0
CSE2201	8.3	69.4	13.9	5.6	11.1	0
CSE2203	25.8	51.6	21.0	17.7	8.1	12.9
CSE2302	30.2	51.2	16.3	25.6	27.9	4.7
CSE3420	22.9	60.0	25.7	11.4	20.0	8.6
CSE9000	21.2	55.8	9.6	25.0	21.2	9.6
Overall	22.6	50.1	18.9	18.0	16.6	7.7

Note that CSE5230 has not been included in this table, as there were too few postings for this subject to give interpretable results.

Table 15. Students' ratings of satisfaction with responses given to Anonymous Feedback posting (1 indicates not satisfied and 7 indicates satisfied)

Subject	Mean	SD
CSE1203	5.46	1.11
CSE1434	4.24	1.14
CSE2201	4.64	1.03
CSE2203	4.46	1.53
CSE2302	3.48	1.81
CSE3420	4.20	1.58
CSE5230	6.40	0.89
CSE9000	4.63	1.97
Overall	4.60	1.59

A one way analysis of variance revealed a significance difference between subject groups in Anonymous Feedback response satisfaction F(7, 218) = 5.80, p < 0.05.

An Independent groups t-test was used to determine any differences in the means obtained for the satisfaction of response to an Anonymous Feedback posting based on how difficulty they found their subject. This showed that students who did not find their subject difficult were more satisfied with the responses to their the Anonymous feedback postings (M = 4.98, sd = 1.36) than students who found their subject difficult (M = 4.40, sd = 1.76; t(182) = -2.28, p < 0.05).

Table 16. Students' ratings of satisfaction with time taken to respond to Anonymous Feedback posting (1 indicates not satisfied and 7 indicates satisfied)

Subject	Mean	SD
CSE1203	5.52	1.28
CSE1434	3.90	1.22
CSE2201	4.63	1.04
CSE2203	4.77	1.31
CSE2302	5.32	1.46
CSE3420	4.24	1.64
CSE5230	5.60	1.14
CSE9000	4.71	1.77
Overall	4.83	1.47

A one way analysis of variance revealed a significance difference between subject groups in Anonymous Feedback response time satisfaction F(7, 211) = 4.27, p < 0.05.

Independent groups *t*-tests were used to determine any differences in the means obtained for the male and female students' satisfaction with the response time to a question posted. The female students indicated significantly more satisfaction with response time (M = 5.13, sd = 1.42) than the male students (M = 4.71, sd = 1.45; t(215) = 1.98, p < 0.05).

Table 17. Students' ratings of a reasonable time to wait for a response to a posting

Subject	Instantly %	Within an hour %	Within ½ a day %	Within 1 day %	Within 2 days %	Don't know %
CSE1203	1.4	9.6	27.4	47.6	11.0	2.7
CSE1434	0	6.3	25.0	43.8	12.5	12.5
CSE2201	7.3	12.2	29.3	41.5	4.9	4.9
CSE2203	4.2	13.9	29.2	38.9	4.2	9.7
CSE2302	1.5	10.8	27.7	52.3	4.6	3.1
CSE3420	0	15.8	36.8	31.6	5.3	10.5
CSE5230	0	0	37.5	37.5	25.0	0
CSE9000	8.2	15.1	17.8	26.0	23.3	9.6
Overall	3.5	11.9	27.1	40.3	10.2	7.0

A Chi square test revealed a significant difference between subjects for students' opinions of a reasonable time to wait for a response $(X^2(35, N = 402) = 55.09, p < 0.05)$.

A Chi square test was used to determine any difference in opinions of reasonable response times based on gender. Significantly longer response times were considered reasonable by the male students compared with the female students (X^2 (5, N = 400) = 11.51, p < 0.05). This is an interesting result considering the males were also less happy with the response times to their postings.

Students' valuation of other sources of help (Questions 22 to 26)

Table 18. Students' ratings of usefulness of assistance from the following sources (1 indicates not useful and 7 indicates useful)

Subject	Help	desk	Tut	or	Lect	urer	Oth stud		Other	people
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
CSE1203	4.41	1.74	4.81	1.83	4.47	1.83	5.47	1.46	3.51	2.09
CSE1434	3.26	1.94	4.04	1.94	3.74	1.85	5.38	1.59	3.57	1.90
CSE2201	4.43	1.52	5.08	2.01	4.00	1.82	5.44	1.43	2.88	1.91
CSE2203	3.41	1.92	4.26	1.87	4.23	1.62	5.34	1.41	3.33	1.85
CSE2302	2.68	1.80	4.45	1.93	3.56	1.99	5.18	1.57	2.82	1.88
CSE3420	4.72	2.17	4.67	2.30	3.63	2.02	5.74	1.50	3.00	1.86
CSE5230	2.00	0	5.67	1.53	5.63	1.06	4.43	1.72	3.33	2.08
CSE9000	4.44	1.97	4.44	2.23	4.14	1.84	5.06	1.64	4.42	2.09
Overall	4.00	1.96	4.56	2.00	4.10	1.85	5.33	1.52	3.46	2.02

One way analysis of variance tests revealed significance differences in usefulness of assistance between subject groups for the following:

- Help desk F(7, 278) = 5.48, p < 0.05
- Lecture F(7, 284) = 2.14, p < 0.05
- Other people F(7, 264) = 2.99, p < 0.05

Independent groups *t*-tests were used to determine any differences in the means obtained for the male and female students' ratings of usefulness of each resource. The following significant results were found:

- The female students indicated that they found lecturer significantly more useful (M = 4.42, sd = 1.70) than the male students (M = 3.92, sd = 1.91; t(289) = 2.24, p < 0.05).
- The female students indicated that they found other students assistance significantly more useful (M = 5.55, sd = 1.39) than the male students (M = 5.21, sd = 1.57; t(383) = 2.12, p < 0.05).

Independent groups t-tests were used to determine any differences in the means obtained for the usefulness of each resource based on how difficult they found the subject and how well they were coping. The following significant results were found:

- Students who did not find their subject difficult indicated assistance from their lecturer was more useful (M = 4.64, sd = 1.68) than students who found their subject difficult (M = 3.93, sd = 1.93; t(238) = -2.74, p < 0.05).
- Students who were coping with their subject indicated that they found their tutor significantly more useful (M = 4.79, sd = 1.95) than the students who were not coping (M = 4.14, sd = 2.29; t(254) = -2.38, p < 0.05).
- Students who were coping with their subject indicated that they found their assistance from other students significantly more useful (M = 5.51, sd = 1.49) than the students who were not coping (M = 5.08, sd = 1.73; t(275) = -2.26, p < 0.05).

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Students' satisfaction with Anonymous Feedback facility (Questions 27 to 29)

Table 19. Students' rating of usefulness of assistance from Anonymous Feedback (1 indicates not useful and 7 indicates very useful)

Subject	Mean	SD
CSE1203	4.54	1.51
CSE1434	4.22	1.45
CSE2201	4.61	1.35
CSE2203	4.60	1.65
CSE2302	3.79	1.85
CSE3420	5.40	1.19
CSE5230	4.86	1.46
CSE9000	4.57	1.65
Overall	4.53	1.60

A one way analysis of variance revealed a significance difference between subject groups in usefulness of Anonymous Feedback for assistance F(7, 346) = 3.29, p < 0.05.

An Independent groups t-test was used to determine any differences in the means obtained for the students' ratings of the usefulness of Anonymous Feedback for assistance. This showed that students who did not find their subject difficult found Anonymous Feedback more useful (M = 4.99, sd = 1.37) than students who found their subject difficult (M = 4.32, sd = 1.70; t(285) = -3.55, p < 0.05).

The relationship of Anonymous Feedback usage and usability on the students' rating of the usefulness of Anonymous Feedback for assistance was investigated using regression. Regression is a technique that estimates the linear relationship between a dependent variable and one or more independent variables. Of the eight variables regressed, only the ease of reading an Anonymous Feedback postings and the response satisfaction produced significant impacts (R^2 of 0.39 significant at F = 14.83 (8, 189), p < 0.05).

Table 20. Students' rating of effectiveness of Anonymous Feedback for giving feedback to staff (1 indicates not useful and 7 indicates very useful)

Subject	Mean	SD
CSE1203	4.46	1.49
CSE1434	4.13	1.39
CSE2201	4.61	1.36
CSE2203	4.28	1.37
CSE2302	4.17	1.50
CSE3420	4.71	1.18
CSE5230	5.17	1.17
CSE9000	4.64	1.59
Overall	4.45	1.43

An Independent groups *t*-test showed that students who were not finding their subject difficult felt that Anonymous feedback was significantly more effective for giving feedback to staff (M = 4.83, sd = 1.33) than students who found their subject difficult (M = 4.19, sd = 1.48; t(239) = --3.26, p < 0.05).

An Independent groups t-test showed that students who were coping felt that Anonymous feedback was effective for giving feedback to staff (M = 4.64, sd = 1.38 than students who felt they were not coping (M = 4.03, sd = 1.59; t(207) = -2.87, p < 0.05).

The relationship of Anonymous Feedback usage and usability on the students' rating of the effectiveness Anonymous Feedback for giving feedback to staff was investigated using regression. Of the eight variables regressed, the use of the Internet for communication and the response satisfaction produced significant impact (R^2 of 0.30 significant at F = 9.21 (8, 171), p < 0.05).

Table 21. Students' ratings of whether they would recommend Anonymous Feedback to other students (1 indicates not likely and 7 indicates very likely)

Subject	Mean	SD
CSE1203	4.81	1.85
CSE1434	4.63	1.72
CSE2201	5.08	1.67
CSE2203	4.77	1.54
CSE2302	4.12	2.01
CSE3420	5.24	1.60
CSE5230	6.29	0.95
CSE9000	4.92	1.76
Overall	4.80	1.77

A one way analysis of variance revealed a significance difference between subject groups in whether students would recommend Anonymous Feedback to others F(7, 345) = 2.59, p < 0.05.

An Independent groups *t*-test showed that students who were not finding their subject difficult were significantly more inclined to recommend Anonymous Feedback to other students useful (M = 5.26, sd = 1.53) than students who found their subject difficult (M = 4.65, sd = 1.85; t(311) = -3.05, p < 0.05).

An Independent groups *t*-test showed that students who were coping were significantly more inclined to recommend Anonymous Feedback to other (M = 4.45, sd = 2.08 than students who felt they were not coping (M = 4.98, sd = 1.67; t(279) = -2.20, p < 0.05).

The relationship of Anonymous Feedback usage and usability on the students' rating of whether they would recommend Anonymous Feedback to other students was investigated using regression. Of the eight variables regressed, the ease of making an Anonymous Feedback postings and the response satisfaction produced significant impact (R^2 of 0.33 significant at F = 11.78 (8, 190), p < 0.05).