

Appendix 6C: Results and brief analysis of chemistry survey for the University of Sydney

QUESTION 1: Gender

COURSE	FEMALE n	FEMALE %	MALE n	MALE %
1101	195	58	139	42
1901	39	55	32	45
1001	74	70	32	30
1405	48	77	14	23
1908	106	63	61	37

More females, especially in 1405 and 1001. How does this compare with the enrollment data?

QUESTION 2: Full/Part time

COURSE	FTIME n	FTIME %	PTIME n	PTIME %
1101	327	98	5	2
1901	70	99	1	1
1001	99	94	6	6
1405	62	100	0	0
1908	163	98	4	2

QUESTION 3: Age range

COURSE	17-20 n	17-20 %	21-24 n	21-24 %	> 24 n	> 24 %
1101	297	90	27	8	7	2
1901	69	97	2	3	0	0
1001	86	82	8	8	11	10
1405	48	77	10	16	4	6
1908	155	93	9	5	3	2

QUESTION 4: International/Local student – significant numbers of International students

COURSE	INT n	INT %	LOCAL n	LOCAL %
1101	44	13	290	87
1901	2	3	69	97
1001	8	8	98	92
1405	15	24	47	76
1908	19	11	148	89

QUESTION 5: English first/second language

COURSE	FIRST n	FIRST %	SECOND n	SECOND %
1101	221	66	112	34
1901	53	75	18	25
1001	74	70	31	30
1405	45	73	17	27
1908	86	52	79	48

Very high proportion of Eng second - almost half in 1908. See if this correlates with chemical usage rate.

QUESTION 7A Completed HSC Chemistry

COURSE	HSC n	HSC %	NO HSC n	NO HSC %
1101	290	87	42	13
1901	70	100	0	0
1001	54	51	51	49
1405	51	84	10	16
1908	152	92	14	8

Expect 1001 to have a high rate of no HSC chem. Even so, there seem to be more than expected in 1101.

QUESTION 7A: Use of chemical

Course	none n	none %	1 - 5 n	1 - 5 %	6 - 10 n	6 - 10 %	> 10 n	> 10 %
1101	94	28	157	47	52	16	30	9
1901	50	70	17	24	3	4	1	1
1001	23	23	53	52	13	13	13	13
1405	36	58	20	32	6	10	0	0
1908	91	55	54	33	6	4	14	8

The lower usage by 1901 probably reflects the stronger background of this class. Also, the comments section indicates considerable satisfaction with the lecture notes already available.

However the low usage by classes such as 1405 may reflect less publicity given by lecturers - see next question where 50% of 1405 claim not to know about it. Usage by 1001 is the highest but 1101 is close behind.

QUESTION 8A: Reasons for not using chemical

Course	C=less n	C=less %	Study issues n	Study issues %	Prefer tradit. n	Prefer tradit. %	Tech. probs.n	Tech. probs %
1101	29	35	30	36	17	20	7	8
1901	16	34	16	34	10	21	5	11

1001	2	8	13	54	2	8	7	9
1405	16	50	7	22	5	16	4	13
1908	24	29	29	35	21	25	9	11

Clueless is almost entirely made up of students who claim not to have heard of chemical. It seems that constant publicity such as in 1001 and 1101 is needed to bring chemical to students attention. The very small number of clueless in 1001 reflects the strong publicity given in that class - only 2 students claim to not have heard of it. Technical problems stopping some students who want to use it from accessing chemical are a worry.

QUESTION 8B - Thoughts on chemical

8B - 1: Advantage over text books

course	SD n	SD %	D n	D %	U n	U %	A n	A %	SA n	SA %
1101	1	<1	12	5	53	23	119	52	43	19
1901	0	0	3	15	10	50	6	30	1	5
1001	0	0	4	6	15	21	39	55	13	18
1405	0	0	1	4	9	33	15	56	2	7
1908	1	1	0	0	13	19	40	60	13	19

Most seem to think the approach used is an advantage over text books. 1001 and 1101 have amazingly very similar views on this item. 1901 are less convinced - a sign of greater maturity in studying chem and/or greater confidence in finding out from texts.

8B - 2: Can go back over missed information

course	SD n	SD %	D n	D %	U n	U %	A n	A %	SA n	SA %
1101	0	0	5	2	40	18	129	57	53	23
1901	0	0	2	10	4	20	13	65	1	5
1001	0	0	3	4	10	14	37	52	21	30
1405	0	0	0	0	6	22	17	63	4	15
1908	0	0	0	0	18	27	34	51	16	24

The agreement that one can go back over missed information is strong but with less conviction in 1901 again. However, it is hard to see how one could not agree with this proposition.

8B - 3: Can manipulate material

course	SD n	SD %	D n	D %	U n	U %	A n	A %	SA n	SA %
1101	0	0	17	7	85	37	97	43	25	11
1901	0	0	2	10	9	45	8	40	1	5
1001	0	0	2	3	28	39	31	34	9	13
1405	0	0	1	4	9	33	15	56	2	7
1908	0	0	0	0	13	48	12	44	2	7

There seems to be some ambivalence about this in the 1901 and 1908 classes. This might reflect higher

ability among those students who can use other sources such as texts with equal effect where as less able students prefer the work to be done for them as via chemical.

8B - 4: Ability to rotate 3-D images

course	SD n	SD %	D n	D %	U n	U %	A n	A %	SA n	SA %
1101	0	0	7	3	57	25	117	51	45	20
1901	0	0	1	5	4	20	13	65	2	10
1001	0	0	6	8	14	20	34	48	16	23
1405	0	0	1	4	10	37	11	41	5	19
1908	0	0	2	3	11	16	34	51	20	30

There seems to be strong support for this proposition which relates to only one or two modules.

8B - 5: Provides useful feedback

course	SD n	SD %	D n	D %	U n	U %	A n	A %	SA n	SA %
1101	2	1	12	5	57	25	124	54	30	13
1901	1	5	2	10	5	25	12	60	0	0
1001	2	3	6	8	7	10	43	61	13	18
1405	0	0	1	4	8	30	14	52	4	15
1908	0	0	1	1	19	28	43	64	5	7

Generally strong support for this proposition.

8B - 6: Individual feedback has improved learning

course	SD n	SD %	D n	D %	U n	U %	A n	A %	SA n	SA %
1101	3	1	17	7	73	32	98	43	32	14
1901	1	5	5	25	7	35	6	30	1	5
1001	2	3	8	11	21	30	27	38	12	17
1405	0	0	2	7	11	41	13	48	1	4
1908	0	0	2	3	29	43	31	46	5	7

The 1901 class seems to be the least convinced of the value of chemical in terms of feedback improving learning, but again this may reflect the strength they already have in the subject. The 1001 class are the next least convinced that the feedback has helped their learning and here it could be for the opposite reason - some students were still having problems even after completing a module.

QUESTION 9A: Use chemical off campus

COURSE	Use off campus n	Use off campus %	Not use off campus n	Not use off campus %
1101	185	82	40	18

1901	15	75	5	25
1001	57	83	12	17
1405	22	81	5	19
1908	61	90	7	10

Despite our expectation that most students are using chemical off campus, about 20% are not. This equates well with the surveys I have seen that indicate about 80% of homes have the internet connected. This really does put 20% of students at a disadvantage and is another reason why chemical should be issued on a CD.

QUESTION 9B - Thoughts on using chemical off campus

9B - 1: Often experience technical problems

course	SD n	SD %	D n	D %	U n	U %	A n	A %	SA n	SA %
1101	21	11	93	50	32	17	31	17	10	5
1901	3	19	5	31	4	25	3	19	1	6
1001	5	9	31	54	3	5	14	25	4	7
1405	3	13	11	46	3	13	6	25	1	4
1908	8	13	24	39	14	23	12	19	4	6

The high proportion of A and SA is cause for concern and supports the contention that chemical would be better delivered via a CD.

9B - 2: So slow I lose interest

course	SD n	SD %	D n	D %	U n	U %	A n	A %	SA n	SA %
1101	15	8	80	43	42	22	37	20	12	6
1901	1	6	5	31	7	44	2	13	1	6
1001	4	7	28	49	11	19	11	19	3	5
1405	2	8	10	42	4	17	6	25	2	8
1908	8	13	15	24	26	42	10	16	2	3

Further support for CD.

LINKAGES.

1. Gender with usage.

(a) Female usage

Course	none n	none %	1 - 5 n	1 - 5 %	6 - 10 n	6 - 10 %	> 10 n	> 10 %
1101	48	25	107	55	22	11	17	9
1901	23	59	14	36	1	3	1	3
1001	13	19	39	56	8	11	10	14

1405	25	52	17	35	6	13	0	0
1908	56	54	34	33	4	4	10	10

(b) Male usage

Course	none n	none %	1 - 5 n	1 - 5 %	6 - 10 n	6 - 10 %	> 10 n	> 10 %
1101	46	33	50	36	30	22	13	9
1901	27	84	3	9	2	6	0	0
1001	10	31	14	44	5	16	3	9
1405	11	79	3	21	0	0	0	0
1908	35	57	20	33	2	3	4	7

Combined %

Course	none fem	none male	1 - 5 fem	1 - 5 male	6 - 10 fem	6 - 10 male	> 10 fem	> 10 male
1101	25	33	55	36	11	22	9	9
1901	59	84	36	9	3	6	3	0
1001	19	31	56	44	11	16	14	9
1405	52	79	35	21	13	0	0	0
1908	54	57	33	33	4	3	10	7

In every course, females are pro-rata, heavier users of chemical

2. HSC chem with usage.**(a) Done HSC chem and usage**

Course	none n	none %	1 - 5 n	1 - 5 %	6 - 10 n	6 - 10 %	> 10 n	> 10 %
1101	83	29	138	48	43	15	25	9
1901	50	71	17	24	3	4	0	0
1001	13	25	27	51	5	9	8	15
1405	34	67	15	29	2	4	0	0
1908	85	56	49	32	4	3	13	9

(b) No HSC chem and usage

Course	none n	none %	1 - 5 n	1 - 5 %	6 - 10 n	6 - 10 %	> 10 n	> 10 %

1101	10	24	18	43	9	21	5	12
1901	0	0	0	0	0	0	0	0
1001	10	21	26	54	8	17	4	8
1405	2	20	5	50	3	30	0	0
1908	6	43	5	36	2	14	1	7

Combined %

Course	none +HSC	none - HSC	1 - 5 +HSC	1 - 5 HSC	6 - 10 +HSC	6 - 10 HSC	> 10 +HSC	> 10 HSC
1101	29	24	48	43	15	21	9	12
1901	71	0	24	0	34	0	0	0
1001	25	21	51	54	9	17	15	8
1405	67	20	29	50	4	30	0	0
1908	56	43	32	36	3	10	9	7

In all classes (not app. to 1901) students without HSC chem are heavier users, but the difference is slight for 1001 and 1101 - the consequence of the greater publicity?. It is interesting that in 1405, the no HSC chem students mostly seem to know about chemical - indicates that if you have the motivation to look you will find.

3. International/local student with usage.**(a) International student and usage**

Course	none n	none %	1 - 5 n	1 - 5 %	6 - 10 n	6 - 10 %	> 10 n	> 10 %
1101	10	23	24	55	5	11	5	11
1901	0	0	2	100	0	0	0	0
1001	1	13	3	38	2	25	2	25
1405	9	60	4	27	2	13	0	0
1908	10	53	5	26	2	11	2	11

(b) Local student and usage

Course	none n	none %	1 - 5 n	1 - 5 %	6 - 10 n	6 - 10 %	> 10 n	> 10 %
1101	84	29	133	46	47	16	25	9
1901	50	72	15	22	3	4	1	1
1001	22	23	50	53	11	12	11	12
1405	27	57	16	34	4	9	0	0

1908	81	55	49	34	4	3	12	8
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Combined %

Course	none Int	none Local	1 - 5 Int.	1 - 5 Local	6 - 10 Int.	6 - 10 Local	> 10 Int.	> 10 Local
1101	23	29	55	46	11	16	11	9
1901	0	72	100	22	0	4	0	1
1001	13	23	38	53	25	12	25	12
1405	60	57	27	34	13	9	0	0
1908	53	55	26	34	11	3	11	8

No clear correlation here except possibly in 1001, yet in the linkage with English as first/second language, those with English 2 are heavier users - could show international students come well prepared with English skills.

4. English as first/second language with usage.**(a) English first language and usage**

Course	none n	none %	1 - 5 n	1 - 5 %	6 - 10 n	6 - 10 %	> 10 n	> 10 %
1101	71	32	99	45	32	14	19	9
1901	38	72	11	21	3	6	1	2
1001	20	28	34	48	7	10	10	14
1405	24	53	16	36	5	11	0	0
1908	52	60	26	30	4	5	4	5

(b) English second language and usage

Course	none n	none %	1 - 5 n	1 - 5 %	6 - 10 n	6 - 10 %	> 10 n	> 10 %
1101	22	20	58	52	20	18	11	10
1901	12	67	6	33	0	0	0	0
1001	3	10	18	60	6	20	3	10
1405	12	71	4	24	1	6	0	0
1908	38	49	27	35	2	3	10	13

Combined %

Course	none Eng 1	none Eng 2	1 - 5 Eng 1	1 - 5 Eng 2	6 - 10 Eng 1	6 - 10 Eng 2	> 10 Eng 1	> 10 Eng 2
1101	32	20	45	52	14	18	9	10

1901	72	67	21	33	6	0	2	0
1001	28	10	48	60	10	20	14	10
1405	53	71	36	24	11	6	0	0
1908	60	49	30	35	5	3	5	13

The general trend is for higher usage by English 2 students as might be expected if they have a poor grip of the language. However, in 1405, the figure of 71% of Eng 2 not using chemical is actually much higher than the average for the class at 58% and in terms of numbers, make up 12 of the 36 students who never use it. Why would this be?

5. Age range with usage.**(a) Age 17-20 and usage**

Course	none n	none %	1 - 5 n	1 - 5 %	6 - 10 n	6 - 10 %	> 10 n	> 10 %
1101	86	29	142	48	41	14	27	9
1901	49	71	16	23	3	4	1	1
1001	20	24	46	56	9	11	7	9
1405	31	65	14	29	3	6	0	0
1908	83	54	53	34	4	3	14	9

(b) Age 21-24 and usage

Course	none n	none %	1 - 5 n	1 - 5 %	6 - 10 n	6 - 10 %	> 10 n	> 10 %
1101	5	19	13	48	7	26	2	7
1901	1	50	1	50	0	0	0	0
1001	3	38	2	25	2	25	1	13
1405	5	50	4	40	1	10	0	0
1908	6	75	1	13	1	13	0	0

(2) Age > 24 and usage

Course	none n	none %	1 - 5 n	1 - 5 %	6 - 10 n	6 - 10 %	> 10 n	> 10 %
1101	1	14	2	29	3	43	1	14
1901	0	0	0	0	0	0	0	0
1001	0	0	4	36	2	18	5	45
1405	0	0	2	50	2	50	0	0
1908	2	67	0	0	1	33	0	0

Combined %

Course	none 17-20	none 21-24	none > 24	1 - 5 17-20	1 - 5 21-24	1 - 5 > 24	6 - 10 17-20	6 - 10 21-24	6 - 10 > 24	> 10 17-20	> 10 21-24	> 10 > 24
1101	29	19	14	48	48	29	14	26	43	9	7	14
1901	71	50	0	23	50	0	4	0	0	1	0	0
1001	24	38	0	56	25	36	11	25	18	9	13	45

1405	65	50	0	29	40	50	6	10	50	0	0	0
1908	54	75	67	34	13	0	3	13	33	9	0	0

Here the very small numbers of students in the highest 2 age brackets make generalisations difficult. Only 1101 has a significant number of students aged > 20, but the trend is for older (more mature?) students to make more use of chemical.

5. Gender with English

(a) Female and English first/second language

COURSE	FIRST n	FIRST %	SECOND n	SECOND %
1101	126	65	68	35
1901	30	77	9	23
1001	54	73	20	27
1405	35	73	13	27
1908	51	48	55	52

(b) Male and English first/second language

COURSE	FIRST n	FIRST %	SECOND n	SECOND %
1101	95	68	44	32
1901	23	72	9	28
1001	20	65	11	35
1405	10	71	4	29
1908	35	59	24	41

Combined %

COURSE	Female/first	Male/first	Female/second	Male/second
1101	65	68	35	32
1901	77	72	23	28
1001	73	65	27	35
1405	73	71	27	29
1908	48	59	52	41

The most interesting data here is again the large number of Eng2 in 1908 - aspiring medicos from Asian families perhaps? Also, it would seem that being a female from a NESB is not a disadvantage in terms of uni access as compared with a male - indeed, in 1908 females are over-represented@.