

# Student Counseling Services – Using Text Messaging to Lower Barriers to Help Seeking

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Many studies have measured the prevalence of mental health issues amongst the student population. Of note in the literature is the absence of help-seeking amongst most sufferers. Several barriers to help-seeking have been identified in the literature. While in many cases treatment facilities are available, the literature is strangely quiet on attempts to overcome these barriers.

In this paper we detail a series of studies and experiments designed to overcome such barriers. These involve the most common, and indeed, preferred method of communication amongst students, namely texting. Texts were sent on a fortnightly basis to students at an Irish third level institution. Intermittently, texts exhorting help-seeking were broadcast to all students, and the responses of students measured. Attitudes to receiving texts from the college were also evaluated. Our conclusions suggest that students do not object to receiving texts on a regular basis from the college, provided they are about college matters, and that such texting has a role to play in encouraging reluctant and needy students to avail of college counseling services. As we are seeking to persuade through technology, the application of captology (Computers as persuasive technology) to help-seeking by text is also discussed.

## Introduction

The World Health organisation states by the year 2020, depression will reach 2nd place in the ranking of Disability Adjusted Life Years (the sum of years of potential life lost due to premature mortality and the years of productive life lost due to disability) calculated for all ages and both sexes (World Health Organization, 2004). **Research suggests that only a small proportion of adolescents with depression have their illness recognized (20%), with even less receiving treatment (Martin & Cohen, 2000).** Young people are among those least likely to consult healthcare professionals during times of emotional crisis (Bebbington et al, 2003). As few as one in six young adults with mental distress seek help from a healthcare professional (Rickwood & Braithwaite, 1994).

Obviously, not all young people or adolescents are students. However, one study found that the overall rate of psychiatric disorders was not different between college-attending individuals and their non-college-attending peers (Blanco et al, 2008). In this paper we examine the use of text messaging to help overcome barriers to help-seeking. We also introduce the study of captology, Computers as Persuasive Technologies applied to text messaging and help-seeking.

## ***Health and Text Messaging***

Text messaging is the dominant mode of electronic communication amongst students (Harley, Winn, Pemberton & Wilcox, 2007). Text messaging has already been harnessed in the cause of health. A pilot study carried out at a German hospital indicates how text messaging on mobile phones was used in treatment of a particular mental illness, in this case bulimia (Bauer, Percevic, Okon, Meermann & Kordy, 2003). The study was designed to test the acceptance, the practicability, and the effectiveness of the mobile device intervention. Preliminary results indicate that the programme is well-accepted and gives support to bulimic patients after finishing inpatient treatment. Two studies have indicated that text messaging can be used to help college students successfully quit smoking, one study based in the United States (Obermayer, Riley, Asif & Jean-Mary, 2004), and another from New Zealand, (Rodgers et al, 2005).

## ***Prevalence of Mental Illness Amongst Students***

Mental disorders are prevalent and persistent in a student population (Zivin, Eisenberg, Gollust, Golberstein, 2009). A large nationally representative study of more than 27,000 four-year college students indicated that serious psychiatric conditions are highly prevalent among such students throughout the United States, across all geographic settings and types of institutions. The rate of major depression reported in this study was approximately 5% (Chung & Klein, 2007)

It is apparent that mental illness is a fact of life for a substantial number of students.

## ***Help Seeking***

Literature on the theory of help seeking is sparse. Surprisingly few models have been developed that focus on the active decision making processes that might encourage greater use of the available services (Vogel, Wester, Larson & Wade, 2006): However, evidence overwhelmingly suggests that many at-risk college students are frequently not seeking help at college counseling centres. (Chung et al, 2007) Analysis of a report produced by the Oxford Student Mental Health Network (Leach, 2003), along with other studies (Wilson, Rickwood, Ciarrochi & Deane, 2002; Rickwood, Deane, Wilson & Ciarrochi, 2005), suggests that these barriers to help-seeking include:

- Prefer to solve on my own: discussing one's problems may be seen as an admission of weakness
- Social Inexperience: shyness and ignorance of how to function socially can prevent the first steps towards help-seeking
- Lack of insight: there may not be a framework of normality with which a sufferer can compare his or her situation, and whilst feeling unhappy, cannot realise an alternative.
- Confidentiality and anonymity: fear of public revelation leading to stigmatisation
- Ignorance: ignorance about mental illness can reinforce inaction.

Persuading someone to seek help is difficult. A brief presentation of 15 minutes, along with copies of a booklet on mental health distributed to one Australian school, was associated with improvements in knowledge, but no reductions in perceived barriers to help seeking and no improvements in help seeking behaviour or intentions three weeks

later were found (Rickwood et al, 2005). Can technology, in particular text-messaging, be harnessed towards persuasion in the area of help-seeking?

## **Persuasion and Captology**

Captology stands for Computers as Persuasive Technologies. The term ‘Computers’ in this context includes mobile phones and, of particular interest, texting via mobile phones. For our purposes we will use the following definition for persuasion: “it is an attempt to change attitudes or behaviours or both, without using coercion or deception” (Fogg 2003).

We suggest that captology can usefully provide a framework to explore the means by which texting may be used to counter barriers to help-seeking.

### ***Introduction to Captology***

Studies in experimental psychology have shown that computer devices can act as persuasive agents by various means. (Reeves& Nass, 1996). Captology can be seen as an interaction between the two spheres of technology and persuasion. Figure 1 illustrates the relationship between computing technologies, persuasion and captology.

**Figure 1 about here**

Fogg (2003) suggests that technology works to persuade via three modes: tool (e.g. making target behaviour, such as help seeking, easier to do), medium (e.g. helping people rehearse a behaviour), and social actors (e.g. providing social support) (Table 1)

**Table 1 about here**

### ***Captology and SimpleText Messaging***

Simple text messaging cannot cover all aspects of captology. It can, however, cover some, and on examination it can be seen that most of these aspects relate to the tool mode. This is shown in Table 2 along with examples.

**Table 2 about here**

### **Captology applied to Simple Text Messaging and Help Seeking**

To help understand the interactions between texts, captology and help-seeking, hypothetical examples are given below.

Prefer to solve on my own: Because the initial contact can be technology based, the first interaction between sufferer and service need not involve another person, thereby maintaining the sense of solving alone.

*Social Inexperience:* For example, someone socially awkward may have difficulty approaching someone for help. To seek help might involve making a phone call, arranging a meeting, explaining a situation etc. However, if such a person were to receive a text stating “feeling down, just text back student services at 087555555” then the help seeking is reduced to the simpler action of hitting reply and typing a few words. Here, the technology has reduced a complex action to a simple one, making such action more likely.

*Lack of Insight:* Technology enables repeated intervention at frequent times. As the sufferer’s inclinations regarding his condition will vary over time, a series of frequent interventions will increase the chances of an intervention which coincides with a moment of inclination which allows for help-seeking.

*Confidentiality and anonymity:* As communications can occur in the ring-fenced electronic ether, anonymity and confidentiality can be reinforced relative to other communication types. Texting a message to student services can be done under the guise of normal behaviour and will not raise the suspicions of peers.

*Ignorance:* A social role aspect can encourage trust. A student’s mobile phone can become a trusted information device and help diminish this particular barrier.

In Table 3 we outline how the application of simple text messaging can invoke a number of different captology mechanisms which may be expected to lower barriers to help seeking.

**Table 3 about here**

## **Empirical Studies**

Four studies were conducted to explore students’ attitudes to receiving and responding to texts, and to measure the impact of text messaging on student help seeking behaviour. (Table 4). A survey on receiving texts, a focus group on receiving texts, a survey relating to responses and a field trial to measure actual responses were conducted.

**Table 4 about here**

## **Method**

A sample survey of 1st Year Students at an Irish third level institute (n=71, m=28, f=43, average age 19.6) (Study 1) was conducted to determine attitudes towards receiving texts. The students were present at a lecture on business, during which they were asked to complete the survey. Study 2 was a follow-up focus group involving 10 first year students (average age 20 years) who had taken part in Study 1.

A second survey (n=43, m=24, f=19) (Study 3) was conducted to determine which types of texts were most likely to elicit a response. Students were shown sample texts varying from impersonal to personal, and were asked to give their reactions. Guided by the responses of the surveys and focus group, a field test (Study 4) was carried out to determine the actual student responses to texts. On registration with the college, each full time student is asked to provide his or her mobile phone number, and to indicate, via an opt-out system, if they are prepared to accept communications from the college. Over 95% of students typically agree to receive messages. This database of mobile numbers was utilized during the field trial. The researchers discussed messages with student support services, which then sent texts at a rate of approximately one a fortnight to over 750 students. Further details are given in the section on the field experiment.

### **Attitudes of students towards receiving texts**

Of the 71 students surveyed (Study 1) only seven students would rather not receive texts from the college at a frequency greater than once a week. The majority of students surveyed (41) would rather not receive texts relating to mental health. The remainder (28) found such communication to be acceptable. These results were confirmed in Study 2. Of the members of the focus group, no student objected to receiving texts. There was a general feeling that texts could be seen as an extension of advertisements usually seen in toilets. Regarding the benefits of texts over other forms of communications, individual comments included: "Wouldn't read sign on a door, but have to read text"; "More likely to read texts than emails"; "No-one reads college emails, too difficult, too much security".

In summary then, students as a body do not object to receiving regular texts from the college, providing such texts do not obviously relate to mental health.

### **Attitudes of students towards responding to texts**

Students were asked how they would respond to various health texts, including physical, mental and sexual health texts, if these were sent to them by the college. Of the 42 students surveyed, 19 students stated they would not respond to any texts, whilst 28 stated that they would respond to at least one text. If sent a text with a suggestion to see the counsellor, 25 stated they would not respond. A majority (29) stated they would not respond to any if asked to fill out a various health risk assessment survey s on a mobile phone which involved personal information. Only five (5) had no objection to completing them all.

It is interesting to note here that only 14 students of 43 would respond to a survey relating to a personal issue such as mental health, whereas 28 stated they would respond to a text relating to college life. Students were asked to indicate how they would respond to texts

if, at the time of receiving the text, they had an actual personal problem. 18 of the 43 students stated that they would not respond to any texts. Their comments are shown in Table 5. Their comments are categorized according to barrier. It can be seen that the reasons for not responding are in line with those presented in the literature for avoiding help seeking.

### **Table 5 about here**

We can see that there is a particular reluctance to respond to texts relating to personal issues, with confidentiality and the sense that problems should be handled by oneself given as the main reasons

## ***Field Experiment***

An experiment (Study 4) was conducted to measure the number and types of responses generated as a result of texting. Due to concerns expressed by the Student Services office that students may feel “hounded” by texts solely relating to mental health, texts were also sent relating to Careers, Sports, Medical services etc. The mobile numbers of 752 college students (out of a total population of 996) were installed on a database and used for text sending via an internet based texting service. Texts were limited to 160 characters.

## **Text Sending**

The field experiment took place during the first semester of the 2007/08 academic year. Texts were sent fortnightly. In total 4326 texts were sent to 752 students. A diagram of the text sending set up is shown in Figure 2.

### **Figure 2 about here**

## **Measurement of Responses**

A particular mobile phone was chosen as the response number and this number was included in all texts sent to students. Voice calls to this phone were diverted on no reply to the student services general number. These calls registered on the mobile phone as missed calls, including, where available, the calling number, and the time and date of the call enabling these calls to be readily counted.

Similarly text messages were received as normal by this phone and were then automatically and immediately transferred to the student services mobile phone.

This allowed for the measurement of the number of voice call responses, the number of text responses and the content of the text responses.

A diagram of the response measuring setup is shown in Figure 3:

**Figure 3 about here**

## Responses

The texts sent, date of text, and number of text responses and voice call responses received are shown in Table 6. Table 7 shows responses by year.

**Table 6 about here**

**Table 7 about here**

Received messages were organized by two student support personnel into two categories: those which presented a cause for concern and those which did not. 11 concern type responses were received, ranging from short messages such as “I need to have a chat with the counselor” to longer messages which included phrases such as “getting quite stressed”, “I have not settled in”, “I need to have a chat about college” and “swamped with new ways of learning”. 7 of the concern responses related to academic matters.

## Conclusions

As a result of the field experiment, surveys and focus groups outlined in this document, we may draw the following conclusions:

**Students do not object to receiving regular texts from the college.** The surveys and focus groups strongly suggest that there is minimal resistance to receiving texts at a frequency of once a week, provided texts are not viewed by students as mental health texts.

**Response Rate for this type of intervention is approx 3% per semester.** In the course of the field experiment a response rate of 3.07% was measured for one semester. These figures, for the first time, indicate an achievable response rate, which other experiments and efforts can be evaluated against.

**First year students provide most cause for concern.** This may be because first years students need to adjust, or because in subsequent years those who have had problems have already dropped out of college, or that third and fourth year students have developed a resistance to communications from the college.

**Students express difficulties in academic terms.** The responses received to texts contained terms such as “just to do with my course” “I’m finding the lectures quite hard” “swamped with the new ways of learning”. This suggests that students are more willing

to articulate difficulties in the terms of academic life, rather than in the stigma attached language of depression and emotional well-being.

**Proactive texting has beneficial utility value.** This is perhaps the most important conclusion. At least 11 people initiated help-seeking as a direct result of texts received.

**Captology provides a useful framework for the design and evaluation of further experiments.** Involving as it does the science of persuasion via technology, consideration of Captology may provide opportunities for future study in this field

## **Future Developments**

Using simple texting it is possible to engage a limited subset of the principles of captology. Modern mobile phones will allow a greater number of captology principles to be harnessed towards help seeking. Application of these principles to future mobile technologies could usefully be examined. Also, data mining on larger samples may bring about patterns in responses that can be used to enhance the service and build towards an underlying model of help seeking.

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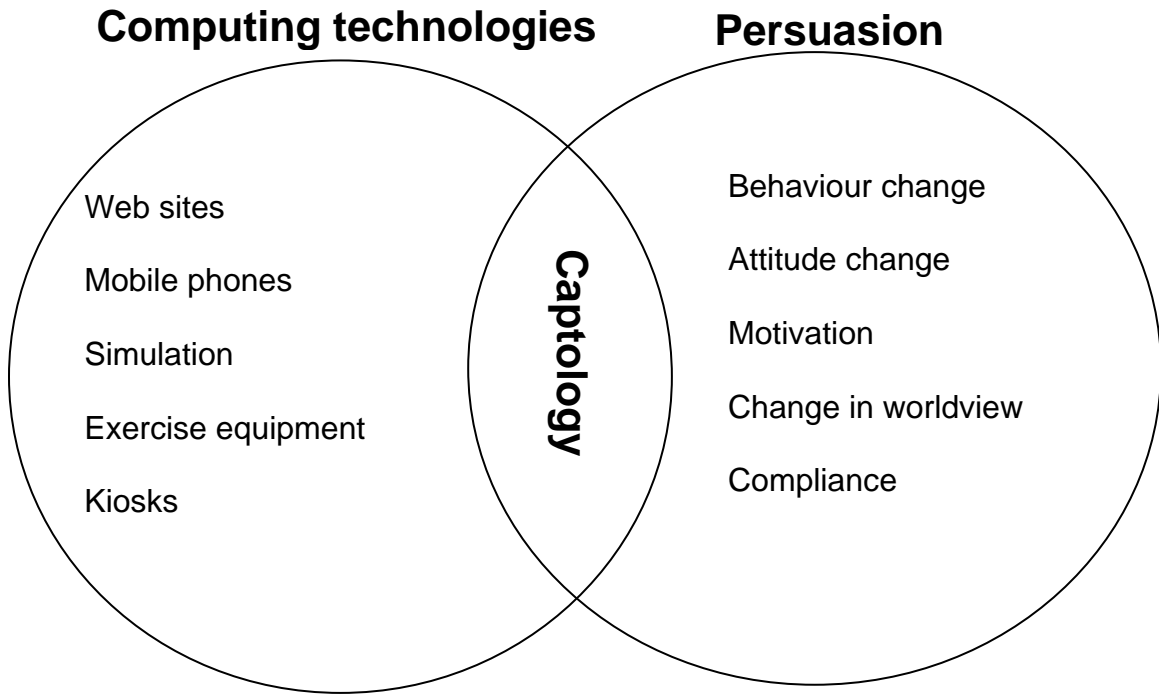
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**Figure 1: Relationship of computing technologies, persuasion and captology (adapted from Fogg, 2003)**

## Tool

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Reduction: complex to simple  
Tunnelling: narrowing scope  
Tailoring: general to specific  
Suggestion: intervening at the right time  
Self-monitoring: feed back  
Surveillance: observation  
Conditioning : positive reinforcement

## Medium

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Simulated cause-and-effect scenarios, more exercise, more health  
Simulated environments, running track  
Simulated object, crying doll

## Social Factors

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Physical cue: face, eyes, body movement  
Psychological cue: preferences, humour, empathy  
Language cue: praise, spoken language  
Social dynamics cue: turn taking, cooperation  
Social roles cue: teammate, opponent, pet

**Table 1 Captology - modes and mechanisms**

## SIMPLE TEXT

Captology	Example
<b>Tool</b>	
Reduction: complex to simple	Contact with counselor: Texting is simpler than making a phone call
Tunneling: narrowing scope	A series of texts can help lead to a specific objective
Tailoring: general to specific	Texts can be tailored for recipients, eg 1 <sup>st</sup> yrs etc
Suggestion: intervening at the right time	Texts can be triggered at appropriate times, eg close to exams
Self-monitoring: feed back	
Surveillance: observation	Texts can seek an immediate response on location or activity
Conditioning : positive reinforcement	Texts can be worded to provide encouragement
<b>Medium</b>	
Simulated cause-and-effect scenarios	
Simulated environments	
Simulated object	
<b>Social Actor</b>	
Physical cue	
Psychological cue	Wording can be altered to suit environment or purpose
Language cue	
Social dynamics cue	
Social roles cue	Text receipt can be seen as a norm and allow for the possibility of response

**Table 2 Examples of how modes of captology may be applied to text messaging in the context of help-seeking**

<b>Barrier</b>	<b>Solve Alone eg unmanly</b>	<b>Social Inexperience eg extreme shyness</b>	<b>Lack of Insight eg believes problem is too small</b>	<b>Confidentiality eg concern friends will find out</b>	<b>Ignorance eg believing that nothing can be done</b>
<b>Captology Tool</b>	Weak moment (intervening at right time)	Simple Response (Reduction) Suggest time for appointment (Tunneling) One 2 one (tailoring)	Doubts (Intervening at right time)	Anon, less steps (Reduction) Step by step (Tunneling)	Exam stress (intervening at right time) Gentle invite to chat (Tunneling)
<b>Captology Medium</b>		Medium aspect not readily applicable to simple text messaging			
<b>Captology Social Actor</b>	Friend/Teammate (Social Role Cue)	Language (Psychological Cue) Friend/Teammate (Social Role Cue)	Friend/Teammate (Social Role Cue)	Friend/Teammate (Social Role Cue)	Friend/Teammate (Social Role Cue)

**Table 3 Mechanisms of captology involved in lowering specific barriers to help-seeking**

Study	Receiving Texts	Advanced Texts	Responses	Behaviour
Survey 1	x	x		
Focus Group	x	x		
Survey 2			x	
Field Test				x

**Table 4 Studies Undertaken**

Prefer to solve on my own

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I like to deal with my own problems

This sort of stuff is very personal nature to me. Don't wash your dirty linen in public

My life is my business

Lack of Insight

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If had problem would talk to someone but can gen sort it out myself. Not overly stressful, plan ahead

Could deal with it more personally outside college

Have family and friends to help with any problems

I would have other people to talk to

I probably would not come to college with a problem at all unless it was something got to do with study and lectures

Confidentiality, anonymity

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Don't feel I would ever talk to someone in college about a problem

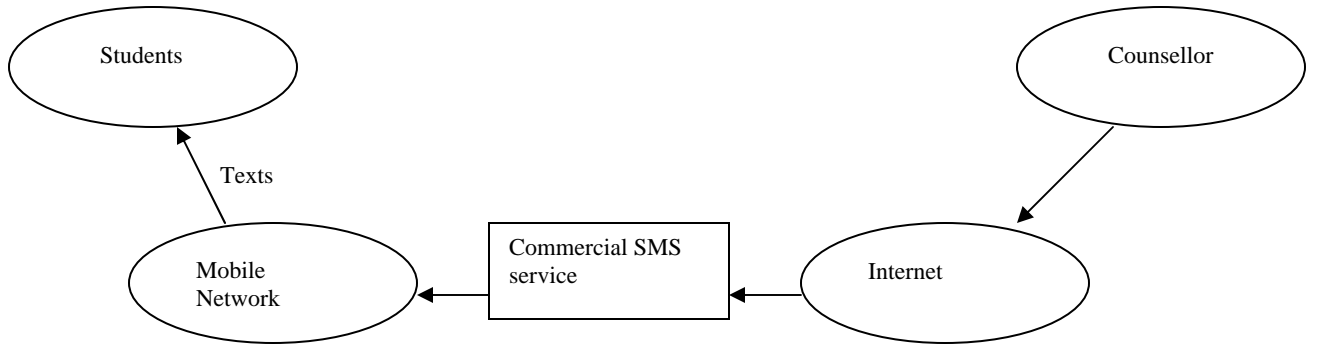
I wouldn't feel happy talking to someone else due to confidentiality issue

Confidentiality issues. Who would read them

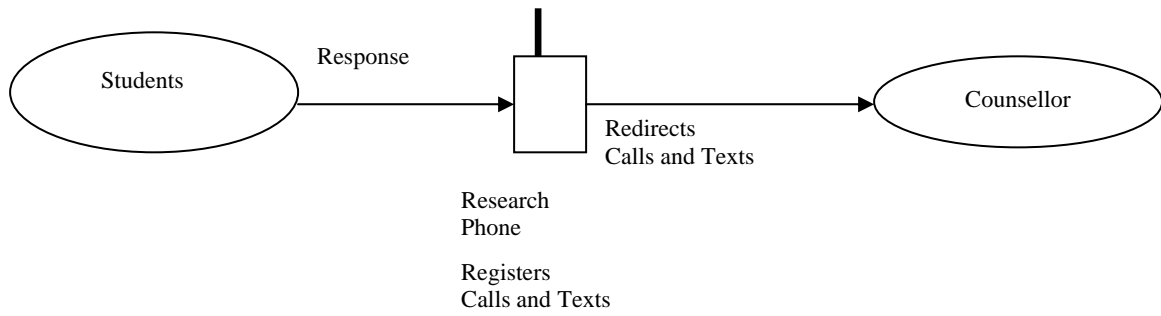
Confidentiality. How would you guarantee this ?

Texts impersonal and you don't know who is sending. Info asked for is too personal to talk with strangers especially over this method of communications

**Table 5 Reasons for non-response, categorized according to barrier**



**Figure 2 Text Sending to Students**



**Figure 3 Text Response System**

Date	Text	Sent to	Response		
			Texts	Calls	Total
25/09/2007	Hi Welcome back. We've opened a garden in the courtyard so check it out. Any questions contact us in Student Life by talk or text at 087....(Sent to 2,3,4 years)	All bar 1st yrs			
25/09/2007	Hi Welcome. We at Student Life aim to make your stay here as pleasant as possible. Any questions just contact us by talk or text at 087...	1st yrs	3	5	
03/10/2007	Hi Just to remind you about academic support. Want help with writing essays, projects or studying ? Call or text Aidan @ 0xxx....	All	4	6	10
10/10/2007	Hi Hope the new college year has started well. If not and you need to chat, call or txt Stephen in student services on 087....	All	5	6	11
18/10/2007	Sport and recreation program 07/08 now up and running. Clubs societies available in all areas of interest. For more info call or text Sinead at 087...	All	3	0	3
24/10/2007	Hi ... provides GP services to full-time students at the medical centre. Cost is E10 per visit. More info text or call student support on xxx	All	4	4	8
07/11/2007	Hi from Career Service. Get advice now. Career choices. Course options. Want help with ur future ! Call or text xxx	All	5	4	9

**Table 6 Texts sent and number of responses**

Respondents by year	Number in database	Text responses	Phone responses	Total responses	% response rate
1 <sup>st</sup> yrs:	387	16	5	21	5.4
2nd yrs	234	3	2	5	2.1
3rd yrs	120	0	0	0	0
4th yrs	11	0	0	0	0
Total	752	19	7	26	3.5

**Table 7 Respondents by year**